“FROM A LENDER’S PERSPECTIVE”

One in a series of occasional articles written to help companies improve their ability to raise efficient capital and to improve the business relationship with their lender.

Change in SaaS / “as-a-service” metrics as a business evolves

By: David Stang

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I recently wrote about the importance of calculating the “CAC (Customer Acquisition Cost) Ratio” for recurring revenue businesses (http://www.stangcapital.com/#!blog/tzc9v). I stated that while the CAC Ratio is a robust unit metric calculation and takes into account most of a recurring revenue company’s key metrics, it is not as relevant in isolation.

However, this ratio does become very useful as it is tracked over time and as it is calculated for potential future changes in the business. As an example, let’s take a look at what happens to a typical residential security alarm company’s CAC Ratio as changes to the business are implemented.

Base Case Assumptions:

	Base Case
Customer Acquisition Costs	$1,200
Creation Cost Multiple	30.0
ARPU / RMR per customer	$40
Gross Margin	80.0%
Attrition – annual	11.0%
Average Life of customer - in years	9.1
# of months to recoup Customer Acquisition Costs	37.5
Lifetime Value (not present valued)	$3,491
LTV/CAC figure = CAC Ratio	**2.91**
Lifetime Value (present valued at 8%)	$1,799
LTV (present valued) / CAC figure = CAC Ratio	**1.50**

A big focus today for security alarm and other recurring revenue companies is to offer more products and/or services to customers in order to increase ARPU (Average Revenue Per User) or RMR (Recurring Monthly Revenue) per user. Let’s say a company is successful in increasing its monthly ARPU from $40 to $50 with other key metrics (gross margin, creation cost multiple and attrition rate) remaining constant. As can be seen in the table below; this does result in greater revenue over the approximately nine year life of a typical customer, *but the CAC Ratio remains the same*.

	Base Case	Incr ARPU	Change
Customer Acquisition Costs	$1,200	$1,500	$300
Creation Cost Multiple	30.0	30.0	--
ARPU / RMR per customer	$40	**$50**	**$10**
Gross Margin	80.0%	80.0%	--
Attrition – annual	11.0%	11.0%	--
Average Life of customer - in years	9.1	9.1	--
# of months to recoup Customer Acquisition Costs	37.5	37.5	--
Lifetime Value (not present valued)	$3,491	**$4,364**	**$873**
LTV/CAC figure = CAC Ratio	**2.91**	**2.91**	**--**
Lifetime Value (present valued at 8%)	$1,799	$2,248	$450
LTV (present valued) / CAC figure = CAC Ratio	**1.50**	**1.50**	**--**

However, as I believe is more typically the case, additional products and/or services are usually offered at *lower* margins that the core product offering. As seen below; while a few more dollars are generated compared to our base case customer, *the CAC Ratio declines,* reflecting arguably a *less* valuable customer.

	Base Case	Incr ARPU & Decr GM	Change
Customer Acquisition Costs	$1,200	$1,500	$300
Creation Cost Multiple	30.0	30.0	--
ARPU / RMR per customer	$40	**$50**	**$10**
Gross Margin	80.0%	70.0%	-10.0%
Attrition – annual	11.0%	11.0%	--
Average Life of customer - in years	9.1	9.1	--
# of months to recoup Customer Acquisition Costs	37.5	42.9	5.4
Lifetime Value (not present valued)	$3,491	**$3,818**	**$327**
LTV/CAC figure = CAC Ratio	**2.91**	**2.55**	**-0.36**
Lifetime Value (present valued at 8%)	$1,799	$1,967	$169
LTV (present valued) / CAC figure = CAC Ratio	**1.50**	**1.31**	**-0.19**

Ideally, additional products and/or services can be sold to *increase* ARPU, *maintain* margins and actually *decrease attrition*. This is reportedly happening as smart home products have become lifestyle services as more and more people control their smart home via smart phone apps. As shown in the table below; ***this scenario results in the desired double positive of increased revenue from customers and a resulting higher CAC ratio, evidencing this more valuable customer***.

	Base Case	Incr ARPU & Decr Attrition	Change
Customer Acquisition Costs	$1,200	$1,500	$300
Creation Cost Multiple	30.0	30.0	--
ARPU / RMR per customer	$40	$50	**$10**
Gross Margin	80.0%	80.0%	--
Attrition – annual	11.0%	**10.0%**	-1.0%
Average Life of customer - in years	9.1	10.0	0.9
# of months to recoup Customer Acquisition Costs	37.5	37.5	--
Lifetime Value (not present valued)	$3,491	**$4,800**	**$1,309**
LTV/CAC figure = CAC Ratio	**2.91**	**3.20**	**0.29**
Lifetime Value (present valued at 8%)	$1,799	$2,400	$601
LTV (present valued) / CAC figure = CAC Ratio	**1.50**	**1.60**	**0.10**

Conclusion

The calculation of the CAC Ratio is important for all recurring revenue businesses, not just pure SaaS companies. This ratio demonstrates if changes to a company's key unit metrics result in a more or less desirable customer base. Further, as recurring revenue businesses strive to increase their ARPU, they need to be careful to ensure that margins are maintained and creation costs incurred to generate this additional ARPU are controlled. Finally, the holy grail of a more valuable customer base from increased ARPU and lower attrition ("stickier" customers) is evidenced in a greater CAC Ratio.

David Stang is the Founder and President of Stang Capital Advisory LLC, a firm that assists companies in raising new and incremental capital and improves the relationship between companies and their financing partners. He has over 25 years of banking experience and ran Bank of America Merrill Lynch's Security Industry lending group for 10 years. He can be reached at dstang@stangcapital.com or 312-515-9249.