



Performance Based Routing in Profit Call Centers

Call center management is often faced with the question – **How can returns on calls be maximized?** Traditional measures of call center efficiency like average waiting time or abandonment are already in place in almost all call centers. Agent performance based routing could be another step in that direction.

Most call centers have call matching or call routing systems in place that let certain agents handle certain types of calls. The Automatic Call Distributor (ACD) or the Interactive Voice Response (IVR) systems are meant to do this job. Routing is primarily based on the department appropriate for the type of call or in the case of inbound query calls, the skill set required to address the customer's query.

A subtler idea that is missing in most call centers is routing based on performance of agents. Though this is appropriate for most of the call centers, the idea is especially appealing to the profit call centers. A skilled outbound caller in a telemarketing agency would convince more customers and sign them up for new products, promotions or deals. Skilled agents from debt collection agencies would trace debtors and arrange for debt repayment plans that would fetch more revenues for the agency than other not so skilled agents. Agents tend to have different performance levels and often, the same agent tends to have different performance levels depending on the type of customer, product or program.

Why performance based call matching?

A call matching plan that takes into account differential performance of agents in general or differential performance with respect to products or customers could result in substantial monetary benefits. In a typical non-optimized setting, calls of great importance in terms of revenue or calls that are tough to handle may be given to agents who are bad performers. Whereas calls that are very likely to have a positive outcome may be given to agents who are good. For example, a customer who has already signed up for a product or a deal is more likely to upgrade to something better that could fetch more revenue for the call center. An inbound call or an outbound call from or to an existing customer is much more likely to be positive to promotion offers than outbound calls to non-customers. Calls to and from existing customers could be assigned to people with average skills while outbound calls to non-customers can be prioritized to highly skilled employees who are the best bet for such calls. Agents who are better at certain types of products or customers can be preferentially given those types of calls. The overall revenues could thus be increased.

Performance Metrics



Related Links:

www.math.vu.nl/obp/callcenters

www.call-center.net

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For agencies that offer just one product or when the objective is to measure performance on a product or program basis and when terms or numbers are not negotiable, the number of customers that an agent gets to sign up on an average is a measure of his or her performance.

For situations where the agent has the flexibility to negotiate numbers, the revenues resulting from his action could be a measure of his performance on that situation. Performance can then be obtained as an average over a week, month etc. While the number of customers acquired could be easily measured, the revenues that are directly attributable to an agent's action could be tricky to find.

The cost factors could be introduced if appropriate and thus profits could be used as performance measures. For example, some agents may have acquired more customers or collections using fewer calls or company resources and thus in a more cost efficient manner than others. These agents are obviously better than people who acquire the same number of customers or collect the same amount of money but using more resources.

A weighting (or discounted cash flow) approach could be employed in installment-based arrangements. A debt collector who sets up an arrangement of \$20 monthly for a period of 6 months would be better than someone who arranges for \$10 monthly installments for a period of 1 year. Same amount of money collected quicker is better.

But the idea is that depending on the industry or the purpose, different metrics could be used as measures of employee performance.

Matching calls to agents

Once the right metric has been identified, agents can be regrouped, based on past performance with respect to different customers or products, taking into account the various constraints. The IVR system can be modified to prioritize calls of certain types to certain groups of agents. The modified IVR will now route a call to someone in one group that is the first choice for the call type. If all people in the group are busy, the call can be routed to someone in the group that is the second choice and so on. Rather than deal with groups of people, call matching can be done at an agent level. A call can be routed to the highest ranked agent who is available for a call type.

Different types of calls can themselves be prioritized among themselves. This is more appropriate for inbound calls. For example, if two calls - a high revenue opportunity call and a query call are received at the same time, the former takes priority over the latter and should first be assigned to the highest ranked, available agent group or agent, and only then should the low priority call be assigned. This is to maximize the chances that all high priority calls get the best agents needed all the time so that overall profits or revenues are maximized.

The optimal prioritization and allocation of calls to agents can be done using Dynamic Simulation of various assignment rules and priorities for both inbound and outbound calls. The average performance of agents with respect to different products and customers will have to be parameterized and used as inputs to the simulation. Average performance of an agent for a call type in the past, may be recent weeks or months is assumed to be the expected performance of the agent given a call of the same type. From the results of the simulation, the best set of call matching rules can be framed and implemented in the ACD or IVR system

behavior of critical business variables that allows our clients to plan for their resources intelligently.

Call Segments
Created using Segmentation
Based on Call priorities and Practical Constraints

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Agent Groups Created using Clustering Algorithms Based on performance in each Call Segment	Outbound, Customer A, Program B	Outbound, Customer B, Product C	Outbound, Program A	Outbound, Others	Inbound, Customer A, Program B	Inbound, Customer C, Product C	Inbound, Others
	A1	1		2			
A2	2	3	1	2			
A3	3	1		3			
A4		2	3	1			
A5					2	2	1
A6					1	1	2
A7					3		

Choice Matrix
1st, 2nd and 3rd ranks of agent groups for each Call Segment
(Using Simulation, Optimisation)

Conclusion

Running a profitable call center business is not just about hiring agents to match the demand and to meet minimum service levels. It is also about making good decisions in terms of assigning the right jobs to the right people. Performance based routing lined with mathematical techniques like simulation and optimization will do the trick!

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