My customers are better than yours! ON REPORTING CUSTOMER EQUITY

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Managers and investors need information about the performance and future prospects of a firm. If information is relevant in steering a business, it is also relevant for its investors' investment decisions. Recent initiatives demand information that supplements and complements a firm's financial statements to bridge the gap between financial statement capabilities and financial reporting objectives. Firms that aim to increase the value of their customer base should manage their business by future-oriented customer metrics. They should also report this information externally because it aligns customer management with corporate goals and investors' perspectives. The authors propose a means to report customer equity that enables monitoring firms' performance with respect to their customer assets. Furthermore, they develop a specific model for Netflix and apply it to quarterly reports that cover more than six years.

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Deficiencies of Traditional Financial Reporting

Nowadays, managers and investors are confronted with an overload of information. This mass of information has to support managers running their company and investors in making investment decisions. Although gathering company information is very time consuming, structuring the available information in such a way that it provides value for the company and its investors may prove to be even more difficult. In general, if information is important for managing the business, it must be just as important to investors who want to assess performance and future prospects. 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. Current financial statements alone do not provide sufficient information to help investors assess the amounts, timing, and uncertainty of prospective cash receipts. 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, a telecommunications provider and an online retailer. 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 this 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. How can such behavior be avoided?

We recommend reporting customer equity on an internal and external basis. Customer equity measures the long-term value of a firm's current customer base, which is the discounted profit that a firm will make with their current customers — now and in the future. This idea is illustrated by including the number of acquired and lost customers in our profitability analysis example (see Table 1). This enables the churn rates to be calculated 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. This churn rate increased dramatically 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.

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Using the available information to estimate an easily applicable model of customer lifetime 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% (–$4,602.54). Hence, it would appear this manager has increased the profit margin at the expense of the retention rate. In terms of short-term profit — that is a wise decision, but not in terms of the long-term success of the firm. 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.

Enlarging on this example, we would like to stress the importance of tracking future-oriented customer metrics and reporting customer equity internally as well as externally. Customer equity allows for better company management and value creation, but it also tackles the increasing demand for additional information that facilitates investors' decision making. Thereby, we focus particularly on firms with contractual relationships (e.g., Internet service providers, financial service providers, telecommunication firms, energy suppliers, pay-TV broadcasters, online movie rental services), which can easily determine the number of existing and lost customers at a particular point in time.

Customer Equity Reporting

In general, customer equity reporting should comprise two main elements: the ***Customer Equity Statement*** and the ***Customer Equity Flow Statement.*** The Customer Equity Statement reports customer equity (i.e., the customer base value) and its components in a single, clear display thus revealing the value of the existing customer base. The ***Customer Equity Flow Statement*** describes changes in customer equity and its components between two points in time and reports the influence of any changes in customer metrics on customer equity.

For the specific purpose of reporting, we define customer equity as the sum of the CLVs (after marketing expenditure) of all of the firm's current customers in period 1. CLVs before marketing expenditure result from several customer metrics, such as profit per customer and the duration of a customer's relationship with

Figure 1:

PROFITABILITY ANALYSIS

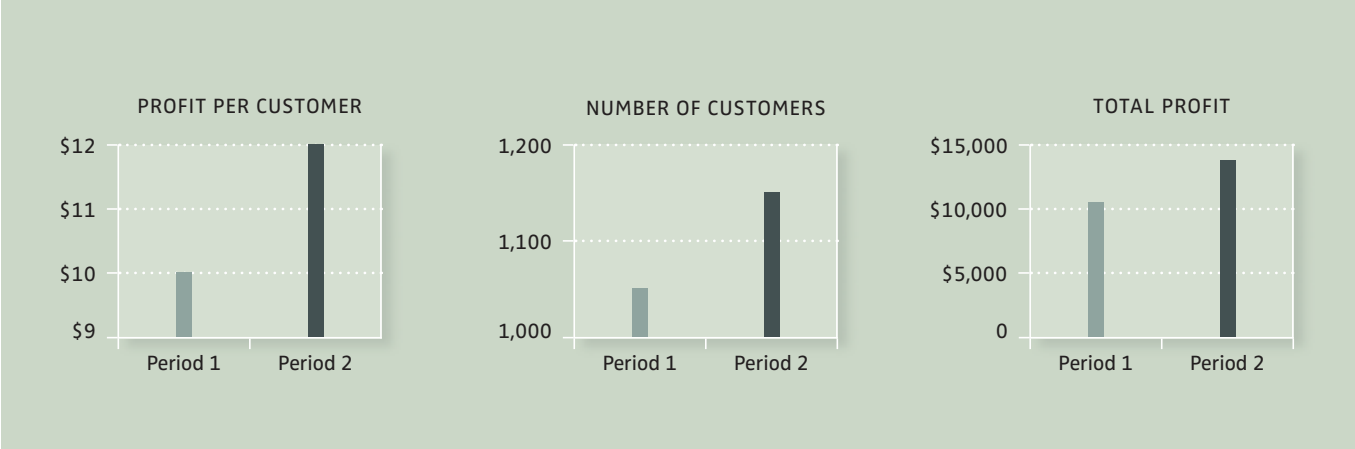
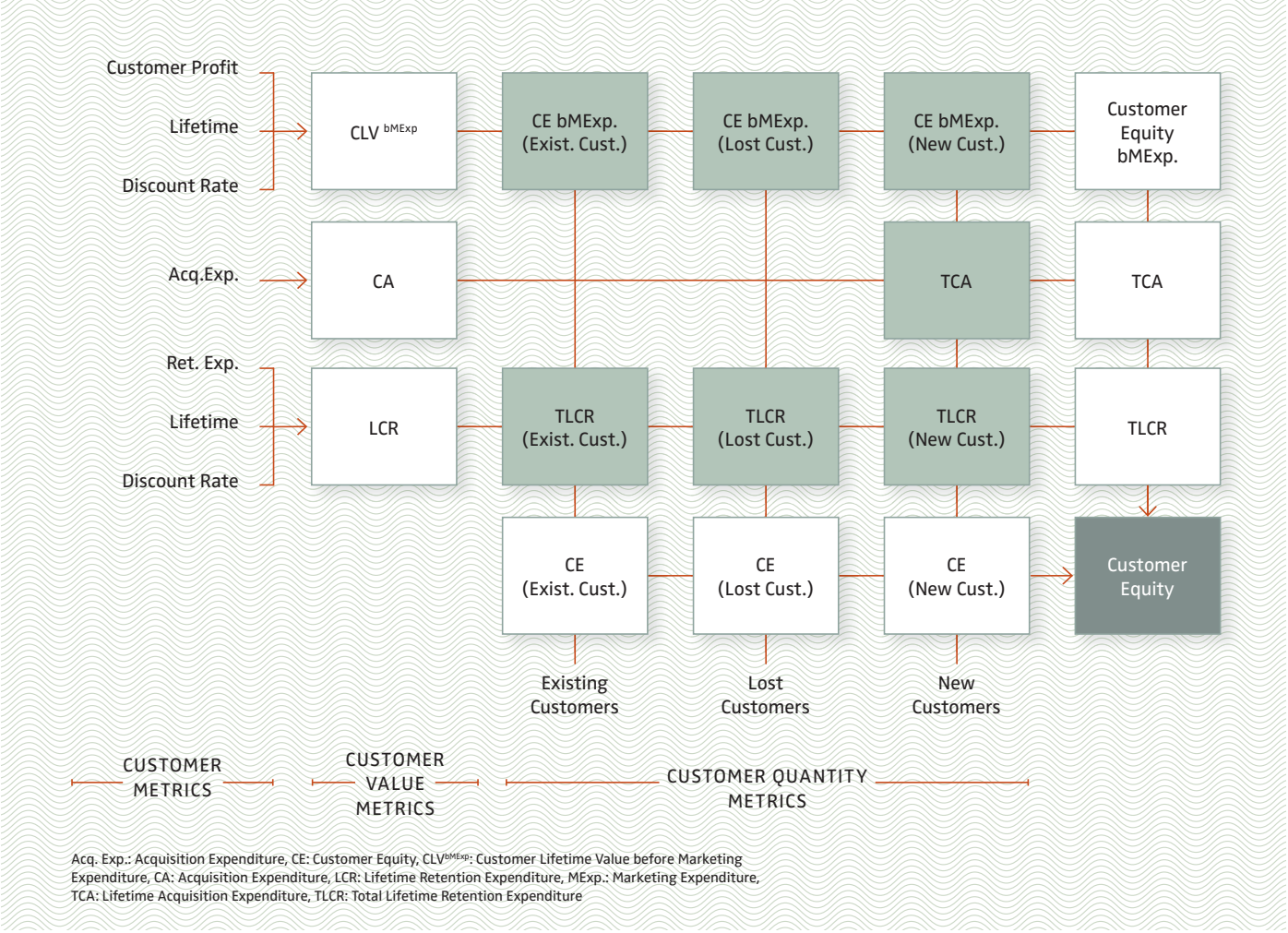


Table 1:

CUSTOMER EQUITY ANALYSIS

	Period 1	Period 2	Change (in %)
Profit per customer (in $)	10.00	12.00	20.00
Total profit (in $)	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 $)	55.67	46.83	– 15.89
Customer equity (in K$)	58,451	53,848	– 7.87
Change in customer equity (in K$)		– 4,602	

Figure 2:
CUSTOMER EQUITY BREAKDOWN



the company known as customer lifetime. To retain or acquire customers, a firm 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 expenditure) and the present value of all costs necessary for retaining a customer (lifetime retention expenditure). 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 expenditure. For simplicity´s sake, we do not distinguish between different segments of customers in this paper, but the requirements for doing so are fairly straightforward.

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. To understand these customer movements, we use the number of existing customers (at the beginning of a period) and the number of new and lost customers (during a period) as customer quantity metrics. Multiplying the CLV of an average customer before marketing expenditure by the number of existing, new, or lost customers provides the corresponding value of existing, new, or lost customers before marketing expenditure. A similar calculation for acquisition and retention expenditures is equally valid. These various combinations of customer value and quantity metrics provide several different components of customer

equity. As illustrated in Figure 2, customer equity can be broken down according to the various kinds of customers (existing, new, or lost) or the value components, which is the net present value of customer cash flows, retention expenditure, and acquisition expenditure.

Application: The Netflix Case

Objectives

Our reporting technique is applied to Netflix.com. Netflix.com's principal activity is to provide online movie rental services through access to more than 55,000 movies, television, and other entertainment titles. The standard subscription plan gives customers up to three titles at the same time with no due dates, late fees, or shipping charges. Shipping and receiving centers throughout the United States deliver the DVDs through the U.S. Postal Service free of charge to customers. We use publicly available, quarterly data from annual reports, 10-K and 10-Q statements, and other company reports from September 2001 – September 2006. The data for each quarter include the number of customers, average monthly churn rate, gross subscriber additions, subscription revenue, subscription costs of revenue, operating expenses (without marketing expenditure), acquisition cost per customer and marketing expenditure.

This information enables us to calculate the necessary customer metrics (see Table 2). The company provides no information about its discount rate, so we chose an annual discount rate of 10% (the quarterly discount rate amounts to 2.41%).

We use Figure 3 to illustrate the value and changes of customer metrics over a certain period of time. On the positive side, Netflix.com increased its number of customers and its retention rate, as well as the profit per customer in 2006 after suffering a drop in 2005. However, its acquisition expenditures increased. Therefore, these measures do not provide a clear picture of the overall value of the customer base.

We select a tight-fisted, easily applicable CLV specification. Based on this formulation, Figure 4 depicts Netflix.com's Customer Equity Statement for Q3 2006. Customer equity yields $358.56 million in Q3 2006, according to the customer equity without marketing expenditure for existing customers ($381.54 million), lost customers (–$60.30 million), new customers ($96.69 million), and total lifetime acquisition expenditure ($59.37 million). Because all Netflix.com´s marketing expenditure is for acquiring new customers, the total lifetime retention expenditure is always zero. We also show the breakdown according to groups of new, lost and existing customers in Figure 4.

» Customer equity reporting matches financial reporting criteria. It enables investors, creditors, and other "consumers" of financial reports to clearly understand the firm's capability to generate shareholder value. «

The Customer Equity Statement monitors customer equity over a given period of time. Therefore, it provides information about the value of the customer base and its components as well as an illustrative overview of customer metrics. However, it does not indicate the sources of change in customer equity over a certain period of time. It would enhance any analysis by giving insights into how much the value of the customer base has changed due to whichever metric. More detailed statements about the firm's customer management activities appear in the Customer Equity Flow Statement.

Netflix.com's Customer Equity Flow Statement

Following on from Figure 4, we develop Figure 5 to depict Netflix.com's total change in customer equity, its components and its customer metrics in Q2–Q3 2006. Customer equity changed by $48.10 million, which reflects a shift in customer equity before marketing expenditure of $60.44 million and a change in total lifetime acquisition expenditure of –$12.34 million (i.e., total lifetime acquisition expenditure increase). The change in customer equity before marketing expenditure comprises three components: change in customer equity before marketing expenditure of existing customers ($45.01 million), lost customers (–$7.26 million) and new customers ($22.69 million).

Table 2:

CALCULATION OF CUSTOMER METRICS

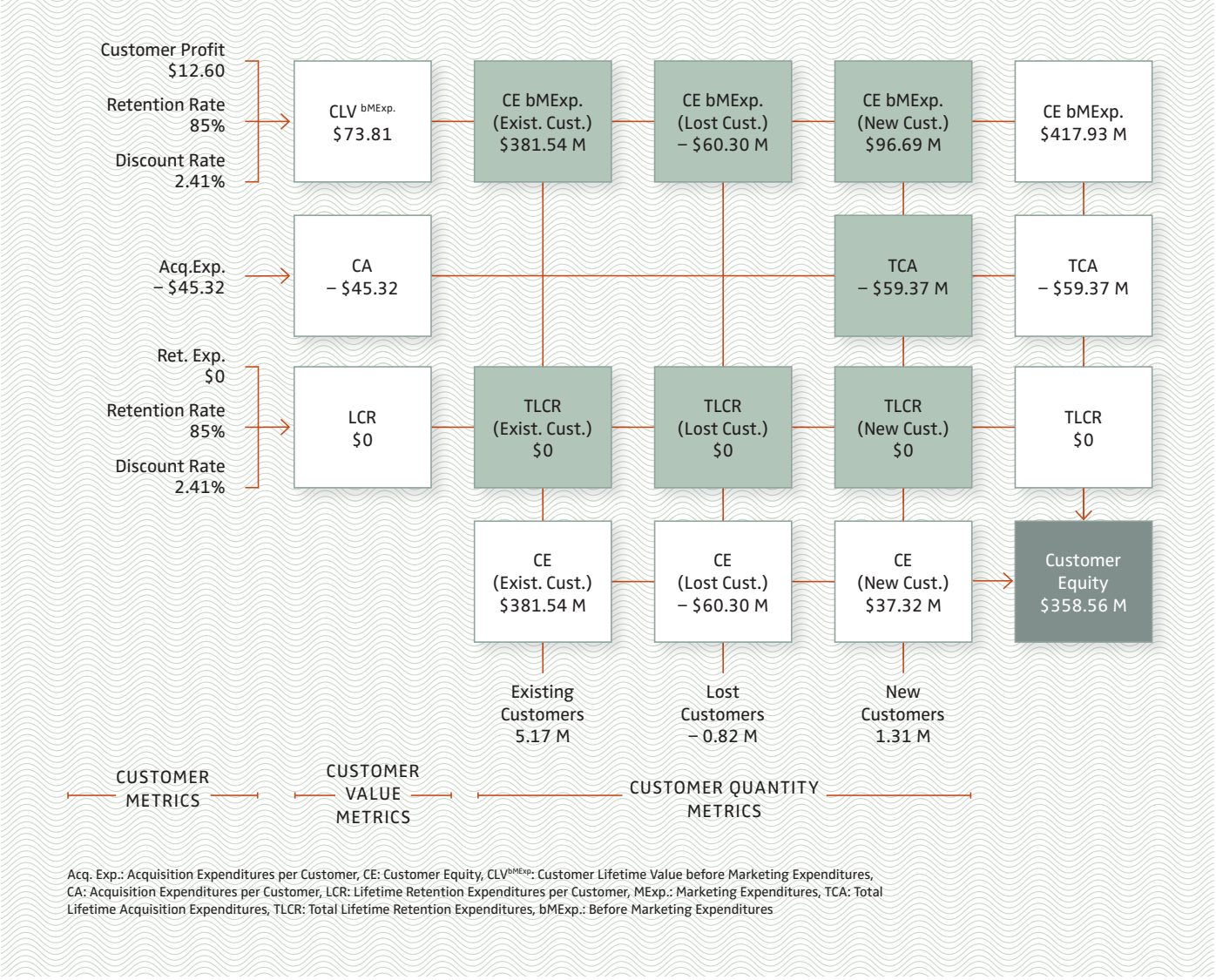
	Calculation Method or Data Source	Q4 2005	Q1 2006	Q2 2006	Q3 2006
Number of customers (in thousands)	Reported number of customers per quarter (source: financial statements)	4,179	4,866	5,169	5,662
Number of new customers (in thousands)	Reported number of gross subscribers additions (source: financial statements)	1,156	1,377	1,070	1,310
Number of lost customers (in thousands)	Difference in number of customers between the current and the previous quarter + number of gross additions in the current quarter	569	690	767	817
Quarterly profit per customer (in $)	(Subscription revenue – subscription cost of revenue – operating expenses without marketing) / number of customers	9.97	10.84	11.87	12.60
Retention rate	1 – (number of lost customers during quarter / [number of customers at the beginning of quarter + number of customers at the end of quarter] / 2)	0.83	0.84	0.85	0.85
Retention expenditure per customer (in $)	(Reported marketing expenditure – reported acquisition cost per customer × number of new customers) / (number of customers – number of new customers)	0.00	0.00	0.00	0.00
Acquisition expenditure per customer (in $)	Reported acquisition cost per customer (source: financial statements)	38.08	38.47	43.95	45.32

Figure 3:

DEVELOPMENT OF CUSTOMER METRICS OVER A CERTAIN PERIOD OF TIME

Figure 4:

NETFLIX.COM'S CUSTOMER EQUITY STATEMENT (Q3 2006)

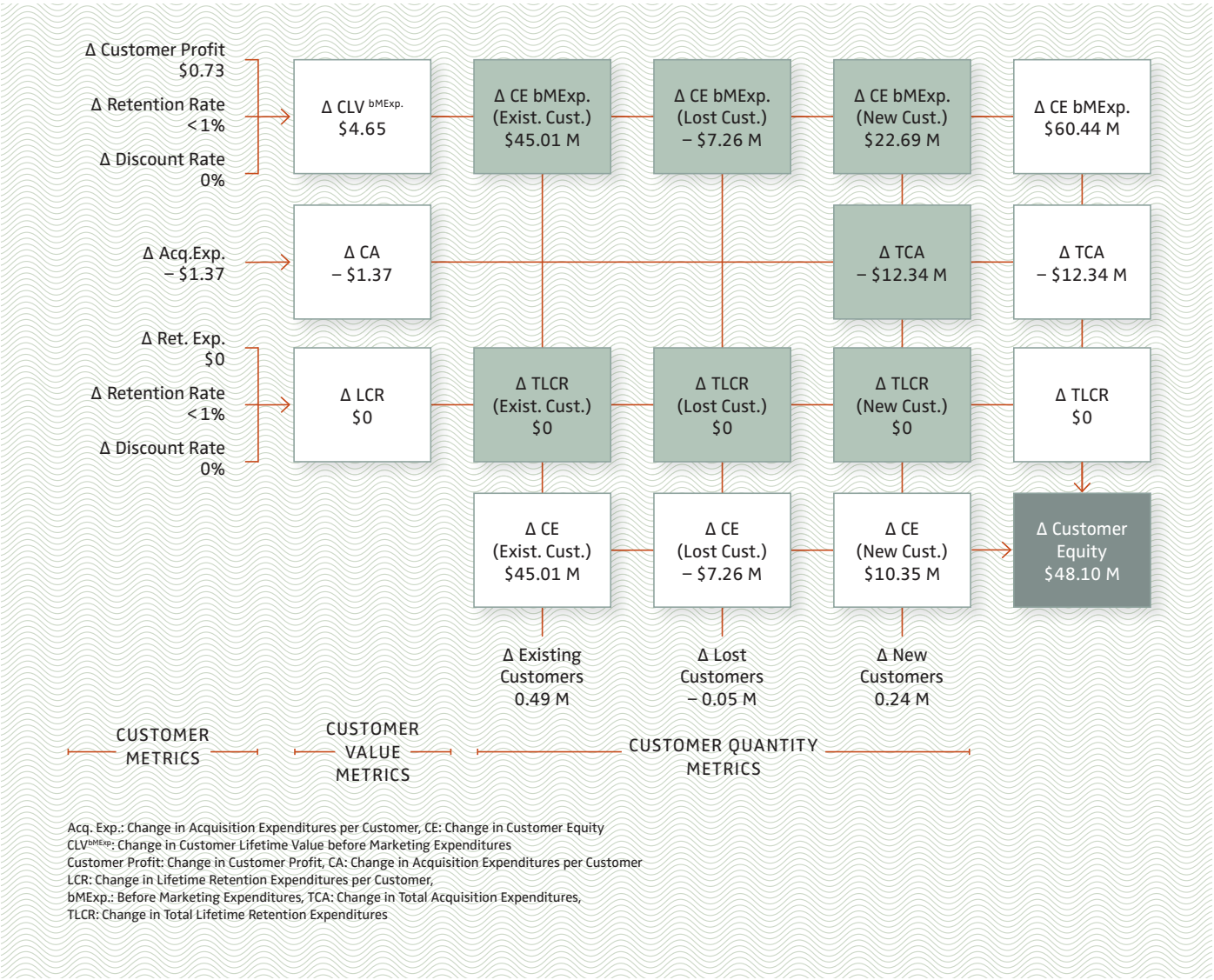


Furthermore, Figure 5 indicates the changes in customer metrics, customer value metrics, and customer quantity metrics, thus summarizing what has happened during this period and the future-oriented effects of those changes, for example, in customer equity. Another good example is that Netflix.com increased its existing customers (0.49 million) in Q3 2006, but lost more customers than in Q2 2006 (–0.05 million), yet gained more customers than in Q2 2006 (0.24 million). Therefore, it increased the value of the whole customer base, primarily because its average profit per customer ($0.73) rose during that period.

In addition to breaking down changes in customer equity for several components, managers and investors might want to know which metrics caused those changes. These results are provided in Table 3, which includes the total effect (total change), value effects (changes due to shifts in customer value metrics), quantity effects (changes due to the number of existing, lost, and new customers) and interaction effects (changes due to simultaneous changes in customer value and quantity metrics).

Figure 5:

NETFLIX.COM'S CUSTOMER EQUITY FLOW STATEMENT (Q2–Q3 2006)



According to Table 3 (next page), the major sources of Netflix.com's increased customer equity in Q2 – Q3 2006 ($48.10 million) are positive value effects ($22.35 million) and quantity effects ($23.22 million), which indicate that Netflix.com boosted the value of its customer base by having more and more valuable customers. Furthermore, the change in profit per customer raised customer equity by $21.98 million, supported by the increase in customer lifetime ($1.84 million) but this was partly compensated for by higher acquisition expenditure (–$1.47 million). The positive interaction effects ($2.53 million) also suggest that the profit per customer and retention rate increases prompt positive customer lifetime value effects for existing and new customers, but also lead to a more negative effect for the lost customers. In order to understand Table 3 better, it also includes trends compared with the previous quarter. These trends show that management has done a good job in reducing the increase of acquisition costs. However, management was not able to sustain the robust increase in profit per customer and customer lifetime value any longer. The value of new customers is still significantly higher than

Table 3:

NETFLIX.COM'S CUSTOMER EQUITY FLOW STATEMENT (Q2 – Q3 2006): EFFECTS VIEW

In Thousands $	Q1 – Q2 2006	Q2 – Q3 2006	Trend
Total Effect	63,543.91	48,098.98	↓
Value effects	27,342.54	22,351.47	↓
Customer profit	28,515.11	21,977.91	↓
Customer lifetime	6,373.39	1,839.46	↓
Acquisition expenditure	– 7,545.96	– 1,465.90	↑
Quantity effects	32,166.34	23,218.85	↓
Lost customers	– 47,269.71	– 56,503.34	↓
New customers	79,436.05	79,722.18	↑
Interaction effects	4,035.03	2,528.67	↓
Lost customers	– 5,664.43	– 3,782.62	↑
Customer profit	– 4,494.67	– 3,473.78	↑
Customer lifetime	– 1,169.75	– 308.84	↑
New customers	8,949.88	6,179.70	↓
Customer profit	6,270.28	5,569.95	↓
Customer lifetime	2,679.60	609.75	↓
Lifetime			
Customer profit	1,753.39	234.67	↓
Other	– 1,003.80	– 103.08	↑

the value of lost customers. Yet, management could not continue supporting the growth in new customers, but unfortunately now faces an increase in the value of lost customers. If these trends continue, then management will quickly face a situation in which the value of new and lost customers will be comparable, indicating that management is no longer able to improve growth by the number of customers.

Conclusions

We emphasize that reporting future-oriented customer metrics assists managers in leading their company and taking strategic decisions as well as helping investors make investment decisions. Therefore, we propose a means to report customer equity that allows for better reflection of a firm´s long-term value creation, which should lead to decisions that are more long-term than short-term value-oriented. It should avoid increasing short-term profits at the expense of long-term value creation. Additionally, customer equity reporting matches financial reporting criteria. It enables investors, creditors, and other "consumers" of financial reports to clearly understand the firm's capability to generate shareholder value. In this sense, customer equity reporting faces the demand for additional information that facilitates investors' decision making. Moreover, it contributes to the discussion about marketing accountability and may support marketing's re-entry into the boardroom, because it aligns customer management with corporate goals and the investor's perspective. •

FURTHER READING

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KEYWORDS:

Customer Management, Customer Equity, Customer Equity Statement, Customer Equity Flow Statement