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Analysis of Profitability by Customer

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Summary: Many organizations are embracing customer profitability analysis as a more effective way to measure performance. Knowing which customers are profitable and which ones are not is critical to developing marketing and pricing strategies. The panel discusses both the concepts underlying customer profitability analysis and implementation issues.

Mr. David L. Metzler: Profitability by customer is something that many people talk about but very few people are doing or doing well. I think I'm the perfect unbiased moderator because I know very little about this topic, but I'm very proud to be on a panel with these speakers who have been involved with it for quite some time in different aspects. I trust they will significantly increase your knowledge and hopefully also spark your interest if your company is not already headed in that direction.

The first speaker will be Rex Atwood. He is with Harte-Hanks Data Technology, Inc. He is pinch hitting for Jan Roelker who couldn't be with us, and will be our

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lead-off speaker introducing the topic and discussing how it fits in with other business measurements.

Nancy Church is with Tillinghast in its New York office. She will be discussing customer profitability: how it's defined, how it's measured, and how it's used. She was previously with Provident and has recently joined Tillinghast.

Third will be Vera Dolan. She is the president of VFD Consulting, which she founded in 1989, and she is very possibly the only epidemiologist to ever speak at a Society of Actuaries (SOA) meeting. She's very active in the industry, especially in the underwriting area. She will be presenting a case study being very careful not to violate any antitrust limitations or give away any of her clients' secrets. She will share some of the lessons from her experience with a bank client that she worked with.

Mr. Rex Atwood: My presentation is going to deal with profitability as a mix of other measurements for the industry. We will discuss the actual data of one of our clients, and we can show you some of the trends and why you need to look at not only profitability, but other measures.

I would like to give you a little bit of my background. I'm an accountant. I use statutory accounting and GAAP accounting as well as marketing and data technology, meaning I am the technology kind of person that also understands marketing.

All of our objectives are to identify and retain profitable customers. I think Nancy is going to go into great detail as to how to identify, from a profitability perspective, those customers. But another component of keeping and retaining profitable customers is also keeping and retaining those customers that are both profitable and that have an adequate wallet that you may want to grow and continue to grow and keep. That gets to target marketing as well.

As we're going through the whole process here, we think of profitability but we also think of the profitable customers who are going to give us long-term lifetime value, so that is the calculation that I would suggest that we all embrace. We'll get into that in a little more detail later.

You're all actuaries, so I'm sure you all do research in the marketing area. When I've talked with actuaries and then talked with marketers, the marketers seem to think that the actuaries are too numerically focused, and the actuaries always believe that the marketers are too fuzzy thinking. In this case, we're going to try to

bridge the gaps from marketing, which is a percentage share of market, to actual numeric profit calculations.

It was great that Nancy and I had a chance to have lunch together so that we could talk about profitability. My definition of profitability is a point in time; however, profitability can change over time. That means you need to look at it in a continuum of time.

But why? To understand profitable customers for reasons other than just accounting purposes, we look at it in a total customer service relationship. You can segment your customers into three cells or as many cells as you like. The top tier is your most valuable customer, and you can afford to provide the most service to that customer. It's cost effective for you to do that. In many of our companies that we do business with, that top tier is being assigned to agents and brokers. They attribute the high cost of sales for an agent/broker in this very profitable group of people who appreciate the value that an agent/broker brings to the game.

The bottom tier, the converse of that, is actually where a number of our customers are beginning to build automated systems to deal with profitable customers in tier three, but they're not as profitable as tier one. If there were a tier four, five or six, which are unprofitable customers, then that's an exit strategy that has to be taken care of.

To create this profit/value/service link, we need to historically understand your company's trends, which means we need to build a historical understanding of your organization. One of many of the things that we do at Harte-Hanks is build repositories which help you identify new customers coming in as well as lost customers. There are your loyal or longest-served customers. We're going to use loyalty and tenure together in this case; however, it does not necessarily mean they are loyal customers of you. It's just that they have had a long tenure with you. We have to do some more studies with agent tenure and the customer's recognition of the agent before we can say they are loyal customers to either you or to the agent. In this case, you need a historical understanding of your past so that you can look at profit, customer tenure, agent tenure, and market position, and then measure that over time.

How many of you measure the 13-month Life Insurance Marketing and Research Association (LIMRA) suggested policy persistency? Can anyone tell me what they believe their averages are? Is it 85% retained from year to year? Or is it 95% or 80%? When we did our studies with some of our insurance companies of the years 1997, 1996, 1995, and 1994, we looked at this study. What we found was of that core group of customers they had back in 1994, they only retained 30–40% of it.

They were losing an enormous number of policies and customers that they were not necessarily aware of, by just using the 13-month rolling persistency. I think Nancy is going to talk about keeping profit associated with policies for an extended period of time until they turn profitable; if you're using just a 13-month rolling persistency, you're not providing accurate information as to the consistency of your business. You're not taking into consideration the churning of customers and policies from new policies being brought in and old policies and customers leaving.

In addition to indicating profitability, we're finding household tenure to be an incredible indicator of the stability of the organization, the stability of your distribution channels and the loyalty effect. Has anyone read *The Loyalty Effect* by Frederick F. Reichheld? I would suggest you read it. From an insurance perspective, it is earth-shattering and from an actuarial perspective, I think you would find it very interesting.

Let's take a look at household tenure. A large international insurance company's policy persistency was 93% on average, but right after year nine, its household persistency dropped off incredibly. The company executives thought that, on a year-by-year basis, they were doing just fine. Their salespeople were bringing in new business at a very good clip, covering the losses of customers and households on the back end. They then started changing their management philosophy and their compensation, but they also wanted to look at other surrogates in addition to profit; one is household tenure.

A definition of household tenure says you must go back to your legacy systems, merge them together, data reengineer them so that they match together and identify all the people that fall into a household, for example, the Atwood family. You look at the policies that have lapsed and surrendered within that household and you take the oldest policy and the date when that policy was issued and that's when you should consider that the household begins its tenure with you. The policies lapse and surrender and new policies are issued, but that date and time stays with that household. Now you can measure the age and how long that household has been with you.

In some cases, we find that customers have multiple lives meaning that they're here for two years, three years, four years, or five years. There's a disconnect, but then they come back. Part of the systems that we develop keep households together for their lifetime. It's part of the trademarks of our processes.

From The Floor: Could they go on for several generations?

Mr. Atwood: In this case if you looked at it, it's 89 years. They have one or two clients that have been with them for 89 years. Clearly that was a policy issued in childhood and the generational components of this are in effect. The familial component of this and the wallet component share of this is what they're now considering as a key marketing and management factor.

From The Floor: If over time several persons in a family buy several policies that come and go with the ebb and flow of the family, is it consistent that the policies are all there?

Mr. Atwood: Yes, we want to know when that relationship was formed with your organization.

From The Floor: That measure isn't consistent with how we measure persistency.

Mr. Atwood: That's right. This is not policy persistency. This is the household persistency. How long has that household been with you? If there is a disconnect in that household, we will reconnect it when the household comes back on.

From The Floor: If they have even one policy with you, they're not lapsed.

Mr. Atwood: That's correct. But if you also look at the drop-off in asset value and premiums associated with these people and the retention, you can see that there's a huge amount of money associated with these individuals.

Let's discuss one of the indices that we also want to look at, which is cash flow. Because of my accounting background, one of the key indices of the wealth of a business and the stability of a business is a cash-flow component. When we did this same analysis for this organization, we wanted to identify which household customers were providing the best cash flow for us. There are approximately 30,000 households that provided over 56% of the income of the organization. This is an entire report where you take and cut the number of dollars into equal segments and then analyze the number of people associated with them. In this study, at the high end it takes 5,396 households to equal \$130 million in premium flow. At the bottom end of this register, it takes 1,125,469 households to equal the same \$130 million. I'd suggest that every organization here do this same kind of study. Get households and then look at the cash-flow components of those households.

The next index is assets under management. How many of you are trying to go to a levelized commission or compensate based on assets? Not a lot. Again, Manufacturers Life Insurance Company in Canada took a very interesting stance a

few years ago and went to levelized commissions. How many of you are part of the New York State problem? I call it "the problem" because you have to try and change your state's rules before you can use levelized commissions. There are ways around it and we can talk about that later, but assets under management is something that should be part of your compensation systems as well as customer tenure.

Why? There is the same disproportionate control of certain households and the assets that they have with you. Again, there are almost 17,000 households out of the millions of households within this corporation that have 20% of the assets. It begs the question, why do we have people on the low end of the graph? What is the cost associated with keeping these people? Who are the agents and brokers? Which distribution channel works with these people? Do we need them? Based upon our studies, in some cases, you don't. However, if these are good customers that could provide long-term value that, over time, looked very much like the people who were at the high end of scale; that is an opportunity for a different distribution philosophy or cross-selling effort.

To do this, we need to create a home office management group. This home office management group will create this repository for understanding the historical aspects of tracking and measuring profit, value, cross-selling, relationship management, and risk management.

One of my associates calls this "tuning a violin while you're playing it." It allows you to predict history as you're looking at the changes in trends. We're finding this component to be incredibly important. Almost all of our customers have now put together a separate and distinct group that is attached either to marketing or strategic marketing, or to agency management; it does these kinds of analyses and changes management.

Let's talk a little bit about agent tenure and its correlation to orphans. On average, based on LIMRA's studies, 25% per annum leave their institution. We all wonder why we have an orphan management program. You don't know which 25% are going to leave. However, if you start studying the correlation between customer tenure and agent tenure, you will find that there are cells where agent tenure exactly equals customer tenure. These are agents and brokers who have figured out the lifetime value component. They are your benchmark group. Those are the kinds of individual agents and brokers that you need to identify so that you can understand their methods of sales and retention of customers.

Trying to cross-sell alone and compensating a cross-sell can have just as detrimental an effect as doing nothing at all. You need to put all of these measurements in a

combination to satisfy your profit and longevity goals. In this case, when we've asked agents, brokers and branch managers in the banking industry to cross-sell, they've often taken the assets and just distributed them across multiple products as opposed to increasing the assets to the corporation and getting more of the customer's share of the wallet.

One of those fuzzy marketing terms was market share. What we've been able to do in the U.S., England, and Canada, but not Australia, is actually determine the size of a market based upon your customer penetration. As one person pointed out, we have 89 years of familial, generational history in this one organization. We can also determine lifestyle and life cycle where your people and current customers are in all of the above. Therefore, we can now develop the right products for those right individuals at that point in time—all from your own information resources.

Changing agent compensation without understanding these indices can be very hazardous to your health. We have had some organizations that have done that, and it can be difficult without such a system or process in place. Levelized commissions, changing agent compensation, historical trends, and how you are actuarially assuming the cost of sales can all be changed once you understand, in more detail, the accuracy this kind of repository can bring to you.

The goal of this whole process then is to take and create alignment of both short- and long-term values and profit with customers, products, and the distribution philosophy with those with the home office expectations for markets, for consumers, etc. When it's all As, that is the perfect alignment. When there are Bs and As mixed together, there's room for some improvements in either product design, the niche that you're pursuing, and the type of distribution channel you're using for that. Finally, the Cs (such as, the one organization with more than one million people at the low end) is a strategic challenge. Do we want to reorganize our organization to have these people? That would be addition by subtraction. How do we wish to deal with that?

I want to talk about how you can set up a market group, and use not only profit, but customer tenure, agent tenure, cash-flow numbers, and asset numbers to determine the profit and value of a consumer base using market share numbers that are available. I also want to talk about how you can identify that niche market. You can align the appropriate distribution philosophy with compensation appropriate to manage the business going forward.

From The Floor: It seems that if a company wanted to do this without having a consultant, it would be very difficult. Does such a company have an enormous staff that would do it? It takes a lot of time and effort to set all this up and gather the

data. It just seems to me it would be prohibitive to staff at that level. If, for example, we become your customer, would we rely on your company indefinitely? Isn't this initially very resource intensive?

Mr. Atwood: Yes, absolutely, but the other side of that coin is that many of our customers are now saying that this is a critical, competitive advantage for which we have to staff. We're going to get jump started by outsourcing the set-up, but then we will bring it in house. The sourcing here is dependent upon you. Metropolitan Life is doing it. Some of our other companies are having us do it. The knowledge transfer takes place over time until you are comfortable with doing it internally. All the software is installable.

From The Floor: One of the critical assumptions you make is that companies have or develop a customer-oriented, or even better, a household-oriented database. I think most companies have several separate systems with each policy or contract that are treated separately, one at a time. They could have a whole household or a bunch of policies with one person, but the company doesn't know because the data are not stored that way. Do you have suggestions as to how companies can get some of the information they need starting from where they are now? I think very few companies have even a defined database with one person. How do they get from all these separate records to an integrated system that ties the information together?

Mr. Atwood: Part of what Harte-Hanks provides is the ability to match individuals and policies. First, recognize the number of people per policy because you can have multiple people per policy. Roll that up to a customer and then build that into a household relationship. Once that's done, tag all of the policy information, the legacy data, the transactional information, and the commission data to a repository. We've been doing that for quite a number of years. We outsourced it because it would take a lot of effort to do that in house. In fact, how many of you have data warehousing programs underway? Good. Data warehousing is trying to build a similar process where they pull all this data together and identify those relationships, but it is an effort and there are companies such as Harte-Hanks that do that all the time. One of our core competencies is to do data re-engineering.

Mr. Metzler: We'll get to the rest of the questions at the end. Let's go on with the other presenters so you may get some of your questions answered in the process.

Ms. Nancy W. Church: I'm a management consultant within Tillinghast, which you know is an actuarial consulting firm. A funny thing happened the other day. I went to the grocery store with one of my actuarial colleagues and we were in the line for people with less than 15 items, and the person in front of us had about 30 items.

After they went through the line, the cashier looked at us next in line and said, "Well, that must have been a management consultant who can't count or it was an actuary who can't spell." The reason I tell that is that when you look at customer profitability, you have to look at not only actuarial assumptions and pricing assumptions, but also actual customer characteristics, demographics, and psychographics. I'm going to present to you a lot of ideas about what you can look at or use to define your customer profitability.

What I'm going to cover is: how you define customer profitability, how you measure it and then how you use it. Many companies can get through the first two steps, but getting through the third one is sort of a sticking point. They don't know what to do with this information once they have it. That tends to be a problem with a lot of demographic information as well. It's nice to know, but what do we do with it?

Profitability, as we all know, is revenue less expenses. That's a pretty simplistic explanation. When you think of it in terms of a customer, you might think of it as the income generated with the customer's money or funds, less the cost to acquire, maintain and keep that customer, not to mention the cost to add value to that customer's investment. You can also look at it very simplistically as the return on the dollar spent to acquire the customer. Many companies look at it that way.

What I would like you to take away from here is an emphasis on spending time, defining your company's measure of profitability or your definition of profitability. It's very complicated, it does take a lot of time and you need to think sort of from the end backwards as to what you're going to do with that profitability measure once you have it. That may help you define it.

I think of customer profitability as a constant cycle. At the beginning of a customer relationship, you spend a lot of money to acquire the customer, then you invest their funds to earn a good return. You then provide some value back to the customer which means you maintain their satisfaction. If they're satisfied, then it costs you less to acquire more funds from the customer. They will make an addition that usually costs less to get more money in the door. You then have more money to invest. You add more value and you build more satisfaction.

Further down the road, it costs even less to acquire more funds from that customer or perhaps customers from a different household. Then you have more to invest. You provide value to the customer, and it is hopefully as much as they expect. You then build a lot of satisfaction in the customer or the customer household.

Customer profitability can be defined in a number of ways. You can look at factors such as (1) financial factors, with which most of you are familiar; (2) demographic factors or characteristics, that you may not deal with very often; and (3) transactional measures or activity within a policy or a household. You should and can use historical data. Oftentimes you have to do a trend analysis to see what's happening. You probably already look at actual experience for a certain product feature versus your pricing. That's a good starting place. You can also look at expected behavior or expected experience, which, of course, are put forth in your pricing assumptions. Historical experience is also important.

Customer profitability can be defined using simply one factor alone. It could be persistency, it could be policy duration, and it could be the accumulated value. (I have an annuity background so if I'm not referring exactly to life insurance pricing issues, that's why.)

You can also use a combination of factors and I would recommend this. I think you get a much better indicator of profitability when you look across financial, demographic and transactional measures.

Some of the financial definitions that you might choose are return on investment, return on equity, or return on capital. You also might look at present value of book profits. I know you do that when you price. You can look at that for a single product or a combination of products that the customer holds or that the household has.

You can look at cost coverage. How soon will you recover, have you recovered, or how well have you recovered costs that you spent to acquire the customer? You may focus on the amount of initial deposit or the total premium in force, and you may define a threshold below which you wouldn't consider a customer profitable. For instance, I'm sure you make assumptions when you price policies that you'll have a minimum investment of \$20,000 for an annuity, and any customer who has an accumulated value of less than that or an initial deposit of less than that would not fall on the radar screen for profitability. If that's the only factor you're using, that customer would not meet your definition of being profitable.

You can use product-related parameters such as the surrender charge period, whether it's an A or a B unit. An A unit might be weighted more heavily than a B unit. Then you can use things like whether there's an index in the product. Is the index rich? Is it too rich or obsolete. Again, weight the measures within your formula.

Demographic measures are things that look at customer characteristics—their buying attitudes, their purchase behavior, and the psychographic, literal descriptions of the person—their age, where they live and their socioeconomic status.

Demographic measures answer the question, who did you acquire? You can use information such as the Prizm™ or MicroVision™ lifestyle codes. Has anyone ever heard of these? They're both trademarked codes that companies like InfoBase and Claritas put out and these are companies that collect data on customers based on where they live, what they purchase, what credit cards they use, and things like that. They put them into clusters or codes. For instance, they use terms such as *white picket fences* or *graying America*. They label these people assuming that all people who live within a zip code block look alike. You can buy information like that and match it to your customer's addresses and find out what your customers look like. It's information that you might not gather on an application or you might not record in the administrative system.

How is the customer acquired? What channel? Some channels are more costly. Some business that comes in through a particular channel might be “stickier” than other business. When were they acquired? What was the customer's age and what was the customer's particular life cycle when he or she was acquired? Are they empty nesters? Are they emerging affluent? Are they pre-retirement or post-retirement? That might tell you what to expect from that customer over the life of his or her policy. How many were acquired? Is it a household or is it a single person? You might weight a household that has a family as more profitable than a household with a single member. Is the customer hooked? Is there cross-sell potential? Are they a loyal customer? These are some examples of demographic measures.

From The Floor: Yes. But I don't know how you can accurately get that information.

Ms. Church: That's probably an issue in the industry right now. There is information, the level of accuracy is a little spurious at times, but it depends on what you look at. Some of the data are actual data and some are derived data and you have to ask the source of that data what the case is. You can use some of it as proxies—again, you can weight it differently, if you don't think it's very accurate, but you should always test it, use it in regression to see if there is any potential indication of profitability.

Transaction or time-based measures are generally considered more valuable than some of the other measures because they're a little more concrete and most of the

time your administrative systems or databases capture this type of information. Some of this information has to be derived from the actual data, such as what is the customer's propensity to act and when will this customer act or transact? When will a customer add, renew, repurchase, surrender, or annuitize? Knowing that and basing it on historical trends can be very valuable. I'm sure you already measure some of these and then figure that into your repricing, if need be.

The duration of the policy seems to be very popular in measuring profitability: how far along is a customer in terms of the surrender charges, the amortization of deferred acquisition costs (DAC), and how much has been earned? That information seems to be quite useful.

The surrender charge period again could be an indicator of duration, as you see with annuities. Customers surrender shortly after their surrender charge period, and that will impact your profitability quite a bit. Also, the types of surrender charges you have, and whether there's a market value adjustment (MVA) attached to surrender charges, might make a customer more valuable because you know that they're less likely to leave or that you're covered a little bit if they do leave versus just having a six-year declining surrender charge.

The number of different products owned is also an indicator. I talked to one company and they said that the solicitation and response history is something that they use. It surprised me that they actually record how often they solicit a customer. They found that the more often a customer was solicited, the more likely they were to buy. Of course, but then they were more likely to persistent or less likely to lapse. I just found it very interesting. So whenever you run campaigns or solicit customers in a campaign or contact the customers, just keep track of that because you can always use that data to determine whether that had an impact on a customer transaction.

So what do you do with all those data that you've collected or that you've looked at? First, you need to choose from the hundreds of variables that you can use as to what defines profitability for you. What's important to you or your company? Then you have to gather the internal data. That can be transaction, demographic, policy data or survey response data. You can purchase or rent external data. By rent I mean you can send a file of your customer data out to a company such as InfoBase or Claritas. They will then match information to your client base and send it back to you. Of course, that's never updated unless you send it back to them, but that's some interesting information to get. Then you can do a regression or you can just make up a simple equation. If you know what you think is more important than another factor, you can, of course, weight those factors accordingly. Then you can

either assign or your formula will generate a profitability number or an index, and I'm going to tell you what to do with that.

How do you use the index? First, you can use it to build a better relationship with your customer, especially your most profitable customers. Again, I would suggest reading *The Loyalty Effect* by Frederick F. Reichheld, because it's very helpful, it has a lot of sound advice, and he tells how you can get a better return on your customers depending on how you treat them. But he does suggest that you pay more attention or better attention to your profitable customers, which may be stating the obvious.

You can create a lift table which shows you the incremental change achieved in a certain transaction by soliciting just certain subsets within your customer base—the top most profitable subsets within your customer base rather than randomly soliciting the whole customer base. You will see that soliciting the profitable customers generally results in better results than randomly soliciting.

You can tailor those customer solicitations—customer statements, strategies, channel strategies, distribution strategies—to the likes, dislikes, needs, or whatever characteristics are of the profitable customer base. You can also overlay your profitability profile on a new customer base that you might potentially acquire to see if that looks like the base that you would like to have on your books. You can migrate unprofitable customers. You can compare the unprofitable base to the profitable base and find out if there might just be one factor that's different. If you can change that factor, they should become more profitable. You can predict behavior. You've already done some trend analysis, and some historical analysis. Hopefully that will predict the future. Most of the time it does. You can report to rating agencies that you are looking at customer profitability. I believe they would find that most interesting. You can tell them what the range of profitability is. You can also use a profitability index to rationalize your channel strategies. You can use it to cross-sell. There are a number of things you can do.

Ms. Vera Dolan: I first want to open by saying I am very pleased to see that you are very progressive, forward-looking individuals who realize that it's not enough to have good management and good products; you have to understand your customer. In understanding who your customer is, you are going on a journey to make your business even better than what it is. The path that you are following is well trodden. It is well trodden by corporate giants such as American Express, Sears, or Eddie Bauer. Has anyone received catalogs that you did not request? After you order let's say a big and tall shirt, you get a catalog in the mail for big and tall clothing. Or maybe you have ordered clothing for a child from a company, and you get catalogs for children's clothing. These are the kinds of things that retail

companies are really getting into by knowing the customer. They are data mining. They are looking at who the good customers are and trying to make them happier by tailoring their responses to what they see their customers want and need.

I'm going to share with you what I have done by working for a bank. It's going to be nitty-gritty, practical stuff. By the way, I was not the only consultant there. There were a handful of consultants, but there were a bunch of people on staff at the bank who actually make it their business each day to do this kind of research. This should be generic enough for you to relate to, and should compliment the concepts from Rex and Nancy about insurance companies. Hopefully, you can apply the lessons you learned from here to something that you could use in your own company.

The company I was working with was a technologically aggressive bank. They realized that bricks and mortar are not the only way to their customers' hearts and times are changing. They're looking at the Internet, automated teller machines (ATMs), and phone banking. This is a bank that realizes that it has to go forward into the future and it needs to understand its customers' preferences and views of these new technologies to see what works.

The channels are the electronic channels as opposed to the traditional relationships. The particular setting I'm going to talk about are consumer deposit accounts, otherwise known as personal checking accounts. As a way of figuring out where to focus their efforts, there is only so much in the budget that the banks use in trying to make life better for its customers. It decided to use profit as a measure to decide where it's going to focus its resources. In doing so, it understands its own business better and then it uses the knowledge on an incremental basis as it evolves to do better in its business. I suggest that can happen for you as well.

What are the questions that we're trying to answer? Who are the profitable customers? How are they distributed? Where are they? What makes them different from unprofitable customers and once you find that out, where can we get more like them?

The point of the whole thing is to make your profitable customers happier, do some sort of intervention or action or take a stand to keep them around. You want to do something to get more of them. Also, you want to predict who will leave so you can do something to more directly intervene with the most profitable ones to try to get them to stay. The profitable ones may be different depending on their preferred channels.

In the case of banks, profit comes from two areas that are quite distinct. One is called “net on funds,” which is the cash balance that is available in personal checking accounts, that is available to the bank to use for making loans and investments. Of course, the higher your bank balance is and the longer you leave it high, the more profitable your personal checking account is to the bank.

The other place where banks make money is from the fee income. Fees are charged for all the extra things that the bank does for you. Rather than make everybody bear the burden of overdrafts and such by spreading the cost around, you are dinged with a fairly hefty fee every time you do something that is not within normal practice. Fees are charged for things like overdrafts, check handling, foreign ATM use, and numerous agent calls. You may have experienced an increase in such fees over the last few years.

When the bank wants to go after its most profitable customers knowing that there are two sources for its profit, it would rather try to keep people with large account balances as opposed to people who keep bouncing checks. I'm sure you can understand that. When it comes to paying the bills for the bank, usually 20% of the checking account holders pay for most of what it takes to run the business. The rest of the 80% are either people who keep a minimum amount of money in their bank accounts to just barely cover what it costs to maintain them, or people who are actually costing the bank a lot of money by using a lot of services or running up debts that are uncollectible. So it's really important to the bank to zero in on this top 20%, the *creme de la creme*, and really try to keep them around or get more of them. These people may be different because of their preferences for the different products that the bank offers, like the different kinds of checking accounts and the different channels. They may be different, for example, from the people who tend to use ATMs more than the people who walk into bank branches.

IDENTIFY METRICS

First you need to identify your metrics. You need to define the profitability measure. For the bank, it was basically the profit attributable to net on funds. You heard from Rex and Nancy about the kinds of profitability measures that you may want to use for your company.

You also want to determine the period of examination. In the bank's case we needed a year. A year was a good measurement for this particular block of business to see if it was going to be profitable or not. According to Rex, you may have to extend that horizon a lot longer for insurance.

You need to determine the length of adjustment period. What I mean by that is, when a new customer comes to a bank, the first three months may be rocky. The

customer may be attracted by a premium and sign up just to get the premium (such as the dishware), and then close the account after three months. But you want to first exclude the people who are just in it for a very short time and you want to get to know people who have been around for a little bit longer than that.

Populate your database with all available contributing factors—create a data warehouse. Grab whatever you can from your legacy systems, and buy or rent stuff from outside your company if you can find something that matches up with the kind of products you're analyzing. Get all the data that you can.

Determine your cut-off points for profitability. Where is your profitable segment going to be? Are you going to take the top 10%, the top 15% or the top 20%? You have to decide that and use it consistently so you can tell if you are making progress.

IDENTIFY DEPENDENCIES

Your profitability measure can be categorical, which means you are considering profitability as a yardstick. You look within each category to see if the top 10% is different than the second 10% or if the second 10% is different than the third 10%. There might be a dependent variable which means that you want to figure out what actually determines profitability. That can be for the different approaches. You can use the categories for attrition or for acquisition.

For attrition analysis, the termination behavior is a dependent variable. Do they stay or leave, and how does that relate in the different categories of profitability? Independent variables include internal and external data—the more the better.

SIMPLE SEGMENTATION

You could start off doing a simple segmentation just to figure out what your business is about, if you haven't done this before. You use your knowledge of the business to create a natural segment. For the bank, we used channel types, the demographics of age, sex, and geography (West Coast, East Coast, Midwest), product type (a gold-plated checking account versus your basic checking account). You use the kinds of things that are appropriate to your business.

PREDICTION

You have a huge quantity of stuff. You have your profitability measure, but how do you figure out what is useful and what's not? Just do what I did. I just threw it all into a multivariate equation and just let the step-wise functions tell me which ones were important and which ones were not.

You can take a look at your covariance to see which factors are related and which ones are independent.

Then you can take a look at these different things that float to the top to see if they are significant or similar for all your segments—your high profitability versus your low profitability. Are there certain things about your high profitability segment that are predictive, that are different than your low profitability segments? This gets you closer to what's going on.

The relationships are more important than coefficients. Please look at this as a way to see what is related in your database. Every time you run a regression, it's not going to be the same if your population changes over time. So you want to see what is consistent over time, and you want to understand what is related to another variable. Don't get married to a coefficient. Please don't fall into the trap. You want to know what your data are about.

REALITY CHECK

Once you start doing your multiple regression, and you've got your profitability measure, and you kind of have it divided along the lines that you think might work for you as far as looking at your business, take a step back. Take a look at the result and see if it makes sense.

You're trying to understand what is going on in your relationship with your customer. You want to see what the cause/effect relationship is.

It may change over time as time goes on and you start working your customers. It may change over time as you try new programs to get more customers. The nature of your customer base may change. You're going to have to keep on top of that.

Tools that don't look at cause and effect can mislead. For example, neural nets right now are being touted as hot stuff. Pouring everything into a neural net and out of the other end pops those variables that are really predictive. They are really predictive for that population. You won't know just by looking at them whether those relationships and those significant variables will always be there for you or whether it just happens to be the case that a particular variable works for that particular sample. Be very careful. I will leave it to you to figure out in your analytical superiority, which tools you are comfortable with using to figure out the cause/effect relationship.

CAMPAIGN DESIGN

Once you have this information, then you can design your campaign or your intervention to try to get more customers or keep your customers and such.

Select your cut points. The focus in the banking situation that I'm working with was the personal checking accounts. The particular intervention that the bank chose to use was a phone bank. Every day they would print out about 200 or 300 names, give it to the phone bank, and people in the phone bank would call up customers and ask—"How are you doing," "Do you have any problems," "Can we offer you something?" "I see you have a real sharp drop in your account balance" (you have to be real careful about that one), "Is there anything we can do for you?" etc. You have to tailor the call to the particular situation. Because of the limitations, 200 names a day, we had to figure out how to apply the cut points in the variables that became predictive when pulling the names that the phone bank would be using. We designed the access program to pull down the 200 names a day that were likely to be the most beneficial to the bank. So you may have to relate what you're going to do with the information that you found and with the resources that you can to deploy to go on further.

Consider your intervention plans. Consider your target volume. That's what we need to do. Consider your product and channel mix. You might not want to chase after a product that might soon be outmoded. However, you might want to chase after something that's new and hot.

Consider acquiring new data from your internal capture system as you go more to Electronic Data Interchange (EDI). You might be able to get more and more of the kinds of information about your customer preferences and automate surveys in order to get that and match that back into the data warehouse and follow that through. That will happen as you get more sophisticated, buy more stuff from Axiom, or Equifax, or wherever you would like to purchase your outside data.

Consider your market shift. Once you start messing with your customers, you're going to find that you are going to get more picky, better customers and your market is going to shift. Be prepared for that. You're going to have to be vigilant in order to keep up with that.

There's nothing more heartbreaking than doing all this work (how do I know this?), and then finding out that the particular vice president that was in charge of it suddenly got transferred to another division and the new vice president comes in and wants to start something new. Then the whole momentum dies. I know this would never happen in your company. You're actuaries so you're very good on follow through. I just want to say, please, don't let this happen. Make this part of your company the same way you do mortality studies and persistency studies because it is better to build your sophistication and your knowledge. Every single step that you take will exponentially increase your ability to handle future customer interactions. Develop your intelligence, data gathering, and the analysis of data.

Schedule future routine studies. Develop your objective evaluation criteria for your profitability. That goes back to what you're going to use for profitability. Really think hard about what you're going to use and make it something that you can refer to year after year after year that you feel very comfortable with. If you change your profitability every year or so, and one year is not comparable to the next, you might have a problem with seeing if you've done as well as you'd like to. So try thinking really hard about the kinds of yardsticks that you are going to use for profitability.

Of course, it's not a pet management project. It is real. All the other companies that do retail handling are making it part of their business.

Mr. Metzler: I neglected to mention that none of our panelists are actuaries, which is perhaps why they brought such interesting and varied perspectives.

Mr. Paul J. Heffernan: You talked about benchmark agents and how certain agents, by looking at their agent tenure, figured out something about the customer. I'm not sure if I followed the logic there. Could you just expand on that a bit?

Mr. Atwood: One New England mutual that we do a lot of business with went through the study that we're talking about. They went through and understood premium flow, asset flow, and the profit that they could get. They identified the most profitable customers. Five percent controlled 60% of all their profits. That 5% were controlled by an equal 5% of their agents and the agents associated with them had tenure far and away above the norm. So we then surveyed those agents and the customers to find out if they had developed a consistent relationship for more than nine years. Of those surveyed, 50% said, "Yes, the agent is who we've been dealing with, and we appreciate the value." The other 50% said, "We have a mix of relationships with this company and with the agents associated with that." So there was a high relationship between the agent, broker and these profitable customers.

Their next step was to demographically and psychographically understand the customer. They have now developed a specific model with the help of Harte-Hanks and National Decision Systems (NDS). These are the homogeneous segments that they wish to pursue. They have also now identified a list of prospects that are coded in that same homogeneity. They have linked both the prospects and their current customers together, and they're identifying customers who have a good agent/broker relationship. They've now identified the people who live next door to these customers and identified prospect lists for referral-based selling. They set up a seminar to get the prospects of these people, and as they're walking through, the agent and broker asked, "Do you know Rex Atwood?" "Yes, I know him, he's my

neighbor." The sales effort of just using that methodology has been the largest single producer of revenues for this organization.

Mr. Alan Cutler: I find this very interesting. Do any of you have an idea how many life insurance companies in the U.S. and Canada use this? This is the first time I've ever heard about this.

Ms. Church: I can't give you a number, but I know that the larger companies are certainly doing this. They already have indices and databases devoted specifically to customers. They're called customer databases. However, I can't tell you that 50% of all the companies that I work with have them.

Mr. Cutler: Is this more of a marketing function rather than a pricing actuarial function?

Mr. Atwood: It's sort of a mix. I have a theory on that. Remember the story of the elephant and all the scientists surrounding the elephant? The insurance industry has grown up with such discipline in certain areas and never the twain shall meet. However, database marketing and the need to understand the profit of a certain market segment and how much you can spend for that market segment is driving you to do database marketing. You are also driven by your quest to understand your cost of sales and get that in alignment with your competitors—mutual fund companies, banks, etc. So I think a lot of influences are approaching the insurance industry at this point.

Ms. Dolan: It's like asking whether actuaries need to understand underwriting.

Mr. Eric T. Sondergeld: I've also read the Reichheld book. I want to answer the USAA person's question. You might find it interesting that USAA is one of the case studies that has very good customer retention, very good employee retention, and very good investor retention. Those are three things that the book discusses.

Companies that have done customer profitability analysis and database marketing, if you look at least at the case studies in which you hear about this, tend to be companies like USAA and Northwestern Mutual. These are the major multi-line companies that tend to have already established the customer databases where they can do some of this work. They're already cross-selling. They can measure it. What this book also mentions is what function in the company this needs to be, but it's not really any specific function. It's the way you look at business and how you do it. They say, "Don't think about how you can make money; think about what business you're in and why, and then do that the best you can." You're doing this for the customers, and they really have a great deal of customer orientation in the

book. So it's not really any one function, the whole organization needs to embrace the philosophy behind it.

Mr. Atwood: The thing I'll add to that one is that every insurance company is based on expense ratios because they lead the sales component to agents, brokers and other distribution channels. For you to get the corporate credibility to incrementally do these kinds of changes, you have to show incremental improvement. One of my customers says—show us the “low-hanging fruit” so that we can prove that this kind of process works. Senior management will spend more money on it and it can become culturized. Right now it's a hard sell in many of the organizations. It's hard to get people to invert their (to use the overused term) paradigm. You have to get them to see it that way. That's why some of these people have not heard this.

Mr. Howell M. Palmer, III: One of the things I think you learn when you do this work is that a small number of people generate a large majority of the profit, and that's obviously a tremendous opportunity. The flip side of that is that the remaining people are not generating profit—they're destroying capital and there's an enormous amount of money lost. So you might have 150% of your profit coming from the left side of the page and you're losing 50% of your earnings on that group that's over on the right. So I think there are two different issues here. I do think that this is both a marketing and an actuarial issue.

Mr. David E. Neve: I think this is a great effort that we, as a profession, need to do more of. The thing that I'm struggling with is how do you fit the product/profitability goals into this equation? For example, let's say you have a disability income (DI) line that you know isn't very profitable, but you're committed to stay in it. Perhaps you have another life product that is very profitable. When you do this study you're going to find that the profitable customers are the life customers and the unprofitable ones are the DI customers and that was because the market or the pricing strategy has predicted that. How do you bring that into this analysis?

Ms. Dolan: You have to make a hard choice. See how well management is committed to that DI line. Now there may be a core of customers within your DI line that is extremely profitable, and you might not know about them until you go in there and look. You might go in there and look and discover that there is a whole niche within your DI product that can be very, very lucrative. That's something that you can turn on its head. If you find that there is nothing in there at all worth saving, that's something for management to consider.

Mr. Atwood: We had a Midwestern life insurance company that was considering getting rid of DI. It did not have a repository in place, and it got rid of DI. Three months later, they had a run on their best life insurance customers because the

agents and brokers were actually selling DI, almost as a loss leader, with the insurance products. It was the DI that was helping drive the insurance products; it was not the other way around. We found this out after the fact. After we built the database, we historically understood it, and we saw what drove the relationship. It wasn't the traditional life insurance product and the disability income product in many of these cases. Again, understanding the cause and effect behavior is very important in this whole process.

Ms. Church: You can also attempt to migrate your unprofitable disability customers to a more profitable level by looking at the characteristics that make a life customer profitable. See if any of those characteristics reside in disability customers and perhaps focus on those characteristics so you can treat those customers in a certain way.

Mr. J. Kenneth Wood, Jr: One item I think you left out is that we're a management-based company and one thing that we've found through Claritas is the ability to retrain our managers. They were in the field selling ten years ago and they think it's still the way it was ten years ago. We have been able to reorient a lot of our management by drawing their territories for them and showing that the characteristics are not what they were ten years ago. So it helps you in training agents and pinpointing opportunity.

Ms. Susan I. Allen: You talked a little bit about demographic characteristics and then you mentioned psychographics. Can you tell me what that means and what some of the specific characteristics are?

Ms. Church: Psychographics are things like purchase behavior, purchase attitude, such as how one wants to purchase, where one wants to purchase, and preferences, etc.

Mr. Atwood: There are many companies that provide psychographic level data. Two are National Decision Systems and MicroVision. It's an amalgamation of credit information, and financial scoring from the Selection Research Institute (SRI). There are demographic characteristics like length of residence. They also blend in other purchase behavior, such as whether you are a member of the golfing association? Are you part of the other professions such as accounting, etc.? From that, they determine some of the lifestyle characteristics that are denoted by those kinds of things. One organization actually takes a look at the automobiles that you own and melds that in, too. In some cases, automobiles indicate your status.

Ms. Dolan: For example, American Express might notice that you buy a lot of plane tickets to holiday locations. American Express might alert some of its associates that

you are a candidate for a cruise and you might find cruise literature in your mailbox.

Ms. Church: Psychographics also looks at things like whether you use credit cards. Do you have an aversion to using credit cards? It's anything that has to do with decision making and the purchase rather than hard facts like your age, income, or gender.