Epic vs. Cerner Vendor Selection

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 The consensus development process is a 7-step process that concludes with a selection of what particular EHR system is best for an organization. The process begins with inviting stakeholders to participate. This step should include people from all over an organization including executives, clinicians, and administrators. The more stakeholders who are involved the better. In this example, I interviewed a Mike N., a polysomnographer at the Lung Associates of Sarasota, a seven-doctor pulmonology group. Mr. N. represents the clinician level employee. I also interviewed Leslie D., the Manager of the Lung Associates of Sarasota’s sleep clinic. She represents an administrator level employee. Following an invitation to e interviewed, a one on one session was setup with Ms. D. and Mr. N. Interviews were performed individually and they were asked the same questions. Mr. N.’s interview was performed in person while Ms. D.’s interview was performed on the telephone. They were asked to rate which aspects of EHR systems they found to be the most important of three aspects: integration, scheduling, and cost. A discussion about what each aspect affected their individual jobs and why. Mr. N. was less concerned about the cost of the system and more concerned about the scheduling and integration of current EMR systems associated with a new EHR system. Ms. D. though that cost was more important but found integration to be less important. They were also asked to rate how much more important an attribute was from the previous, less important attribute. A group meeting, which would be the third step, was skipped for this class example. In a large organization a group meeting would be held and scores would be combined into one. Both scores were used and models were created for Mr.N. and Ms. D. separately. The scores were weighted and are shown below in Figure 1 and Figure 2.

(Figure 1)

|  |  |
| --- | --- |
| Leslie D.’s Weights |   |
| Attributes | Rank of Importance | Ratio of Importance | Weights Attributed | Weighted scores |
| Integration | 1 |   | 10 | 0.06 |
| Scheduling | 2 | 4 | 40 | 0.24 |
| Cost  | 3 | 3 | 120 | 0.71 |
|   |   |   | 170 | 1 |
|  |  |  |  |  |
|  |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| (Figure 2) |  |  |  |  |
| Mike N.'s Weights |   |
| Attributes | Rank of Importance  | Ratio of Importance | Weights Attributed | Weighted scores |
| Cost | 1 |   | 10 | 0.09 |
| Integration | 2 | 2 | 20 | 0.18 |
| Scheduling | 3 | 4 | 80 | 0.73 |
|   |   |   | 110 | 1 |

The weighted scores show how the rank of importance and ratio of importance can be used to emphasize which attributes our participants find more important and assign a value to that importance. The next two steps in the consensus development process would be to construct a group scoring and to discuss major differences. I am analyzing both participants separately in this example. The major differences are easy to see in Figure 1. Being a clinician, Mr. N. is more concerned with the scheduling of an EHR system whereas Ms. D. being an administrator feels that the cost of the system is what is most important. The next step is to measure each vendor’s performance. In this example I chose to use two titans in the EHR industry: Epic and Cerner. Both of these systems have their strengths and weakness. I used an article by Vincent Ciotti, who has 42 years in HIS industry. The article can be found at: <http://healthsystemcio.com/2011/04/12/breaking-down-an-epic-versus-cerner-selection/>.

I used this article to create a rating of Cerner and Epic in each of the three attribute categories. This was based on a scoring of 0 to 100, 100 being a perfect score and 0 being the worst available score. This can be seen in Figure 2.

(Figure 2)

|  |
| --- |
| Before Scaling |
| Expert Ratings of Epic and Cerner (Before Scaling) |
| Vendors | Scheduling | Cost | Integration |
| Epic | 90 | 50 | 95 |
| Cerner | 80 | 65 | 75 |

These scores were then scaled in order to create a standardized rating for the scores. This is very important especially when comparing several different vendors. The standardization of scores allows for the worst scores to be counted as a zero and the best as 100. Scores in between are given values that are relative to the best and worst in the category. Figure 3 shows the standardized scores of the vendors.

(Figure 3)

|  |
| --- |
| After Scaling |
| Expert Ratings of Epic and Cerner (Before Scaling) |
| Vendors | Scheduling | Cost | Integration |
| Epic | 100 | 0 | 100 |
| Cerner | 0 | 100 | 0 |

These were then combined with the weighted scores from Mr.N. and Ms. D.’s importance of attributes. Each weighted attribute is multiplied by the standardized score and added together to create an overall score. The vendor with the highest overall score would be the vendor chosen. Figures 4 and 5 show the results.

(Figure 4)

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| --- |
| Leslie D. |
| Expert Ratings of Epic and Cerner (After Scaling) |
| Vendors | Scheduling | Cost | Integration | Total Score |
| Epic | 23.53 | 0.00 | 5.88 | 29.41 |
| Cerner | 0.00 | 70.59 | 0.00 | 70.59 |

(Figure 5)

|  |
| --- |
| Mike N. |
| Expert Ratings of Epic and Cerner (After Scaling) |
| Vendors | Scheduling | Cost | Integration | Total Score |
| Epic | 72.73 | 0.00 | 18.18 | 90.91 |
| Cerner | 0.00 | 9.09 | 0.00 | 9.09 |

Ms. D. would select to purchase Cerner. Mr. N.’s scores indicate that Epic would be a better fit for his preferences. The final process of the consensus development process would be documentation. This includes recording of how the choice of vendor was made and what led to the specific vendor selected.