

THE POPCORN FACTORY[®]

MARKET RESPONSE MODELS

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Market Response Analysis

To assess the effectiveness of The Popcorn Factory's marketing efforts on customer behavior and ensure maximum ROI, we applied regression modeling--a statistical process used to study the relationship among variables-- to TPF's customer data. In specific, a linear regression model was utilized to evaluate the level of impact TPF's coupon and e-mail promotions have on the responsiveness of its total customer base, key target segments as well as its Top Performing Customers.

TOTAL MARKET

PROMOTIONS SUMMARY



CUSTOMER SNAPSHOT

- ★ Total Customers :: 6,195
- ★ Total Revenue :: \$2.4M

TPF MARKETING EFFORTS

- ★ Customers Received:
 - An Average of 4.9 Email Marketing Promotions
 - An Average of 2.5 Coupon Promotions

CUSTOMER MARKETING RESPONSE

- ★ Non-recent shoppers - customers in this group placed their last order over one year ago at 57 weeks
- ★ Infrequent purchasers- Each customer placed on average 2.2 orders

TOTAL MARKET RESPONSE TO CAMPAIGN

PROMOTION EFFECTIVENESS

- ★ As a whole, TPF's B2B customer base responded to employed marketing tactics: Coupon and Email Promotions.
- ★ E-mail and coupon promotions showed slight influence on customer responsiveness.
 - However, there is little distinction between the coupon and e-mail promotions in terms of effectiveness. The standard coefficients are .363 for email and .353 for coupon, which indicates both are comparable in terms of impact on consumer responsiveness.¹
- ★ The response model demonstrated that e-mail and coupon promotions were more impactful in influencing customer purchase behavior when used together than when used separately.
 - The email - coupon combination model¹ explains 30% of the variability in the total market, whereas an inquiry into an email-only model explains only 18% and coupon-only model explains only 17%. This variation indicates the power of the two as tools of promotional messaging reinforcements.



¹View slide 17 of appendix for data output charts

TOP PERFORMING CUSTOMERS (\$10K+ REVENUE)

PROMOTIONS SUMMARY



CUSTOMER SNAPSHOT

- ★ Total Customers :: 15
- ★ Total Revenue :: \$239,436

TPF MARKETING EFFORTS

- ★ Customers Received:
 - An Average of 6.4 Email Promotions
 - An Average of 6 Coupon Promotions

CUSTOMER MARKETING RESPONSE

- ★ Recent Shoppers - on average, this group's last order was placed just over 42 weeks ago on average (less than a year).
- ★ Frequent Purchasers - Placed more than 21 orders on average.

TOP PERFORMING CUSTOMERS (\$10K+ Revenue)

RESPONSE TO CAMPAIGN



PROMOTION EFFECTIVENESS

- ★ Email promotions resonate more than coupons for this group of customers.
 - The standard coefficients are .537 for email⁴ and do not even register for coupon, which tells us that email is the more effective method of promotion to the top 15 customers. It is not extremely significant though, with the t score of .039 instead of .000 as with other segments we have examined.
- ★ When used together, e-mail and coupons are far less effective in incentivizing customer behavior than when emails are employed only.
 - The email - coupon combination model explains 0%⁴ of the variability in the segment, whereas an inquiry into an email-only model explains 28.8% and coupon-only model explains 0%. The coupon-only model does not even factor into the regression model.

⁴View slide 19 of appendix for data output charts

TPF TARGET CUSTOMERS

QUICK FACTS

- Together the two groups represent **nearly two-thirds** of TPF's B2B customers, or **3,885 customers**
- This group represents **80.6%** of TPF's total B2B revenue = **\$1,934,359.18** over two years
- **Popcorn and Samplers** consist of the majority of their purchases

Big Spenders Current Behavior

- Big Spenders - Spend between \$500 and \$10,000 on orders
- Opportunity to increase recency
- Combined two customer segments - **Current Cash Cow** and **Lost & Lucrative** - into one given similarities in purchasing behaviors
- This group contributed **\$1,531,167.69 (63.8%)** of TPF's total revenue

High Interest, Low Spend Current Behavior

- Small spender - spends less than \$500 on purchases
- Have made recent purchases within the last year
- Actionable: while sustaining activeness, potential to incentivize to spend more on purchases

BIG SPENDERS

(SEGMENTS 2 & 3 COMBINED)

PROMOTIONS SUMMARY



CUSTOMER SNAPSHOT

- ★ Total Customers :: 986
- ★ Total Revenue :: \$1.5M

TPF MARKETING EFFORTS

- ★ Customers Received:
 - An Average of 7.2 Email Promotions
 - An Average of 3.3 Coupon Promotions

CUSTOMER MARKETING RESPONSE

- ★ Recent Shoppers - Ordered just less than a year ago at 51 weeks
- ★ Infrequent Purchasers - During customer lifetime, ordered on average 3.7 times from TPF

BIG SPENDERS

(SEGMENTS 2 & 3 COMBINED)

RESPONSE TO CAMPAIGN



PROMOTION EFFECTIVENESS

- ★ E-mail and coupon promotions had little to no effect on the purchasing behavior of this combined segment.
 - The standard coefficients are .059 for email and -.151 for coupon.² The results are not significant for email in that case, with a t-value of .06. When viewed as email-only, the .074 coefficient is low and also shows emails to have little effectiveness. Coupon promotions show no effectiveness for this segment, presenting a negative value in all cases.
- ★ The response model demonstrated that e-mail and coupon promotions in combination were not very impactful on incenting a consumer response.
 - The email-coupon combination model explains 2.8% of the variability² in the segment, but as viewed in the previous slide, the high t value shows no significant correlation between email and coupon. An inquiry into an email-only model explains only .6% with a slight significance and coupon-only model explains 2.4%, but the negative value means that coupons are significantly ineffective.

²View slide 18 of appendix for data output charts

HIGH INTEREST LOW SPEND

(SEGMENT 5)

PROMOTIONS SUMMARY



CUSTOMER SNAPSHOT

- ★ Total Customers :: 2,899
- ★ Total Revenue :: \$403,000

TPF MARKETING EFFORTS

- ★ Customers Received:
 - An Average of 4.5 Email Promotions
 - An Average of 2.4 Coupon Promotions

CUSTOMER MARKETING RESPONSE

- ★ Recent Shoppers - On Average, this group's last order was placed recently - 35 weeks ago on average
- ★ Infrequent Purchasers - During customer lifetime, ordered on average of nearly 2.4 times from TPF

HIGH INTEREST LOW SPEND (SEGMENT 5) RESPONSE TO CAMPAIGN



PROMOTION EFFECTIVENESS

- ★ Coupon promotions are twice as effective on this segment compared to e-mail.
 - There is a notable difference between the two promotional tactics in terms of effectiveness. The standard coefficients are .179 for email³ and .269 for coupon in the combination model, and in the coupon-only model we see an effectiveness of .279 versus .094 in the email-only model.
- ★ Coupon promotions are nearly as effective singularly as when used in combination with email promotions.
 - The email - coupon combination model explains 11% of the variability³ in the segment, whereas an inquiry into an email-only model explains only 4% and coupon-only model explains 8%. There is little difference in variability when using coupon-only versus a combination of email and coupon.

³View slide 19 of appendix for data output charts

CONCLUSIONS & RECOMMENDATIONS

- Through this regression model, we have identified the following:
 - Overall, the TPF B2B customer base as a whole responds well to both email and coupon promotions.
- TPF should use targeted email and coupon promotions to encourage repeat purchases among key customer segments.
 - The High Interest/Low Spend customer segment should continue to be targeted with email/coupon promotions based on their positive response to this tactic.
 - Top Performing Customers should be targeted with email promotions.
- Email and coupon promotions should be discontinued for the Big Spenders customer segment; other tactics should be considered such as Direct Sales outreach or other personalized marketing tactics.

APPENDIX

SPSS OUTPUT CHARTS

TOTAL MARKET PROMOTIONS SUMMARY

	Recency_mean	Frequency_mean	totalqty_sum	totamt_sum	Email_mean	Coupon_mean
Mean	56.9798	2.2381	2901.6788	389.3493	4.9277	2.5083
N	6195	6195	6164	6164	6195	6195
Sum	352990.00	13865.00	17885948.00	2399949.36	30527.00	15539.00

RESPONSE TO CAMPAIGN

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.551 ^a	.304	.304	1.11151

a. Predictors: (Constant), Coupon, Email

Coupon-only Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.420 ^a	.177	.177	1.20891

a. Predictors: (Constant), Coupon

Email-only Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.429 ^a	.184	.184	1.20366

a. Predictors: (Constant), Email

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.655	.045		59.140	.000
	Email	.209	.006	.363	33.585	.000
	Coupon	.463	.014	.353	32.631	.000

a. Dependent Variable: logamount

BIG SPENDERS

PROMOTIONS SUMMARY

Big Spenders Promotions Summary

	totamt_sum	totalqty_sum	Recency_mean	Frequency_mean	Email	Coupon
Mean	1551.3931	4688.3529	50.8063	3.6663	7.16	3.27
N	986	986	986	986	986	986
Sum	1529673.61	4622716.00	50095.00	3615.00	7060	3220

RESPONSE TO CAMPAIGN

Email & Coupon Combo Coefficients - Segment 2/3^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.262	.088		82.389	.000
	Email	.014	.007	.059	1.870	.062
	Coupon	-.090	.019	-.151	-4.787	.000

a. Dependent Variable: logamount

Email-only Coefficients - Segments 2/3^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.941	.058		119.968	.000
	Email	.017	.007	.074	2.333	.020

a. Dependent Variable: logamount

Coupon-only Coefficients - Segments 2/3^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.373	.065		112.955	.000
	Coupon	-.094	.019	-.157	-4.991	.000

a. Dependent Variable: logamount

Email & Coupon Combo Model Summary - Segment 2/3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.168 ^a	.028	.026	.68459

a. Predictors: (Constant), Coupon, Email

Email-only Model Summary - Segments 2/3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.074 ^a	.006	.004	.69217

a. Predictors: (Constant), Email

Coupon-only Model Summary - Segments 2/3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.157 ^a	.025	.024	.68546

a. Predictors: (Constant), Coupon

HIGH INTEREST

LOW SPEND

PROMOTIONS SUMMARY

	Recency_mean	Frequency_mean	totalqty_sum	totamt_sum	Email	Coupon
Mean	34.5467	2.3518	52.9224	139.0219	4.58	2.43
N	2899	2899	2899	2899	2899	2899
Sum	100151.00	6818.00	153422.00	403024.37	13267	7055

RESPONSE TO CAMPAIGN

Coupon-only Coefficients - Segment 5^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.875	.046		84.934	.000
	Coupon	.279	.018	.284	15.922	.000

a. Dependent Variable: logamount

Email-only Coefficients - Segment 5^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.122	.043		96.813	.000
	Email	.094	.009	.201	11.020	.000

a. Dependent Variable: logamount

Coupon-Email Combo Coefficients - Segment 5^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.525	.057		62.346	.000
	Email	.084	.008	.179	10.179	.000
	Coupon	.265	.017	.269	15.325	.000

a. Dependent Variable: logamount

Email-only Model Summary - Segment 5

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201 ^a	.040	.040	.89416

a. Predictors: (Constant), Email

Coupon-only Model Summary - Segment 5

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.284 ^a	.081	.080	.87521

a. Predictors: (Constant), Coupon

Coupon-Email Combo Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.335 ^a	.112	.112	.86010

a. Predictors: (Constant), Coupon, Email

TOP PERFORMING CUSTOMERS

PROMOTIONS SUMMARY

	Recency_mean	Frequency_mean	totalqty_sum	totamt_sum	Email	Coupon
Mean	34.5467	2.3518	52.9224	139.0219	4.58	2.43
N	2899	2899	2899	2899	2899	2899
Sum	100151.00	6818.00	153422.00	403024.37	13267	7055

RESPONSE TO CAMPAIGN

Top 15 Email & Coupon Combo Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.537 ^a	.288	.233	.30984

a. Predictors: (Constant), Email

Top 15 Email-only Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.537 ^a	.288	.233	.30984

a. Predictors: (Constant), Email

Warnings	
For models with dependent variable logamount, the following variables are constants or have missing correlations: Coupon. They will be deleted from the analysis.	

Top 15 Email & Coupon Combo Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.831	.351		25.136	.000
	Email	.123	.053	.537	2.293	.039

a. Dependent Variable: logamount

Warnings	
For models with dependent variable logamount, the following variables are constants or have missing correlations: Coupon. They will be deleted from the analysis.	
For models with dependent variable logamount, fewer than 2 variables remain. Statistics cannot be computed.	

Top 15 Email-only Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.831	.351		25.136	.000
	Email	.123	.053	.537	2.293	.039

a. Dependent Variable: logamount