Research Report

Managing Risk of Customer Loss by Customer Equity Reporting

FINANCIAL SERVICE PROVIDERS FACE SERIOUS PROBLEMS IF MANY OF THEIR CUSTOMERS LEAVE QUICKLY BECAUSE SUCH CUSTOMERS HAVE LITTLE LONG-TERM VALUE. STILL, CURRENT REPORTING PRIMARILY FOCUSES ON CURRENT PROFITABILITY THAT REPRESENTS THE SHORT-TERM VALUE OF THE CUSTOMERS. THE LONG-TERM VALUE TYPICALLY RECEIVES LITTLE ATTENTION. CUSTOMER EQUITY REPORTING PRESENTS A MEANS TO FOCUS ON THE LONG-TERM VALUE OF THE COMPANY'S CUSTOMERS. IT AVOIDS THE RISK THAT SHORT-TERM PROFITS ARE INCREASED AT THE EXPENSE OF LONG-TERM VALUE CREATION AND ITS CENTRAL METRIC, CUSTOMER EQUITY, SERVES AS AN EARLY WARNING INDICATOR FOR RISK MANAGEMENT SYSTEMS THAT FOCUS ON CUSTOMER LOSS.

Bernd Skiera

Introduction

Nowadays, managers are confronted with a huge amount of information that helps them running their company. Although gathering company information is very time consuming, structuring the available information in such a way that it provides guidance for the company may prove to be even more difficult. Numerous metrics evaluating managers' performance tend to reflect past performance rather than future performance. As such, they provide limited guidance for long-term oriented management. Even worse, short-term oriented management was certainly also responsible for the breakout of the financial crisis.

Consider, for example, the profitability analysis in Figure 1 that was done for two consecutive periods evaluating a manager's performance in a company with contractual relationships, such as a bank, an insurance company or a telecommunications provider. The results clearly indicate that the manager has done an excellent job: all metrics increased substantially and profit rose by more than 30%. So why bother?

The problem is that these profitability metrics are short-term oriented. They mirror the current year's results, but do not outline what is likely to happen in the coming years. What is worse, they might even provide incentives for short-term oriented management like reducing advertising spending in order to improve profitability at the expense of diminishing consumers' awareness and their intention to buy in the future.

Such behavior can be avoided by reporting customer equity. Customer equity measures the long-term value of a company's customer base, which is the discounted profit that a company will make with its current customers – now and in the future. An important metric to accomplish this long-term perspective is the retention rate of customers that describes their expected probability of staying with the company.

This idea is illustrated by including the number of acquired and lost customers in our profitability analysis example (see Table 1). They enable calculating the churn rates and retention rates. The churn rate describes the percentage share of last year's customers who leave the company and the retention rate describes the share of customers who stay with the company. Both rates together add up to 100%. The churn rate is derived by dividing the number of lost customers by the average number of customers in the given period. The latter is simply the average number of customers at the beginning and end of the respective period. Unfortunately, this

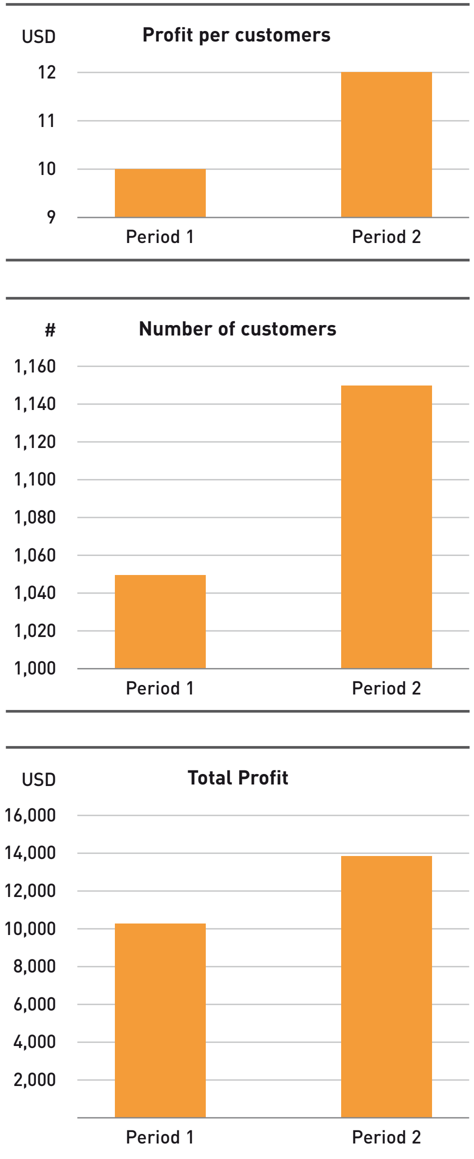

Figure 1: Profitability Analysis

	Period 1	Period 2	Percent Change
Profit per customer (in USD)	10.00	12.00	20.00
Total profit (in USD)	10,500	13,800	31.43
Total number of customers, in 1,000 (beginning of period)	1,000	1,050	5.00
Total number of customers, in 1,000 (ending of period)	1,050	1,150	9.52
Number of acquired customers, in 1,000 (during the period)	150	300	100.00
Number of lost customers, in 1,000 (during the period)	100	200	100.00
Churn rate (in %)	9.76	18.19	86.37
Retention rate (in %)	90.24	81.81	-9.34
Customer lifetime value (in USD)	55.67	46.83	-15.89
Customer equity (in USD 1,000)	58,451	53,848	-7.87
Change in customer equity (in USD 1,000)		-4,602	

Table 1: Customer Equity Analysis

churn rate increased by 86.37%. If we consider the first eight rows of Table 1, evaluating whether management has done a good job is quite difficult. Some metric changes are positive, whereas others are negative, yet the overall effect remains unclear.

Using the available information to estimate an easily applicable model of customer life-time value (CLV), the present value of all current and future customer profits shows that CLV diminished by 15.89%. Customer equity, here defined as CLV multiplied by the number of customers, also decreased by 7.87% (USD -4.602 million). Hence, it would appear this manager has increased the profit margin at the expense of customer's loyalty, here reflected in the decrease of the retention rate. In terms of short-term profit a wise decision, but not in terms of the long-term success of the company. So instead of congratulating the manager for increasing the current period's profitability by 31.43%, we should ask why he has destroyed so much long-term value.

Customer Equity Reporting

For the specific purpose of this kind of reporting, customer equity is defined as the sum of the CLVs (after marketing cost) of all of the company's current customers in a period. CLVs before marketing cost result from several customer metrics, such as profit per customer (including loan loss provisions in case of a bank) and the duration of a customer's relationship with the company known as customer lifetime. To retain or acquire customers, a company must invest money; the measures of retention and acquisition costs per customer reflect those investments. Combining customer metrics with an appropriate discount rate provides a calculation of the present value of all profits of a customer (CLV before marketing cost) and the present value of all costs necessary for retaining a customer (lifetime retention cost). These metrics are labeled as customer value metrics because they determine the value of a particular customer. Altogether, they determine each customer's CLV after marketing cost.

The number of customers at the end of a period equals the number of customers at the beginning of a period plus the number of customers acquired minus the number of customers lost. The number of existing customers (at the beginning of a period) and the number of new and lost customers (during a period) are customer quantity metrics. Multiplying the CLV of an average customer before marketing cost by the number of existing, new, or lost customers provides the corresponding value of existing, new, or lost customers before marketing cost. A similar calculation for acquisition and retention costs is equally valid. These various combinations of customer value and quantity metrics provide the different components of customer equity.

What to do if there are huge differences across customers?

It is important to keep in mind that an estimate like customer lifetime value is an expected value and the actual value of a single customer can deviate from its predicted value. The simple reason is that actual retention is a binary event, 0 or 1. Thus, if banks calculate with a retention rate of 80%, then this prediction will deviate at least by 20 percentage points from the actual event, which is 100% if the customer remains loyal. The law of large numbers, however, says that these prediction errors cancel out if you look at all customers together.

Still, if banks observe strong differences between their customers, then they should form segments. For example, a bank might certainly want to distinguish between private and business customers. In such a case, banks simply need to repeat these calculations described above for all the segments they have.

Can you cheat in Customer Equity Reporting?

As with most reporting systems, there is some flexibility in determining the precise value of each metric. For example, in contrast to companies like utility providers, customers of banks do not always need to pay for using a banking account so that banks often observe a situation in which a customer still has some money left in a savings account but did not have any transaction for a long time. Even if this customer is still a customer from a legal perspective, the business perspective would most likely no longer consider him to be an active customer. Still, banks might use different criteria to determine the point in time that a customer is no longer an active customer. Some might consider six months, others twelve months or even longer and others might use even more elaborate models to separate active from inactive customers.

These different treatments lead to differences in the number of customers. Yet, profit per customer is total profit divided by the number of customers. Thus, those banks who are more generous in calculating the number of customers will automatically end up with lower estimates on profit per customers. To some extent, the metrics and the resulting customer equity will balance out different treatments. In addition, customer equity should be tracked over time and as long as the flexibility in determining some metrics does not differ across time, it should not have a major impact on these comparisons across time.

Who should use Customer Equity Reporting?

Managers who would like to create long-term value have to use reporting systems that take a long-term perspective. Popular systems like EVA (economic value added) do not have this characteristic because they only look at the short-term value that is reflected in current earnings. A consequence is that investments into the customer relationships that will pay off in the future are frequently postponed to increase the current year's earnings.

Investors know that long-term value of banks is much higher than its short-term value, which is also reflected in double-digit price-to-earnings ratios of banks. Long-term value occurs because current customers are very loyal or the bank is able to acquire many new customers in the future. While the latter is difficult to evaluate, the retention rate nicely captures the loyalty of existing customers. Thus, investors should carefully examine this important metric and should also push banks and insurance companies to provide information about the loyalty of their customers.

Regulators already consider the most extreme form of customer churn, namely the case in which all customers want to leave the bank. Regulators are well aware that this case, called "bank run", can easily generate its own momentum and destabilize the bank as well as the whole financial system. Thus, they are willing to fight such "bank runs". However, they are currently less concerned about smaller changes in the loyalty of banks' customers and also make little effort in calculating the long-term value of the customer base of a financial service institution. Customer equity reporting would allow them for easily doing so.

Conclusions

Reporting customer equity assists managers in leading their company, taking decisions that are rather long-term than short-term value-oriented, and avoiding increasing short-term profits at the expense of long-term value creation. Such reporting is especially valuable for banks and insurances because they benefit from a rather high loyalty of their customers, at least compared to industries such as the telecommunication industry that suffers from yearly churn rates of 20% and upwards.

Exploiting this loyalty too strongly is particularly dangerous for banks and insurances because short-term profitability just captures a small part of the total value of a customer. For example, a decrease in the yearly retention rate of five percentage points, for example from 95% to 90% decreases customer lifetime value and customer equity by at least 25%.

Top executives but also investors and regulators need tools to detect such decreases and risk management systems need to stronger focus on the risk of losing customers' loyalty. Customer equity reporting is the perfect tool for doing so.

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