

Off-Season of Giving

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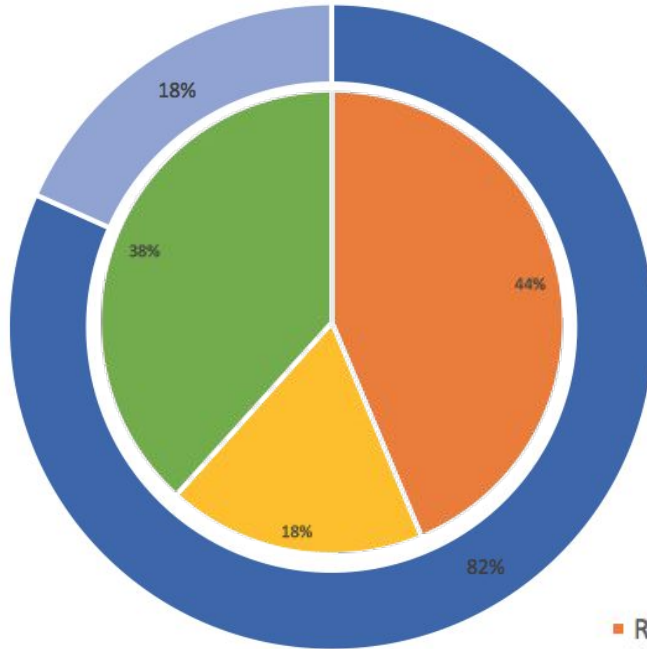
Overview

A multichannel company with sales of several hundred million dollars per year has a network of retail stores, a well established traditional catalog channel and a website. Its brand is very well known nationally and it has a strong positive reputation along with very good long term customer loyalty. The core of the company's business consists of food products which are often purchased as gifts during the Christmas season.

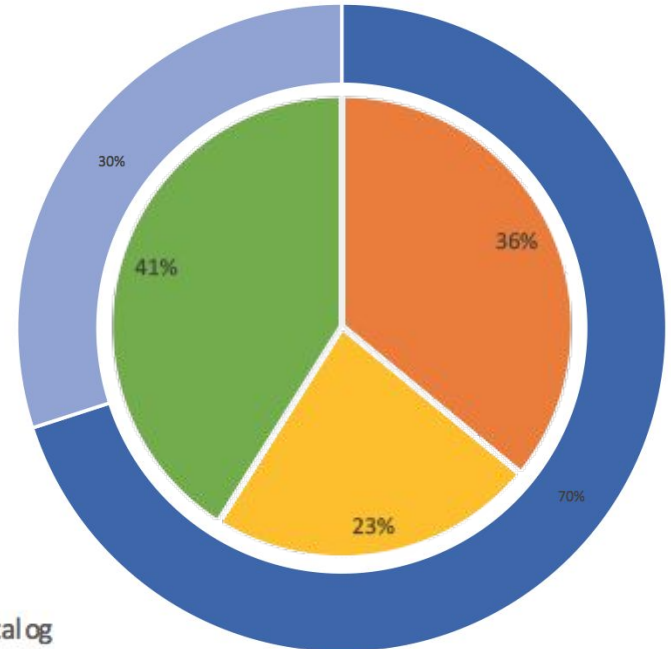


Evolution of Business

Business Contribution 2004



Business Contribution 2007



■ Fall ■ Spring
■ Retail ■ Internet ■ Catalog

Business Challenge

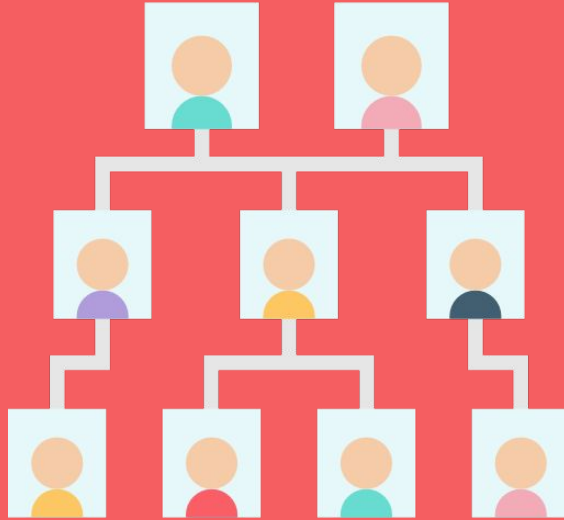
Generate more business during off-season (non-Christmas) months

Objective

Understand the difference between
Christmas shoppers and
non-Christmas shoppers in order to
generate more business during
off-season months

Research Methods

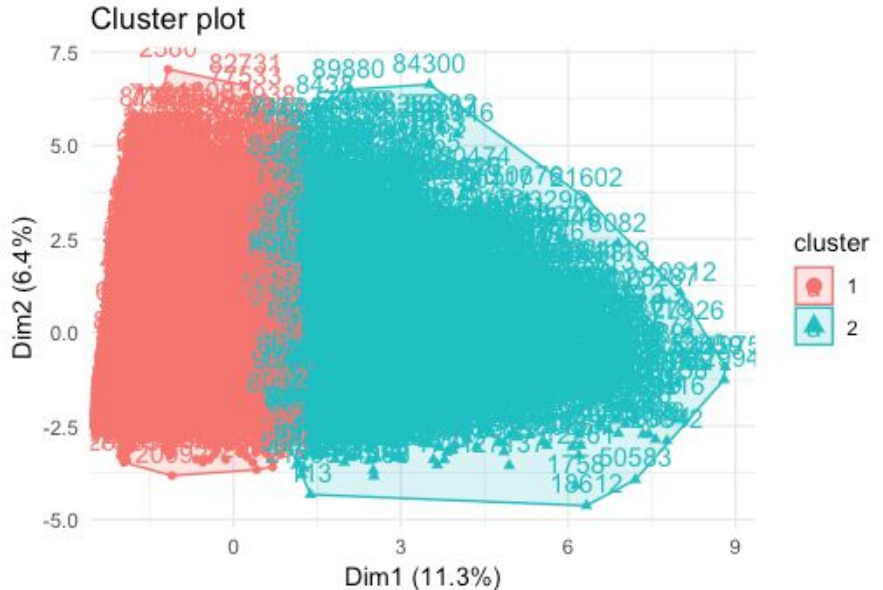
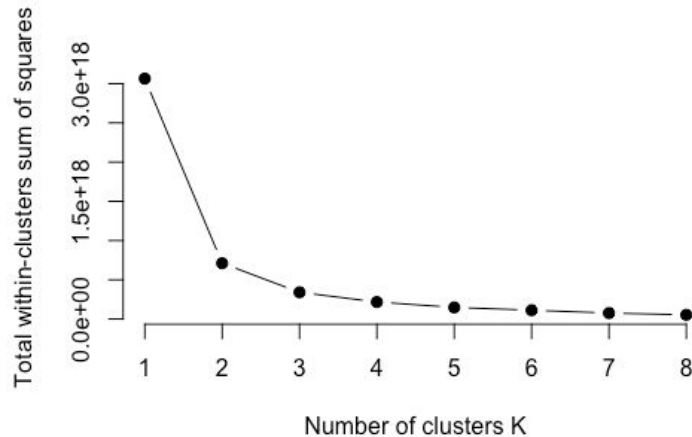
- Clustering Analysis & Customer Segmentation
 - Use demographics and psychographics to create customer profiles for Christmas-shoppers and non-Christmas-shoppers
 - Create marketing strategies based on segmentation insights to target non-Christmas shoppers in off-season
- Customer Lifetime Value
 - Isolate internet customers and investigate total value of this segment to the company over time.
- Logistic Regression
 - Use first-touch information to predict channel loyalty. How fluid are is each customer base?



Customer Segmentation

K-Means Clustering

- Goal was to create segments between Christmas and Non-Christmas Shoppers
- Elbow Method indicated 2 as the optimal number of clusters
- Segment 1: 7812 | Segment 2: 3074



Segment 1

'Tis Always the Season

Occupation

- 43% Technical Profession
- 21% Administrative/Management
- 10% Retired
- 8% Homemaker

Age

- 45 - 55+ years old (slightly older)

Household & Income

- No children at home
- \$60,000 - \$75,000/ year
- Homeowners

Lifestyle

- No pets
- No standout hobbies

Spending

- Spends avg. of 2-4% more than Segment 2 year round
- Strong fall catalog shoppers

Segment 2

Spring Fling

Occupation

- 53% Technical Profession
- 21% Administrative/Management

Age

- 45 - 55 years old

Household & Income

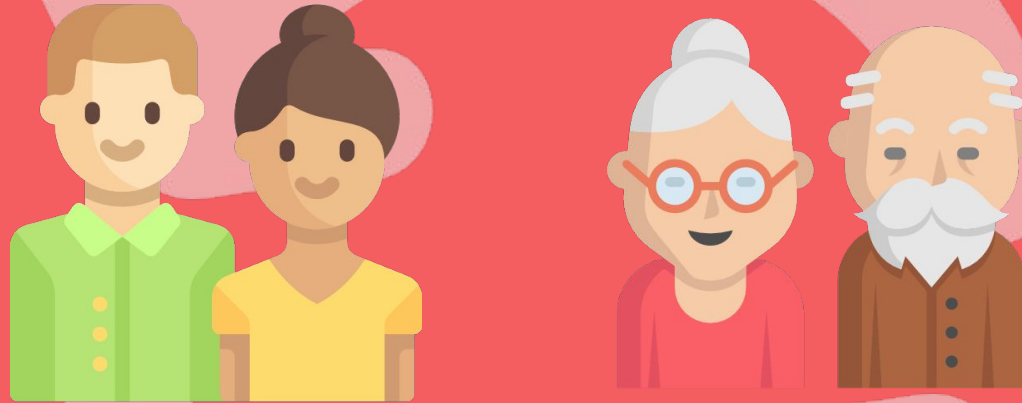
- No children at home
- \$65,000 - \$80,000/ year
- Homeowners
- Car owners

Lifestyle

- Likely to own a dog
- More active lifestyle and hobbies (travel, wine, current events, exercise, cook)

Spending

- Spring Internet shoppers
 - Spent 11.5% more than Segment 1 on this channel
- Spent 12% more on non-gift items in 2007



Customer Lifetime Value

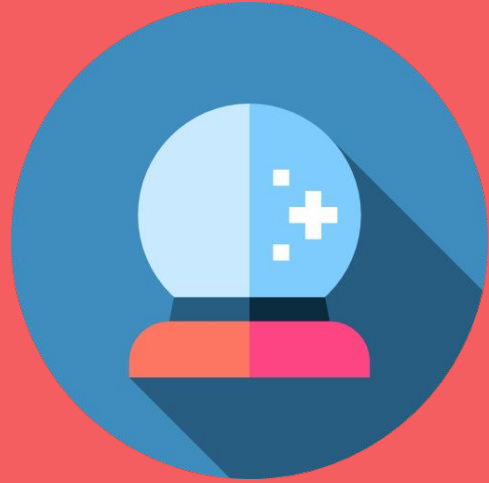
Baseline Metrics

Expected Customer Lifetime (in months)	30
Average Gross Margin per Month per Customer	\$1.28
Average Marketing Costs per Month per Customer	\$0
Average Net Margin per Month per Customer	\$0.85
Average Purchase Value	\$13.51
Average Purchase Frequency	1.89
Customer Value (Benefits - Cost)	\$12.66

CLV = Customer Value x Avg Customer Lifespan

\$379.66

Internet Shoppers



Logistic Regression

Correlation Matrix

Variables	FC_Retail	FC_Internet	FC_Catalog	FirstDollar	StoreDist	Email	Retail	Internet	Catalog
FC_Retail	1	-0.452	-0.655	-0.267	-0.037	-0.083	0.835	-0.467	-0.669
FC_Internet	-0.452	1	-0.378	0.086	0.006	0.141	-0.395	0.874	-0.251
FC_Catalog	-0.655	-0.378	1	0.204	0.033	-0.033	-0.532	-0.256	0.906
FirstDollar	-0.267	0.086	0.204	1	0.015	0.056	-0.221	0.112	0.216
StoreDist	-0.037	0.006	0.033	0.015	1	0.005	-0.047	0.005	0.028
Email	-0.083	0.141	-0.033	0.056	0.005	1	-0.069	0.155	-0.014
Retail	0.835	-0.395	-0.532	-0.221	-0.047	-0.069	1	-0.394	-0.537
Internet	-0.467	0.874	-0.256	0.112	0.005	0.155	-0.394	1	-0.141
Catalog	-0.669	-0.251	0.906	0.216	0.028	-0.014	-0.537	-0.141	1
Values in bold are different from 0 with a significance level $\alpha=0.05$									

Summary Statistics

Hit Rate= 50%

INTERNET			
Variable	Categories	requence	%
Retail	0	5783	53.099
	1	5108	46.901
Catalog	0	6530	59.958
	1	4361	40.042
CATALOG			
Variable	Categories	requence	%
Retail	0	5783	53.09889
	1	5108	46.90111
Internet	0	8122	74.57534
	1	2769	25.42466
RETAIL			
Variable	Categories	requence	%
Internet	0	8122	74.575
	1	2769	25.425
Catalog	0	6530	59.958
	1	4361	40.042

Conclusion

- Primary customer base is older and not very active.
- There is a segment of customers that shop in the Spring – they purchase most heavily via the Internet.
- Catalog shoppers tend to spend the most, while retail shoppers spend less but there is a higher volume of them.
- There is huge potential in internet shoppers as they are likely to convert via other channels as well.
- Retail shoppers are the least likely to convert on another channel

Recommendation

- Target “Spring Fling-ers” with current event ads, treats for dogs, and internet promotions
 - Ad placement in local newspapers to attract them to the website by adding coupon codes redeemable online.
- Cross-pollinate between catalog and internet consumers
- Boost customer loyalty by creating a rewards program that will attract more customers to the Stores.
- Include coupons redeemable in-store only to consolidate the off season customer base.

APPENDIX

Customer Segment Demographic Data

Segment 1								Segment 2					
FirstYMMM	FirstChannel	FirstDollar	StoreDist	AcqDate	Email			FirstYMMM	FirstChannel	FirstDollar	StoreDist	AcqDate	Email
Median :200411	Median :2.000	Median : 38.00	Median : 20.17	Median :200408	Median :1.000			Median :200411	Median :2.00	Median : 38.00	Median : 20.56	Median :200410	Median :1.000
Mean :200393	Mean :2.071	Mean : 60.33	Mean : 46.09	Mean :200264	Mean :1.144			Mean :200401	Mean :2.12	Mean : 58.94	Mean : 40.60	Mean :200293	Mean :1.179
OccupCd	Travel	CurrAff	CurrEv	Wines	FineArts			OccupCd	Travel	CurrAff	CurrEv	Wines	FineArts
Median : 5.000	Median :1.000	Median :1.000	Median :1.000	Median :1.000	Median :1.000			Median : 1.00	Median :1.000	Median :1.000	Median :1.000	Median :2.0	Median :1.00
Mean : 5.344	Mean :1.051	Mean :1.007	Mean :1.044	Mean :1.038	Mean :1.015			Mean : 4.19	Mean :1.433	Mean :1.089	Mean :1.458	Mean :1.5	Mean :1.28
Exercise	SelfHelp	Collect	Needle	Sewing	DogOwner			Exercise	SelfHelp	Collect	Needle	Sewing	DogOwner
Median :1.000	Median :1.000	Median :1.000	Median :1.00	Median :1.000	Median :1.000			Median :2.000	Median :1.000	Median :1.000	Median :1.000	Median :1.000	Median :2.000
Mean :1.136	Mean :1.023	Mean :1.032	Mean :1.02	Mean :1.017	Mean :1.129			Mean :1.692	Mean :1.343	Mean :1.277	Mean :1.192	Mean :1.186	Mean :1.503
CarOwner	Cooking	Pets	Fashion	Camping	Hunting			CarOwner	Cooking	Pets	Fashion	Camping	Hunting
Median :1.000	Median :1.000	Median :1.000	Median :1.000	Median :1.000	Median :1.000			Median :1.00	Median :2.000	Median :1.000	Median :1.000	Median :1.000	Median :1.00
Mean :1.096	Mean :1.031	Mean :1.008	Mean :1.021	Mean :1.049	Mean :1.041			Mean :1.37	Mean :1.508	Mean :1.043	Mean :1.329	Mean :1.331	Mean :1.19
Boating	AgeCode	IncCode	HomeCode	Child0_2	Child3_5			Boating	AgeCode	IncCode	HomeCode	Child0_2	Child3_5
Median :1.000	Median :5.000	Median :7.000	Median :2.000	Median :1.000	Median :1.000			Median :1.000	Median :5.000	Median :7.00	Median :2.000	Median :1.000	Median :1.000
Mean :1.003	Mean :4.782	Mean :6.418	Mean :1.983	Mean :1.014	Mean :1.035			Mean :1.026	Mean :4.701	Mean :6.85	Mean :1.977	Mean :1.022	Mean :1.044
Child6_11	Child12_16	Child17_18	Dwelling	LengthRes	HomeValue			Child6_11	Child12_16	Child17_18	Dwelling	LengthRes	HomeValue
Median :1.000	Median :1.000	Median :1.000	Median :1.000	Median :15.00	Median : 0			Median :1.000	Median :1.000	Median :1.000	Median :1.000	Median :15.00	Median : 0
Mean :1.087	Mean :1.141	Mean :1.111	Mean :1.161	Mean :13.85	Mean : 77932			Mean :1.088	Mean :1.155	Mean :1.124	Mean :1.153	Mean :13.83	Mean : 81095

Segment Comparison: Spending Data

	Retail Fall 07	Retail Spring 07	Internet Fall 07	Internet Spring 07	Catalog Fall 07	Catalog Spring 07	Gift 07	Non Gift 07
Segment 1	90.507463	59.191679	96.954892	60.9468995	107.632296	63.101493	82.69116125	81.626629
Segment 2	89.035294	50.982206	95.893446	70.0810185	101.4305645	59.2685085	77.7369175	91.4254455
	Retail Fall 06	Retail Spring 06	Internet Fall 06	Internet Spring 06	Catalog Fall 06	Catalog Spring 06	Gift 06	Non Gift 06
Segment 1	65.79815	51.181208	82.44203	55.4647245	98.3199725	69.47076	74.36843725	78.48030625
Segment 2	68.273764	50.982206	79.834157	59.9212185	85.1668775	59.2685085	74.68312975	75.5440945
Variance 07	2%	16%	1%	15%	6%	6%	6%	12%
Variance 06	-4%	0%	3%	8%	15%	17%	0%	4%

Overall Spend Comparison	2007	Var	Fall 2007	Var	Spring 2007	Var
Segment 1 total	\$ 79.72	2%	\$ 98.36	3%	\$ 61.08	2%
Segment 2 total	\$ 77.78		\$ 95.45		\$ 60.11	
Overall Spend Comparison	2006	Var	Fall 2006	Var	Spring 2006	Var
Segment 1 total	\$ 70.45	5%	\$ 82.19	6%	\$ 58.71	3%
Segment 2 total	\$ 67.24		\$ 77.76		\$ 56.72	

Customer Lifetime Value (Internet Only)

	Fall 2007	Spring 2007	Total
Retail	\$51,520.00	\$54,282.00	\$105,802.00
Internet	\$53,103.00	\$14,543.00	\$67,646.00
Catalog	\$101,375.00	\$19,323.00	\$120,698.00
Avg Monthly Revenue	Cost = 40%	Margin = 60%	
\$5,637.17	\$0.85	\$1.28	
Transactions in 2007	5008		
Total number of internet purchasers	2646		
Average purchase value	\$13.51		
Average purchase frequency rate	1.89		
Customer value	12.66		
Average customer lifespan	30.00	months (2.6 years)	
Customer Lifetime Value	379.66		

First Channel: Internet

Source	Value	Standard error	Wald Chi-Square	Pr > Chi ²
Intercept	0.959	0.079	147.243	< 0.0001
FC_Internet	-2.650	0.080	1085.811	< 0.0001
FirstDollar	-0.011	0.001	453.901	< 0.0001
StoreDist	-0.001	0.000	18.033	< 0.0001
Email	-0.042	0.063	0.445	0.505

Hit Rate: 50%

First Channel: Retail

Source	Value	Standard error	Wald Chi-Square	Pr > Chi ²
Intercept	-1.205	0.084	206.298	< 0.0001
FC_Retail	-3.444	0.099	1220.710	< 0.0001
FirstDollar	-0.001	0.000	3.328	0.068
StoreDist	0.000	0.000	1.916	0.166
Email	0.841	0.065	166.717	< 0.0001

Hit Rate: 50%

First Channel: Catalog

Source	Value	Standard error	Wald Chi-Square	Pr > Chi²
Intercept	1.757	0.082	460.144	< 0.0001
FC_Catalog	-2.683	0.058	2119.908	< 0.0001
FirstDollar	-0.007	0.001	207.692	< 0.0001
StoreDist	-0.001	0.000	12.019	0.001
Email	-0.582	0.063	85.610	< 0.0001

Hit Rate: 50%