## Tool 5 - Forced Choice Analysis

TOOL: Forced Choice Analysis is not a team tool. It is a tool to aid a person in rating items in their list relative to one another in order to establish a ranking of all the items.

WHEN: A person can use Forced Choice Analysis to order a list of items. One can usually pick out the top item and the item at the bottom. It's the ranking of the items in between that is difficult. Forced Choice Analysis allows one to do this, plus it will highlight any 'uncertainty'.

HOW: Forced Choice Analysis is a tool that uses a specially designed form.

1. List the "Choices" on the form. Assume we have seven items in our list. These are stocks being traded and we want to rank them according to our purchase "preference."

|  |  | A | B | C | D | E | F | G | H | I | J | K |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | STOCK | IBM | DELL | MSFT | INTC | CSCO | HPQ | AAPL | SubT | ST+1 | Rw9 | Note |
| $\mathbf{1}$ | IBM |  |  |  |  |  |  |  |  |  |  |  |
| 2 | DELL |  |  |  |  |  |  |  |  |  |  |  |
| 3 | MSFT |  |  |  |  |  |  |  |  |  |  |  |
| 4 | INTC |  |  |  |  |  |  |  |  |  |  |  |
| 5 | CSCO |  |  |  |  |  |  |  |  |  |  |  |
| 6 | HPQ |  |  |  |  |  |  |  |  |  |  |  |
| 7 | AAPL |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Sub Total |  |  |  |  |  |  |  |  |  |  |  |
| 9 | SubT+1 |  |  |  |  |  |  |  |  |  |  |  |

2. Move along each row and make the "Forced Choice" between two items. Moving along row 1 make the statement: "I prefer IBM to Dell." If the answer is 'Yes' enter a $\mathbf{Y}$ in cell B1. If the answer is 'No' enter an $\mathbf{N}$ in cell B1. Now move to the next column and make the statement: "I prefer IBM to Microsoft." If the answer is 'Yes' enter a $\mathbf{Y}$ in cell C1. If the answer is 'No' enter an $\mathbf{N}$ in cell C1. Continue this process through the entire table comparing each item to each of the others.

|  |  | A | B | C | D | E | F | G | H | I | J | K |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | STOCK | IBM | DELL | MSFT | INTC | CSCO | HPQ | AAPL | SubT | ST+1 | Rw9 | Note |
| $\mathbf{1}$ | IBM |  | N | N | N | N | Y | Y |  |  |  |  |
| $\mathbf{2}$ | DELL | Y |  | N | N | N | Y | Y |  |  |  |  |
| $\mathbf{3}$ | MSFT | Y | Y |  | Y | N | Y | Y |  |  |  |  |
| $\mathbf{4}$ | INTC | Y | Y | N |  | Y | Y | Y |  |  |  |  |
| $\mathbf{5}$ | CSCO | Y | Y | N | Y |  | Y | Y |  |  |  |  |
| $\mathbf{6}$ | HPQ | N | N | N | N | N |  | Y |  |  |  |  |
| $\mathbf{7}$ | AAPL | N | N | N | N | N | N |  |  |  |  |  |
| $\mathbf{8}$ | Sub Total |  |  |  |  |  |  |  |  |  |  |  |
| $\mathbf{9}$ | SubT+1 |  |  |  |  |  |  |  |  |  |  |  |

3. Add up the choices. Count the ' $Y$ 's in column $A, B, C$... and enter the total along row 8. Add +1 to the sub-total and enter in Row9. Count the ' $Y$ 's in Row 1,2,3... and enter the total along Column H. Add +1 to sub-total and enter in Column I.

|  |  | A | B | C | D | E | F | G | H | I | J | K |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | STOCK | IBM | DELL | MSFT | INTC | CSCO | HPQ | AAPL | SubT | ST+1 | Rw9 | Note |
| $\mathbf{1}$ | IBM |  | N | N | N | N | Y | Y | 4 | $\mathbf{5}$ |  |  |
| $\mathbf{2}$ | DELL | Y |  | N | N | N | Y | Y | 3 | $\mathbf{4}$ |  |  |
| $\mathbf{3}$ | MSFT | Y | Y |  | Y | N | Y | Y | 1 | $\mathbf{2}$ |  |  |
| $\mathbf{4}$ | INTC | Y | Y | N |  | Y | Y | Y | $\mathbf{1}$ | $\mathbf{2}$ |  |  |
| $\mathbf{5}$ | CSCO | Y | Y | N | Y |  | Y | Y | 1 | $\mathbf{2}$ |  |  |
| $\mathbf{6}$ | HPQ | N | N | N | N | N |  | Y | 5 | $\mathbf{6}$ |  |  |
| $\mathbf{7}$ | AAPL | N | N | N | N | N | N |  | 6 | $\mathbf{7}$ |  |  |
| $\mathbf{8}$ | Sub Total | $\mathbf{4}$ | 3 | 0 | $\mathbf{2}$ | $\mathbf{1}$ | 5 | 6 |  |  |  |  |
| $\mathbf{9}$ | SubT+1 | $\mathbf{5}$ | $\mathbf{4}$ | $\mathbf{1}$ | $\mathbf{3}$ | $\mathbf{2}$ | $\mathbf{6}$ | $\mathbf{7}$ |  |  |  |  |

4. Compare Totals. Copy Row 9 into Column J. Compare Column I to Column J. Note matches, but also note discrepancies between Choices Microsoft and Cisco. This indicates indecision. Notice the response is 'No' to the statement "I prefer Microsoft to Cisco" ${ }^{\text {Row3, Col E] and also' No' to the statement "I prefer }}$ Cisco to Microsoft."[Row5, Col C]. Also, there is a discrepancy between Intel and Cisco. See it?

|  |  | A | B | C | D | E | F | G | H | I | J | K |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | STOCK | IBM | DELL | MSFT | INTC | CSCO | HPQ | AAPL | SubT | ST+1 | Rw9 | Note |
| 1 | IBM |  | N | N | N | N | Y | Y | 4 | 5 | 5 | = |
| 2 | DELL | Y |  | N | N | N | Y | Y | 3 | 4 | 4 | = |
| 3 | MSFT | Y | Y |  | Y | N | Y | Y | 1 | 2 | 1 | $x$ |
| 4 | INTC | Y | Y | N |  | Y | Y | Y | 1 | 2 | 3 | $x$ |
| 5 | csco | Y | Y | N | Y |  | Y | Y | 1 | 2 | 2 | $x$ |
| 6 | HPQ | N | N | N | N | N |  | Y | 5 | 6 | 6 | = |
| 7 | AAPL | N | N | N | N | N | N |  | 6 | 7 | 7 | = |
| 8 | Sub Total | 4 | 3 | 0 | 2 | 1 | 5 | 6 |  |  |  |  |
| 9 | SubT+1 | 5 | 4 | 1 | 3 | 2 | 6 | 7 |  |  |  |  |

TIPS: 1. USAF has a similar tool called "Paired Ranking." But does not test for discrepancies.

This "tool" is from Tom Adams' Problem Solvers Toolbox which he compiled over his years of working as an Information Systems Analyst. These Problem Solving Tool Abstracts are NOT copyrighted; please share them. They are based upon the concepts of other problem solvers.
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