Payout by Rank Automated Report

Executive Summary

I work for a business intelligence company. They work with network marketing companies such as Doterra, BlendTech, and LifeVantage. When these companies are having problems with their compensation plans, they come to us and we do extensive analysis on their current plan, make suggestions on how to improve their plan and then we do modeling on any changes they are considering making. The largest part of my job is taking the clients' data such as sales or enrollment and provide reports that sift out the story of what is going wrong as well as what is going right. My boss says we look for the blood spatters through a set of basic reports. After we find "the blood spatter" we know what suggestions to make to the clients.

One of these common reports (that is also the most time consuming to do by hand) is the Payout by Rank Report. Each company has distributors that try to build and grow their "own company" underneath them. As they are successful and recruit new people and make more sales they move up in rank. Each rank has added features where the distributor has the opportunity to make more money. There are several different commission types and we want to know how each of the ranks are making their money. This information allows us to know how each commission type is effecting the distributors and how we can build or reduce the compensation plan. On top of knowing how each rank does, we want to know how those who personally earned at least 10% of their organizational volume (or the volume of the organization they built under them). We use this 10% marker as a way of knowing what people are utilizing the compensation plan to its full potential and we then explore and compare how they are doing it to those who are earning less than 10%. To break this out we make summary tables of the earnings of each of the ranks and bar charts to illustrate what is going on. This satisfies both the number crunchers and those who like visuals.

Implementation Summary

To start off, data is pulled from our data base and put into excel. I didn't program this part because depending on the company and what other analysis we would like to perform, we would pull different values. Even though the order of columns could be different from the following this is a very normal example of what the data would look like.

	A	B	C	D	E	F	G	H	I	J	K	
1	dist_id	status	paid_rank	vol1	vol3	Retail Commission	Personal Fast Start	Core Unilevel Commissions	Fast Start Commission	Timeless Customer Bonus	P1 Xecutive Group Bonus	P
2	110647	D	12	1379	98092	40	50	1764	490	50	164.5	2
3	100019	D	12	1169	38412	65	0	917.95	535	51.75	260.2	
4	10000	D	12	1776	201087	21	0	4068.15	837	50.55	634.2	3
5	135768	D	11	756	27615	20	60	692.9	60	53.3	333.6	
6	129209	D	11	1675	68643	10	0	1372.3	539	50.75	328.7	
7	129228	D	10	1664	46437	10	60	1114.5	240	50.2	280.9	
8	100818	D	10	108	27435	65	0	1347.4	0	0	0	
9	142649	D	10	840	11134	30	0	254.95	158	0	0	

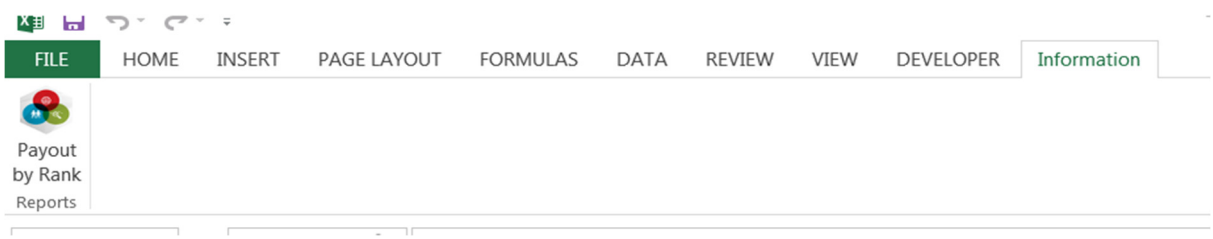
Column A: *Distributor ID*, this is a sales person's ID #

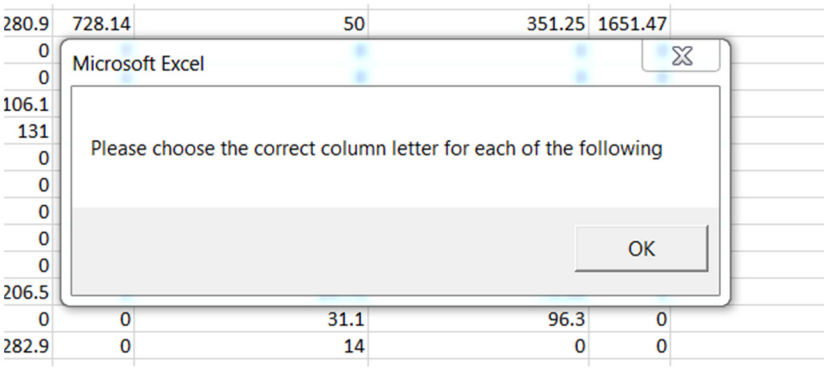
Column C: *Paid Rank*, in a network marketing company, as a Distributor enrolls more people and has more sales, he meets qualifications that can bump them up in Ranks. As they go up in Rank they receive different compensations. Determining the difference in earnings between ranks is essential and that is what this report accomplishes.

Column E: *Volume 3 or Organizational Volume*, the sales volume a distributor has under them. So this is their own volume with the addition of the volume of those they enrolled.

Columns F – K: *Different Commission Types*, each of these columns keeps track of a distributors earnings from each of the different commission types that company has set up.

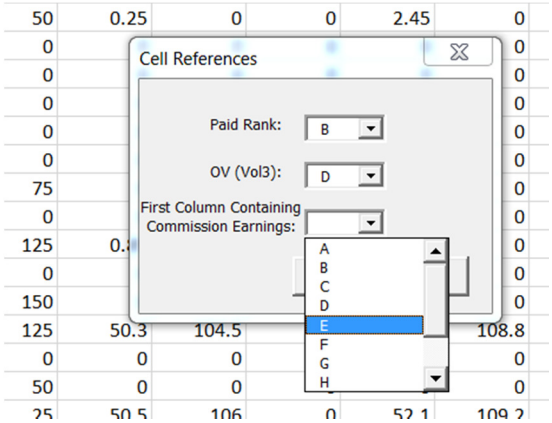
To make the program easy for users I inserted a Button onto the ribbon, in the future as I automate more of the reports I can add buttons which will create a whole dashboard of analysis options.





When the user clicks on the button, a message box appears

I thought it would be important to stop the user and draw their attention to what the following user form is wanting. After they exit out or hit OK then a user form appears.



All three items are drop down boxes with the capital letters A through K, if it so happens a user needs a letter after K, it will still work when typed in.

The first drop down box asks for the column of where the paid ranks are located, the second asked for where vol3 is and the third asks for the first column containing commission earnings. The first column containing earnings through to the last column will only contain earnings.

I did this so I know for certain that I am working with the right data for the rest of my analysis.

If the user hits OK then it will save each of the three items to variables converting the letters to the proper column number and hide the user form and if the user hits cancel then it will stop the analysis.

P3 Xecutive Group Bonus	P3 Pool	Total Earn
423.3	3874.22	14234.8
216.2	1581.48	4586.08
1037.6	8373.33	21870.7
397	1170	3403.3
480.3	2246.49	7036.48
522.7	N=416	5118.71
921.9	235.92	2649.22

Let's assume in this instance the user enters the column letters and hits OK. Then on that sheet the first blank column will be a calculated Total Earned Column. This sums up all of the earnings, so we know the total amount each distributor made.

Q	R	S	T
P3 Xecutive Group Bonus	P3 Pool	Total Earn	% EAPV
423.3	3874.22	14234.8	14.51%
216.2	1581.48	4586.08	11.94%
1037.6	8373.33	21870.7	10.88%
397	1170	3403.3	12.32%
480.3	2246.49	7036.48	10.25%
522.7	N=416	5118.71	11.02%
921.9	235.92	2649.22	9.66%
151.3	325.95	972.9	8.74%

After that, it will enter another calculated column title %EAPV. This is the marker of those who are using the plan to its full potential. It takes the total each distributor earned and then divides it by their organizational volume which we determined from the user form.

s	P3 Pool	Total Earn	% EAPV
0	0	75	24.04%
0	0	20	18.52%
0	0	10	15.87%
0	0	50	15.72%
0	0	20	14.93%
0	0	20	12.66%
.3	3874.22	11880.75	12.11%
0	0	45	11.90%

Later on we will need the data to be sorted by EAPV. So before pulling out the data I sorted it so it has largest to smallest %EAPV

After it is sorted, it goes through each row and will copy and paste each line to a new sheet that matches its rank number. The following shows the example of rank 8's sheet as well as the sheets at the bottom.

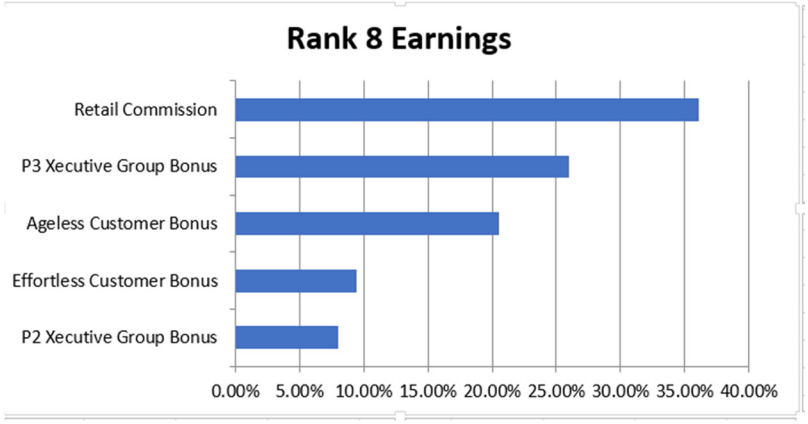
B	C	D	E	F	G	H	I	J
paid_rank	vol1	vol3	Retail Con	Personal F	Core Unile	Fast Start (	Timeless C	P1 Xecuti
8	1163	5873	25	75	137.5	75	25.5	6
8	1203	3071	40	0	123.1	0	6.45	
8	240	1959	15	0	105	0	0	
8	200	3402	25	0	160	0	0	
8	161	6802	20	0	237.5	25	0	
8	1064	3742	20	75	80	75	27.9	33.
8	158	2921	25	0	169	0	0	
8	227	3385	35	0	119.25	25	5.95	
8	287	5261	35	0	150	75	0	
8	750	4191	45	50	70	200	15.8	

Rank 10 | Rank 9 | **Rank 8** | Rank 7 | Rank 6 | Rank 5 | Rank 4 | Rank 3 | Rank 2

On each sheet, it creates a summary table with all the distributors labeled as that rank. This summary table counts the number of distributors in that rank N=5, it counts the number of distributors that received and didn't receive each of the commission types, and then takes the mean, median, mode, min, max and sum of each of the commission types as well.

P2 Xecutiv	7.98%
Effortless (	9.42%
Ageless Cu	20.58%
P3 Xecutiv	25.95%
Retail Con	36.06%

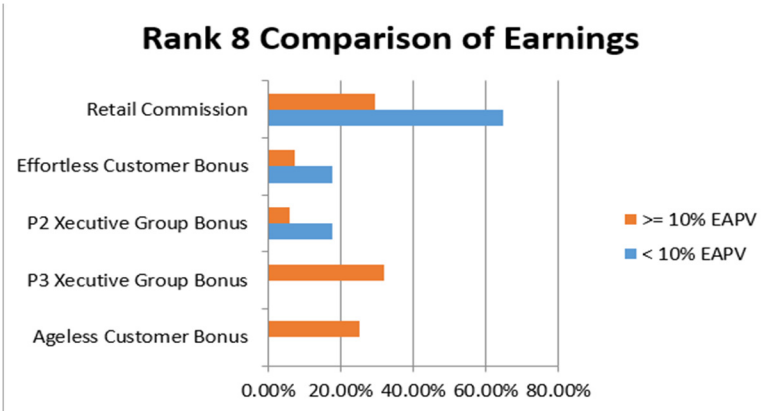
After this chart is completed the percentage of total earnings from that rank is calculated for each commission type. It calculates the percentage and then deletes those where the percentage was 0 so the bar chart won't include them. It then creates a bar chart from this as you can see below. It makes the title using the sheet name.



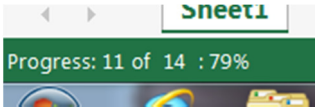
Next it creates the same table as before but just for those in that rank who have a %EAPV greater than or equal to 10%

Rank 9 >10%EAPV												
N=10	Retail Commission	Personal Fast Start	Core Unilevel Commissions	Fast Start Commission	Timeless Customer Bonus	P1 Xecutive Group Bonus	P1 Pool	Effortless Customer Bonus	P2 Xecutive Group Bonus	P2 Pool	Ageless Customer Bonus	Total Earned
# Received	9	5	9	5	8	8	0	9	8	0	9	9
# didn't Receive	0	4	0	4	1	1	9	0	1	9	0	0
Mean	62.33333	41.66667	135.3833333	63.8888889	44.39444	99.18888889	0	48.33333	114.9	0	71.98889	682.0778
Median	50	25	139.5	25	50.3	104.5	0	51.1	110.3	0	59.4	724.95
Mode	50	0	-	0	50.1	-	0	-	-	0	-	-
Min	10	0	60	0	0	0	0	17.05	0	0	56	336.25
Max	130	125	212.5	200	63.75	181.2	0	57.75	187.3	0	129.2	961.6
Sum	561	375	1218.45	575	399.55	892.7	0	435	1034.1	0	647.9	6138.7

It also plots just the commissions that had more than 0 percent. In order to do this I had to find the first row that had an % EAPV that was greater than or equal to 10%, I then was able to separate the data into two separate "tables".



When I showed the final product to my boss he was very happy about it. The only comment he had to make was if we could find some kind of way to see that the program is progressing. I then was able to add a progress bar in the lower corner so for every page it completes it shows how many it has done, how many there are total, and what percentage is complete.



Conceptual Difficulties

At the beginning of this project I was overwhelmed by how many unknowns I had to account for. For any given company I don't know how many ranks they will have, how many different commission types they will have, and the position of the columns that I want to use. Writing the formulas to account for so many unknowns was difficult for me. The next biggest difficulty I had was making the second bar chart. I didn't know how I could map those who had greater than 10% against those who had less. After figuring out how to sort it, I was able to find where the separation was but it took me a few tries to figure out a method that would work.

Assistance

I didn't receive substantial assistance from anyone. The only assistance I had was 1 visit to office hours.