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Bringing Financial Discipline to Service Quality

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To create organizations in which service flourishes, service quality initiatives must learn to speak the language of finance. In their article "The Service-driven Service Company"[1], Schlesinger and Heskett argue that service leaders will justify investments in service quality by employing innovative data and measures that traditional accounting systems do not track. Furthermore, they argue that compensation should be linked to performance at all levels of the organization.

Annuitized valuation is one innovative financial measure which organizations can employ. In purpose, annuitized valuation is similar to the concept of cost of quality (COQ) because it brings financial discipline to the management of quality. The unique contribution of annuitized valuation is that rather than measuring costs, it measures assets – the asset value of customers. It represents the potential net cash flow of customers, over time.

Annuitized valuation also may make a reward paradox apparent in service organizations. In organizations that link compensation to performance, a reward paradox can be a significant inhibitor to service quality improvement. When service employees are compensated by salary or wage alone, while reward and recognition systems of the company are targeted for management and sales, there can be little direct financial incentive on the front line to deliver award-winning service quality. When this is the case, it should not come as a surprise that customers cite "indifference" as one of the primary characteristics of poor service. Eliminating the reward paradox, where it exists, must be an important objective of firms committed to service quality.

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The concepts of annuitized valuation and the reward paradox are directed primarily towards service organizations with three characteristics in common:

- high degrees of operating leverage;
- importance of repeat business from existing customers; and
- skilled service workers.

Annuitized Valuation

Consider the following exchange: the CEO of a large service company is speaking at a shareholder's meeting. During the presentation the CEO states, "Customers are our most important asset". Later during the question period, an accountant asks the CEO, "If customers are your most important asset, why are they not reported on your balance sheet?" The surprised CEO states, "Because our customers are people, and we only report dollars on our balance sheet".

For profit-seeking service organizations, customers are both people and dollars. Ultimately, customers are sought and served because they generate revenue and earnings. It is critical to recognize that customers are an important asset to the firm, and annuitized valuation illustrates that they are an asset whose value is measurable in monetary terms.

The mathematical foundation of annuitized valuation is similar to the valuation of annuities in financial management. Essentially, an annuity involves the exchange of a "present value" for a "future cash flow". Looking at customer relationships with this view, we can annuitize the value of a customer as the present value of the cash flows the customer generates over time for the firm.

Annuitized valuation represents the value of the customer as a financial asset. By measuring this value, annuitized valuation serves to focus organizational attention on managing the

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satisfaction of the customer and customer retention. If the firm loses a customer who generates annual gross margin (revenue – variable expenses) of $700 and the firm's applicable discount rate is 7 per cent, a $10,000 asset has departed with that customer.

The example above has been simplified for illustrative purposes. The application of annuitized valuation, if it is to be reasonable, will depend on several assumptions that may vary from firm to firm. Individual service firms must identify which assumptions are reasonable in their circumstances, and incorporate these into the calculation.

The key assumptions fall into several categories:

- the realistic "life expectancy" of a successful customer relationship;
- the predictability of future cash flows;
- the relationship between fixed and variable expenses;
- the relationship between fixed expenses and sales volume; and
- the firm's tax rate.

In the earlier example, there was an implicit assumption that, as long as the customer perceived they were receiving value, the service firm would have the customer's business forever. This is an assumption of perpetuity. In practice we know that this is not necessarily the case for every service firm. If perpetuity is unreasonable, the annuitized value must be calculated to reflect what is reasonable. This may mean that the realistic "life expectancy" of a successful customer relationship, rather than perpetuity, is estimated to be of finite duration. The critical question is "As we serve our customer, are we getting ever closer to the point where the customer no longer requires our services?"

A carpenter for example, whose customer has hired him to build a house, might answer yes to the question above. There is a point in time when the house should be complete. It would seem ridiculous to suggest that a carpenter who never finishes his work was somehow providing quality service. A payroll service, on the other hand, can answer no. As long as the payroll customer remains in business, they will somehow be preparing a payroll. This customer relationship has the potential to be of infinite duration.

The predictability of both the dollar value and the timing of future cash flows generated by a customer are also important considerations, as these form, along with the applicable discount rate, the basis of the annuitized value calculation.

Annuitized valuation also requires an analysis of marginal revenues and costs. For companies with high degrees of operating leverage, this is why the opportunities of continuous service quality improvement are so lucrative. One additional unit of business retained generates all of that unit's revenue while only part of its cost, the variable cost. The higher the operating leverage, the more profitable that additional unit of business is. This directly influences the value of the customer to the firm.

There is another important relationship to consider – the relationship between fixed expenses and sales volume. It may be true that one additional unit of business generates all the revenue and only part of the cost of that unit (the variable cost). Can we say however that one million additional units will generate results in similar proportions? Once again the answer depends on the circumstances in which the firm operates. The firm must ask itself at what point does a change in sales volume precipitate a change in the fixed costs of the firm.

There are two ways a firm can address this problem. If the variable expense per unit is representative only of expenses that are truly variable, a "fixed cost allowance" can be included in the unit calculations. The attractiveness of this approach is that it permits the firm to annuitize the value of customers consistently, regardless of the effect of sales volume on fixed costs. Presumably, there is a point where one additional unit of business will necessitate the hiring of a new person, the expansion of an office, or some other increase in the overhead of the service firm. Does this mean that this incremental unit is less valuable than ones that preceded it? No, it simply means that the firm's sales volume has precipitated an incremental change in fixed costs. By including a fixed cost allowance, we are accommodating the fact that fixed costs are ultimately variable too. The drawback to including a fixed cost allowance is that it under-represents the true annuitized value of the customer. It assumes that the relationship between fixed costs and sales volume can be represented as a straight line, when the relationship is more accurately depicted as a series of steps.

The second approach is to limit particular annuitized valuations to relevant ranges of sales volume. At points where sales volumes necessitate a change in fixed costs, either positively or negatively, a new valuation would be calculated. This approach more accurately reflects the actual behaviour of costs, and therefore reflects a more precise valuation of customers.

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The final consideration in calculating annuitized values is the firm's tax rate. Increased income, unfortunately, does not translate dollar for dollar to profit after taxes. Appropriate consideration should be given to the firm's marginal tax rate in the annuitized valuation of customers.

Consider the following example: ABC Company provides a variety of data processing and information services to business customers. ABC's customers vary in size and complexity, but it is generally the case that they require the services of ABC on an ongoing and regular basis.

A new customer of ABC is generating billings of $700 per month. Variable costs average 10 per cent of revenue, so this customer contributes approximately $630 of gross profit each month. For this financial analysis, ABC employs a 10 per cent annual discount rate and assumes that the duration of the customer relationship is realistically indefinite. The marginal corporate tax rate is 40 per cent. What is the customer worth to ABC?

The annuitized value of this customer, which represents the customer's asset value to ABC, is calculated by dividing gross profit (net of tax) by the appropriate discount rate. In this case, gross profit of $630 translates into $378 in after-tax profit. The appropriate discount rate is 10 per cent divided by 12 months (to correspond with the monthly gross profit figure). The asset value of this customer to ABC equals:

$$\frac{\$378}{0.10/12 \text{ months}} = \$45{,}360.$$

In other words, if this customer were to leave ABC, the financial impact to ABC is equivalent to a loss of $45,360.

Because annuitized valuation is a financial technique, it fails to incorporate non-financial variables into the value of a customer. Many service firms, for example, count on positive word-of-mouth from existing customers to help generate new sales. To the extent that an existing customer is helping to sell new customers (by speaking positively of the service firm), it is logical that the value of this customer would exceed their simple annuitized valuation. Because objective means of measuring the impact of qualitative variables on value to the service firm are not well understood, these factors are not accounted for in annuitized values. It is probably true, however, that the effect of qualitative variables would serve to increase what we have already calculated as the annuitized valuation. Therefore, as long as the assumptions underlying the calculation are reasonable, annuitized valuation is probably a conservative estimate of the true value of a customer.

The purpose of annuitized valuation is to give substance to the often repeated claim that customers are valuable. It is not difficult for a CEO to state "customers are our most important asset", and watch everyone's head nod in approval. One of the challenges facing continuous service quality improvement is to move organizations beyond "sloganeering". To the detriment of real progress, quality is often treated as a motherhood issue. It is not difficult to get people to agree that it is important. The power of annuitized valuation is that it takes quality beyond slogans and clearly defines it as a financial issue. And in business this is the motivation that stirs innovation.

The Reward Paradox

Theoretically, the concept of tying compensation to performance is easy to accept. Nevertheless it is an entrenched business practice that service employees are usually compensated by wage or salary alone. If there is incentive compensation, it is generally a smaller percentage of their earnings than would be the case for sales or management personnel. Furthermore, the incentive may be more distantly connected to the performance of any single employee than is the case with a salesperson. Having employed annuitized valuation to calculate the asset value of a customer, an interesting paradox may make itself visible. It involves the way service employees are compensated.

For example, consider two employees of ABC Company. The first, Employee X, is one of ABC's finest salespeople. For three years she has been named to the prestigious "President's Round Table" for her ability to sell ABC in the industrial market. The second, Employee Y, has worked for ABC as a service representative for several years, providing ongoing technical support to many of the customers X has sold. Like X, Employee Y is a top performer. Company surveys returned to ABC indicate that customers who deal with Y are very satisfied with his knowledge of the systems and the support he provides.

A typical customer of ABC generates approximately $300 in gross profit (net of tax) every month of the year, and as long as ABC is able to satisfy the expectations of its customers, it can expect a business relationship of indefinite duration. Annuitizing the value of this cash flow, based on a 10 per cent annual discount rate, we can value this customer as the present value of

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$300 received every month in perpetuity. In this case:

$$\frac{\$300}{0.10/12 \text{ months}} = \$36,000.$$

In other words, this customer is worth $36,000 to ABC.

While Employee X sold this account initially, Employee Y is primarily responsible for the "after sale" support. The continuation of a positive customer relationship, over time, is more of a reflection of Y's skills and efforts. In the judgement of the management of ABC, the work of the initial salesperson may influence the customer relationship for the first three months, but afterwards the continued selling of the account falls primarily on the shoulders of the person providing the service.

The sharing of this sale between sales and service can be represented on a time-line as shown in Figure 1.

According to ABC's compensation formula for salespeople, Employee X would typically receive a one-time commission of $600 for the sale described in the preceding example.

If one accepts the annuitized valuation of this sale as $36,000, and management's judgement as to when the "selling" of the customer becomes a service responsibility, the reward paradox becomes clear. Employee X, the salesperson, has sold a customer relationship that is worth $300 in gross profit for three months, and given the firm the opportunity of continuing to sell to this customer. Employee Y, the service person, is responsible for selling to this customer from the fourth month forward, indefinitely.

The commission that Employee X is paid can be thought of as comprising two parts. The first part being for the selling of the initial customer relationship, which in this example is represented by three months of gross profit. The second component is based on the company's expectation that it can maintain this customer relationship, represented by the stream of gross profit from the fourth month forward. Conceptually, total commission is the sum of a primary commission based on an initial sale and a secondary commission based on ABC's expectation that it can continue selling to this account.

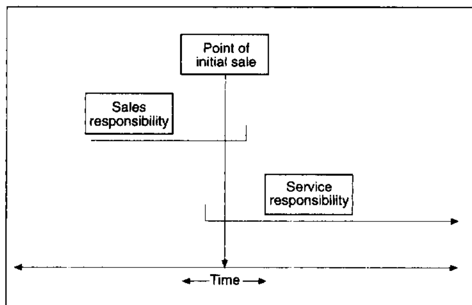

Figure 1.
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What is the annuitized value of the primary sale for ABC? In this simplified example, it is the present value of a stream of gross margin equalling $300/month for three months. Assuming the 10 per cent annual discount rate, this value can be calculated as the product of the monthly gross profit ($300) and a present value factor. This factor, the Present Value Interest Factor of an Annuity (PVIFA) is calculated by the formula:

$$PVIFA_{k,n} = \frac{1 - 1/(1+k)^n}{k}$$

where k equals the discount rate per period and n equals the number of periods.

In this case, the PVIFA 0.008,3 = 2.95. Multiplied by the monthly gross profit of $300 we get an annuitized value of the primary sale of $885. When this value is compared to the value of $36,000 calculated earlier for a perpetual relationship with the same customer, it becomes clear that the greater proportion of the value of this customer is based on the firm's expectation of a long-term relationship with the customer. Herein lies the paradox. The compensation policies of ABC reward the salesperson for both the primary sale and the expected sale. However, the individuals most directly involved with realizing that expected sale, the service and support people, receive no incremental reward.

Conclusion

Annuitized valuation is a simple measure that represents the financial value of ongoing customer relationships. The technique is useful to service firms that define customer retention as a critical performance driver. By quantifying the asset value of customers to the service firm, annuitized valuation serves as both the carrot and stick for service and quality improvement. It represents the financial opportunity of delivering those things that make customers loyal, and the financial risk of not doing so. It can therefore be an important tool in securing both the management commitment and financial resources for service quality initiatives.

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Annuitized value analysis can identify an imbalance in the compensation policies of service firms. This imbalance, called a reward paradox, occurs when incentive compensation policies are inconsistent with the service firm's interest in service quality and customer retention. Avoiding this paradox must be a strategic imperative of firms committed to service quality leadership. By doing so, they are steering clear of one of the great destroyers of customer loyalty – indifference.

□

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