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Financing & Profitability

Measuring and Managing Customer Lifetime Value

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Overview

- Measuring customer lifetime value (CLV)
  - Learn how to do it with examples
- Strategic implications— what can we do with it to transform our business?

Customer Lifetime Value (CLV) Industry Applications

- Pricing decisions
  - Discount pricing on a smart phone
  - Printer and cartridge pricing
  - Device and disposable pricing in medical devices
- Which customer is more important?
  - Platinum, gold, or silver credit card
  - Corporate, mid-market, or retail customers in banking
- Input into the value of an acquisition
  - Mobile phone licenses
  - A credit card company

Financial Services Case Study: Company Background

- Large multi-product financial services company
  - Mutual funds
  - Financial/retirement planning
- The average contribution from a customer was $250
- Each year the company lost 20% of its customers
- Those who stayed increased their contribution by 5%
- What is the value of a typical customer?

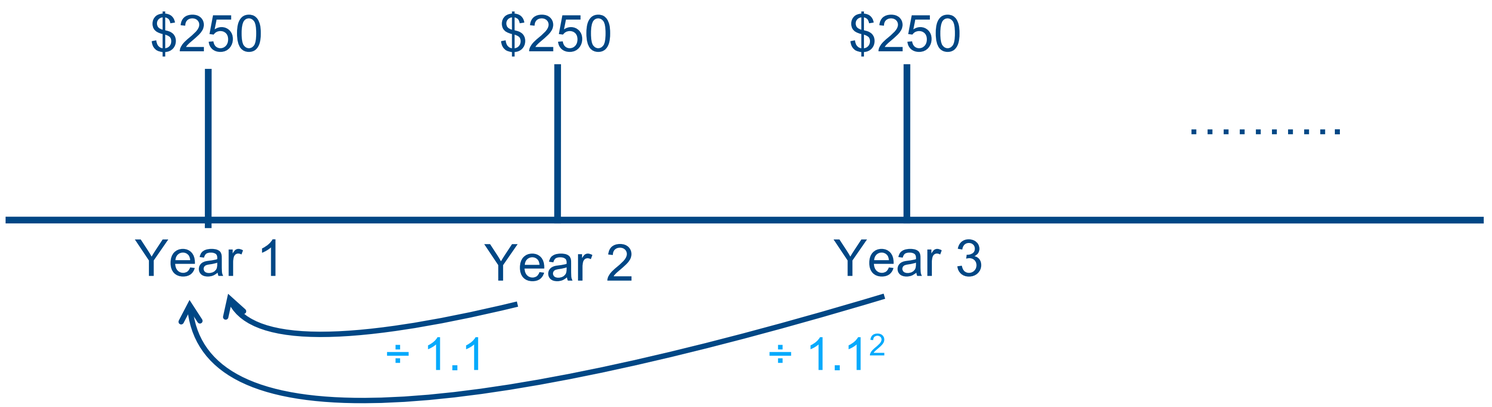
Financial Services Case Study

- The company asked their brokers and other customer facing employees:
  - How much do you think a typical customer is worth?
  - Typical answer— $250

Case 1

- Assume you receive $250 each year from here to eternity
- The value of the money goes down by 10% each year
- How much is such a customer worth?

Case 1



- Assume you receive $250 each year from here to eternity
- The value of the money goes down by 10% each year

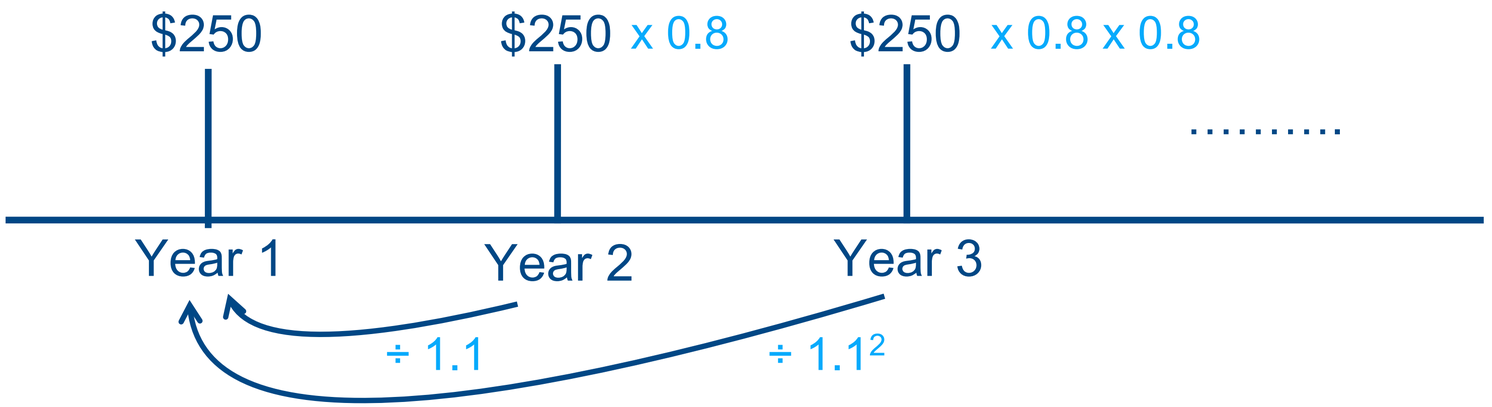
$$\text{CLV} = 250 + \frac{250}{1.1} + \frac{250}{1.1^2} + \cdots\cdots$$

$$= \frac{250}{0.1} = 2500$$

Case 2

- Assume you receive $250 each year from here to eternity
- The value of the money goes down by 10% each year
- Now assume that you have a 20% chance of losing the customer each year
- How much is such a customer worth?

Case 2



- Assume you receive $250 each year from here to eternity
- The value of the money goes down by 10% each year
- Now assume that you have a 20% chance of losing the customer each year

$$\text{CLV} = 250 + \frac{250\times0.8}{1.1} + \frac{250\times0.8^2}{1.1^2} + \cdots\cdots$$

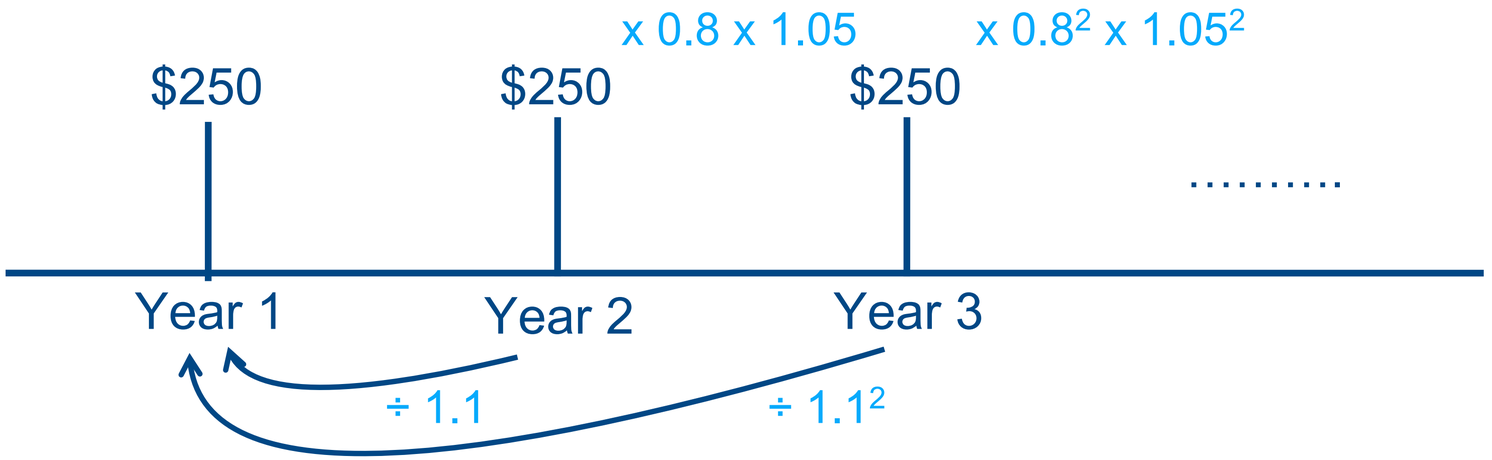
$$= \frac{250}{(1-0.8)+0.1} = \frac{250}{0.2+0.1} = \frac{250}{0.3} = 833$$

Compare $833 with $2,500—what does that tell us?

Case 3

- Assume you receive $250 each year from here to eternity
- The value of the money goes down by 10% each year
- Now assume that you have a 20% chance of losing the customer each year
- Each year that a customer stays with us, contribution increases by 5% each year

Case 3



- Assume you receive $250 each year from here to eternity
- The value of the money goes down by 10% each year
- Now assume that you have a 20% chance of losing the customer each year
- Each year that a customer stays with us, contribution increases by 5% each year

$$\text{CLV} = \frac{250}{0.1+0.2-0.05} = 1000$$

$$\text{CLV} = \frac{Annual\ Contribution}{Discount\ Rate + Churn\ Rate - Yearly\ Increase}$$

Summary

- Customer lifetime value (CLV) depends on:
  - Annual contribution from the customer (return)
  - Anticipated attrition rate (churn rate)
  - Yearly increase in contribution expected
  - Discount rate (time value of money)

$$CLV = \frac{Annual\ Contribution = Return}{(Churn\ Rate + Discount\ Rate + Yearly\ increase\ in\ Contribution)}$$

$$Quick\ CLV = \frac{Return}{Churn}$$

Evaluating Marketing Effort

- The company used many different means to generate leads that eventually result in new clients
- We can compute cost per new client for each of the programs
  - Broker Mailings $237
  - Corporate Mailings $322
  - Sponsored Seminars $235
  - Employee Programs $1,377
  - Average $431
- Which of these programs are worthwhile?

Acquisition vs. Retention

- Should we be willing to spend $100 million to reduce customer attrition rate from 20% to 18%?
  - Assume customer base = 5,000,000

$$\text{CLV} = \frac{250}{(0.1+0.2-0.05)} = 1000$$

$$\text{CLV} = \frac{250}{(0.1+0.18-0.05)} = 1087$$

$87 x 5,000,000 = $435 million which is greater than $100 million

Acquisition vs. Retention

- Should we be willing to spend $100 million to reduce customer attrition rate from 20% to 18%?
- If we had $100 million, should we focus on reducing attrition rate, or acquiring new customers?

Acquisition vs. Retention

- Average cost of acquisition is $431
- With $100 million we can get about 232,000 consumers
- Each consumer is worth $1,000 so the return is $232 million
- This is good but lower than the return from customer retention

• Broker Mailings	$237
• Corporate Mailings	$322
• Sponsored Seminars	$235
• Employee Programs	$1,377
• Average	$431

Mobile Phone Company Application

- A major cellular carrier in a developing country
- Company considering an IPO or a potential buy-out
- Two types of customers
  - Pre-paid (90%)
  - Post-paid (10%)
- How much more would the business be worth if we could convert 10% of our pre-paid customers to post-paid customers?

Mobile Phone Application

Pre-paid

- ARPU = $35.00
- Churn rate = 5.4%
- Contribution margin = 80%
- Annual contribution = 35 x 0.8 = $28
- QCLV = (28)/(0.054) = $519

Post-paid

- ARPU = $53.00
- Churn rate = 1.7%
- Contribution margin = 80%
- Annual contribution = 53 x 0.8 = $42.40
- QCLV = (42.40)/(0.017) = $2,494

	Annual Contribution	QCLV
Pre-paid	$28.00	$519
Post-paid	$42.40	$2,494

Mobile Phone Application

	Annual Contribution	QCLV
Pre-paid	$28.00	$519
Post-paid	$42.40	$2,494

- Valuation at 90:10 Pre-paid:Post-paid with 1m customers = $716.5 million
- Valuation at 80:20 Pre-paid:Post-paid with 1m customers = $914.0 million

Who is More Profitable?

	Annual Fee	Interest on Balance	Churn Rate
Platinum Card	$300	$0	20%
Gold Card	$100	$0	10%
Regular Card	$0	$100	5%

- If one looks at just the annual fee and the interest on balance, the platinum card looks the best

Who is More Profitable?

	Annual Fee	Interest on Balance	Churn Rate	QCLV
Platinum Card	$300	$0	20%	$1500
Gold Card	$100	$0	10%	$1000
Regular Card	$0	$100	5%	$2000

- If one looks at just the annual fee and the interest on balance, the platinum card looks the best
- But once you look at QCLV, the regular card starts to look better

Customer Selection/Targeting

Value of Our Product/Service to the Customer (EVC)

Value of the Customer to the Company (CLV)

Summary

- CLV has transformed and disrupted how we do business in many industries
  - It will disrupt your industry if it has not already
  - Embrace it now and disrupt it to your advantage

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