Chapter 23
Customer Tier Programs

Abstract In today's highly competitive environment, many companies have made the strategic decision to protect and develop their most valuable customers. This strategy is implemented through customer tier programs, whereby customers are assigned to tiers – e.g., gold, silver, bronze – and accorded different levels of marketing and service depending on the tier to which they are assigned. We discuss various methods of defining the tiers and the fundamental allocation decisions firms must make in developing customers within a tier, possibly to the point where they can migrate to a higher tier. We conclude with a review of actual programs used by companies such as Bank One, Royal Bank of Canada, and Viking Office Products.

23.1 Definition and Motivation

Customer tier programs segment customers by their *actual or potential profitability* (Zeithaml et al. 2001) and provide different services or product depending on the tier to which they have been assigned. For example, a company might divide its customers into "Platinum," "Gold," "Silver," and "Bronze" segments or "tiers," and treat customers in each tier differently. The assumption is that segments defined in this manner will differ in their needs and responsiveness to various marketing programs.

Customer tier programs are related to frequency reward programs (Chapter 22), and the phrase "loyalty program" is often used for both of them. Indeed, customers may "earn" the right to be in a particular tier based on their accumulated purchases. However, customer tier programs and frequency reward programs differ in that frequency reward programs are narrower, focusing on a specific, typically one-time promotional reward such as free product. In contrast, customer tier programs provide customers with a long-term different level of service or a different product, based on their profitability.

Using the simple retention lifetime value formula, customer tier programs can be conceptualized as follows:

$$LTV_s = \sum_{t=1}^{\infty} \frac{m_{st} r_s^{t-1}}{(1+\delta)^{t-1}} \tag{23.1}$$

where s is the segment (tier) index and m_{st} is the profit contribution of segment s in period t, and r_s is the retention rate of segment s. Customer tier programs try to manage profits and retention on a segment basis. This portrays customer tier programs as segment-based customer-management programs. However, firms can also acquire customers who qualify for particular tiers. In the fullest sense therefore, customer tier programs involve acquisition, retention, and development of customers.

There are several motivations for firms to employ customer tier programs:

- *Identifiability*: With more complete information systems (e.g., Rasmusson 1999), many firms are now able to calculate measures of profitability for each customer. This allows them to assign customers to profitability tiers.
- *Importance of Companies' Best Customers*: As Peppers and Rogers state it in their pioneering book, "Some customers are simply worth more than others" (Peppers and Rogers 1997, p. 37). Once companies started calculating customer-level profitability, they confirmed time after time the adage, "the top 20% of the customer base accounts for 80% of the profits." It is not always exactly 80–20, but the principle is the same. Hartfeil (1996) reports that the top 20% of customers account for 100% of Bank One's profits. Raider (1999) reports that Diet Coke "derives 80% of its sales from the top 13% of its customers," while for Taster's Choice coffee, the top 4% of customers account for 87% of sales. Storbacka (1994) reports that some banks have a profitability distribution more like 25–225, meaning that 25% of their top customers account for 225% of their profits (they are losing money on their least profitable customers).
- *Limited Resources*: Companies are under increased pressure to produce higher returns on investment (ROI) from a shrinking marketing investment. Given the relative ease in identifying a minority of its customers of paramount importance, it is logical to focus those limited resources on these customers to maximize ROI.
- *Refocus from Acquisition to Retention*: After an era in which the goal was to sign up new customers, more companies are turning to customer retention. Although not exclusively a customer retention strategy, the focus of most customer tier programs is on developing and retaining existing customers.
- *Profitability Segments Differ in Needs and Responsiveness*: In order for customer tier programs to make sense, segments in different tiers must differ in their needs and responsiveness. Research is finding that indeed this is the case. For example, Zeithaml et al. (2001) found that profitability segments of a major US bank differed in terms of age and income, their

perceptions of what defined service quality, what drove them to increase bank usage and volume, and the impact that changes in product quality would have on profits.

- *Competition*: Company A's *current* customers are Company B's *potential* customers. Hence, Company A faces pressure to insulate their best customers from competition. The strategy is to bestow these customers with Platinum status and provide them with services that increase their loyalty and are difficult for competitors to duplicate.
- *Desire to "Delight" the Customer*: Rust and Oliver (2000) define customer delight as very strong customer affect caused by exceeding customer expectations (see also Hatch 2002). Oliver et al. (1997) provide evidence that customer delight can lead to higher intentions and customer satisfaction. Customer tier programs capitalize on the delight phenomenon by placing their best customers in a high tier and *exceeding* their expectations. The downside, of course, is that those customers placed in the lower tiers may experience the opposite effect – their expectations for minimal service may not be met. However, to the extent that the best customers account for an overwhelming amount of profits, and that the market is highly competitive, delighting one's best customers may be a wise strategy.

23.2 Designing Customer Tier Programs

23.2.1 Overview

Figure 23.1 suggests steps required to develop a customer tier program. First is to review objectives. Next is to compile the database necessary for creating the segments. Then begins an iterative process of defining customer tiers, assessing the acquisition and development potential of each tier, allocating acquisition and development funds to each tier, and developing the specific

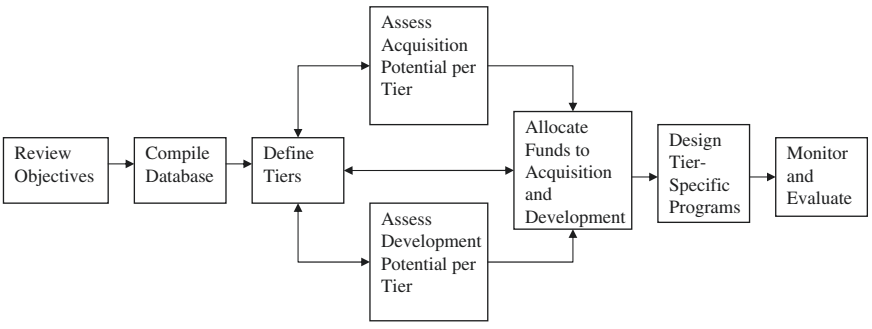

Fig. 23.1 Steps in developing a customer tier program.

services and marketing efforts that will be provided to the customers in each tier. The final step is to implement and evaluate the program.

23.2.2 Review Objectives

Reviewing objectives is a crucial step as it guides tier definition and the allocation of funds. Some key issues to review include:

- *Profits versus Revenues*: Is the company concerned about profits or revenues? Companies facing a huge debt from fixed cost investments (e.g., telecom) may really be more concerned about generating immediate revenues than profits.
- *Growth versus Stability*: Is the company trying to grow its customer base? Customer tier programs can be managed to defend the company's core customers against competitive incursion, or used as an acquisition tool.
- *Customer Centric versus Product Centric*: Customer tier programs are primarily customer centric. The idea is to determine what members in each tier want or need, and deliver it. If a company is product centric, it might be better to segment customers on product ownership or psychographics, rather than profitability.

23.2.3 Create the Customer Database

Creating the customer database can become a "black hole" for investment. It is very tempting to try to capture every possible piece of information about every consumer. This is where the review of objectives is important. If the objective emphasizes revenues, then the key data needs are product usage, billing and payments, RFM, and demographics related to expenditures. If the emphasis is on profits, the database needs to include costs. The easiest costs to assemble are those associated with the delivery of the product, such as costs-of-goods sold or mailing costs. Even these can require integration of several databases for the multi-product company. Marketing costs (direct mail offers, calls to the service center) and risks of payment default are more difficult to compile.

23.2.4 Define Tiers

The task is to determine how many tiers to have, and what level of profitability will qualify each customer for each tier. The number of tiers and profitability qualification may depend on the budget available. For example,

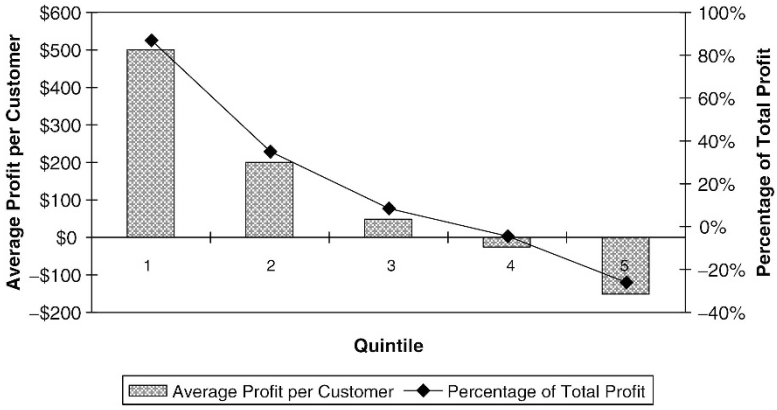

Fig. 23.2 Hypothetical customer profitability quintiles (From Peppers and Rogers 1997).

a company may define just two tiers, "VIP" and "All Others," and decide it can afford to provide 10% of its customers with the VIP treatment. The company would then rank order its customers by profitability and invite the top 10% to be members of their VIP program.

A more bottom-up approach is to rank order customers in terms of profitability, separate them into tiers, and determine the percentage of customers that are "crucial" for the company. A simple method for doing this is a decile or quintile analysis (Peppers and Rogers 1997, p. 39). Figure 23.2 shows a hypothetical quintile graph. The graph shows that the top 20% of customers accounts for 87% of profits, and that the company loses money on the lower 40% of its customers. This suggests that perhaps the top quintile (20%) should be included in the VIP program.

Two factors complicate this scenario. First is the difference between actual and *potential* profit. Customers can be assigned to tiers according to actual *or* potential profit. (Note the arrows in Fig. 23.1 between "Define Tiers" and "Assess Potential" run both ways.) Actual profit is much easier to calculate than potential, which requires assessing responsiveness to marketing actions (see Sect. 23.2.6). However, one could argue that potential profit is much more meaningful. Using actual profit, a firm might identify a segment that generates high profits, target special services at these customers, and have *no impact* on their behavior! A better way might be first to assess profit potential, then define tiers.

While potential profit is difficult to assess, actual profit can be a significant challenge as well. First is the question of profitability over what time period (Rasmusson 1999) – the past 5 years, 1 year, or projected over the remaining lifetime of the customer? Second is whether one can calculate profit or will rely on indicators. For example, actual profit cannot be calculated for potential customers to be acquired. This is why customer tiers can be defined using lifetime value, life event (e.g., recent retirees), demographics, stage of

customer life cycle (newly acquired, growing, mature, declining) (Peppers and Rogers 1993, pp. 190–193), product usage (Zeithaml 2000), or loyalty (Reichheld 1993).

The basis for segmenting customers into tiers can depend on the industry. A large real estate company segmented customers based on the amount of time it takes the customer to decide on a new home, marketing costs, customer motivation/urgency to move, price sensitivity, likelihood of future purchases, and referral potential (Zeithaml et al. 2001). A marketing research firm defined customer tiers based on account size, willingness to plan research projects in advance, willingness to try new services and approaches, variety of methodologies employed, sales cost, referral potential, and loyalty (Zeithaml et al. 2001). A pharmaceutical company defined physician tiers based on prescription volume, prescription dollar value, sales and sample costs, and gross margins of prescriptions (Zeithaml et al. 2001).

The common thread is that defining customer tiers may require computation and integration of several measures of current customer value and future potential.

23.2.5 Determine Acquisition Potential for Each Tier

Customer tier programs are primarily customer development efforts. However, customer tier strategies shift the emphasis of the customer acquisition side of the business from "get customers" to "get the right customers." This is a challenge because it moves the company away from mass marketed acquisition efforts and toward targeted methods. Ideally, the company should be able to identify potential members each of its customer tiers in advance, and then acquire them.

A good example of developing an acquisition plan for a particular target group is presented by Ainslie and Pitt (1998) who analyze the customer acquisition efforts of a credit card company. Under their scheme, top tier customers are profitable, responsive to marketing efforts, and without a default risk. As a result, the probability the potential customer fits the top customer tier (P(Target)) can be expressed as:

$$\mathrm{P(Target)} = \mathrm{P(Responsive)} \times \mathrm{P(Profitable)} \times \mathrm{P(Not\ Risky|Profitable)} \tag{23.2}$$

Ainslie and Pitt develop separate predictive models for Responsiveness, Profitability, and Risk, using a sample of approximately 3,000 current customers. Figure 23.3 shows how various predictors were associated with each of the responses. The researchers created variables that combined income and spending habits. Income could be low, medium, or high. Spending habits could either be "spenders" or "savers." Figure 23.3 shows that low-income spenders are more likely to be responders and more likely to be profitable on average.

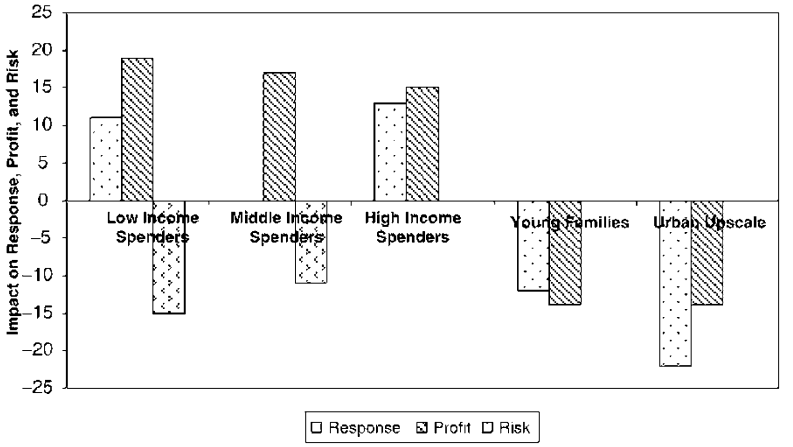

Fig. 23.3 Customer determinants of responsiveness, profit, and risk (From Ainslie and Pitt 1998).

However, they are more likely to be risky. This shows the trade-off between profitability and default risk, and why it is important to consider risk as another dimension of profitability. Middle income spenders are not different from average in terms of their responsiveness, but they are more likely to be profitable although risky. High-income spenders are more likely to be responders and more likely to be profitable, but not more likely to be risky than average. Undoubtedly this is because they have the financial resources to avoid default if they get overextended financially. In terms of demographics, young families are less responsive and less profitable, but no different from average in default risk. Urban upscale customers are far less responsive and also less profitable, but no different from average in terms of risk.

Ainslie and Pitt applied their model to identify potential new customers. While the models were estimated on the firm's own customers (because those are the customers for whom data were available), the models were used to score prospects from a national list. First, the authors scored the prospects in terms of their responsiveness. Second, they took the high-predicted responders from this list and scored them in terms of profit. Third, they took the profitable responders and scored them in terms of risk. The result yielded a set of prospects who were predicted to be profitable yet not risky responders, i.e., members of the top customer tier.

23.2.6 Determine Development Potential for Each Tier

This is perhaps the most difficult part of developing a customer tier program, but really the most crucial. The goal is to assess the responsiveness of the

customers in a given tier to the services and marketing efforts that will be provided to that tier. It therefore plays the crucial role in allocating funds and designing programs.

There are two approaches to determining the relevant response functions, corresponding to whether the arrow runs from "Define Segments" to "Assess Potential" or from "Assess Potential" to "Define Segments" in Fig. 23.1.

The simpler approach is to define segments first. In this case, we segment customers based on their current profits, then measure responsiveness for customers in each segment. These response functions will govern how much is spent and what specific marketing efforts and services are used for each customer tier. The customer responses of interest are retention rate and revenues, since these determine lifetime value (Equation 23.1). The services and marketing efforts may include special call-center phone numbers, free shipping, easy check-in, free upgrades, up-selling, and cross-selling.

The second approach, more complicated but perhaps more preferred, is to measure the response functions at the customer level and then assign customers to tiers depending on their response functions. For example, the ideal customer to assign to the top tier would have high "baseline" profitability combined with high responsiveness to marketing efforts. Another factor to consider is the probability a customer can be "migrated" from one tier to another – i.e., what is the chance we can turn a "silver" customer into a "gold" customer based on marketing effort?

Examples of the types of response functions that are needed are found in the service quality literature (see Zeithaml 2000). These papers link service attributes to perceived service quality (Bolton and Drew 1991a, b), perceived service quality to customer satisfaction (Bolton and Drew 1991a, b; Rust et al. 1995), and customer satisfaction to increased retention (Bolton 1998) and usage (Bolton and Lemon 1999). Retention and usage (revenues) relate obviously to customer profitability (Rust et al. 1995). Rust et al. (2000) take a different approach, showing how service improvements improve three types of equity (value, brand, and retention), which figure directly into financial performance.

This research employs managerial judgment or customer surveys. We do not know of a field test of these approaches. This research has studied service attributes, which are definitely part of customer tier programs, but they have not studied the impact of cross-selling, direct marketing, or advertising. However, they provide the best illustrations of the types of response functions that are needed to show how the elements of a customer tier program translate into customer retention and revenues.

Wansink (2003) has conducted a provocative study comparing managerial perceptions of customer potential with actual potential. He defined three marketing programs, "low," "moderate," and "high," that could be applied to consumer packaged goods. The program definitions were as follows:

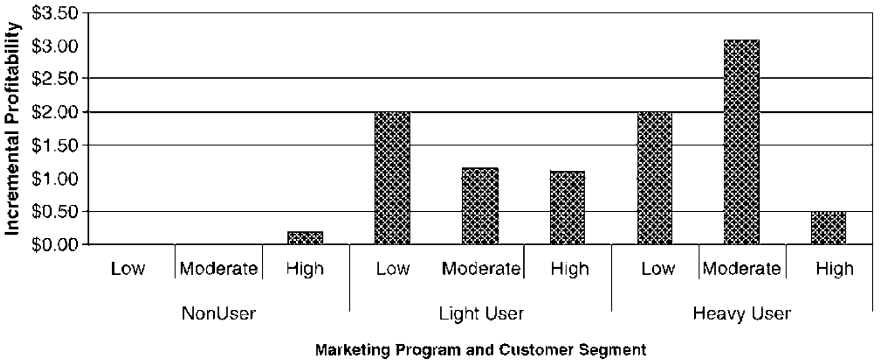

Fig. 23.4 Profitability of low, moderate, and high marketing programs targeted at different customer tiers (segments) (From Wansink 2003).

- Low: Quarterly one-page newsletter; $0.25 coupons included in the newsletter; Receive product line merchandise (e.g., coffee mug) with 20 proofs of purchase and $5.00 postage and handling fee.
- Moderate: Quarterly full-color booklet; $0.50 coupons included in the booklet; Receive product line merchandise with 20 proofs of purchase.
- High: Monthly full-color booklet; $1.00 coupons included in the booklet; Receive product line merchandise with 10 proofs of purchase.

Wansink then surveyed 132 packaged goods brand managers and asked them which program would be most effective for which segment: current nonuser, light user, and heavy user. The managers clearly responded that (1) in general, the High-level program would generate the most incremental sales and be most cost effective, (2) each program would be most effective (incremental sales and cost effectiveness) among heavy users, then light users, then nonusers. For example, not one of the brand managers thought the Low program would be effective among light users, whereas there was high agreement that the High program would be very effective among heavy users.

Wansink (2003) then tested these programs with consumers. He surveyed 643 consumers and randomly assigned each of them to a reward program – low, moderate, or high – as defined above. He tested three product lines (Kellogg's, Betty Crocker, and Land O'Lakes) with each consumer. For each consumer, he asked (1) their current level of purchasing, and (2) their anticipated level of purchasing over the next 12 months under the reward program to which they had been assigned. He used this to calculate the profitability of each type of program with each segment. The results are in Fig. 23.4.

Figure 23.4 suggests two startling results. First, the High program is generally not the most profitable. Second, the most profitable program for the heavy users is the Moderate program, the most profitable program for the light users is the Low program, and the most profitable program for the nonusers is the High program. The calculations showed that in

absolute terms, the heavy users generated the most incremental sales under the High program. However, taking into account the costs of the program, the profit picture changed dramatically. For example, Wansink calculated that under the High program, heavy users would generate on average 2.4 more units purchased for a revenue gain of $7.20. However, these customers would be redeeming $6.70 worth of coupons, for a net gain of $0.50. Under the Moderate program, heavy users would generate on average 2.0 more units purchased for a revenue gain of $6.00, but the value of coupons redeemed would only be $2.90 ($0.50 versus $1.00 coupons for the High program) so the net gain was $3.10. Lavishing better treatment – $1.00 coupons – on the heavy users did generate more incremental units, but not enough to cover the costs.

This study challenges the conventional wisdom of defining customer tier programs to provide the most profitable customers (i.e., heavy users) with the most benefits (i.e., the High program). Of course the study itself could be challenged. Profit was calculated using consumer self-reported future purchasing. In addition, the study was in a product, not service, industry, and the rewards therefore were product and price oriented. However, the point is well taken, that profit *potential* is key to designing a customer tier program, and while heavy users may have the potential for the most incremental sales, this does not necessarily translate to the highest profits. It may not be profitable to lavish current loyal customers with extensive incentives.

Kopalle et al. (2006) developed a dynamic structural model to examine customer response to both frequency reward programs and customer tier programs. They estimated their model for an airline that offered both a frequent flyer program and a customer tier program consisting of three tiers. Customers were automatically placed in a particular tier if they achieved a certain number of miles within a year. We describe the model and findings in more detail in Chapter 22. The authors found that indeed customer tier programs increase customer utility, with the higher tier benefits providing more utility. Perhaps most important, the authors found two segments – "loyalty program enthusiasts" and "customer-tier focused." The loyalty program enthusiasts segment was smaller (about 6% of the sample) and cared about the benefits of both the frequency reward and customer tier programs. The customer-tier focused segment was much larger (about 94% of the sample) and actually disliked the frequency reward program. However, they gained utility from the customer tier program.

23.2.7 Allocate Funds to Tiers

Once we have assigned customers to tiers and understand the relationship between marketing efforts and customer acquisition and how customers in

each tier will respond to marketing actions, we can allocate marketing funds to segments. We illustrate this process with two planning models. The first is simple and not dynamic. The second includes more complexities such as transitions between tiers and a period-by-period analysis. Both models are motivated by the work of Blattberg and Deighton (1996) and Rust et al. (1995), who consider trade-offs between acquisition and retention for single-segment customer franchises.

23.2.7.1 A Simple Fund Allocation Model for Customer Tiers

This model allocates funds between customer development and customer acquisition within each customer tier, subject to a budget constraint. The model is relatively simple and can be optimized. Following are the decision variables:

X_{ia} = Funds allocated to acquiring customers for tier i.
X_{id} = Funds allocated to retaining and developing customers in tier i.

The key response variables are:

A_i = Number of customers acquired for tier i.
LTV_i = Lifetime value of a customer in tier i.

We then assume the following response functions:

$$A_i = X_{ia}^{\delta_i} \tag{23.3}$$

$$LTV_i = \alpha_i + X_{id}^{\beta_i} \tag{23.4}$$

Equation 23.3 is the acquisition function. We would expect δ to be between zero and one – the number of customers acquired would increase as a function of acquisition expenditures, but at a decreasing rate – and would differ by tier. Also, Equation 23.3 assumes the company starts with no customers in either tier. The acquisition equation could be expanded by adding a constant term to Equation 23.3, indicating the initial number of customers in each tier.

Equation 23.4 summarizes how investments in each customer tier pay off in terms of customer lifetime value. The term α reflects baseline LTV, or the lifetime value of the customer if we do not allocate special marketing efforts to that tier. The parameter β represents how well marketing efforts increase LTV. Again we would expect β to be between zero and one, reflecting decreasing returns to scale. If we then define,

B = Marketing Budget
Π = Total profits,

the optimization problem is:

$$Max_{X_{ia},X_{id}} \Pi = \sum_i \{A_i LTV_i - X_{ia} - X_{id}\}$$
$$= \sum_i \{X_{ia}^{\delta_i}(\alpha_i + X_{id}^{\beta_i}) - X_{ia} - X_{id}\} \quad (23.5)$$

$$s.t. \quad \sum_i (X_{ia} + X_{id}) = B \quad (23.6)$$

This is a nonlinear program with $T \times 2$ decision variables, where T is the number of tiers Acquisition and development expenditures for each tier are the decision variables. The budget itself is not a decision variable. This assumption of course could be relaxed.

Table 23.1 illustrates an example of using the model. The top tier has a baseline LTV (α) of \$2,000, while the lower tier has a baseline LTV of \$300. Lower tier customers can be acquired more effectively ($\delta = 0.4$ versus 0.3) while higher tier customers respond more strongly to marketing efforts ($\beta = 0.7$ versus 0.6). The current budget allocates a lot of funds toward lower tier customers, however the company is losing money on these customers. Upper tier customers are profitable, but there aren't enough of them and there probably is potential for development. The scenario is not unlike many companies that in their early stages focus on increasing their customer base. If, after reviewing objectives, customer count is the objective, this is appropriate. However, if profits are the objective, Table 23.1 shows that the optimal allocation is to shift funds from lower tier customers to upper tier customers, even if it means fewer customers in total. This example is probably

Table 23.1 Example of optimal acquisition and development fund allocations for two customer tiers using simple allocation model (Equations 23.3–23.6)

Parameter values					
Parameter		**Description**			**Value**
δ_1		Acquisition response Segment 1			0.30
δ_2		Acquisition response Segment 2			0.40
α_1		Baseline lifetime value Segment 1			\$2,000
α_2		Baseline lifetime value Segment 2			\$300
β_1		Lifetime value response Segment 1			0.70
β_2		Lifetime value response Segment 2			0.60
B		Budget			\$50,000
	Segment (tier)	Acquisition (\$)	Development (\$)	# Acquired customers	Profits
Current allocation	1	2,000	5,000	9.78	\$16.357
	2	28,000	15,000	60.10	−\$5717
Optimal allocation	1	21,720	14,932	20.00	\$20.059
	2	8,819	4,529	37.86	\$3,922

the quintessential motivation for customer tier segmentation – focus on the more valuable customers.

The above model illustrates the importance of knowing the response functions (β and δ) as opposed to just current profitability (represented by α). It is through this complete representation of both current and potential profitability that a company can sort through how funds should be allocated to customer tiers.

23.2.7.2 A Markov Allocation Model

We describe a Markovian model (Libai et al. 2002; Pfeifer and Carraway 2000) that allows customers to shift among three states – upper tier, lower tier, and not a customer – depending on marketing expenditures. The model is not optimized but can be used to evaluate alternative expenditure allocations on a *pro formal* basis. Figure 23.5 depicts the model. There are pools of potential

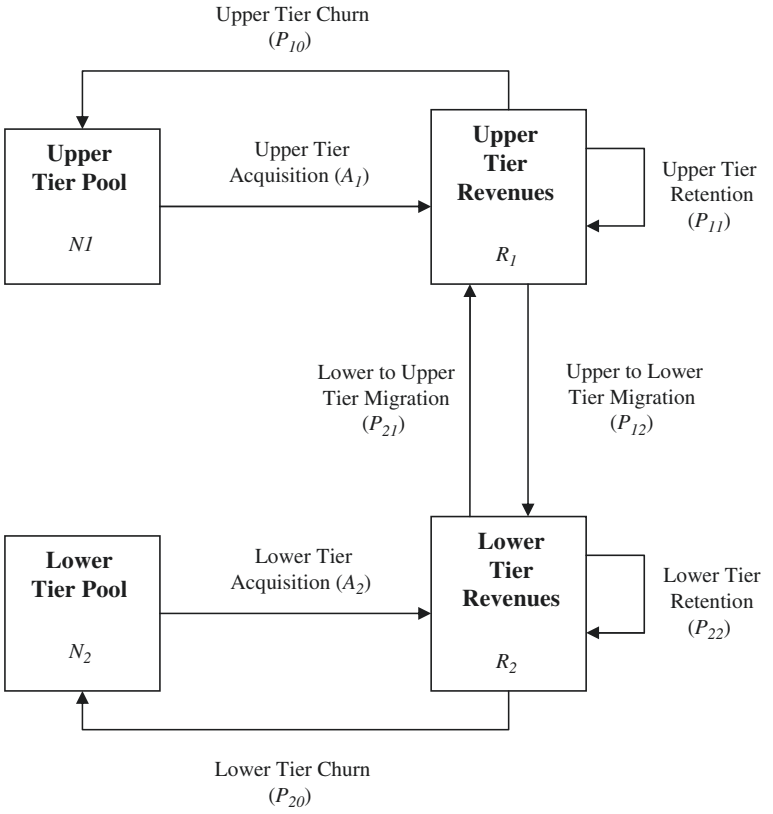

Fig. 23.5 Tier segmentation planning model allowing migration between tiers.

upper and lower tier customers who can be acquired. The decision variables are, as before:

X_{ia} = Amount spent on acquisition in tier i.
X_{id} = Amount spent on customer development in tier i.

We also have the following quantities:

N_i = Number of available customers for tier i.
A_i = Number of customers acquired for tier i.
R_i = Revenues in tier i.
P_{ij} = Probability move from tier i to tier j. i can equal 1 or 2, and j can equal 0, 1, or 2, where 0 stands for not a customer, 1 stands for the upper tier, and 2 stands for the lower tier. Thus P_{21} is the probability the customer will move from the lower tier to the upper tier.

All the above variables are indexed by time subscripts, which we do not include for easier exposition. Following are the response functions:

$$A_i = N_i(1 - e^{-\lambda_i X_{ia}}) \tag{23.7}$$

$$R_i = \alpha_i + X_{id}^{\beta_i} \tag{23.8}$$

$$P_{ij} = \frac{\phi_{ij} + X_{id}^{\gamma_{ij}}}{\sum_{k=0}^{2} (\phi_{ik} + X_{id}^{\gamma_{ik}})} \tag{23.9}$$

Equation 23.7 is the acquisition response function. It exhibits decreasing returns to scale and assumes the company begins with zero customers in each tier. The term $(1 - e^{-\lambda_i X_{ia}})$ can be interpreted as the probability a customer moves from the not-a-customer state to either the upper ($i = 1$) or lower ($i = 2$) tier segment (P_{01} and P_{02}). Equation 23.8 is the same function we used for LTV in Equation 23.4. α is baseline revenues and β is the response of revenues to customer development expenditures.

Equation 23.9 is an attraction model representing the probability of transition between tiers, i.e., the likelihood customers turn from silver to gold, or regress from gold to silver. The ϕ's are baseline parameters representing whether a customer naturally moves from tier i ($i = 1$ or 2) to tier j ($j = 0$, 1, or 2) each period. The γ's are the key parameters. For example, γ_{11} represents the impact of marketing expenditures on the customer staying in the top tier. γ_{21} is the impact of marketing expenditures on turning a lower tier customer into an upper tier customer. We would expect the retention parameter for the top tier, γ_{11}, to be positive and larger than γ_{12} and γ_{10}. For the lower tier, development funds would most likely serve to keep the customer in the lower tier (as opposed to churning) but a key parameter would be γ_{21}, the ability of development expenditures to turn lower tier into upper tier customers. So, we would expect $\gamma_{22} > \gamma_{21} > \gamma_{20}$, but the larger γ_{21} is, the better.

The γ's might depend on the design of the program. For example, if the customer tier program for the lower tier was highly price oriented (offering

coupons, free giveaways, etc.), it might be less likely to move those customers into the top tier. However, a lower tier program that offered better services (e.g., dedicated phone representatives), might be more likely to move these customers to the upper tier.

There are two additional key assumptions. First is that the company is able to identify and target the customers that are in each tier. Formally, we assume the company knows when the customer's response function (Equation 23.8) changes from $i = 1$ to $i = 2$. This of course may be difficult and the firm might rely on a surrogate number such as previous-year profits, or create a hurdle value over which the customer is treated as if he or she is in a higher level tier. The model therefore does not incorporate the risk of misclassification. For example, the customer may be treated as a top tier customer, but might have the response function of a lower tier customer. Treating this customer as a higher tier customer would then be a mistake since the company would be assuming the wrong response function for this customer.

A second key assumption is that the costs of the program are linear in the number of customers within a tier. This might not hold if the higher tier involved very high service levels. For example, for an airline, the higher tier might have access to the airline's lounge available at the airport. The airline's ability to provide this service to all upper tier customers (as defined by their response functions) might be convex in the number of upper tier customers. That is, it would be nearly impossible to provide the top tier services to 90% of the firm's customers.

These two assumptions could be relaxed in a more sophisticated model. Now, however, we focus on the insights generated by the model at hand.

Figure 23.6 shows calculations using the above model, assuming a fixed budget ($2,000) for acquisition and retention each. The parameters show that the top tier segment is more difficult to acquire but has much higher baseline revenues. The top tier also responds better to development dollars in that these investments are more effective at retaining them and preventing them (negative sign) from leaving the company or regressing to the lower tier. Development funds can help move the lower tier customer to the upper tier ($\gamma = 0.05$) but the effect isn't very strong.

Figure 23.6**a** shows that assuming an equal distribution of acquisition dollars ($1,000 each to the top and lower tiers), it pays to allocate more of the retention budget to the upper tier segment (achieving profit maximization at around 85% allocation). This is undoubtedly because the upper tier has higher baseline revenues and equal response to marketing dollars. This would be the classic focus-on-the-best-customers result. Figure 23.6**b** shows that assuming an equal distribution of retention dollars ($1,000 each to the top and lower tiers) the acquisition budget should be completely allocated to the lower tier. This is also an interesting illustration. Given that it is cheaper to acquire lower tier customers ($\lambda_1 < \lambda_2$), and given that the company is spending money to develop customers in the lower tier ($1,000), it is more

Parameter	Description	Value
N_1	# of available upper tier customers	3,000,000
N_2	# of Available lower tier customers	3,000,000
λ_1	Acquisition response for upper tier	0.5×10^{-9}
λ_2	Acquisition response for lower tier	1.0×10^{-8}
α_1	Baseline revenues – upper tier	\$500
α_2	Baseline revenues – lower tier	\$50
β_1	Revenue response – upper tier	0.4
β_2	Revenue response – lower tier	0.4
γ_{21}	Move up response – lower tier	0.05
γ_{22}	Retention response – lower tier	0.2
γ_{20}	Churn response – lower tier	−0.05
γ_{11}	Retention response – upper tier	0.30
γ_{12}	Move down response – upper tier	−0.01
γ_{10}	Churn response – upper tier	−0.05
ϕ_{21}	Baseline move up – lower tier	0.1
ϕ_{22}	Baseline retention – lower tier	0.5
ϕ_{20}	Baseline churn – lower tier	0.4
ϕ_{11}	Baseline retention – upper tier	0.5
ϕ_{12}	Baseline move down – upper tier	0.1
ϕ_{10}	Baseline churn – upper tier	0.4
δ	Discount factor	10%
B_A	Acquisition budget	\$2,000
B_R	Retention budget	\$2,000

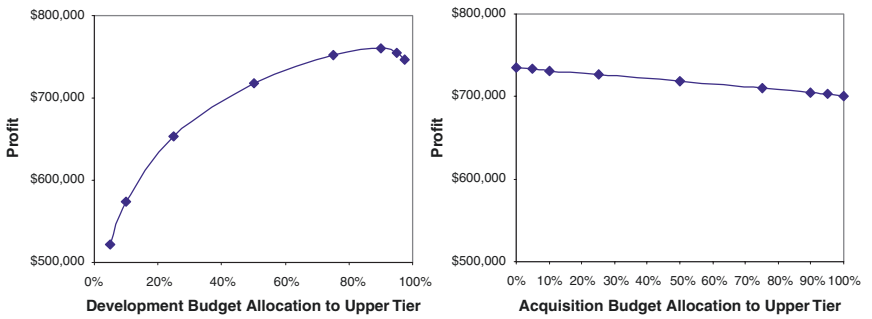

Fig. 23.6 Profit as a function of acquisition and development allocations based on flow allocation model (Equations 23.7–23.9). (a) Optimal development[a]; (b) Optimal acquisition[b]
[a] Assumes the \$2,000 acquisition budget is divided equally between the upper and lower tiers.
[b] Assumes the \$2,000 retention budget is divided equally between the upper and lower tiers.

efficient to acquire lower tier customers and convert them to upper tier than acquire upper tier customers directly.

These examples are just illustrations. Different parameter values could easily tilt things in the other direction. For example, if retention dollars were relatively ineffective for the upper tier, but had a strong effect on moving customers from the lower to the upper tier, it would be worthwhile to allocate

most retention funds to the lower tier, not so much for helping that tier as to convert these customers into upper tier customers.

23.2.8 Design Tier-Specific Programs

Once the tiers are defined and funds have been allocated, one must design the specific service and marketing programs for each tier. This often involves enhanced service levels – special call lines, special attention to deliveries, etc. More broadly, it could involve special products developed for upper tier customers based on their needs.

A key design issue is how to develop programs that convert lower tier to upper tier customers.[1] Zeithaml et al. (2001) describe the efforts of Home Depot in this regard. Home Depot noticed that many of its lower tier customers were being underserved because Home Depot was selling them materials for home remodeling but was not helping them to manage the entire process. Home Depot therefore opened Home Depot Expo stores targeted to current lower tier customers who have the financial wherewithal to purchase a full process-managed service for remodeling their home. While this is a good example of designing a program to move customers up the "pyramid," it is not a highly targeted product – the store is open for everyone. There are undoubtedly customers who investigate Expo but really are not suited for it (see http://www.consumeraffairs.com/homeowners/home_depot_expo.htm).

Another interesting aspect of designing a customer tier program is shrinking the size of the lower tier segment. One way this can be done is to cut acquisition funds for this segment. However, if acquisition funds cannot be targeted at upper versus lower tier customers, lower tier customers may inadvertently be recruited. The task then becomes to encourage those customers to leave (Zeithaml et al. 2001). Most commonly this is done through high prices and low service levels. However, this can create a backlash (since many of these customers may have been recruited through special deals provided in the hopes of attracting top tier customers), and generate negative word-of-mouth.

Another interesting issue in customer tier program design is the extent of public recognition to extend to top tier customers (Shugan 2005). For example, airlines often make announcements such as "XYZ Airlines Platinum customers may board now." This public recognition might enhance the loyalty of top tier customers by increasing their sense of identity as an XYZ Airline customer. However, the public recognition may ask the lower tier customers to ask, "Am I not special?", and as a result, diminish any positive feelings they had toward the company.

[1] This assumes of course the company wants to create more upper tier customers. For cost reasons, the company may not be able to afford to provide enough customers with the special services accorded to members of the upper tier.

In fact, a major design consideration is whether indeed the customer should even *know* what tier he or she is in. In addition to the recognition factor, the advantage to the customer knowing is that this can provide an incentive to purchase more, i.e., to earn the right to be a Platinum customer (Kopalle et al. 2006). This especially works well if the company is using a transparent method to assign customers to tiers, e.g., previous year's purchase volume. However, it might be better under certain circumstances for the company just to keep track of tier membership internally. For example, a catalog company may still offer its high RFM customers special catalogs and services, but without the "Platinum" appellation attached. The advantage of customers not knowing their status is that purchase volume or marketing responsiveness can change over time, and the company may decide it wants to change the customer's status without alienating the customer. This is a crucial issue in customer tier design – public recognition, customer awareness of status – and needs careful research.

A final note is that while from a marketing standpoint, we think of customer tier development programs as enhancing customer value, sometimes these programs are guided by cost reduction objectives. Cost reductions may have a negative impact on revenues and retention. For example, an automated call center to serve the lower tier may save money compared to having company personnel answer inquiries, but revenues and retention can decrease because of the lower service level. This makes it difficult for these call centers to pay out.

23.2.9 Implement and Evaluate

An important and easily overlooked implementation issue is organizational. Does the company need to restructure its organization in order to implement a customer tier approach? Peppers and Rogers (1993, pp. 173–206) argue that rather than product managers, effective customer management requires customer managers (Chapter 3). For many companies, this means an entirely different way of doing business. The value of the customer management system is part of the ongoing customer centric versus product centric debate.

Another crucial issue is the management of customer transitions between tiers. If the company is using the profitability-first approach to creating tiers, then classifying customers in tiers is a simple matter. Managers would wait until the end of the year, calculate the profits generated by the customer, and then assign the customer to a new tier as appropriate. For example, a lower tier customer who generated higher than average profits might be assigned to the top tier. This would take the form of a formal invitation to the customer. One danger in managing this way is the customer's *response* function might be that of the typical top tier customer, resulting in a mis-allocation of funds

(see Sect. 23.2.7.1). Another danger is that the top tier may become too large (e.g., the airline's lounge becomes too crowded), and so the Platinum treatment "isn't what it used to be." and the customer development impact of Platinum membership diminishes.

If the company is using a response-function-first approach to creating tiers, individual response functions would be estimated at the end of each year. The customer would be re-assigned if necessary according to his or her current response function. In practice, the company might run a test among current lower tier customers, the test being designed to measure these customers' response to some of the "perks" provided in the upper tier. Alternatively, the company might survey a sample of lower and upper tier customers, asking them to self-report their responsiveness to various upper tier perks (e.g., "Would you buy more from us if you had a dedicated customer service number that guaranteed no more than a five-minute wait for service?"). The goal would be to determine whether a customer seemed to be responding like the customers in the tier to which he or she had currently been assigned, or like customers in a different tier.

In general the best way to monitor and evaluate the program is by setting up control groups. Otherwise we can compile statistics such as "revenues in the upper tier group grew by 40% after we initiated the program." However, we don't know what the growth would have been without the program, or what growth would have been in the lower tier group if equal dollars had been spent on that group.

23.3 Examples of Customer Tier Programs

23.3.1 Bank One (Hartfeil 1996)

Hartfeil (1996) reports the efforts made by Bank One to implement a customer tier segmentation strategy. It started with the belief that 20% of a bank's customers account for *more than* 100% of their profits. Faced with limited resources, the company focused its marketing efforts on that top tier. For example, branch sales forces re-allocated their time toward top tier customers.

Hartfeil describes the important details of implementing a customer tier program. First is the calculation of profitability. Bank One took into account revenues, risk, and cost on a customer basis in defining profitability, and ironed out difficult issues involving the timing of profit. For example, if a customer has an installment loan and is in the last stages of paying back that loan, he or she is not generating as much profit as one who has just taken out the loan. One solution would be simply to calculate profit generated by the loan in total. That would depict both customers as equally profitable. But currently, it's the newer customer who's

generating the profit. Bank One resolved this by calculating two measures of installment loan profit – essentially the current profit and the total profit – and incorporating both into defining their top tier customers. Interestingly, Bank One shied away from using formal lifetime value calculations because (1) they did not have enough historical information, (2) it would be difficult to apply a projection to customers on an individual basis, and (3) short-term profit was very relevant and could be more easily calculated.

23.3.2 Royal Bank of Canada (Rasmusson 1999)

Rasmusson (1999) describes the customer tier program at Royal Bank of Canada. The motivation for the program was to improve customer retention. They segmented customers into A, B, and C levels based on profitability. Tier A customers were assigned account managers and were contacted two or more times annually with cross-selling offers. Rasmusson reports that profit per Tier A customer grew by 268% over a 2-year horizon, and the number of Tier A customers grew by 292%. Aside from the increase in marketing costs, there was a large investment in data warehousing required to calculate profitability and conduct the segmentation.

23.3.3 Thomas Cook Travel (Rasmusson 1999)

Rasmusson (1999) also describes the customer tier program at Thomas Cook Travel. The company divided customers into A, B, and C tiers based on annual revenues. The key differentiating feature in the program was the level of service provided to each tier. The most challenging aspect of this program was that travel agents had to decrease their service levels to certain clients (C customers) whereas the mentality of the company had traditionally been to provide all customers with superior service. Thomas Cook provides the information agents need to identify A, B, or C clients, and agents receive detailed records of the A clients so they can tailor sales pitches to these customers' particular tastes and needs.

23.3.4 Canadian Grocery Store Chain (Grant and Schlesinger 1995)

Grant and Schlesinger (1995) discuss the potential for customer tier segmentation at a Canadian grocery chain. They emphasize three aspects of

customer value: how many customers the company has, what their behavior is, and how long they stay with the company. These are the elements of the total lifetime value of the firm's customers. The chain segmented the customer base for a typical store into three tiers based on "share of wallet": primary shoppers (>80%), secondary shoppers (10–50%), and non-shoppers. They then calculated the profit margin impact of changes in the behavior of these groups. Due to the nature of the business with high fixed cost and small operating margins, relatively minor changes in these customer tiers could produce huge increases in profitability. For example, expanding the primary shopper segment by 2% would increase profitability by 45%. Moving 200 secondary shoppers to primary status would increase profits by more than 20%. Decreasing the churn rate from current 20% per year to 10% would double customer lifetime (and hence approximately double lifetime value).

This example points out the need to focus on all customer tiers as a source of profits, and the value of viewing lower tiers as a source of upper tier customers, rather than as customers to be "fired."

23.3.5 Major US Bank (Rust et al. 2000)

Rust et al. (2000, pp. 195–202) describe a customer tier example based on a major US bank that utilized in-house profitability information merged with survey data. The profitability information served to form the segments, while the survey data served to understand the needs of each segments and how they would respond to various marketing programs. Rust et al. divided the customers into two pools based on profitability: the top 20% (Gold) and the bottom 80% (Iron).

The tiers differed significantly in profitability – the Gold tier had an average account balance that was 5 times bigger than a member of the Iron tier, and average profit that was 18 times bigger. The tiers differed in terms of demographics (Gold being older with higher annual income). Most intriguing were the very different perspectives of customers in each tier on defining quality and on profitability drivers. The Gold tier defined quality in terms of personal respect, reliability, and speed. The Iron tier did not think of reliability as part of quality. This makes sense since as less frequent users of the bank, reliability would be less salient to them. The authors analyzed the propensity of each tier to adopt new products offered by the bank ("incidence"), and the volume of the new business ("volume"). They found that for the Gold tier, incidence was driven by speed whereas for the Iron tier, incidence was driven by personal attention. The implications for differing marketing programs are obvious. In addition, the authors found that the Gold tier was more responsive to changes in service improvements than the Iron tier (essentially, $\beta_{Gold} > \beta_{Iron}$ in terms of Equations 23.4 or 23.8).

The implication of this analysis was that the company should focus its retention budget on improving speed of service for the Gold group. Speed drives incidence and volume for this group, and this group responds more strongly to changes in service than the Iron group. Of course, these implications could be analyzed more extensively using one of the planning models described above.

This example points out the benefits of integrating in-house and survey data. The in-house data are necessary for defining the segments, because these data are available for each customer and include the required detail for profitability calculations. The survey data can be collected for a sample within each tier. These data provide information on tier differences that provide guidance on how to design marketing programs for each tier. In addition, through regressions such as Volume = f(speed, personal respect, reliability), one has guidance on where various improvements will pay off. What is needed still is a translation from expenditures to changes in attributes. For example, Speed = f(expenditures), etc. This would provide the response parameters needed to make budget decisions. See Rust et al. (1995, Fig. 23.6) for a discussion of how one might derive these functions.

23.3.6 Viking Office Products (Miller 2001)

Viking Office Products is an office product catalog company whose customer tier program has three levels – platinum (consisting of 500 of the best customers), gold, and silver. Membership in these tiers is based on *current and future* potential spending. The benefit line-up illustrates the extent to which services can be tailored to various segments. These benefits, which differ from tier to tier, include specialized phone lines for placing orders, free shipping, lifetime guarantees, special pricing, free samples and gifts, personalized order pads, and access to the best, most experienced phone representatives.

23.3.7 Swedbank (Storbacka and Luukinen 1994, see also Storbacka 1993)

Sparbanken Sverige AB (Swedbank) was formed as the merger of 12 regional banks in Scandinavia. Swedbank did not design different marketing programs for different tiers. Instead, Swedbank implemented changes in bank-wide policies that affected various tiers differently.

Upon completion of the merger, Swedbank decided that it would adopt a two-pronged strategy: (1) focus on existing customers, and (2) create efficiencies such as pricing proportional to usage. The first step was an analysis

of 214,000 customers from 32 branches. Swedbank found that volume (dollar value of deposits, etc.) and profitability were not highly correlated. In fact higher volume was associated with much more dispersion in profitability. Swedbank also found that more than 50% of its customers were unprofitable, and that profit was highly concentrated among the best customers: the top 3% of customers accounted for 54% of profits, 6% accounted for 98%, and 32% accounted for 205% of profits. The bank found that the key differentiators in profits, even after controlling for volume, were reliance on checks (as opposed to a bankcard) and tellers (as opposed to an ATM). The reliance on checks was especially unprofitable.

Swedbank then instituted changes, perhaps the most dramatic of which was to charge for checks, although the charge was reduced for customers who had profitable behavior (e.g., use of ATMs). A new high interest account was developed for high-volume investments, and the bankcard was made easier to use. In addition, Swedbank undertook marketing communications to explain the changes and emphasize the wastefulness of checks. The changes were communicated to employees (who themselves were often unprofitable customers) and employees contacted best customers personally to explain the changes.

The result was an 84% reduction in the use of checks, which is not surprising. More striking was the disproportionate number of defections among unprofitable customers. For example, of the defections that ensued, fewer than 1% were from the most profitable customers, and 80% were from low volume, unprofitable customers. The example shows that customer tier segmentation can be used to guide decisions that affect the tiers differentially, without explicitly different policies for each tier.

23.4 Risks in Implementing Customer Tier Programs

Customer tier segmentation has gained popularity for many firms that are concerned about competing for customers, and at the same time, pressured for marketing funds. The concept is compelling – focus your limited funds on your best customers. While this is strong logic, there are certain risks to customer tier programs, as follows:

- *Under-serving the lower tier*: While hypothetically it is possible that customer tier programs should allocate more money to the lower tiers, most applications and the managerial mindset is to focus dollars on the upper tiers. The result could be profit losses in the lower tier segments that have to be offset by the gains in the upper tier. This of course is a natural consequence of shifting funds from one asset to another. However, there are factors that could make the losses from the lower tiers worse than expected (Scherreik 2002; Mazur 1999). First, there is some evidence that automated service systems result in lower loyalty than personal service (Selnes and Hansen 2001; Ariely et al. 2002). Ariely et al. found in a lab experiment

that customers interacting with a computer-generated advisor were less resilient to market crashes. The group that interacted with a human advisor recovered to its pre-crash level, while the group that interacted with the computer advisor suffered a permanent downswing in usage. Selnes and Hansen (2001) found that customers who had personal interactions with a bank were more likely to form social bonds with the bank, and this in turn resulted in higher loyalty. Also, self-service interactions improved bonding if personal-service interactions were also high. These studies suggest that routing the lower tier customers to automated services may make them even less profitable than if they are accorded personal service. Second, Feinberg et al. (2002) demonstrate the betrayal effect, whereby customers will decrease their preferences for their favorite company if that company offers special deals to other customers. The case here is a little different – the question is whether a firm's bottom tier customers will feel betrayed if the firm gives special treatment to its top tier customers. However, it would be important to examine the betrayal effect for customer tier programs. It may depend in subtle ways on how the tiers are defined. For example, I may be completely loyal to Airline A although I don't take many trips. Under Airline A's customer tier program, I may not make the "Gold" tier and therefore receive poor service, yet I perceive that I deserve better.

- *Over-serving the higher tier*: Funds should be allocated proportional to the marginal benefit generated by additional allocation. Recalling the planning models above, where revenues or $LTV = \alpha + X^{\beta}$. A key factor in deciding on allocating development funds is β, the marginal productivity of funds. As a result, firms that define tiers solely based on current profitability (basically α) and allocate most marketing funds to the segments with high α's, may be wasting money.
- *Confusing current profit level with responsiveness*: Over-serving the higher tier segment is part of the general problem of confusing level and response. The problem is that measures on α are more readily available than β. α can be approximated by current profitability, whereas β requires a statistical model, survey, or difficult judgments on the productivity of marketing funds (Rust et al. 1995). In fact, customer tiers should really be defined based on Fig. 23.7. Figure 23.7 depicts 4 groups according to the current profit level (α) and responsiveness (β). The high level/high response group is called the "Develop" group, since this group merits significant investment. The high level/low response group is called the "Cash Cow" group, since this group requires little investment. The low level/high response group is called the "Move Up" group, since this group can possibly be moved to top tier with appropriate investment. The low level/low response group is called the "Fire" group, since these customers are not valuable and can't be changed.

  The problem is that companies define customer tiers based on levels and then think of all high-level customers as Develop, and all low level customers as Fire. They can be wasting significant funds on the Cash Cow

		Current Profit Level	
		Low	High
Responsiveness	Low	*Fire*	*Cash Cow*
	High	*Move Up*	*Develop*

Fig. 23.7 Combining current profit level and responsiveness in developing customer tier management strategy

group, and missing out on important opportunities with the Move Up group. Of course the problem here is one of measurement – it is very difficult to obtain the segment-level β's. However, managers need to be aware of these issues and researchers need to develop effective ways of estimating the segment-level β's. This is why Rust et al. work (2000) is so important.

- *Mis-Classifying customers in tiers*: As in any segmentation scheme, companies can mistakenly classify customers in the wrong tiers. This is especially an issue for acquisition (anticipating in advance whether a customer will be a top tier customer), if multiple measures are used for classification, and if not all required data are available from all customers. The acquisition issue is a key one, since companies do not want to abandon acquisition efforts altogether. But acquiring the wrong customers actually can result in lower profits. Ainslie and Pitt's approach for UniBank is an important contribution here. The idea is to create a predictive model that identifies top tier customers by predicting scores as a function of predictors available in acquisition lists. Obviously not a lot of data are available in these lists, but Ainslie and Pitt (1998) found that demographic and credit data were valuable predictors. The problem with using multiple measures is that some customers may be put into the high tier group since they are like top tier customers on say 3 out of 5 measures. But those 2 measures in which they are unlike top tier customers may make them non-receptive to the customer tier program. A customer may have the income but not the age level to be placed in a company's top tier. As a result the customer will not be receptive to the appeals designed for higher income, older people. The missing data issue is also crucial. An obvious example is missing data on responsiveness, as discussed above. Another example would be missing data on share-of-wallet. A high profit level customer with a low share of wallet obviously should be treated differently than a high profit level customer with a high share of wallet.

23.5 Future Research Requirements

Research is needed on all aspects of customer tier programs, and can be organized around the steps in designing these programs shown in Fig. 23.1.

- *Review objectives*: For which types of objectives are customer tier programs best suited? How do different objectives (e.g., emphasis on customer count and revenues versus emphasis on profitable growth of a stable customer base) influence the design of programs?
- *Creating databases*: How do the information technology costs compare with the profitability gains from customer tier segmentation?
- *Create segments:* What are the best variables for defining customer tiers? How do we integrate both level and response measures?
- *Determine acquisition potential for each tier*: How do we develop segment-level acquisition functions? How can we identify segment members in advance of acquisition?
- *Determine development potential within tier*: How do we develop the response functions for revenues and retention that are the core of what makes customer tier programs work? While there is some work that suggests customers respond to tier programs (Wansink 2003; Kopalle et al. 2006), there is much more work to be done in this area.
- *Allocate funds to segments*: We need to enhance the planning models proposed in Sect. 23.2.7, and show that they can be used to improve customer tier strategy performance. Can managerial judgment be used to guide these models (see Blattberg and Deighton 1996; Rust et al. 1995)?
- *Design programs*: What types of programs are the best for developing high tier segments? What programs work for moving customers up? To what extent should customers be aware of their tier status, and if made aware, how extensively should this publicly acknowledged?
- *Implement and evaluate*: Can product-centric organization structures implement customer tier programs successfully? What is a reasonable ROI for a customer tier program, including IT and marketing costs?

In addition, more research is needed on the competitive implications of customer tier programs. If customer tier programs entail lower prices for the upper tiers, where do the increased profits come from? They could come from selling additional products to those customers. But if the market size is finite, haven't the same number of firms simply divided the market up at lower prices and possibly higher costs? For example, the airline industry lavishes a lot of service on its upper tier – that costs money. What would be the profit implications of dropping the program? Would costs increase? Why? Is customer tier management simply a prisoner's dilemma whereby firms spend extra money and offer lower prices to retain their best customers? Or perhaps the entire movement really isn't a marketing strategy as much as a cost management strategy.

Most importantly, we need convincing controlled field experiments that demonstrate customer tier programs work. The examples cited above report sales and profit increases, but they do not report baselines of what would have occurred without the program. To our knowledge, there is no example of systematically investigating in a controlled setting the profitability of treating an upper tier much better than it was treated before, and the potential losses from treating a lower tier much worse than it was treated before.