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"Valuation is neither an art nor a science. It is a craft that can be honed and worked upon…..
— Aswath Damodaran"

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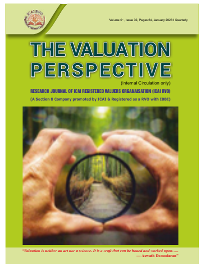

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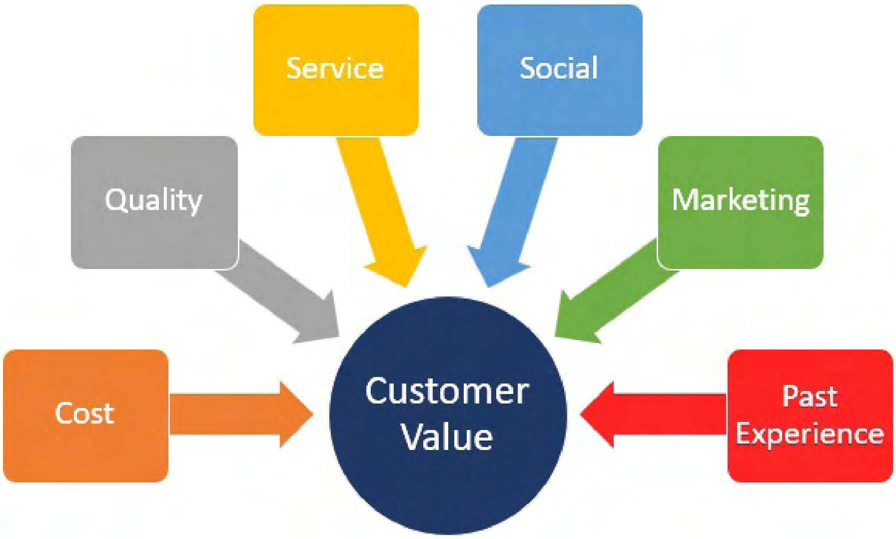
VALUE OF CUSTOMER: ON VALUATION PERSPECTIVE



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Introduction

We come across many digital products and services in the new age digital world. A number of products and services are so called "free" to the customer. This term "free" may not have any upfront costs i.e. complimentary to the customer, hence seems to be free to the customer. This leads to the question on how anyone can offer something for free. This needs to be understood from a wider perspective of the company/organisation that is offering the product and services free to the customer. In the new age digital world, traditional ways to attract customer may not be very feasible and needs a re-look at mechanisms and importance of modern approaches to customer relationships.

"Technological developments have enabled higher accessibility of resources, and this has led to a high rate of production of goods"

Customer is GOD

We may have come across many sayings that the customer is always right. There is a very specific proverb in Japanese - "okyakusama wa kamisama desu" which translates into Customer is God. More specifically the term "kyakusama" means customer but expresses particular honour and adoration as in for an honoured guest.

Similarly in German language there is an expression in business "der Kunde ist König" which directly translates into Customer is King. Thus, the status of customer is one who is admired and respected across the different cultures.

Consumerism

In most of the earlier times, people would consume resources to survive. Accordingly, the consumption was towards the necessities for life. A frugal way of life was the norm whereas consuming heavily or excessively was looked down and termed as being careless by the world at large. Such restricted consumption was also due to the fact of resource limitation and also limitation on the extent to which these resources could be exploited by extraction and conversion.

In the modern era, technological developments have enabled higher accessibility of resources. This has led to a high rate of production of goods. More recently, availability of consumer credit has enabled high buying power for the consumer. Another aspect that helped is global supply chain management giving power to consumers in the remotest part of the world to order and consume any product or service of their choice.

> **"Marketing has evolved from a transaction-oriented task to a relationship with the customer. Hence, the customer relationship process is more about defining, developing, and delivering value to the customer"**

Customer Relationship

For a company, the customer is the key driver of business. He is not only a consumer of products and services, he is also a critical source of review and response on the products and services. This helps the company to improve upon the product and services. Accordingly, the importance of customer needs no further endorsement. Thus, the customer can be a key deciding factor for a company to either grow or perish. Thus, over the years, marketing has evolved from a transaction oriented task to a relationship with the customer. Accordingly, the process is more about defining, developing and delivering value to the customer. A high rate of competition has ensured that quality and effective service is provided to satisfy the consumer and loyalty be developed. This has also led to higher switching of brands by consumers getting higher satisfaction from a rival goods or service provider.

Customer relationship is now about the customer value and value chain. From an organisation/company perspective, the relationship defines the business and is a key strategic asset. Customers are now central to all the marketing endeavours of the company because they do not only generate income, but also increase the market value of the company as well. Customer Relationship Management (CRM) is now at the core of all interconnected processes and activities that design, connect and deliver values for customers.

The availability of large amounts of data (big data) about the individual customers and groups of customers has enabled a more granular understanding of the relationship. This progression has now enabled a significant deviation from past forms centred around brand equity, product and transaction towards customer relationship which is a valuable intangible asset of the company. The objective of CRM is towards expanding to new customer, retain existing customer and forge long-term relationship with customers.

This leads to an important question: What is the value of the customer? Or more specifically for a business organisation, what is the true value that a customer is worth so as to design business strategies.

Models for calculating Value of Customer

A. RFM – Recency, Frequency, and Monetary (RFM) approach [1]

The Recency, Frequency, and Monetary (RFM) approach is a method to identify customers who are more likely to respond to new offers.

RFM groups customers by:

1. **Recency:**

   Time since the customer made his/her most recent purchase. Customers who made a recent purchase would have the product on their minds and are more likely to buy the product again. Generally, this is measured in days, however, few businesses may measure this in years, weeks, or even hours.

2. **Frequency:**

   Number of purchases this customer made within a designated time period. Customers who purchased a product once are also more likely to buy it again. Also, such first-time customers may be a good potential target for a follow up to convert them into frequent customers

3. **Monetary:**

   Average purchase amount. Customers who spend a large amount of money are more likely to spend higher amounts in the future and give higher value to a business.

Under RFM analysis a score is ascribed to the three factors. Below is an example of RFM analysis. Here three customers namely, Akash, Suresh and Rohan are tagged to understand the scores assigned.

R (recency) is measure in a number of months here.

- For R <= 2 points would be 20,
- For R between 2 and 4 points would be 10
- For R between 4 and 6 points would be 5
- For R between 6 and 9 points would be 3

Frequency is measured in number of times purchased in a month.

- For F points calculation would be F * 3

Monetary is value of purchase in each instance.

- M points would be the Rupee purchase (i.e M) * 0.1

Weight are assigned to each of R (0.5 recency), F (0.2 frequency) and M (0.3 monetary). RFM score is the total of weighted points.

RFM Analysis[2]

		Recency				Frequency				Monetary				
	Purchase number	R (months since last purchase)	R points	Weight of R	Weighted R points	F	F points	Weight of F	Weighted F points	M	M points	Weight of M	Weighted M points	RFM score
A	B	C	D	E	F = C*D	G	H	I	J=H*I	K	L	M	N=K*L	O = E+I+M
Rohan	1	2	20	0.5	10	1	3	0.2	0.6	40	4	0.3	1.2	24.9
	c	4	10	0.5	5	1	3	0.2	0.6	120	12	0.3	3.6	
	3	9	3	0.5	1.5	1	3	0.2	0.6	60	6	0.3	1.8	
Akash	1	6	5	0.5	2.5	2	6	0.2	1.2	400	25	0.3	7.5	11.2
Suresh	1	2	20	0.5	10	1	3	0.2	0.6	90	9	0.3	2.7	30.4
	2	4	10	0.5	5	1	3	0.2	0.6	70	7	0.3	2.1	
	3	6	5	0.5	2.5	2	6	0.2	1.2	80	8	0.3	2.4	
	4	9	3	0.5	1.5	1	3	0.2	0.6	40	4	0.3	1.2	

Here it can be observed that the customer – Suresh has highest RFM score of 30.4 as compared to Akash and Rohan who have lower score. The organisation would be interested in targeting more customers in the league of Suresh in above case as they would have a higher RFM score and thus are highly valued by the business.

"Share of wallet is the proportion of category value accounted for by a brand or firm amongst all category purchases by the buyer and amongst a certain base of buyers at the individual level and collective level respectively"

B. SOW – Share of Wallet

Share of wallet (SOW) is the percentage of a customer's expenses on a product that is provided by the firm selling the product. At the individual level, it is the proportion of category value accounted for by a brand or firm amongst all category purchases by the buyer. Thus, at the collective level, it is the proportion of category value accounted for by a brand or firm amongst a certain base of buyers;

For example in a similar example we assess the total amounts spent by each of the customers (Rohan, Akash and Suresh) as compared to the total amount spent by each in the company's product category.

Share of wallet

Customer	Amount spend on company platform	Amount that a buyer spends in total on company's product category	Share of wallet
A	B	C	D = B/C*100
Rohan	220	400	55
Akash	400	800	50
Suresh	280	350	80
Average	**900**	**1550**	**58**

On an individual level the Company's products have the highest share of wallet (SOW) for Customer – Suresh as 80% of his purchase in the product category are from the company. Here he is having very high level of engagement with the company to buy the maximum items from the company as against the competitor company (i.e. total product category). Such customers are valued highest for the company and such customers would be targeted on a higher basis.

On an average level, the company products have a 58% share of wallet (SOW) by including all the customers. This indicates that the company has competitors who are consuming a balance 42% SOW on an aggregate level. Thus the company has 58% serviceable available SOW and the company would have stickiness amongst such customers.

C. Past Customer Value (PCV)

This is the total contribution by the customer towards the present profits based on all the past transactions

Below is the formula for calculating Past customer value:

$$PCV_i = \sum_{t=1}^{T} GC_{it} * (1+d)^t$$

- Here GC_{it} = Gross contribution by it's customer's transaction relating to time
- T = number of time periods prior to the current time
- d = discount rate (e.g., 15% per year, 1.25% per month)

The below example highlights the sale to a customer (example Suresh) from April 2021 to Sep 2021. It is assumed that the gross contribution i.e. gross margin is about 40% for each sale. Discount multiplier is considered at 15% per year i.e. 1.25% per month.

Past Customer Value (PCV)

	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Total
A. Gross merchandise value (GMV) A	900.00	700.00	800.00	400.00	600.00	500.00	3,900.00
B. Gross contribution @ 40% (A*40%)	360.00	280.00	320.00	160.00	240.00	200.00	1,560.00
C. Discount multiplier (1+d)^t	1.077	1.064	1.051	1.038	1.025	1.013	
PCV (B * C)	**387.86**	**297.94**	**336.30**	**166.08**	**246.04**	**202.50**	**1,636.72**

The total Past Customer Value (PCV) for customer, Suresh is INR 1636.72. Similar calculation can be made to understand the value that a customer provides in comparison with other customers. These scores as calculated using PCV can be a basis for ranking and identifying potentially high value customer for the business.

The three models (RFM, SOW and PCV) discussed above are based on historical information. These do not consider the future revenues and corresponding future costs to service customers.

D. Customer Lifetime Value (CLV)

Customer Lifetime Value i.e CLV is the present value of all future cash flows during the entire lifetime of the relationship with the company. Thus, it is the value of business assigned to the customer during the entire relationship with the company. This is also termed as Lifetime customer value (LCV) or Lifetime value (LTV). Thus, it is the sum total worth of the customer's cash flow to the business over the duration of his engagement with the company.

CLV is the value a customer provides to the business over the entire lifetime at the company. The aim is to maximise the earnings and profits by understanding customer behaviour and business cycles to classify and target customers with highest prospective value over time.

The formula for Customer Lifetime Value (CLV) is as below:

$$CLV = \sum_{t=0}^{T}\left[\frac{M}{(1+d)^t} r^t\right]$$

- M = Contribution
- r = rate of retention for customers
- d = discount rate
- t = time period
- T = total time periods

The below example highlights the sale to a customer (example Suresh) from 2021 to 2028. It is assumed that the sale is constant for the years. Further, it is assumed that the gross contribution i.e. gross margin is about 40%. Discount multiplier is considered at 10% per year. Retention rate (Likelihood of retention) of customer is 30%. It is also assumed that the customer flows are realised at the end of the years.

Customer Lifetime Value (CLV)

	2021	2022	2023	2024	2025	2026	2027	2028
A. Gross merchandise value (GMV)	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00
B. Gross contribution @ 40%	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
C. Discount multiplier 1/(1+d)^t	0.91	0.83	0.75	0.68	0.62	0.56	0.51	0.47
D. Discounted contribution (B*C)	109.09	99.17	90.16	81.96	74.51	67.74	61.58	55.98
E. Retention rate	100.00%	30.0%	9.0%	2.7%	0.8%	0.2%	0.1%	0.0%
F. Discounted contribution * retention rate (D*E)	109.09	29.75	8.11	2.21	0.60	0.16	0.04	0.01
Customer Life-time Value	**150.00**							

Here the customer – Suresh has Customer lifetime value (CLV) of INR 150 based on the retention ratio of 30%. This information can be similarly calculated for each customer on individual level or cohort (group) level. Cohort is a group of customers who can be segmented in a single unit based on their buying habit, spending power, age, region, etc. Thus cohort analysis can be conducted with average revenue per user as one metric being used. Alternately the cohort revenue can be calculated to result in the Customer Lifetime Value (CLV) of the entire cohort. Averaging for the number of customers in the cohort will give the average Customer lifetime value for cohort.

E. Customer Acquisition Cost (CAC)

Customer acquisition cost is the cost incurred to convince a probable customer to buy a product or service. Some of the costs that can be considered part of CAC include sales and marketing staff wages, software costs for sales and marketing, supplementary professional charges for consultants, designers etc along with associated overhead costs to sales and marketing.

$$CAC = \frac{MCC + W + S + PS + O}{CA}$$

- CAC = Customer Acquisition Cost 3
- MCC = total marketing cost for acquisition of customers
- W = wages for sales and marketing team
- S = Software costs related to the marketing and sales (e.g. E-Commerce Platform, artificial intelligence marketing, analytics etc.)
- PS = Professional service costs in marketing / sales (Designer, consultant, etc.)
- O = Other overheads that are associated with marketing and sales
- CA = total number of customers acquired

Extending the above example, following costs may be incurred.

Acquisition Costs	Amount
MCC = total marketing cost for acquisition of customers	200000
W = wages for sales and marketing team	100000
S = Software costs related to the marketing and sales (e.g. E-Commerce Platform, artificial intelligence marketing, analytics etc.)	50000
PS = Professional service costs in marketing / sales (Designer, consultant, etc.)	25000
O = Other overheads that are associated with marketing and sales	25000
Total costs	**400000**

Total number of customers acquired – 6000

$$CAC \quad \frac{400000}{6000} = 66.67$$

Thus, CAC would be 66.67 for each customer acquired. If the customer, Suresh is giving CLV of 150 as compared to CAC of 66.67 i.e ratio of CLV/CAC is about 2.25. Such customers are giving higher value as compared to the costs to acquire.

F. Customer Retention Costs (CRC)

These are the costs incurred by a company providing product or services to retain an existing customer. Some of the costs that can be considered part of CRC include after-sales support staff wages, software costs for after-sales, billing costs, promotion costs etc along with associated overhead costs to after-sales and promotion.

$$CRC = \frac{PCC+W+S+PC+O}{CR}$$

- CAC = Customer Retention Cost
- PCC = total promotion cost for promoting to existing customers
- W = wages for after-sales team
- S = Software costs related to the after-sales (e.g. E-Commerce Platform, supply chain monitoring, analytics etc.)
- PS = Professional service costs in promotion and after-sales (Designer, consultant, etc.)

- O = Other overheads that are associated with after-sales and promotion

CR = total number of customers retained

Extending the above example, the following costs may be incurred.

Acquisition Costs	Amount
PCC = total promotion cost for promoting to existing customers	75000
W = wages for after-sales team	50000
S = Software costs related to the after-sales (e.g. E-Commerce Platform, supply chain monitoring, analytics etc.)	25000
PS = Professional service costs in promotion and after-sales (Designer, consultant, etc.)	10000
O = Other overheads that are associated with after-sales and promotion	10000
Total	**170000**

Total number of customers retained – 4000

$$\text{CRC} \quad \frac{170000}{4000} = 42.50$$

Thus, CRC would be 42.50 for each customer acquired. If the customer, Suresh is giving CLV of 150, CAC of 66.67, and CRC of 42.50 then the customer is giving 40.83 as net profits. Such customers are giving higher value as compared to the costs to acquire and retain.

The company needs to finalise the right strategic decision by computing and tracing the CLV along with the Customer Acquisition Cost (CAC) associated with CLV. This is important to understand the overall profitability of the company from each customer. In an ideal situation, the CLV should be exceeding the CAC i.e. the value of each customer should be more than the cost spent on acquiring a such customer. CLV provides pivotal metrics to the basic financial health of a customer and the strategies employed to acquire him. In case the company is not able to retain or reduce the churn rate then these customers are leaking value for the company. The most important longer term strategy is to keep CAC at the minimum in relation to the CLV. Conversely to keep growing CLV as compared to the CAC to enable higher contribution to the company.

Similarly, Customer Retention Costs (CRC) need to be bench marked to understand the CLV. It is generally understood that the CRC is lower compared to CAC i.e. cost of retaining a customer is lower as compared to acquiring new customers. A combination of CAC and CRC can be assessed against CLV to arrive at the net value each customer is adding to the company. Also pertinent to note is that CAC is an upfront cost vs CRC which is a recurring cost that will be incurred each year. Over a longer term, the active customers can be bench marked to understand the CLV and the value each brings to the company. Thus, the value of customers can be assessed in the new age digital world which ultimately leads to value for the company.

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References:

1 - Recency Frequency and Monetary Model- https://www.researchgate.net/publication/311569434

2 - Customer lifetime value (CLV) - http://www.personal.psu.edu

3 - https://en.wikipedia.org/wiki/Customer_acquisition_cost