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Measuring Search Success and Understanding Its Relationship to Call Deflection

Introduction

Measuring the success of your customer support operation is important. It helps you determine whether processes are working as anticipated and where improvements are needed. Because search determines how quickly and accurately a question is answered, your search engine is a key element in establishing the effectiveness of support operations. If you make it easier for contact center agents and customers to find the correct answer, you will generally see call load decrease, Web usage increase, and customer satisfaction increase. But how do you measure search success? And how does search success relate to deflecting calls away from the contact center? This white paper addresses strategies for measuring search success and discusses the relationship between search success and call deflection.

Measurement Options

Three common methods of determining search success are doing automated testing, conducting embedded surveys, and conducting Web-based surveys. Which method you use will depend on the goal you set for your search engine. Using more than one of these methods enables you to measure success from different perspectives.

Automated Testing

If the goal of search is for customers to find a specific document whenever they ask a specific question, you can measure success by performing a search using that specific question and looking for the correct document in the search results. You can automate this method by creating a script that runs a series of questions, and you can review the results to determine whether the desired document showed up in the search results.

Unfortunately, no evaluation is conducted with respect to the quality of the documentation found. You rely on a subject matter expert's opinion that the document returned does, in fact, answer the question. When documents are written by engineers, the language may be very technical or map to terms used during the product's development. The questions asked by customers, however, use terms related to the product's actual use. For example, in a schematic design editing software product, a customer requests information on how to *label a net*. The engineer who created the product calls the same operation *modifying a text property*. Without a search engine that understands intent, it would be difficult to associate the question with the answer. After all, a document describing *modifying a text property* might not even be looked at by a customer wanting to *label a net*.

This method of measurement misses the tie between the intent of what the customer asked and the actual article displayed by the search results. Even though the subject matter expert believes that the right document was returned, the customer might not recognize that the question was answered.

Embedded Surveys

Many companies add a short question at the end of an article, asking whether the information provided answered the customer's question. The typical response rate to this sort of survey is very low—generally less than 2 percent and sometimes as low as .02 percent—often due to solution complexity. Customers require time to implement the solution and determine whether or not it works. To test the solution, they leave the Website, try the process, and determine whether the information is useful. After this, they very rarely return to the Website just to provide a response to the survey question.

Such surveys can nevertheless be useful. Capturing all the “no” responses provides real examples of questions that did not match the delivered solution, and any “yes” response will confirm the value of the document provided. However, the response rate of this method is simply too low to be statistically valid in ascertaining a success rate.

Web-Based Surveys

In most cases, an agent or a customer enters a random question into a search engine and the search engine is expected to deliver the correct answer. When searches are conducted this way, measuring success becomes more challenging. However, a Web-based survey can provide some metrics.

If you know who asked the question, you can set up an automated process for sending that person a survey. The survey should be brief and Web-based so that a few simple mouse clicks will provide the information you need. Here are three questions to ask:

- **Why did you come to this Website?** You want to know why customers have visited so you can verify that your Website is capable of supporting the needs of customers who visit it. If you design a Website aimed at selling new products when a majority of the visitors are simply looking to upgrade an existing one, you may be causing some level of frustration.
- **Did you find what you were looking for?** At this point, you don't care if customers found the answer in the document in which you expected them to find it; what you need to know is whether they found what they were looking for.
- **If you did not find what you were looking for, where did you eventually find it?** The answer to this question enables you to improve your search results. Most customers keep looking for answers until they find them. By asking them where they ultimately found the answer to a question your Website did not answer, you identify gaps in your knowledgebase and learn about documents that contain answers that are valuable to your customers. For example, you may discover that not all product documentation is indexed and searchable from your Website. If the #1 answer to this question is "the user documentation," getting those manuals indexed and searchable will increase your search success. Finally, asking this question enables you to implement process changes that can increase the success of search on your Website.

If 13 percent of all customers logging into your Website responded to the survey, that number is large enough to be statistically valid. If the main reason for visiting your Website was to find an answer and if they found that answer 75 percent of the time, you will have some basis for determining your overall search success. There is a margin of error, but if you are tracking the trend over time, you can at least have a reference point to determine whether you are improving.

It is also important to look closely at the responses from people who did not find the answer they needed. Analyzing the 25 percent who replied "no" to the second question will give you clues about where changes are needed. Trending the success score over time will tell you if your operation is improving.

Another suggestion is to keep track of the dates when changes were made to your processes, systems, and infrastructure. Mapping those dates onto the search success trend line will help you understand the positive or negative impact of those changes.

It is best to choose one survey method and not mix automated testing with Web-based surveys. If your service goal is to answer random questions entered into your search engine, you will need to opt for a Web-based survey. If you use an embedded survey to measure the success of random search, you will automatically ask predetermined questions and will be looking for predetermined answers. In this case,

your test may be showing that search is successful whereas your customers believe that it is not. If the test question does not bring up your test document as the answer, that does not mean that the question was not answered correctly. The search engine may simply have found a better answer. Trying to tune your search to always find the expected document may be setting it up to find a less-correct answer.

Relating Search Success to Call Deflection

The Consortium for Service Innovation (CSI) has found that a self-help Website typically answers 10 times as many questions as a contact center receives. The easier the Website is to navigate and the more accurate the search results, the likelier customers are to go there first to find an answer. Many customers have stopped reading paper or electronic manuals. They go to a product's Website instead and search for the answer to their question. If the Website works correctly, going there is the fastest way to find the answer they are seeking.

Most of the questions asked on the Website would never have been logged into your contact center, so your deflection rate is not equal to the number of questions answered correctly. Let's say your Website is 100 percent accurate at answering questions that haven't been logged to your call center. Your deflection rate could be zero. Of course, this is not a likely scenario. Some of the questions the Website cannot answer will likely result in a call to the contact center.

The Website failure rate is easier to track. If the whole workload initially goes through the Website, any case logged with the contact center is a failure of the Website. If your caseload is trending down, you may be experiencing healthy deflection.

You need to consider multiple factors when determining call deflection, which is one of the challenges in measuring it. The growth trend of your active installed base is one of the factors. If your installed base is growing but your caseload is not, you are likely experiencing deflection. Another factor influencing deflection is the frequency of product updates for your installed base. A new release often results in an increased workload. If you release only once a year, your trend may look bad for three or four months and good the rest of the year. You want to be sure to measure over a multiple-year period to get the real picture.

Service Case Study

The customer support department of a large electronic design automation (EDA) software company wanted to track the relationship between caseload and support revenue. Before it turned on Web-based knowledge access, the slope of the caseload trend was a perfect match to the slope of the support revenue trend. For every new customer gained, the department's revenue and caseload went up at the same ratio. Once customers were granted access to Web-based knowledge, the slope of the caseload trend changed. Over a four-year period, the caseload went from around 6,000 cases per month to approximately 5,000. During this same period, revenue continued to grow. The slopes of the caseload and the revenue trends were no longer parallel because access to Web-based knowledge had caused them to diverge.

Did call deflection occur in this case? Yes, it did. But it was nearly impossible to determine exactly how much had occurred. Over a four-year period, cases had decreased by 16.7 percent, so the deflection rate could be said to also be 16.7 percent. But that does not account for a simultaneous 40 percent increase in support revenue. Projecting the caseload as if it were still tied to the revenue trend results in approximately 8,400 cases per month. Because the support department was registering only 5,000 cases, does this mean that calls were deflected at a rate of 40 percent? The 40 percent number seems high, but the 16 percent number seems low. As you can see, determining the exact call deflection rate is difficult. Regardless of the exact call deflection percentage, the good news is that the department's workforce did not have to grow by 40 percent to cover the 40 percent increase in cases. The department deflected future spending, even if it did not reduce actual spending.

Let's look at the customer support department's number in a different way. Assume that 60,000 questions are being asked monthly on the Website. Also assume that the support department opened 1,000 fewer cases in the contact center than in the previous month. Given these assumptions, you could say that for every 60 Web-based questions asked, one case is deflected away from the contact center. On the other hand, you could also say the caseload should have been higher (8,400 cases) so the real deflection is 3,400 cases (8,400 – 5,000). This implies that the department deflected one case for every 17.6 questions asked on the Website. Again, there are many different ways to look at the same data. The exact rate of deflection is less important than the fact that deflection is occurring and costs are being kept down.

Areas for Focus

Because ascertaining the exact rate of deflection is so challenging, it is better to focus your energy on answering the following questions to improve the performance of your customer support department:

- Can I help customers find answers faster?
- Can I increase the success rate of the Website in delivering the answers?
- Can I keep the Website running 24/7?
- Can I refresh the Website with current, timely knowledge so the success rate does not decline over time?
- Can I move customers away from other areas of contact (such as e-mail or chat) and to the Website?
- Are customers satisfied with the service they are getting from the Website?
- How many redundant questions are being answered by the Website?

Conclusion

Call deflection generally occurs as search success improves. If the following three criteria are met, some deflection is likely occurring:

- Search volume is trending upward
- Search success is trending upward or is steady
- Costs are staying flat or declining

Although it is difficult to determine a formula that can ascertain the exact rate of deflection, the number itself is less important than the fact that costs are being kept down. Through trend analysis and comparison with other statistics, you can determine if there is a downward or upward trend in deflection. This relative information is valuable, but trying to put an exact number on the deflection rate can take a lot of time and energy. You do not want to get into a debate about the accuracy of your deflection assumptions. Focus instead on trends, relative performance, and the cost benefits of call deflection on your customer support organization.



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