



eBook

# Customer Profitability: How to measure it and why it matters

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Part of the Profitability  
Analytics Framework

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# MEASURING CUSTOMER PROFITABILITY

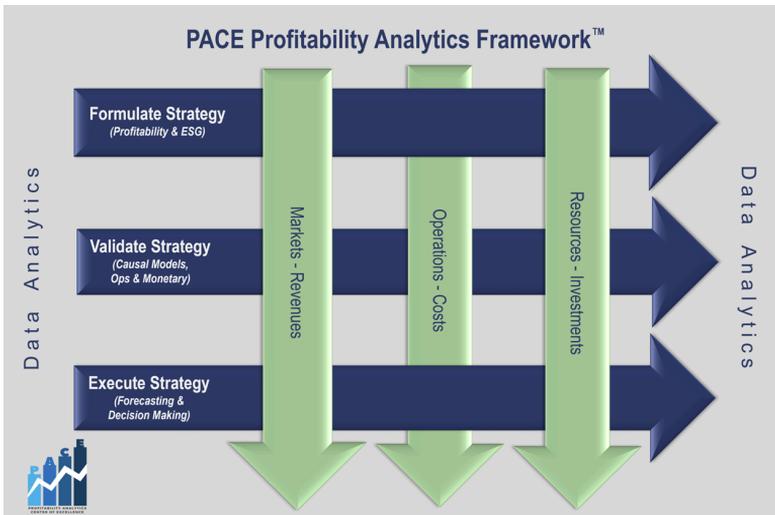
Managers are often surprised to learn that a small percentage of their customers generate substantially more than 100% of profits, and their remaining customers are either breakeven or unprofitable. Furthermore, they fail to realize that customers who are easy to acquire and retain may not yield the most profits.

To succeed, organizations must focus appropriate resources on their more profitable customers and avoid spending on money-losing customers. Managing profitability requires a customer-centric focus rather than a product-centric one, as well as a thorough understanding and effective management of customer profitability.

Customer profitability management (CPM) is a strategy-linked approach to identifying the relative profitability of different customers or customer segments for the purpose of implementing strategies that increase the value of an organization's most-profitable customers, make less-profitable customers more profitable, and stops or reduces the erosion of profit from unprofitable customers. It entails knowing the cost to serve customers, understanding ways to enhance the revenue customers generate, and knowing how much to invest in each customer.

CPM requires an understanding of the three aspects of PACE's Profitability Analytics Framework – revenue, cost and investment management and knowledge of the Framework can help successful design and implementation of a CPM system.

In this eBook, we focus on measuring customer profitability. In subsequent eBooks we cover managing customer profitability and implementing CPM systems.



# COSTING IS KEY

A CPM system is a profitability measurement and management system. It assigns net revenue to each customer or customer segment. A costing system is then needed that affectively assigns costs to each of these. The quality of the CPM cost information is critical for the quality and effectiveness of the CPM system.

A key principle of the Profitability Analytics Framework, essential to developing cost information for the CPM system, is causality – cause-and-effect. Employing a causal costing system, for instance activity-based costing (ABC) or other driver-based costing method, is critical for assigning costs to products, service lines, distribution channels, customers, customer segments, or other relevant cost objects.

*“You need to know which products to stop, which locations to close, and what 20% of customers are costing 80% of your profitability. Then take those unprofitable money drains and stop doing them NOW... while you still have liquidity.”*

*Edward Roske, Chief Performance Officer, Argano*

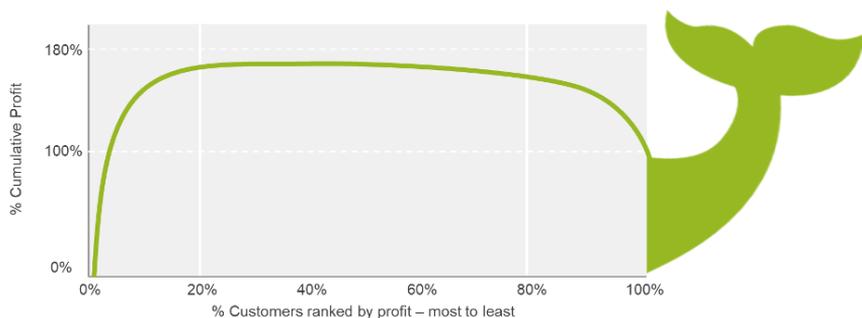


# THE CPM WHALE CURVE

A common exercise after measuring the profitability of each customer or customer segment is to rank order them from most profitable to least profitable and to then plot the cumulative profit on a graph, popularly referred to as a whale curve or profit cliff chart.

The vertical axis of the graph below shows, for a sample company, profits from all customers, and the horizontal axis indicates cumulative percentage of customers ranked from highest to lowest in terms of profitability. In this example, cumulative profit peaks at around 170% of realized profit before declining to the final realized (i.e., 100%) profit.

The graph displays a typical pattern, as generally about 20% of customers generate from 150% to 300% of company profits, about 70% of customers are breakeven, and 10% of customers reduce or destroy from 50% to 200% of company profits, bringing the cumulative profit to the amount actually realized.



# CUSTOMER PROFITABILITY METRICS

There are two approaches to measuring the value of a customer to an organization: customer Profitability Analysis (CPA) and Customer Lifetime Value (CLV).

CPA, described in detail below, is a retrospective analysis of the results of doing business with a customer over a certain, usually single, period of time.

CLV is a predictive measure of customer-related net cash flows over multiple future periods of time. It is calculated as the present value of the future cash flow contribution of a customer. In practice, a period of three years is often considered adequate due to the product life cycle, customer life cycle, and an assumption that 80% of profit can be realized in this period.

These approaches differ considerably when it comes to issues like complexity, impact on managerial decision making, and implementation. Which approach is best is dependent upon a given organization's situation. This eBook will focus on CPA as a discussion of the calculation of CLV is beyond its scope.

# CALCULATING CUSTOMER PROFITABILITY

Customer profitability is measured as net revenue less customer costs, indirect expenses (commonly referred to as overhead), and taxes. Net revenue is the cost object's total revenue less returns, allowances, or other adjustments.

Customer costs include both product /service costs as well as costs to serve (e.g., costs of distribution channels, marketing, selling, and customer service). They are the summation of the activity costs that are assigned to the customer as the cost object. When a driver-based costing method is used, each cost object's cost is the activity driver rate for each work activity times the quantity of the activity driver consumed by the cost object.

*"If measuring individual customer profitability is not feasible for your company, measuring customer classification based on purchasing behavior and cost-to-serve is a good start. Few organizations I have worked with have attempted to measure customer profitability well and are suffering the effects."*

*Ron Guadagno, Chief Revenue Officer, Argano 4 Oracle*



# COSTING SYSTEM DESIGN

Conventional cost accounting systems, with their focus on products, cost centers, and functional cost classifications, are inadequate for CPM purposes. Such cost systems generally derive directly from expenses reported in the general ledger (GL) accounting system (e.g., salaries, supplies). Then some form of unit-based allocation of the GL expenses costs are used to calculate the costs of the cost objects (e.g., by number of employees, by number of units sold, by number of PCs maintained, by square feet or meters).

This simplistic method of cost allocations violates the causality principle and implies that all customers or customer segments are homogeneous. It results in broadly averaging incurred costs and does not reflect the work activities that belong to the processes that are consumed (i.e., caused) by individual customers or customer segments. This results in misleading information being providing to managers.

*"To maximize customer profitability, you need to understand what it takes to acquire, retain, and serve that customer to optimize their costs"*

*Glen Chang, President, ArganoInterRel*



The design of the typical income statement is also structurally deficient for internal decision making. In the following Figure, ABC was used as a managerial costing approach to show causal relationships, reassigning expenses to activities (e.g., key scan claims, analyze claims). Activity costs are then reassigned to products, services, channels, and customers based on cause-and-effect driver relationships.

Chart-of-Accounts View				Activity-Based View	
Claims Processing Department				Claims Processing Dept	
	Actual	Plan	Favorable/ (unfavorable)		
Salaries	\$621,400	\$600,000	\$(21,400)	Key/scan claims	\$ 31,500
Equipment	161,200	150,000	(11,200)	Analyze claims	121,000
Travel expense	58,000	60,000	2,000	Suspend claims	32,500
Supplies	43,900	40,000	(3,900)	Receive provider inquiries	101,500
Use and occupancy	30,000	30,000	—	Resolve member problems	83,400
Total	\$914,500 <sup>c</sup>	\$880,000	\$(34,500)	Process batches	45,000
				Determine eligibility	119,000
				Make copies	145,500
				Write correspondence	77,100
				Attend training	158,000
				Total	\$914,500

# TYPES OF CUSTOMER COSTS

Knowing customer costs is essential for knowing customer profitability. These costs consist of all costs necessary to provide the product or deliver the service line to the customer, beginning with the point of sale and delivery and continuing over the entire life cycle of the product or service.

Customer costs are the sum of the customer's purchased product costs and the customer's costs to serve. Product costs include direct material and direct labor costs, if applicable, as well as manufacturing or indirect support costs. These latter costs should be assigned based on cause-and-effect relationships. Costs to serve include marketing, selling, and distribution costs as well as order-getting and order-filling activities. They also include post-sale service, such as warranty or covered repair costs, and in some cases disposal costs.

While typically many of these costs are assigned using unit-based allocation schemes (e.g., sales or product costs), it is preferable to trace and assign them based on cause-and-effect relationships using a method such as activity-based costing. Each activity cost is based on its activity cost driver rate and the customer's consumption of that activity.

# BUSINESS SUSTAINING COSTS

Not all costs are related to the cost of products or services purchased by customers or to the costs to serve them. Examples include the legal department, research and development, landscaping, corporate headquarters, and senior executives' salaries. These business sustaining costs are typically not incurred for a specific customer or customer segment but rather incurred to sustain a facility or the business.

Great care should be taken in assigning business sustaining costs to customers. The causal relationships are often weaker than for operational costs and the business sustaining costs may have a large fixed component. Including these costs as customer costs should be carefully evaluated for each specific type of business sustaining cost in a company to determine the strength of the causal relationship to customers.

Alternatively, these costs can be assigned to business sustaining final cost objects, such as the executive team or government regulatory agencies. Again, caution is required as a company must recover its business sustaining expenses to be profitable and not including these costs in an overall profitability analysis could result in decisions that generate losses.

# CUSTOMER P&L STATEMENT

Accountants typically only include product-related costs – material, labor, indirect manufacturing – when measuring customer profitability. What might we see when we include the channel distribution, selling, marketing, and cost to serve? The Figure below shows how a causal profit and loss statement can be prepared for each customer. In this example, the customer generates a 30% gross profit margin from the products it purchased. Reducing this profit are distribution and customer-related costs, resulting in an operating profit from this customer of 8%. The 22% (i.e., 30% minus 8%) of profit erosion results from costs below the product gross profit line.

A customer profit and loss statement can display many layers of profit margins. These are derived from each activity driver. With this increased transparency and visibility managers can better analyze the impact of activities on profit margins.

Customer XYZ Corporation (Customer #1270)			
	\$	\$	Percent of sales
Sales		<u>1,000</u>	100%
Product-related costs			
Direct product costs	500		
Brand sustaining	20		
Product sustaining	20		
Unit batch*	160	700	
Subtotal		<u>300</u>	30%
Distribution-related			
Outbound freight type*	60		
Order type*	20		
Channel type*	20		
Subtotal		100	
Customer-related			
Customer sustaining	20		
Unit batch*	80		
Subtotal		100	
Business sustaining		20	
<b>Operating profit</b>		<u>80</u>	8%

\*Driver-based costing assignments use measureable volume of activity output

# COST DRIVERS

It is important that the cost drivers used in a CPM system causally reflect the consumption of resources. For example, customers that place large but infrequent orders might be assigned more than their proportionate share of the costs to serve if costs are assigned based on sales volume or sales dollars. This makes them appear less profitable and hides the lack of profitability from customers that place small and frequent orders, driving up the costs to serve.

Use of a driver-based costing method requires that activity cost driver data be available or can be developed and maintained. For many organizations, the activity cost driver data at the customer level, particularly for the costs to serve, is not directly available, although it may have been captured in transaction data and can be sourced by the CPM system.

In some cases, activity cost driver quantities can be estimated by knowledgeable employees. For example, for the work activity cost “making sales calls,” a sales manager might estimate salesmen making 50 customer sales calls weekly, or approximately 2,500 sales calls per year. If the annual “making sales calls” cost is \$3,000,000, then the unit cost for each sales call is \$1,200. This rate can then be used to assign cost to each customer based on the number of sales calls it receives. Customers receiving frequent sales calls will receive a relatively higher cost for this activity compared to those with infrequent sales calls. Note that each charge is independent of sales volume and mix that customer purchases.

# RETURN ON CAPITAL

Customers require varying amounts of investment. A firm's opportunity cost from such investments is a business expense that should be reflected in the measurement of individual customer's (or customer groups') profitability.

Determining the amount of capital (or, more accurately, investment) charge requires an assignment of capital to the cost objects, e.g., customers. One way is to assign capital based on capital usage or capacity utilization. For example, a customer who primarily purchases products that have substantial inventory will include that higher "carrying cost" for the inventory. Similarly, customers who are "slow payers" can be charged accordingly.

Adjustments can also be made to the capital charge to reflect higher customer risk by using a rate higher than the average cost of capital and conversely to reflect lower customer risk by using a rate lower than the average cost of capital.

The amount of investment should be measured by its value, not its original cost, which is irrelevant. It should include investments in both tangible and intangible assets. While external financial reporting (e.g., GAAP, IFRS) standards require the expensing of costs such as large marketing campaigns as period costs it may be more appropriate to capitalize such costs as assets (and amortize them over a reasonable period).

Organizations where the use of capital to support investments in customer relationships is a concern can further link customer profits with capital using additional metrics such as return on investment and return on equity.

*“Financial accounting conventions continue to undermine true customer costing and therefore true profitability. The need to have one-size-fits-all rules means that measuring customer profitability accurately cannot happen. You must account for high-maintenance and not-high maintenance customer behavior.”*

*Glen Chang, President, ArganoInterRel*

# UNSUCCESSFUL SALES EFFORTS

A related issue is how to treat the cost of unsuccessful sales efforts, resulting from, say, a direct mail campaign that yields a 5% response rate. These costs can be spread among the sales that were successful, based on the idea that the unsuccessful sales are part of the cost of successful sales efforts. Another approach spreads the unsuccessful sales costs across all accounts of that product type—in this case unsuccessful sales being considered a cost of offering the product to the marketplace. (Marketing executives often prefer this approach since it reduces the cost driver rate for the sales activity.) The best approach for a given company should be selected early to avoid misunderstanding and attempts to game the CPM system.

*“Customers today more than ever are turning to technology to improve profitability and falling margins resulting from the pandemic, inflation and global competition. An efficient and scalable Business Analytics strategy is a requirement to enable top executives to make better decisions with the vast amounts of data available to them. These Analytics solutions can reveal data trends and metrics that would otherwise be lost in the volume of information being evaluated.”*

*Ron Guadagno, Chief Revenue Officer, Argano 4 Oracle*

# UNUSED CAPACITY

Early applications of driver-based costing methods tended to ignore unused capacity. They used actual usage or expected capacity utilization as the denominator in developing activity driver rates. The cost of idle, excess, and unutilized capacity was not isolated, resulting in higher activity driver rates than would otherwise be the case.

It is possible to use practical capacity of each cost driver in determining each activity cost driver rate, which would isolate the cost of unutilized capacity. Unutilized capacity cost should always be identified so that management can either improve profitable capacity utilization or decrease the level of capacity, and not include it in customer costs.

The ability to adjust the capacity of a resource depends on the planning horizon and the ease or difficulty in adjusting capacity (resource cost stickiness). Any decision related to adding or dropping a customer or customer segment, or modifying a customer relationship, necessarily requires special analysis related to the differential effects of that decision.

# EVALUATING BREAKEVEN AND UNPROFITABLE CUSTOMERS

The primary goal of evaluating customer profitability is to provide the information needed to take steps to improve the profitability of customers. One possible course of action is to eliminate unprofitable customers, but this must be done with caution as additional analysis should be done before making an elimination decision. Simply eliminating an unprofitable customer that covers variable costs and contributes toward organizational fixed costs will actually reduce profitability as that customers' contribution to fixed costs will be lost to the organization while the "uncovered" fixed cost remain and decrease organizational profitability. If, however, eliminating the customer opens up capacity for adding a more profitable customer, such an action may be advisable.

The evaluation of fixed and variable costs can be complex for organizations and should include careful analysis of both operational and financial causal models that map out fixed and variable costs across resources and processes and include multiple scenarios.

# NEXT STEPS

Costing issues dominate the measurement of customer profitability. The careful development of the costing system and its maintenance are critical in customer profitability measurement and management. While measuring revenues from customers is easy as it is readily available from the sales invoicing system, calculating costs requires reasoning and logic. Given this, having an appropriate costing system is key to successful CPM.

Knowing how to measure customer profitability is the first step in managing customer profitability. In future eBooks, we will cover approaches to managing customer profitability and designing CPM systems.

*"It is no wonder customer profitability measurement is so poorly done. There is very little discussion of what drives a company's net income in any of the mainstream textbooks used in schools today. What we need is a generally accepted set of profitability principles for finance teams to follow."*

*Edward Roske, Chief Performance Officer, Argano*

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## EDWARD ROSKE

**EVP of Performance Management  
Argano**



Edward Roske is CPO of Performance Management. He is responsible for all aspects of Enterprise Performance Management and FP&A, including planning, consolidation, reporting, analysis - anything that involves taking a number and doing something with it. He believes strongly in making Argano a data-driven organization that uses information to make better business decisions faster.

In 1997, Edward cofounded and then was CEO of ArganoInterRel Consulting, a five-time Oracle EPM & Analytics partner of the year. In addition to having a Master of Data Science in Business Analytics from SMU, he is the co-author of the bestselling book series Look Smarter than You Are with Hyperion. Edward is also an Oracle ACE Director, the highest distinction Oracle offers and has been awarded "Speaker of the Year" at the largest Oracle BI/EPM Conference in the world.

Now that you know more about measuring customer profitability, we invite you to explore the Profitability Analytics Center of Excellence Library for podcasts, webcasts, case studies, eBooks, and articles for additional information.

Contact us: [ProfitabilityAnalytics@gmail.com](mailto:ProfitabilityAnalytics@gmail.com)  
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