

“The New World Of E-Commerce”

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Thank you very much. It's an honor to be here today and to be included in your conference on Delivering Business Solutions through e.commerce.

Before I begin, I just want to say that I know I'm the last speaker of the conference. You've just spent eighteen hours absorbing an enormous amount of information regarding e.commerce. That's a lot for anyone to absorb. For some of you, the mention of the word – e.commerce – might elicit the warm “fuzzies.” For others it might elicit “hives.” Either way, it's the end of the day -- And I'm clear that I stand between you and the doorway.

Now, I'm fine with that. I like a challenge. I hope that you find what I have to say informative or compelling. (Or if nothing else... perhaps entertaining.)

In a relatively short time, e.commerce has made a substantial impact on all business. Whether you're in aircraft engines or rail car services or electromaterials. Or all of the above, as in GE's case. I was told there are more than eighty enterprises represented

here today. (Funny, I only see seventy-nine. Where's petrochemicals???)

While I've read about your individual divisions, I can't possibly appreciate your individual difficulties in bringing your businesses online. I know nothing about aircraft engines or rail car services or electromaterials. I couldn't tell a petrochemical from a superabrasive. But as the CIO of a Fortune 500 company, I can tell you some of the lessons we've learned about e.commerce. As the person responsible for Information Technology at Schwab, I can share with you some of the myths of the Internet that we've uncovered. And I can show you how we've managed to consistently generate revenue online.

I realize that some of you may be familiar with our story from the outside, but as with your own companies, the behind-the-scenes version is probably a bit more colorful than the headlines. So let me take a few moments to recap some of the decisions we made which have brought us to the position of being the largest online broker in the country... Measured by trades we have 28% of the market. Measured by assets we command 42%.

SCHWAB'S STORY...

Because online trading has really exploded these past two years, it's easy to get the impression that our story with the Internet is that of an "overnight success"... but it's more like the singer who spends 20 years in cabarets and then opens in a hit show on Broadway... suddenly everyone says it's an overnight success.

In reality, Schwab began offering electronic trading more than 14 years ago. The company was founded in 1974 and we began online investing in 1985 with a software product called the "Equalizer." It wasn't very easy to use because of the limitations of PC's and DOS, but we had a very small group of early, innovator customers who liked the product and traded with it.

In the late '80s and early '90s, with the advent of Windows, we had the opportunity to build a much more user-friendly software trading product. So we came up with Streetsmart and it was a very large success. Between 200,000 and 300,000 customers acquired the software and began the process of investing with us using Streetsmart.

We learned a lot in those early days... We learned that customers, at least those who own computers, have an almost insatiable appetite for information and data... and we learned that when customers trade online there's an elasticity to demand that comes from both reductions in price and ease of trading online... people trade more when it's easy and cheap.

Then in 1994, a pivotal event took place:

It was in the waning days of '94 when some of those typical year-end articles were coming out in the press, and the senior management of Schwab picked up on a small factoid: for the first time ever, more computers than television sets were sold in America.

We saw that as a watershed event... because it meant that the communications medium that had long dominated our lives was being supplanted by a new technology.

Now remember, this was when the Internet was used by the defense department, some academics and a few geeks who knew how to decipher and write UNIX code. They looked a lot like our early customers for Equalizer.

At that time there was online banking and e-mail through a few struggling networks like Prodigy, CompuServe and Genie. We decided that summer to launch a new division that would be a deep discount online investing company. By the end of 1995 we had created e.Schwab – a separate, stand-alone division of Charles Schwab.

e.Schwab catered to online customers and it had a much lower price point. It also provided a lower level of services. This early version was our equivalent of online banking... private network, direct dial to Schwab.

By mid-96, we felt that the Internet technology was strong enough, and we added web trading. This was a dramatic event -- trading on a public network lowered our cost, and at the same time enhanced the possibilities to provide broad and deep service to our customers.

By year-end of 1997 we held the position as the Number One online investing firm. When we originally formed the venture, we thought that online investors would be different from investors

who preferred the telephone or branch transactions. But the Internet changed all of that.

By late '97, we had customers who were both e.Schwab customers – our stand-alone division – and we had Charles Schwab customers who also traded online. e.Schwab customers paid \$29.95 for reduces services, while our Charles Schwab customers got a 20% discount from us (which left them at about a \$65 price point) but they also received the full gamut of services. Judging by the numbers, we had two fabulously successful businesses... a sort of full service discount online business and a limited-service online business... both thriving.

But when we dug under the numbers and asked our customers how they felt about what we were doing, our full service customers thought they should be paying less money, so that made them unhappy... and our e.Schwab customers felt they should get more services, so they weren't happy.

We had a very successful business with unhappy customers. Not a good formula for keeping the business successful. But if there's one thing you can say about Schwab, we listen to our customers.

One of our goals has always been to respond quickly to the changing needs of our customers. So we came to the conclusion that we had to make a drastic change and merge these two divisions together in order to offer all customers online investing at \$29.95.

We estimated that the revenue and pre-tax profit implications of this move were between \$125 and \$150 million dollars... to a company that earned only \$250 million in 1997, this was a substantial impact.

While it sounds like a difficult decision, it was more painful than difficult. It was painful because the expense was high... the impact on profits was significant. And the impact on our stock prices was also substantial. The price of our stock dropped from \$41 to \$28.

But if you have a long-term view of this business, you can't build a high growth successful company on the basis of unhappy customers.

The result was that, during 1998, we had a huge migration to the Internet. We added over a million customers to Schwab. Some of

this migration was because of price. But we feel most of this migration was because we offered web trading in a larger context of investing. The majority of this migration was not the innovators or day traders – it was our general customer base – what we call our mainstream market.

This was our first step toward becoming a new type of full-service broker... phones, web trading, branches. You can come to Schwab in the way that suits you best. But at Schwab, we envision the web as more than just another distribution channel. We see it as a way to empower our customers. An “empowered” customer is very different than one who does what they are told. Many firms in our industry don’t have a business model to educate and empower their customers.

By allowing our customers to experience the full power of the Internet and letting them control their own financial destinies, the Internet is redefining our business and therefore redefining full-service brokerage. The results speak for themselves.

- In January of this year, we averaged 184,000 trades a day – up 144 percent from January ’99.

- We handled 1.2 billion hits in January '00, double the level of October '99, just 3 months before.
- In January alone, we added \$8.8 billion in net new assets to Schwab, bringing our customer assets to \$725 billion.
- And customers now buy and sell over \$10 billion in securities every week through Schwab.com.

LESSONS WE'VE LEARNED...

So what have all of these spectacular numbers taught us? There are several key things we've learned from this entire experience.

#1 Price counts, but brand matters.

In financial services an element of trust is absolutely necessary for investors to give you their money. They won't risk their money or their transactions on a new unproven name. Brand matters. Our brand is the sum of our promise to provide ethical and useful services at a fair price. Once the element of trust is settled, only then price will be considered.

Today we charge \$29.95 to trade online. The rest of the industry averages \$15 a trade, and some come in under \$10 a trade. Yet we have almost three times the volume as our nearest competitor. Our position at #1 is very strong – even though we’re more expensive. We believe it’s because of the strength of our brand, backed by the strength of our service.

#2 Innovate Before Others Innovate For You

It’s crucial to continue to innovate, to do something new to serve customers. That means that you have to cannibalize your own sales of an existing product or service in order to bring out a better, newer, less expensive product. If you don’t, someone else will. Unfortunately, the larger you get, the more difficult it is to cannibalize... there seems to be more to give up. And in the world of e.commerce, it is easy for new competitors to spring up who can leapfrog past you.

#3 Embrace the ‘Net

When we first thought about the web, we saw it as an interesting distribution channel. Now, it’s changed everything about our business. We’ve integrated it into everything we do.

Compare this to retailers who have moved to the web, yet keep it at arm's length. What I mean by this is, for many retailers, you can look at merchandise on their web pages but you can't order it online. For others, you can order online, but you can't return merchandise to the store. These retailers are not fully embracing the 'Net. And their customers are paying the price.

Think of how powerful a Neiman's or Target's retail offering becomes when you, as a customer, can not only return merchandise, but you can buy it and pick it up without ever getting out of your car. (You drive up to the store, hand a service person your order verification number, and they deliver it to your car.)

#4 Culture is the key:

If there's anything we've learned, it is that the company's culture is the key to success... and in particular the culture of change.

Here is what we think is fundamental. To inspire change, you have to know and emphasize what does not change. For us, that is our commitment to our vision of providing the most useful and ethical

services in the world. Our values include – being fair, earning trust, striving hard, and working as a team.

When we emphasize these things, and make sure that in times of major change our employees understand that the change is happening inside of these principles, then they will put up with and even embrace the upset that is natural in this market. In fact, they see change as urgent in order to fulfill our commitment to that vision and those values for our customers.

It's that urgency. That sense of action. And a culture that embraces innovation that is at the heart of our success.

Therefore... the amount of time and effort spent helping employees understand not just the “what” but the “why” is incredibly valuable – providing the context that creates meaning, that creates commitment to change – not just what creates compliance. That's what makes a difference if you want to be a company that continues to grow and to change.

Too few people think about their companies in a way that gives employees a sense of meaning. They don't realize that employees will work hard for money... but they will devote their lives for

meaning. Employees must be valued as the company's key assets. You can't just pay lip service to that idea. It can't just be words. You have to walk the talk.

So these are some of the things we've learned on this wild ride: Emphasize brand over price, Innovate rapidly for the customer's benefit, Embrace the Net rather than keep it at arm's length, and Cultivate a culture of contribution to inspire rapid change. These have been our hallmarks and I suspect they will continue to be.

Myths Of The Internet:

Now at the same time we have learned what the Internet can do for us, we have learned some of its limitations. One of the biggest myths about the Internet is that you don't need people. As I've just mentioned, our people are an important part of our strategy.

Another big myth is...

“Scaling up your web site just means plugging another server and hitting the ‘on’ switch.”

That idea is the same as suggesting that if we can strap together enough airplanes we could fly to the moon. It's not that simple. It's an engineering problem, not just a matter of just adding more hardware.

As more people log on to our site, new bottlenecks develop, new critical points of failure emerge, complexity goes up, and finding a problem and solving it becomes more difficult. IT is indeed like a highway. It isn't just the number of lanes – it's the sharpness of the curves – the distractions on the road – and the accidents that occur that determine how safe it is.

“No one can “do it all”, so the companies with the best strategic alliances will win.”

Everyone is scurrying around trying to form strategic alliances and figuring out how to align themselves. While that's very important, our own experience is that a great deal of management overhead is used up in managing “culture clashes” and political problems that arise with strategic alliances. We believe that speed, accuracy, focus and consistency are more critical. And we get these things because of our culture.

In many ways, managing strategic alliances on an ongoing basis is more complicated than a post-merger situation. At least in a post-merger situation the lines of authority usually become much clearer.

The Impact On IT...

E.Commerce impacts all areas of businesses, including IT. Just as our online business really started in 1985, our technology to support the Internet has been evolving since the early 90's. In fact, in 1990, we started a major initiative to re-architect all of our technology and create a flexible infrastructure. This is what has enabled us to bring product to the marketplace so quickly.

Growth and Capacity:

Despite our history, keeping up with growth has been a huge challenge. During 1999...

Trading Site Hits grew 900%

Transactions grew 700%

Orders grew 500%

And this past January volumes grew even faster. During one week, our hits and transactions grew 25% between Monday and Wednesday. A thousand people a minute were signing onto our web site during the first half-hour after the market opened.

This kind of growth impacts all parts of our environment – the newly developed web systems – and even the older Legacy systems (yes, even we have some of those). That’s because e.commerce drives transactions. Our transactions per trade went from 16 to 1 to 33 to 1. And the peaks are even higher. People are doing more, and as we said, they have an insatiable appetite for information.

Add to that the fact that the markets are increasingly volatile and you have an even bigger challenge. Our volume went from being fairly evenly spaced throughout the market day – to getting 30% of our volume in the first half-hour. (Talk about stress to our system.)

Visibility:

Even more challenging than growth is the increased visibility and transparency. Recently I had lunch with two members of my staff – systems programmers. Both have been at Schwab for five years.

When I asked them their perspectives of the last five years – both said – “We use to be behind the scenes – but now we’re in the front office. It’s exciting, but scary.”

The technology is immature but we are pushing it beyond all tested limits. Customers expect dial tone availability. And every mis-step is incredibly visible. This is in contrast to the full-commission brokers. If their systems go down, nobody knows about it. The brokers buffer the customer from the company. But at Schwab you can’t hide and the slightest blip ends up on CNN.

As anyone who runs Operations knows, the best way to ensure availability is to limit change. Yet that is the opposite of what we must do in this new competitive online world. We make 2000 changes a month to our systems. We are constantly adding new functionality. We are constantly adding capacity. We have to -- in order to keep up with this market.

GENERATING REVENUE ONLINE:

So, finally, what does all of this mean to the bottom line? We’ve covered the lessons, the myths and the technology changes, but

how have our actions affected our ability to generate revenue online. Let's get to the bottom line.

Our first quarter numbers are just in and we expect net income to top \$170 million. When you compare this figure to \$106 million in first quarter '99, it's quite evident to see the impact our tactical choices are having. Schwab is experiencing its best quarter ever in terms of revenue and profits. It appears that making our customers happy is good for business.

And while I talked about our stock dropping from \$41 to \$28 in response to price changes, it just passed \$77 the other day.

CHANGING THE RULES:

However, by outlining the lessons we've learned about online commerce, by exposing some of the myths of the Internet, and by re-architecting our technology, you may think that we've established a new set of rules for success. Let me be the first to suggest otherwise...

Gary Hamel, author of *Competing for the Future* likes to say that great value is created not by marginal innovation and improved

products, but by strategic innovation that changes the rules of the game.

The growth and value of Schwab stock from 1992 to 1999 has risen from just under a billion dollars to over \$31 billion dollars. That didn't happen because we changed the way we answered the phone, the speed with which we opened branches, or the movement from mainframes to client server technology.

We think it happened because we were able to change the rules of the industry that we're part of. We've focused on what customers need and want. And in doing that, we have come up with the right innovations at the right time.

First, by offering to help independent investors to figure out for themselves what they wanted to do with their investments.

Second, by making mutual funds more widely available through a single market called Onesource. Third, by partnering with a network of independent advisors who could help our customers who wanted on-going management. And now, by harnessing technology for the right reasons to the right ends – including this most recent and exciting technology – the Internet.

Our challenge is to continue to change the rules of the game. We believe that our current effort to redefine what it means to be a full-service brokerage firm has the potential to be such a rule-changing innovation.

If we can redefine the ground rules of competition, keep reminding ourselves and our employees of the grand vision we serve, and improve the value equation for customers, then we should be very successful in creating greater value for everyone associated with our company.

So you see -- this new world of e.commerce offers all of us the opportunity to break through old limitations to pursue possibilities which have not yet been imagined.

The question I would like to leave each of you with today is – what old limitations will you break through to bring your businesses online?

Thank you.