

**WM Winters Analytics Case**

MSBA 6250, Spring 2019

Group 2

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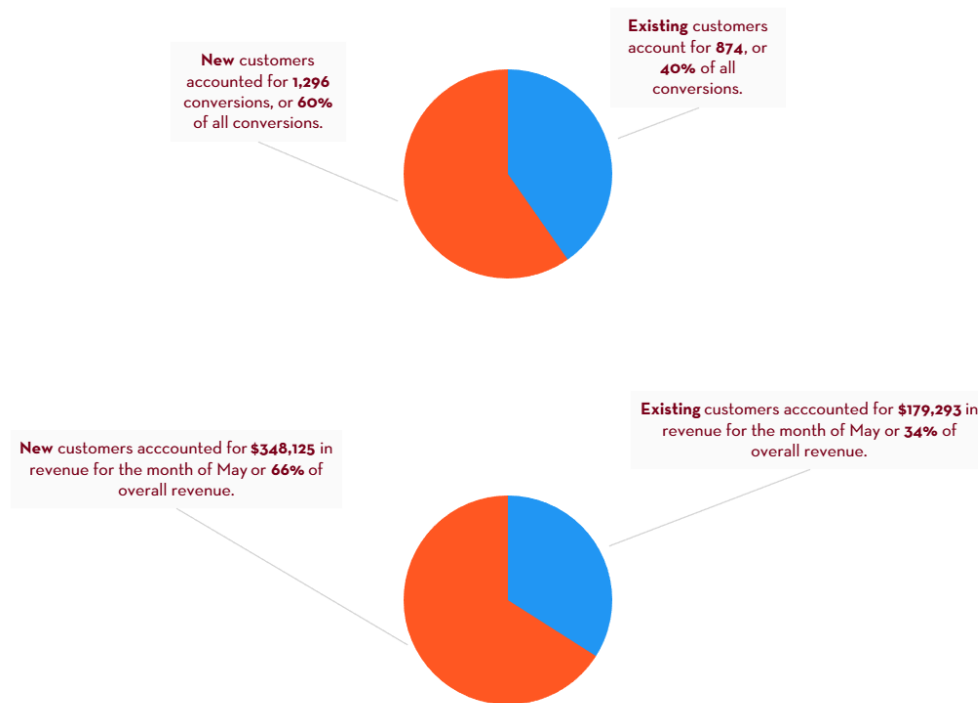
The WM Winters Digital Marketing team reviewed over 10,000 digital interactions and the related sales information to provide recommendations on how best to allocate next year's digital marketing budget. Assessing the value of a digital marketing firm's contribution to a sale has become more challenging because customers interact with more content from a variety of digital marketing firms across numerous devices. It is impossible to know which touchpoint was most influential in the customer's decision to buy without asking them directly. Common approaches to assessing the effectiveness of digital advertising is to review the touchpoint prior to purchase (last-click-model) or the touchpoint that attracted the customer's first interaction (first-click-model). Decisions about how to invest digital marketing dollars is further complicated by the fact that first-click touches and last-click touches are often served to the customer by different firms. These complexities are currently preventing WM Winters from having certainty that their digital marketing dollars are spent with the correct firm.

Based on the analysis of WM Winters' sales data from May 2012, the company should use a last-touch model and focus digital marketing dollars on new customers acquisition. Last-touch interactions were the only method to show a meaningful association with sales or revenue generated from the various digital marketing firms. In addition, whether a customer is a new customer or existing also had a meaningful relationship with higher sales and revenue. New customers currently account for 60% of all WM Winters digital sales and 66% of digital sales revenue (Appendix A). They spend an average of 31% more per order (+\$63.47) than spent by existing customers and require about 20% fewer touches to convert. Considering this is only a month's worth of data, it will be important to continue monitoring these metrics over time as 1 month may not be an accurate time period to capture existing customer behavior.

Two digital marketing firms, CJ and Buzz, have been more successful than most at converting touches into sales. They should receive a larger proportion of WM Winters' business while CPM should receive a smaller share for as long as the current trends hold true. While CPM is currently associated with 58% of all WM Winters' digital marketing touchpoints, the sales data suggests CPM is not as effective in sales conversion as compared to other digital marketing channels. Only 19% of CPM customer touches result in a conversion compared to 35% from Buzz and 44% from CJ. About half of CPM's touchpoints are retargeting efforts that have an unproven amount of influence on a customer's decision to buy. In addition to that, CPM's average converted sale is also about \$40 lower than that of sales converted by CJ and Buzz (Appendix B).

WM Winters should test a very gradual shift in dollar share away from CPM and monitor the changes closely to determine the appropriate degree of recalibration. CPM accounts for 58% of the total touches and 51% of the total conversions on WM Winters' sales (Appendix C). Reallocating marketing dollars towards Buzz and CJ could potentially result in a decrease in total sales volume. The efficiency in converting sales and higher average sales amount on orders converted by CJ and Buzz will ideally make up for the potential loss in total sales volume by shifting dollars away from CPM. Future analysis should include the cost structure for each content provider in order to more accurately determine the ideal allocation of WM Winters' digital marketing budget.

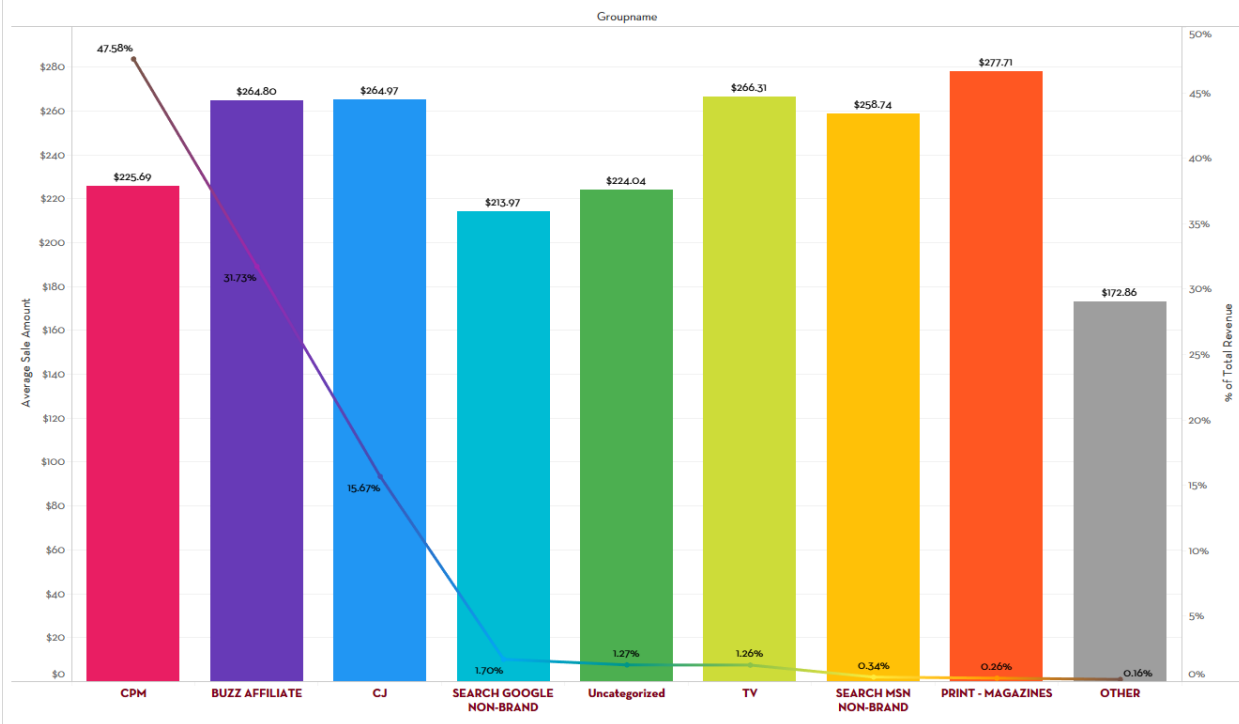
## Appendix A



A t-test was performed, comparing the average sale amount of orders placed by existing customers with the average sale amount of orders placed by new customers. The test suggests that orders placed by new customers are on average \$63.47 ( $p < 2.2e-16$ ) higher than orders placed by existing customers.

## Appendix B

Percentage of Total Revenue & Average Sale Amount by Groupname (Last Touch Model)



The figure above shows the average sale amount and proportion of total sales revenue for each marketing firm of WM Winters sales from May 2012. Sales with CPM had an average sale amount of \$225.69, while sales with Buzz Affiliate and CJ as converters had \$264.80 and \$264.97, respectively. A Tukey's honest significant difference test was completed on all pairwise combinations of marketing firms average sales amounts. Orders with CPM as the converter saw significantly lower average sale amounts than orders with both Buzz Affiliate and CJ,  $-\$39.11$  ( $p = 4.11\text{e-}11$ ) and  $-\$39.28$  ( $p = 8.6\text{e-}6$ ), respectively.

# Appendix C

Initial Data Table

- \* Total number of touches for each group at each position
- \* What percentage of those touches accounted the overall touches of that group name
- \* What percentage of all of the touches for that position came from each group

Groupname	ASSIST			CONVERTER			Positionname ORIGINATOR			ROSTER			Grand Total		
	Touches	% of Group	% of Position	Touches	% of Group	% of Position	Touches	% of Group	% of Position	Touches	% of Group	% of Position	Touches	% of Group	% of Position
BUZZ AFFILIATE	333	18.41%	19.42%	632	34.94%	29.12%	287	15.87%	13.23%	557	30.79%	13.70%	1,809	100.00%	17.88%
CJ	127	17.94%	7.41%	312	44.07%	14.38%	107	15.11%	4.93%	162	22.88%	3.99%	708	100.00%	7.00%
CPM	1,070	18.13%	62.39%	1,112	18.84%	51.24%	812	13.76%	37.44%	2,909	49.28%	71.56%	5,903	100.00%	58.34%
DIRECT MAIL							1	100.00%	0.05%				1	100.00%	0.01%
OTHER	4	8.70%	0.23%	5	10.87%	0.23%	24	52.17%	1.11%	13	28.26%	0.32%	46	100.00%	0.45%
PRINT - MAGAZINES	2	13.33%	0.12%	5	33.33%	0.23%	4	26.67%	0.18%	4	26.67%	0.10%	15	100.00%	0.15%
SEARCH GOOGLE BRAND	126	11.65%	7.35%				662	61.18%	30.52%	294	27.17%	7.23%	1,082	100.00%	10.69%
SEARCH GOOGLE NON-BRAND	11	8.09%	0.64%	42	30.88%	1.94%	65	47.79%	3.00%	18	13.24%	0.44%	136	100.00%	1.34%
SEARCH MSN BRAND	17	7.14%	0.99%				163	68.49%	7.51%	58	24.37%	1.43%	238	100.00%	2.35%
SEARCH MSN NON-BRAND	1	5.56%	0.06%	7	38.89%	0.32%	7	38.89%	0.32%	3	16.67%	0.07%	18	100.00%	0.18%
SEARCH YAHOO BRAND							1	33.33%	0.05%	2	66.67%	0.05%	3	100.00%	0.03%
Social							2	66.67%	0.09%	1	33.33%	0.02%	3	100.00%	0.03%
TV	8	11.43%	0.47%	25	35.71%	1.15%	20	28.57%	0.92%	17	24.29%	0.42%	70	100.00%	0.69%
Uncategorized	16	18.39%	0.93%	30	34.48%	1.38%	14	16.09%	0.65%	27	31.03%	0.66%	87	100.00%	0.86%
Grand Total	1,715	16.95%	100.00%	2,170	21.44%	100.00%	2,169	21.43%	100.00%	4,065	40.17%	100.00%	10,119	100.00%	100.00%

