Customer Development Project: **PartyFest Depot**
Kevin Hillstrom: President, MineThatData LLC
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Four Key Issues Impact PartyFest Depot

Customer Development efforts at PartyFest Depot are not meeting expectations for four key reasons.
1. Marketing is not doing a good job of acquiring enough new customers to grow the brand.
2. Marketing is not converting first-time buyers to a second purchase quickly, causing most first-time buyers to lapse and not purchase again. You can't have a loyal buyer unless the newly-acquired buyer purchases for a second time.
3. There appears to be a correlation between fewer new customers / lower annual repurchase rates and an increase in prices over the past year.
4. Existing merchandise/products at PartyFest Depot are dying, and Management has not done a good enough job of replacing dying existing items with winning new items. Only in recent months has the trend begun to reverse itself, with some glimmers of light on the horizon.

Given what I learned in this project, there are clear tactical approaches that PartyFest Depot can employ to improve Customer Development (and top-line sales) performance.
1. I would immediately require Marketing to generate a minimum of 775,000 new + reactivated buyers on an annual basis. Without enough new + reactivated buyers, everything else could be fixed and the business could still contract.
2. I would immediately require Marketing to implement a Welcome Program designed to quickly convert first-time buyers to a second purchase. The vast majority of your customers stop buying after one purchase and make no further progress. You can't have a loyal buyer until the existing 1x buyer purchases for the second time. The primary marketing tool for the Welcome Program would be a separate email marketing program, with cadence and messaging unique to only Welcome Program participants (i.e. customers who purchased for the first time within the past three months).
3. I would immediately implement a Merchandise Personalization program via your website, mobile presence, and email marketing program. Align what a customer likes with your message, and you can expect conversion rate gains of between 15% and 50%. This is virtually free money just lying on the table, waiting to be picked up. You'll also find that you develop customers much faster via personalization than via a campaign-centric view of the world.
4. I would require your Merchandising Team to generate at least $23,000,000 from new items on a rolling-twelve-month basis. Significant investment must be made in new merchandise to offset the death of existing items.

5. Carefully balance price points so that all customers have "something" inexpensive to buy. Remember, higher price points appear to be correlated with lower new customer counts and lower annual repurchase rates.
6. In your specific case, I'd develop an "Anniversary Program" for marketing to customers who are 11/12/13 months removed from a past purchase. PartyFest Depot needs to take advantage of the fact that customers are very responsive around one year following a prior purchase.

Many people ask "What does a Welcome Program look like?"

A Welcome Program is designed to quickly move a first-time buyer to a second purchase. Once a customer purchases for the second time, repurchase rates are significantly higher, causing Customer Development to accelerate. You can't have a loyal customer unless the customer migrates from a first purchase to a second purchase, and repurchase rates are lowest among first-time purchasers. Therefore, a credible Welcome Program is necessary to foster the Customer Development process.

So, "What does a Welcome Program look like?"
- Thank customers for placing their first order.
- Check in on the customer (digitally or via phone calls) to make sure that the first order arrived in proper condition and that the customer was happy with the first order.
- Have specific products that are unique to first-time buyers to cross-sell as part of a rapid "second order" process. When you buy an iPhone, you need accessories, like a phone case. These second orders accelerate Customer Development.
- Personalized print placed in outgoing packages based on a first purchase, offering merchandise congruent with the items purchased in a first order.
- Merchandise personalization on the home page, key landing pages, and on your mobile presence, to increase conversion rates for first-time buyers who visit your website again.
- A customized email marketing program *only* for first-time buyers with recency < 90 days. These customers get unique stories tailored to first-time buyers, educational stories. These customers get unique merchandise offerings personalized to the first-time buyer.
- Where appropriate (I am not a fan of discounts/promotions), unique and special promotions tailored to a first-time buyer.
- Assignment of "personal shoppers" who are "on demand" to help the first-time buyer at any time during the first ninety days following a first purchase.

Those are ideas I've seen work very well for "brands". You have better ideas. Implement them!!

Slumping Business Over Time

Let's begin by looking at a series of annual metrics. I run this table for all of my clients. The table helps me understand what "core issues" your brand faces, from a customer standpoint.

Annual Retention Metrics Through 2020.01.31

Key Metrics	This Year	Last Year	Change
Beginning Buyers	1,055,228	1,064,479	-0.9%
Annual Repurchase Rate	29.7%	31.6%	-6.1%
Orders per Buyer	1.977	1.988	-0.6%
Items per Order	11.448	11.805	-3.0%
Price per Item Purchased	$8.56	$8.16	4.9%
Average Order Value	$98.02	$96.32	1.8%
Demand per Buyer	$193.77	$191.54	1.2%
Demand per Inventory	$57.56	$60.59	-5.0%
New + Reactivated Buyers	658,315	718,496	-8.4%
Orders per Buyer	1.215	1.233	-1.5%
Items per Order	7.599	7.965	-4.6%
Price per Item Purchased	$8.28	$7.90	4.8%
Average Order Value	$62.90	$62.94	-0.1%
Demand per Buyer	$76.41	$77.63	-1.6%
Beginning Buyers	1,055,228	1,064,479	-0.9%
Annual Repurchase Rate	29.7%	31.6%	-6.1%
Active Buyers	313,436	336,732	-6.9%
New + Reactivated Buyers	658,315	718,496	-8.4%
End of Year Buyers	971,751	1,055,228	-7.9%
12 Month Buyers 2 Years Ago	1,064,479		
12 Month Buyers Last Year	1,055,228	-0.9%	
12 Month Buyers Today	971,751	-7.9%	
Total Demand (000s)	$111,037	$120,270	-7.7%
Demand - Repurchasers	$60,734	$64,496	-5.8%
Demand - New + Reactivated	$50,303	$55,773	-9.8%

In the past year, PartyFest LLC contracted by nine million dollars, a decline of nearly 8% in top-line volume. Obviously this isn't an acceptable trend. You began the year with 1% fewer buyers, not a big deal. Annual repurchase rates declined from 31.6% to 29.7%, a 6% decline.

From a Customer Development standpoint, PartyFest LLC is a brand that requires New + Reactivated buyers to grow. About 7 in 10 customers who purchased last year will not purchase again this year, requiring PartyFest LLC to find 7 New + Reactivated buyers to "fill the funnel".

Annual Orders per Buyer and Items per Order declined marginally, while Annual Price per Item Purchased increased significantly. It is obvious that Management either increased prices, decreased discounting, or offered new items at higher price points than in prior years. Higher price points allowed PartyFest LLC to offset declines in other metrics, yielding a marginally higher average order value and higher annual demand per buyer. When multiplying annual repurchase rates by annual demand per buyer, we observe that your existing twelve-month buyer delivered less value (a five percent decline) than the year prior. The net result of any changes over the past year, therefore, is negative.

When a brand possesses customers with annual repurchase rates under forty percent, the brand must focus considerable marketing effort on New + Reactivated buyers. PartyFest LLC appears to be doing the opposite. Look at New + Reactivated counts compared to a year prior. You had 658,315 New + Reactivated buyers in the past year, whereas you had 718,496 the year prior, a decrease of 8.4%. If you want your brand to grow, you will need to grow New + Reactivated buyer counts.

In the past three years, the twelve-month buyer file decreased from 1,064,479 buyers to 1,055,228 buyers to just 971,751 buyers. With a file in contraction paired with a reduction in New + Reactivated buyers, PartyFest LLC is going through a period of contraction.

Basic Tables Show That "More" Is Important

I analyzed repurchase behavior of first-time buyers. The data clearly indicates that "more" is important. If a customer buys "more" items or buys from "more" merchandise categories, the customer is "more" likely to buy again in the future.

The first table (below) shows us a cross-tabulation of items purchased in a first order vs. average price point purchased from.

New Buyer Annual Rebuy Rate

Items	Low	Price Medium	High
1	14.4%	15.5%	15.2%
2	18.9%	19.5%	20.0%
3	20.3%	21.4%	22.1%
4-5	20.9%	22.8%	24.0%
6+	22.8%	27.0%	28.5%

As a customer buys more items, the customer becomes more likely to purchase for a second time within a year. As a customer buys from higher price points, the customer is more likely to purchase for a second time within a year. From a execution standpoint, it is important to cross-sell the customer into more items in a first purchase, and if possible, show the customer "some" higher price point items.

Let's now look at Items vs. Categories.

New Buyer Annual Rebuy Rate

Items	Categories 1	2	3	4+
1	15.2%			
2	19.2%	21.1%		
3	20.3%	22.5%	23.9%	
4-5	21.0%	23.7%	24.3%	24.8%
6+	22.2%	24.6%	26.0%	28.5%

Once again, "more" is "good"!! If a customer buys three items on a first order, you'd prefer that the customer buy from three merchandise categories as well.

Let's see how physical channel interacts with the likelihood of a second purchase.

	Channel			
Items	Fax	Call Ctr.	Website	Mobile
1	26.5%	20.3%	15.2%	15.1%
2	30.6%	21.2%	18.1%	19.6%
3	30.6%	22.5%	21.0%	21.4%
4-5	28.3%	23.9%	21.5%	22.7%
6+	40.4%	26.2%	25.9%	25.3%

Notice that Fax (yes, "Fax") has the highest probability of yielding customers likely to buy for a second time. These are clearly corporate accounts placing orders, consequently, these accounts possess different dynamics than a household buying from Boise.

This final table illustrates how merchandise category interacts with the probability of buying for a second time within a year.

New Buyer Annual Rebuy Rate

Merch Category	Items			
	1	2	3-4	5+
0	14.3%	12.5%	18.2%	26.4%
1	11.1%	17.3%	21.7%	25.2%
2	14.5%	18.2%	22.7%	28.9%
3	19.6%	24.5%	28.9%	34.2%
4	16.1%	20.6%	24.0%	29.4%
5	16.2%	18.7%	21.4%	25.1%
6	17.5%	22.4%	26.6%	31.0%
7	14.5%	19.7%	23.5%	27.4%
8	16.2%	18.8%	22.2%	25.7%
9	15.6%	18.7%	20.9%	23.4%
10	15.9%	18.2%	19.9%	21.6%
11	16.6%	20.9%	24.6%	29.1%
12	15.5%	19.7%	23.7%	27.7%

Where possible, you want to encourage purchases from categories three, six, eight, and eleven, as those categories increase future repurchase rates.

The Five Stages of Customer Development

I view Customer Development as a five-stage process.
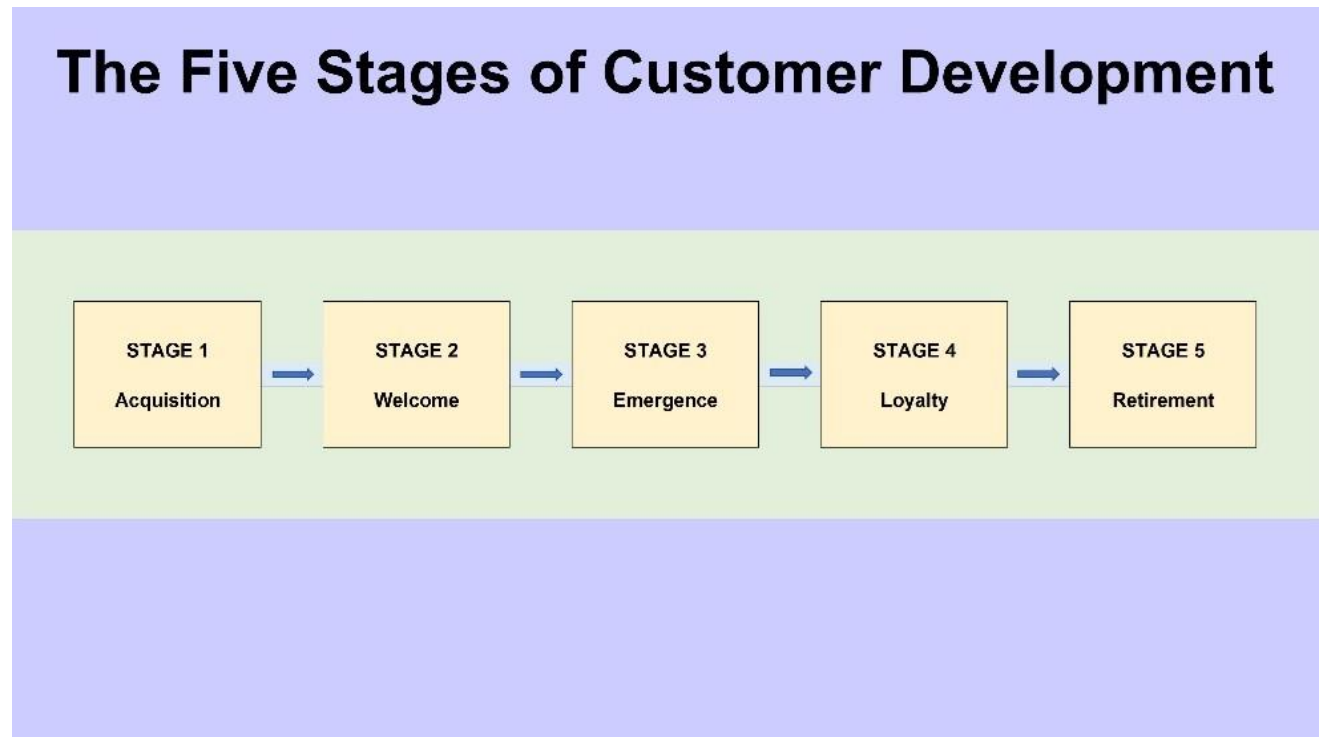
Acquisition is the process of finding new customers.

Welcome is the process of quickly converting the customer from a first purchase to a second purchase.

Emergence is the process of migrating the customer from a second purchase to a fifth purchase. At five purchases, I generally consider the customer to be "loyal". At this stage, the customer delivers disproportionate profit to the brand.

Loyalty is a challenging concept, simply because most customers don't stay "loyal". Customers are in a constant state of decay, repeatedly requiring encouragement to push the customer to subsequent purchases.

Retirement reflects customer inactivity. Most customers purchase, then do not want to purchase again. As time passes, the customer becomes ever-less likely to buy again. The customer essentially removes himself/herself from the purchase rhythm best customers remain in, causing the customer to "Retire" and become unlikely to ever purchase again.

We know that your "Acquisition" process is being run sub-optimally. We already studied the decline in New + Reactivated buyers in the past year. This trend is not new. Tables

for the two years prior to last year are featured next. Look at what happens to New + Reactivated buyer counts.

Annual Retention Metrics Through 2019.01.31

Key Metrics	This Year	Last Year	Change
Beginning Buyers	1,064,479	1,088,963	-2.2%
Annual Repurchase Rate	31.6%	31.8%	-0.5%
Orders per Buyer	1.988	1.976	0.6%
Items per Order	11.805	12.462	-5.3%
Price per Item Purchased	$8.16	$7.95	2.7%
Average Order Value	$96.32	$99.05	-2.7%
Demand per Buyer	$191.54	$195.68	-2.1%
Demand per Inventory	$60.59	$62.20	-2.6%
New + Reactivated Buyers	718,496	718,318	0.0%
Orders per Buyer	1.233	1.241	-0.6%
Items per Order	7.965	8.529	-6.6%
Price per Item Purchased	$7.90	$7.68	2.9%
Average Order Value	$62.94	$65.51	-3.9%
Demand per Buyer	$77.63	$81.32	-4.5%
Beginning Buyers	1,064,479	1,088,963	-2.2%
Annual Repurchase Rate	31.6%	31.8%	-0.5%
Active Buyers	336,732	346,161	-2.7%
New + Reactivated Buyers	718,496	718,318	0.0%
End of Year Buyers	1,055,228	1,064,479	-0.9%
12 Month Buyers 2 Years Ago	1,088,963		
12 Month Buyers Last Year	1,064,479	-2.2%	
12 Month Buyers Today	1,055,228	-0.9%	
Total Demand (000s)	$120,270	$126,150	-4.7%
Demand - Repurchasers	$64,496	$67,737	-4.8%
Demand - New + Reactivated	$55,773	$58,413	-4.5%

Annual Retention Metrics Through 2018.01.31

Key Metrics	This Year	Last Year	Change
Beginning Buyers	1,088,963	1,092,462	-0.3%
Annual Repurchase Rate	31.8%	31.7%	0.3%
Orders per Buyer	1.976	1.951	1.3%
Items per Order	12.462	12.732	-2.1%
Price per Item Purchased	$7.95	$7.77	2.2%
Average Order Value	$99.05	$98.99	0.1%
Demand per Buyer	$195.68	$193.09	1.3%
Demand per Inventory	$62.20	$61.23	1.6%
New + Reactivated Buyers	718,318	742,565	-3.3%
Orders per Buyer	1.241	1.230	0.9%
Items per Order	8.529	8.801	-3.1%
Price per Item Purchased	$7.68	$7.58	1.3%
Average Order Value	$65.51	$66.71	-1.8%
Demand per Buyer	$81.32	$82.07	-0.9%
Beginning Buyers	1,088,963	1,092,462	-0.3%
Annual Repurchase Rate	31.8%	31.7%	0.3%
Active Buyers	346,161	346,398	-0.1%
New + Reactivated Buyers	718,318	742,565	-3.3%
End of Year Buyers	1,064,479	1,088,963	-2.2%
12 Month Buyers 2 Years Ago	1,092,462		
12 Month Buyers Last Year	1,088,963	-0.3%	
12 Month Buyers Today	1,064,479	-2.2%	
Total Demand (000s)	$126,150	$127,831	-1.3%
Demand - Repurchasers	$67,737	$66,887	1.3%
Demand - New + Reactivated	$58,413	$60,944	-4.2%

To briefly summarize, here is top-line sales volume over the past several years.
- $111,037,000 last year.
- $120,270,000 two years ago.

- $126,150,000 three years ago.
- $127,831,000 four years ago.

The business is steadily contracting.

Now let's review New + Reactivated Buyer counts over that timeframe.
- 658,315 last year.
- 718,496 two years ago.
- 718,318 three years ago.
- 742,565 four years ago.

Notice that the decline in New + Reactivated buyers correlates with a decline in top-line net sales.

Here is the relationship for annual repurchase rates among twelve-month buyers.
- 29.7% last year.
- 31.6% two years ago.
- 31.8% three years ago.
- 31.7% four years ago.

Annual rebuy rates were flat for three years (prior to last year), but the top-line contracted. This happens when New + Reactivated buyer counts decrease.

The Welcome Period

In my work, it is common for first-time buyers to be highly responsive in the first three months following a first purchase. This is the timeframe when "brands" should be maximizing their efforts at converting the customer to a subsequent purchase. For "brands" with annual repurchase rates under forty (40) percent, Customer Acquisition is most important, with the Welcome Period being a close second.

Unfortunately, most of my clients ignore this thesis. Those clients then wonder why they are unable to grow.

I use a methodology called the "Master Sheet" to evaluate Customer Development activities. I measure repurchase rates by months since last purchase by number of life-to-date orders. This allows me to compare your efforts to a baseline of brands I've previously analyzed, enabling me to tell you where your efforts are strong and where they are weak.

The Master Sheet has a ton of data in it. I'll share the Master Sheet first, then I'll go into details about your Welcome Period in comparison to other brands.

Customer Development "Master Sheet"

	Incremental Monthly Rebuy Rates					Indexed Gains in Rebuy Rates by Freq				Customer Development Indices					Cumulative Rebuy Rates by Month					Annual Rebuy Rates by Recency				
	Actual Rebuy	Actual Rebuy	Actual Rebuy	Actual Rebuy	Actual Rebuy	Actual Index	Actual Index	Actual Index	Actual Index		Change	Change	Change	Change	Cumm Rebuy	Cumm Rebuy	Cumm Rebuy	Cumm Rebuy	Cumm Rebuy	Annual Rebuy	Annual Rebuy	Annual Rebuy	Annual Rebuy	Annual Rebuy
Recency	1x to 2x	2x to 3x	3x to 4x	4x to 5x	5x to 6x	2x vs 1x	3x vs 2x	4x vs 3x	5x vs 4x	1x Rebuy	2x vs 1x	3x vs 2x	4x vs 3x	5x vs 4x	1x to 2x	2x to 3x	3x to 4x	4x to 5x	5x to 6x	1x to 2x	2x to 3x	3x to 4x	4x to 5x	5x to 6x
1	4.0%	6.1%	7.7%	9.1%	10.5%	1.538	1.260	1.178	1.150	0.461	0.986	0.950	0.988	1.013	4.0%	6.1%	7.7%	9.1%	10.5%	19.0%	33.2%	43.7%	52.6%	59.6%
2	2.2%	4.0%	5.6%	6.9%	8.0%	1.800	1.389	1.228	1.164	0.433	1.100	1.048	1.030	1.026	6.1%	9.9%	12.9%	15.4%	17.7%	16.9%	31.0%	41.7%	51.1%	58.1%
3	1.7%	3.2%	4.5%	5.8%	7.0%	1.897	1.400	1.280	1.202	0.547	1.061	1.056	1.074	1.059	7.8%	12.9%	16.9%	20.3%	23.4%	15.7%	29.2%	39.7%	49.0%	56.1%
4	1.5%	2.9%	4.1%	5.4%	6.4%	1.910	1.413	1.308	1.189	0.639	1.014	1.066	1.097	1.048	9.2%	15.4%	20.3%	24.6%	28.3%	14.8%	27.8%	38.0%	47.2%	54.2%
5	1.3%	2.6%	3.7%	5.0%	6.1%	1.930	1.463	1.336	1.226	0.651	1.019	1.103	1.120	1.080	10.4%	17.6%	23.3%	28.4%	32.7%	14.0%	26.5%	36.5%	45.4%	52.5%
6	1.2%	2.5%	3.5%	4.5%	5.9%	2.091	1.421	1.283	1.301	0.642	1.072	1.072	1.076	1.147	11.4%	19.6%	26.0%	31.6%	36.7%	13.4%	25.4%	35.2%	43.8%	50.7%
7	1.1%	2.3%	3.4%	4.5%	5.7%	2.094	1.482	1.349	1.245	0.658	1.046	1.073	1.058	1.070	12.4%	21.4%	28.5%	34.7%	40.3%	12.9%	24.4%	33.8%	42.4%	49.1%
8	1.0%	2.3%	3.2%	4.3%	5.5%	2.201	1.441	1.331	1.273	0.670	1.079	1.044	1.043	1.095	13.3%	23.2%	30.8%	37.5%	43.5%	12.4%	23.5%	32.7%	40.9%	47.3%
9	1.0%	2.0%	3.2%	4.0%	5.3%	2.101	1.552	1.248	1.326	0.662	1.022	1.124	0.979	1.140	14.1%	24.8%	33.0%	40.0%	46.5%	12.0%	22.6%	31.5%	39.5%	45.8%
10	1.0%	2.2%	3.3%	4.2%	5.3%	2.114	1.520	1.278	1.248	0.697	1.049	1.101	1.002	1.074	15.0%	26.4%	35.2%	42.5%	49.3%	11.6%	21.9%	30.4%	38.3%	44.3%
11	1.6%	3.4%	4.9%	6.3%	7.8%	2.098	1.414	1.288	1.239	1.003	1.029	1.024	1.010	1.065	16.4%	28.9%	38.4%	46.1%	53.3%	11.3%	21.1%	29.3%	36.9%	42.6%
12	3.1%	6.0%	8.6%	12.1%	13.5%	1.945	1.444	1.398	1.122	1.457	0.998	1.046	1.096	0.964	19.0%	33.2%	43.7%	52.6%	59.6%	10.5%	19.6%	27.3%	34.4%	39.8%
13	1.6%	3.1%	4.6%	6.1%	7.2%	1.960	1.493	1.340	1.179	1.045	1.015	1.050	1.024	1.029	20.2%	35.2%	46.2%	55.5%	62.5%	9.0%	16.8%	23.5%	28.6%	33.5%
14	0.8%	1.6%	2.3%	2.9%	3.6%	1.930	1.502	1.255	1.232	0.710	0.975	1.057	0.959	1.075	20.9%	36.2%	47.5%	56.8%	63.9%	8.3%	15.4%	21.6%	25.8%	30.3%
15	0.7%	1.3%	1.9%	2.6%	2.9%	1.906	1.428	1.379	1.127	0.715	0.932	1.005	1.054	0.984	21.4%	37.1%	48.5%	57.9%	64.9%	8.1%	14.9%	20.7%	24.8%	29.0%
16	0.6%	1.2%	1.8%	2.1%	3.0%	1.865	1.505	1.197	1.410	0.707	0.899	1.059	0.915	1.231	21.9%	37.8%	49.4%	58.8%	66.0%	7.9%	14.4%	20.2%	24.0%	28.1%
17	0.6%	1.1%	1.7%	2.2%	2.7%	1.869	1.539	1.326	1.187	0.660	0.976	1.083	1.014	1.036	22.4%	38.5%	50.3%	59.8%	66.9%	7.7%	14.1%	19.6%	23.5%	26.9%
18	0.6%	1.2%	1.5%	2.1%	2.7%	2.079	1.325	1.357	1.299	0.662	1.038	0.933	1.038	1.133	22.8%	39.2%	51.0%	60.6%	67.8%	7.6%	13.9%	19.1%	22.8%	26.2%
19	0.6%	1.1%	1.7%	2.0%	2.4%	2.058	1.462	1.205	1.197	0.669	0.998	1.087	0.964	1.105	23.2%	39.9%	51.8%	61.4%	68.5%	7.4%	13.5%	18.7%	22.2%	25.3%
20	0.6%	1.1%	1.6%	2.1%	2.7%	1.963	1.434	1.296	1.293	0.706	0.931	1.066	1.037	1.194	23.7%	40.6%	52.6%	62.2%	69.4%	7.3%	13.2%	18.3%	21.6%	24.8%
21	0.6%	1.2%	1.6%	2.1%	2.6%	2.065	1.352	1.320	1.274	0.717	0.932	1.005	1.056	1.177	24.1%	41.3%	53.4%	63.0%	70.2%	7.2%	12.8%	17.7%	21.0%	23.8%
22	0.6%	1.2%	1.7%	2.1%	2.4%	1.838	1.496	1.224	1.115	0.753	0.902	1.112	0.980	1.030	24.6%	41.9%	54.2%	63.8%	70.9%	7.0%	12.5%	17.3%	20.4%	23.0%
23	0.8%	1.6%	2.3%	2.5%	3.3%	1.895	1.426	1.093	1.319	0.932	0.929	1.060	0.875	1.218	25.2%	42.9%	55.2%	64.7%	71.8%	6.9%	12.1%	16.7%	19.7%	22.1%
24	1.4%	2.6%	3.8%	4.3%	4.4%	1.835	1.434	1.125	1.042	1.285	0.911	1.066	0.900	0.962	26.3%	44.4%	56.9%	66.2%	73.1%	6.6%	11.7%	15.8%	18.8%	20.9%
25	0.8%	1.5%	2.2%	2.4%	2.8%	1.880	1.445	1.123	1.174	0.907	0.954	1.097	0.982	1.063	26.9%	45.2%	57.8%	67.0%	73.9%	6.1%	10.7%	14.1%	16.7%	19.1%
26	0.5%	0.9%	1.3%	1.7%	1.8%	1.728	1.412	1.314	1.062	0.720	0.918	1.072	1.149	0.962	27.3%	45.7%	58.4%	67.6%	74.3%	5.9%	10.2%	13.3%	15.8%	18.0%
27	0.5%	0.8%	1.2%	1.4%	1.6%	1.708	1.453	1.238	1.138	0.709	0.904	1.103	1.083	1.030	27.6%	46.2%	58.9%	68.0%	74.8%	5.7%	10.1%	13.0%	15.2%	17.4%
28	0.4%	0.9%	1.1%	1.5%	1.4%	1.991	1.307	1.331	0.953	0.673	1.049	0.992	1.164	0.863	27.9%	46.6%	59.3%	68.5%	75.1%	5.6%	9.9%	12.7%	14.8%	17.0%
29	0.4%	0.8%	1.0%	1.4%	1.7%	1.792	1.272	1.400	1.193	0.714	0.926	0.966	1.225	1.080	28.2%	47.0%	59.7%	68.9%	75.5%	5.6%	9.6%	12.4%	14.3%	16.8%
30	0.4%	0.7%	1.1%	1.3%	1.5%	1.637	1.605	1.189	1.139	0.707	0.849	1.218	1.040	1.031	28.6%	47.4%	60.2%	69.4%	75.9%	5.5%	9.5%	12.2%	14.0%	16.6%
31	0.4%	0.8%	1.1%	1.3%	1.7%	1.848	1.435	1.139	1.380	0.705	0.971	1.137	1.017	1.321	28.9%	47.8%	60.6%	69.7%	76.3%	5.5%	9.4%	11.9%	13.6%	15.7%
32	0.4%	0.7%	1.0%	1.3%	1.5%	1.767	1.334	1.289	1.147	0.725	0.886	1.057	1.150	1.098	29.2%	48.2%	61.0%	70.1%	76.7%	5.4%	9.2%	11.5%	13.1%	14.9%
33	0.4%	0.8%	1.0%	1.3%	1.6%	1.809	1.360	1.259	1.247	0.697	0.905	1.077	1.123	1.193	29.4%	48.6%	61.4%	70.5%	77.0%	5.3%	9.0%	11.4%	12.8%	14.1%
34	0.4%	0.8%	1.0%	1.3%	1.3%	1.761	1.236	1.347	0.962	0.709	0.948	0.979	1.202	0.921	29.8%	49.0%	61.8%	70.9%	77.3%	5.2%	8.9%	11.2%	12.5%	13.5%
35	0.6%	1.1%	1.3%	1.4%	1.8%	1.878	1.179	1.123	1.233	0.864	0.976	0.934	1.002	1.180	30.2%	49.5%	62.3%	71.3%	77.7%	5.2%	8.8%	11.0%	12.4%	13.3%
36	0.9%	1.6%	1.8%	1.8%	2.3%	1.725	1.183	0.970	1.281	1.062	0.980	0.937	0.866	1.226	30.8%	50.3%	63.0%	71.8%	78.2%	5.1%	8.4%	10.7%	12.1%	12.6%
37	0.6%	1.0%	1.3%	1.3%	1.5%	1.813	1.275	1.031	1.101	0.797	1.129	1.086	0.962	1.077	31.2%	50.8%	63.5%	72.2%	78.6%					
38	0.4%	0.7%	0.9%	1.1%	1.2%	1.762	1.263	1.179	1.091	0.712	1.017	1.077	1.100	1.068	31.5%	51.2%	63.8%	72.5%	78.8%					
39	0.4%	0.6%	0.9%	0.9%	1.2%	1.581	1.520	1.035	1.285	0.706	0.922	1.295	0.966	1.258	31.7%	51.5%	64.1%	72.8%	79.1%					
40	0.4%	0.6%	0.7%	1.0%	1.1%	1.602	1.250	1.338	1.129	0.743	0.930	1.065	1.249	1.105	32.0%	51.8%	64.4%	73.0%	79.3%					
41	0.4%	0.6%	0.8%	1.1%	1.4%	1.746	1.285	1.317	1.344	0.739	1.067	1.095	1.229	1.315	32.2%	52.1%	64.6%	73.3%	79.6%					
42	0.4%	0.6%	0.8%	0.8%	0.4%	1.647	1.294	1.008	0.565	0.782	0.955	1.102	0.941	0.552	32.5%	52.3%	64.9%	73.5%	79.7%					
43	0.3%	0.6%	0.7%	0.7%	0.9%	1.780	1.222	1.062	1.199	0.695	1.140	1.047	1.021	1.175	32.7%	52.6%	65.2%	73.7%	79.9%					
44	0.3%	0.6%	0.8%	0.9%	0.5%	1.691	1.476	1.133	0.479	0.692	1.109	1.264	1.090	0.469	32.9%	52.9%	65.5%	74.0%	80.0%					
45	0.4%	0.6%	0.8%	1.0%	1.0%	1.732	1.315	1.182	1.033	0.761	1.084	1.126	1.136	1.012	33.1%	53.2%	65.7%	74.2%	80.2%					
46	0.4%	0.6%	0.7%	1.1%	1.0%	1.627	1.160	1.528	0.903	0.790	0.999	0.994	1.469	0.885	33.4%	53.5%	66.0%	74.5%	80.4%					
47	0.5%	0.7%	0.9%	1.2%	1.0%	1.588	1.280	1.269	0.852	0.837	1.043	1.096	1.220	0.835	33.7%	53.8%	66.3%	74.8%	80.5%					
48	0.7%	0.9%	0.9%	0.8%	1.0%	1.335	1.000	0.911	1.218	1.072	0.977	0.857	0.876	1.194	34.1%	54.2%	66.6%	75.0%	80.7%					

Yeah, that's a lot of data. Too much to look at as one image.

Let's break the tables down into components.

First, I will evaluate Incremental Monthly Rebuy Rates. The metrics represent the probability of a customer repurchasing in that month given how many months it has been since a prior purchase and how many life-to-date orders the customer placed. Here is the left side of the table above.

Customer Development "Master Sheet"

	Incremental Monthly Rebuy Rates				
Recency	Actual Rebuy 1x to 2x	Actual Rebuy 2x to 3x	Actual Rebuy 3x to 4x	Actual Rebuy 4x to 5x	Actual Rebuy 5x to 6x
1	4.0%	6.1%	7.7%	9.1%	10.5%
2	2.2%	4.0%	5.6%	6.9%	8.0%
3	1.7%	3.2%	4.5%	5.8%	7.0%
4	1.5%	2.9%	4.1%	5.4%	6.4%
5	1.3%	2.6%	3.7%	5.0%	6.1%
6	1.2%	2.5%	3.5%	4.5%	5.9%
7	1.1%	2.3%	3.4%	4.5%	5.7%
8	1.0%	2.3%	3.2%	4.3%	5.5%
9	1.0%	2.0%	3.2%	4.0%	5.3%
10	1.0%	2.2%	3.3%	4.2%	5.3%
11	1.6%	3.4%	4.9%	6.3%	7.8%
12	3.1%	6.0%	8.6%	12.1%	13.5%
13	1.6%	3.1%	4.6%	6.1%	7.2%
14	0.8%	1.6%	2.3%	2.9%	3.6%
15	0.7%	1.3%	1.9%	2.6%	2.9%
16	0.6%	1.2%	1.8%	2.1%	3.0%
17	0.6%	1.1%	1.7%	2.2%	2.7%
18	0.6%	1.2%	1.5%	2.1%	2.7%
19	0.6%	1.1%	1.7%	2.0%	2.4%
20	0.6%	1.1%	1.6%	2.1%	2.7%
21	0.6%	1.2%	1.6%	2.1%	2.6%
22	0.6%	1.2%	1.7%	2.1%	2.4%
23	0.8%	1.6%	2.3%	2.5%	3.3%
24	1.4%	2.6%	3.8%	4.3%	4.4%
25	0.8%	1.5%	2.2%	2.4%	2.8%
26	0.5%	0.9%	1.3%	1.7%	1.8%
27	0.5%	0.8%	1.2%	1.4%	1.6%
28	0.4%	0.9%	1.1%	1.5%	1.4%
29	0.4%	0.8%	1.0%	1.4%	1.7%
30	0.4%	0.7%	1.1%	1.3%	1.5%
31	0.4%	0.8%	1.1%	1.3%	1.7%
32	0.4%	0.7%	1.0%	1.3%	1.5%
33	0.4%	0.8%	1.0%	1.3%	1.6%
34	0.4%	0.8%	1.0%	1.3%	1.3%
35	0.6%	1.1%	1.3%	1.4%	1.8%
36	0.9%	1.6%	1.8%	1.8%	2.3%
37	0.6%	1.0%	1.3%	1.3%	1.5%
38	0.4%	0.7%	0.9%	1.1%	1.2%
39	0.4%	0.6%	0.9%	0.9%	1.2%
40	0.4%	0.6%	0.7%	1.0%	1.1%
41	0.4%	0.6%	0.8%	1.1%	1.4%
42	0.4%	0.6%	0.8%	0.8%	0.4%
43	0.3%	0.6%	0.7%	0.7%	0.9%
44	0.3%	0.6%	0.8%	0.9%	0.5%
45	0.4%	0.6%	0.8%	1.0%	1.0%
46	0.4%	0.6%	0.7%	1.1%	1.0%
47	0.5%	0.7%	0.9%	1.2%	1.0%
48	0.7%	0.9%	0.9%	0.8%	1.0%

Green colors represent highly responsive customers. Red colors represent unresponsive customers … customers in "Retirement".

Tell me what you see, color-wise?

There's a ton of red. Most customers are, obviously, unresponsive, going through the "Retirement" phase.

Look down the "Actual Rebuy 1x-2x" column. When the customer purchases for the first time (Recency = 1 Month), the customer has a 4.0% chance of buying again next month. If the customer does not buy in the first month after a first purchase, the customer moves down a row to two months of recency, where the customer has a 2.2% chance of buying again in the next month. The process of "Retirement" begins quickly, as the customer is just a bit more than half as responsive as the customer was just a month ago.

In other words, PartyFest Depot needs to act QUICKLY to convert the first-time buyer to a second purchase, or PartyFest Depot begins to lose the customer.

If the customer does not purchase again, the customer slumps to recency = three months. At that point, the customer has a 1.7% chance of buying again. Notice that the odds of buying again continue to decline thereafter … until the customer gets to recency = eleven (11) months. What happens at recency = eleven months?

Well, the customer starts to "awaken", and become more responsive. At recency = twelve months, rebuy rates increase to 3.1%.

What is happening here?

Clearly, you have a strong seasonal component to PartyFest Depot. Customers are purchasing again about one year after a first purchase. If the customer celebrates a birthday one year, the customer has a chance of celebrating the birthday the following year.

From a marketing standpoint, you should have "Anniversary Programs" in place to remind the customer of the twelve-month anniversary of a prior purchase event. Without an "Anniversary Program", you fail to capitalize on the second-most responsive timeframe for first-time buyers.

The data clearly establishes the need for two programs for first-time buyers.
- A "Welcome Program" for first-time buyers with recency of one/two/three months.
- An "Anniversary Program" for first-time buyers who lapse to 11/12/13 months of recency.

To my knowledge, neither program exists at PartyFest Depot. Use email marketing, any print programs, your website, you mobile presence, and your social presence to communicate to first-time buyers. Use merchandise personalization where possible to

remind the customer of the merchandise categories that the customer is likely to purchase from.

Read down the "2x to 3x" column. This is the column for customers who are in the Emergence phase. These customers purchased twice. Notice that their incremental repurchase rates are higher than are the rates for first-time buyers. The customer is becoming more responsive. Also notice that repurchase rates decrease quickly, then surge again at twelve months following a first purchase. Clearly an "Anniversary Program" is critically important for PartyFest Depot.

In both cases (first-time buyers and buyers with two purchases), response craters after thirteen months since the prior order. There are bumps in response (at twenty-four months, even at thirty-six months), strongly suggesting seasonal activity that must be complemented by a powerful Anniversary Program.

Once a customer purchases for the third time, response increases even more, and beyond a third purchase response increases again. Each incremental purchase causes the customer to become incrementally more responsive.

At this point, you are probably wondering "how does my data compare against a baseline of other brands?" Good question!

To answer the question, I create the second set of columns in the table. I divide incremental response among two-time buyers against incremental response among one-time buyers. Say a 2x buyer had an incremental response of 10% at a specific recency level, and the 1x buyer had a comparable incremental response of 6%. I take (10% / 6%) = 1.67 … response grows by a factor of 1.67 as the customer moves from a first purchase to a second purchase (at a comparable recency level).

I produce the second set of columns in the table.

Customer Development "Master Sheet"

Indexed Gains in Rebuy Rates by Freq

Recency	Actual Index 2x vs 1x	Actual Index 3x vs 2x	Actual Index 4x vs 3x	Actual Index 5x vs 4x
1	1.538	1.260	1.178	1.150
2	1.800	1.389	1.228	1.164
3	1.897	1.400	1.280	1.202
4	1.910	1.413	1.308	1.189
5	1.930	1.463	1.336	1.226
6	2.091	1.421	1.283	1.301
7	2.094	1.482	1.349	1.245
8	2.201	1.441	1.331	1.273
9	2.101	1.552	1.248	1.326
10	2.114	1.520	1.278	1.248
11	2.098	1.414	1.288	1.239
12	1.945	1.444	1.398	1.122
13	1.960	1.493	1.340	1.179
14	1.930	1.502	1.255	1.232
15	1.906	1.428	1.379	1.127
16	1.865	1.505	1.197	1.410
17	1.869	1.539	1.326	1.187
18	2.079	1.325	1.357	1.299
19	2.058	1.462	1.205	1.197
20	1.963	1.434	1.296	1.293
21	2.065	1.352	1.320	1.274
22	1.838	1.496	1.224	1.115
23	1.895	1.426	1.093	1.319
24	1.835	1.434	1.125	1.042
25	1.880	1.445	1.123	1.174
26	1.728	1.412	1.314	1.062
27	1.708	1.453	1.238	1.138
28	1.991	1.307	1.331	0.953
29	1.792	1.272	1.400	1.193
30	1.637	1.605	1.189	1.139
31	1.848	1.435	1.139	1.380
32	1.767	1.334	1.289	1.147
33	1.809	1.360	1.259	1.247
34	1.761	1.236	1.347	0.962
35	1.878	1.179	1.123	1.233
36	1.725	1.183	0.970	1.281
37	1.813	1.275	1.031	1.101
38	1.762	1.263	1.179	1.091
39	1.581	1.520	1.035	1.285
40	1.602	1.250	1.338	1.129
41	1.746	1.285	1.317	1.344
42	1.647	1.294	1.008	0.565
43	1.780	1.222	1.062	1.199
44	1.691	1.476	1.133	0.479
45	1.732	1.315	1.182	1.033
46	1.627	1.160	1.528	0.903
47	1.588	1.280	1.269	0.852
48	1.335	1.000	0.911	1.218

From here, I combine this table with first-time buyer repurchase rates.

Then, I create an index … I divide your metrics by a baseline of brands. An index > 1.00 means you are performing better than the average. An index < 1.00 means you are performing worse than the average.

The middle set of metrics represent indexed performance – you vs. other brands.

Customer Development "Master Sheet"

Customer Development Indices

Recency	1x Rebuy	Change 2x vs 1x	Change 3x vs 2x	Change 4x vs 3x	Change 5x vs 4x
1	0.461	0.986	0.950	0.988	1.013
2	0.433	1.100	1.048	1.030	1.026
3	0.547	1.061	1.056	1.074	1.059
4	0.639	1.014	1.066	1.097	1.048
5	0.651	1.019	1.103	1.120	1.080
6	0.642	1.072	1.072	1.076	1.147
7	0.658	1.046	1.073	1.058	1.070
8	0.670	1.079	1.044	1.043	1.095
9	0.662	1.022	1.124	0.979	1.140
10	0.697	1.049	1.101	1.002	1.074
11	1.003	1.029	1.024	1.010	1.065
12	1.457	0.998	1.046	1.096	0.964
13	1.045	1.015	1.050	1.024	1.029
14	0.710	0.975	1.057	0.959	1.075
15	0.715	0.932	1.005	1.054	0.984
16	0.707	0.899	1.059	0.915	1.231
17	0.660	0.976	1.083	1.014	1.036
18	0.662	1.038	0.933	1.038	1.133
19	0.669	0.998	1.087	0.964	1.105
20	0.706	0.931	1.066	1.037	1.194
21	0.717	0.932	1.005	1.056	1.177
22	0.753	0.902	1.112	0.980	1.030
23	0.932	0.929	1.060	0.875	1.218
24	1.285	0.911	1.066	0.900	0.962
25	0.907	0.954	1.097	0.982	1.063
26	0.720	0.918	1.072	1.149	0.962
27	0.709	0.904	1.103	1.083	1.030
28	0.673	1.049	0.992	1.164	0.863
29	0.714	0.926	0.966	1.225	1.080
30	0.707	0.849	1.218	1.040	1.031
31	0.705	0.971	1.137	1.017	1.321
32	0.725	0.886	1.057	1.150	1.098
33	0.697	0.905	1.077	1.123	1.193
34	0.709	0.948	0.979	1.202	0.921
35	0.864	0.976	0.934	1.002	1.180
36	1.062	0.980	0.937	0.866	1.226
37	0.797	1.129	1.086	0.962	1.077
38	0.712	1.017	1.077	1.100	1.068
39	0.706	0.922	1.295	0.966	1.258
40	0.743	0.930	1.065	1.249	1.105
41	0.739	1.067	1.095	1.229	1.315
42	0.782	0.955	1.102	0.941	0.552
43	0.695	1.140	1.047	1.021	1.175
44	0.692	1.109	1.264	1.090	0.469
45	0.761	1.084	1.126	1.136	1.012
46	0.790	0.999	0.994	1.469	0.885
47	0.837	1.043	1.096	1.220	0.835
48	1.072	0.977	0.857	0.876	1.194

Orange/Red cells are below-average … green cells are above average.

Tell me what you observe. Go ahead, take a look, I'll be here when you get back.

Welcome back! The column on the left looks bad, doesn't it?

This is your first-time buyer response by months since last purchase compared to baseline brands.

The most important metrics are in the upper left-hand portion of this image. At recency of one month, under the 1x Rebuy column, we see a value of 0.461. This means that your customers are 46.1% as responsive as my baseline of brands. The number is 0.433 at two months, and 0.547 at three months. On average during the Welcome Period your customers are half as responsive as my baseline brand average is. After three months of recency, rebuy rate indices improve some, and are about 2/3rd as high as my average across brands.

In other words, first-time buyers are generally less responsive (and that is ok, that happens all the time depending upon what you sell and how often customers need what you sell). However, significantly lower indices at recencies of 1/2/3 months tell me that you do not have a credible Welcome Program in place, and as a consequence other brands are significantly outperforming you.

Notice that you have very "green" cells at recency = twelve months and recency = twenty-four months. Your first-time buyers are much more responsive at 12/24 months of recency, clearly illustrating the hyper-responsive "Anniversary" timeframe of one/two years following a first purchase.

Again, the data suggests two very clear and very actionable trends.
1. You need a credible Welcome Program.
2. You need to capitalize on Seasonal/Anniversary peaks at 12/24 months after a purchase.

The remaining four columns illustrate how customers "develop" against the baseline of other brands I've analyze. Notice that the metrics are generally between 0.93 and 1.07. In other words, once a customer buys for the second time, the customer "develops" at the same rate as baseline brand customers develop. You just begin the process in a deep hole due to not having a credible Welcome Program. If you could improve repurchase rates for first-time buyers, the data suggests customers could develop at reasonable levels going forward.

Strengths?
- Anniversary behavior that can be capitalized on.
- After a first purchase, customers develop at rates comparable to other brands.

Weaknesses?

- Low first-time buyer repurchase rates (which probably can't be changed much).
- No Welcome Program resulting in even lower repurchase rates among first-time buyers who have recency = 1/2/3.
- Insufficient number of new customers results in a contracting top-line.

Let's go to the fourth set of columns, the ones colored in periwinkle. These are cumulative repurchase rates for 1st time buyers, 2nd time buyers, 3rd time buyers, 4th time buyers, and 5th time buyers, by months since last purchase.

Customer Development "Master Sheet"

Cumulative Rebuy Rates by Month

Recency	Cumm Rebuy 1x to 2x	Cumm Rebuy 2x to 3x	Cumm Rebuy 3x to 4x	Cumm Rebuy 4x to 5x	Cumm Rebuy 5x to 6x
1	4.0%	6.1%	7.7%	9.1%	10.5%
2	6.1%	9.9%	12.9%	15.4%	17.7%
3	7.8%	12.9%	16.9%	20.3%	23.4%
4	9.2%	15.4%	20.3%	24.6%	28.3%
5	10.4%	17.6%	23.3%	28.4%	32.7%
6	11.4%	19.6%	26.0%	31.6%	36.7%
7	12.4%	21.4%	28.5%	34.7%	40.3%
8	13.3%	23.2%	30.8%	37.5%	43.5%
9	14.1%	24.8%	33.0%	40.0%	46.5%
10	15.0%	26.4%	35.2%	42.5%	49.3%
11	16.4%	28.9%	38.4%	46.1%	53.3%
12	19.0%	33.2%	43.7%	52.6%	59.6%
13	20.2%	35.2%	46.2%	55.5%	62.5%
14	20.9%	36.2%	47.5%	56.8%	63.9%
15	21.4%	37.1%	48.5%	57.9%	64.9%
16	21.9%	37.8%	49.4%	58.8%	66.0%
17	22.4%	38.5%	50.3%	59.8%	66.9%
18	22.8%	39.2%	51.0%	60.6%	67.8%
19	23.2%	39.9%	51.8%	61.4%	68.5%
20	23.7%	40.6%	52.6%	62.2%	69.4%
21	24.1%	41.3%	53.4%	63.0%	70.2%
22	24.6%	41.9%	54.2%	63.8%	70.9%
23	25.2%	42.9%	55.2%	64.7%	71.8%
24	26.3%	44.4%	56.9%	66.2%	73.1%
25	26.9%	45.2%	57.8%	67.0%	73.9%
26	27.3%	45.7%	58.4%	67.6%	74.3%
27	27.6%	46.2%	58.9%	68.0%	74.8%
28	27.9%	46.6%	59.3%	68.5%	75.1%
29	28.2%	47.0%	59.7%	68.9%	75.5%
30	28.6%	47.4%	60.2%	69.4%	75.9%
31	28.9%	47.8%	60.6%	69.7%	76.3%
32	29.2%	48.2%	61.0%	70.1%	76.7%
33	29.4%	48.6%	61.4%	70.5%	77.0%
34	29.8%	49.0%	61.8%	70.9%	77.3%
35	30.2%	49.5%	62.3%	71.3%	77.7%
36	30.8%	50.3%	63.0%	71.8%	78.2%
37	31.2%	50.8%	63.5%	72.2%	78.6%
38	31.5%	51.2%	63.8%	72.5%	78.8%
39	31.7%	51.5%	64.1%	72.8%	79.1%
40	32.0%	51.8%	64.4%	73.0%	79.3%
41	32.2%	52.1%	64.6%	73.3%	79.6%
42	32.5%	52.3%	64.9%	73.5%	79.7%
43	32.7%	52.6%	65.2%	73.7%	79.9%
44	32.9%	52.9%	65.5%	74.0%	80.0%
45	33.1%	53.2%	65.7%	74.2%	80.2%
46	33.4%	53.5%	66.0%	74.5%	80.4%
47	33.7%	53.8%	66.3%	74.8%	80.5%
48	34.1%	54.2%	66.6%	75.0%	80.7%

Let's start by looking at the fraction of customers who repurchase after twelve months:
- 19.0% for 1st time buyers.
- 33.2% for 2nd time buyers.
- 43.7% for 3rd time buyers.
- 52.6% for 4th time buyers.
- 59.6% for 5th time buyers.

In my project work, customers become "loyal" once they have a 60% (or greater) chance of buying again in the next year.

The data shows the immense hurdle your customers face going from a first purchase to loyalty. Within one year, just 19.0% of first-time buyers purchase again. That's a low rate … but not uncommon (maybe a third of my client base is in a similar situation).

Let's look at cumulative repurchase rates for first-time buyers.
- 19.0% through twelve months.
- 26.3% through twenty-four months.
- 30.8% through thirty-six months.
- 34.1% through forty-eight months.

This tells us what you are up against as a brand. It takes four (4) years before a simple third of first-time buyers purchase for the second time.

In other words, very few of first-time buyers even get to a second purchase, much less become loyal.

If a customer buys for the second time (which isn't likely), here are cumulative repurchase rates.
- 33.2% through twelve months.
- 44.4% through twenty-four months.
- 50.3% through thirty-six months.
- 54.2% through forty-eight months.

You can easily see how the customer is becoming more responsive. The customer is "Emerging" and becomes more willing to buy again.

If a customer buys for the third time, here are cumulative repurchase rates.
- 43.7% through twelve months.
- 56.9% through twenty-four months.
- 63.0% through thirty-six months.
- 66.6% through forty-eight months.

The customer continues through the Emergence phase, becoming more responsive.

If the customer buys for the fourth time (which is mostly unlikely), here are cumulative repurchase rates.

- 52.6% through twelve months.
- 66.2% through twenty-four months.
- 71.8% through thirty-six months.
- 75.0% through forty-eight months.

If the customer purchases for the fifty time, here are cumulative repurchase rates.

- 59.6% through twelve months.
- 73.1% through twenty-four months.
- 78.2% through thirty-six months.
- 80.7% through forty-eight months.

Finally … FINALLY … the customer becomes "loyal" (according to my definition of a 60% or greater annual repurchase rate) after five purchases.

Meanwhile, the odds of a customer ever becoming loyal are really low. If we use 48 month repurchase rates to simulate the fraction of customers who become loyal, we arrive at the following calculation:

- $0.341 * 0.542 * 0.666 * 0.750 * 0.807 = 7.5\%$.

In all likelihood, about 7.5% of first-time buyers will become loyal, and it will likely take 2-10 years (or more) before customers become loyal.

In other words, loyalty is not the key with PartyFest Depot.

What matters is acquiring customers (hopefully at a profit), then quickly converting customers to a second purchase within the 0-3 month Welcome Period, then harvesting subsequent profit in future purchases.

What happens if a customer becomes "loyal"? You're not going to like what I have to say. The final portion of the table illustrates the probability of a customer buying again within the next year, given a specific recency/frequency combination.

Customer Development "Master Sheet"

Annual Rebuy Rates by Recency

Recency	Annual Rebuy 1x to 2x	Annual Rebuy 2x to 3x	Annual Rebuy 3x to 4x	Annual Rebuy 4x to 5x	Annual Rebuy 5x to 6x
1	19.0%	33.2%	43.7%	52.6%	59.6%
2	16.9%	31.0%	41.7%	51.1%	58.1%
3	15.7%	29.2%	39.7%	49.0%	56.1%
4	14.8%	27.8%	38.0%	47.2%	54.2%
5	14.0%	26.5%	36.5%	45.4%	52.5%
6	13.4%	25.4%	35.2%	43.8%	50.7%
7	12.9%	24.4%	33.8%	42.4%	49.1%
8	12.4%	23.5%	32.7%	40.9%	47.3%
9	12.0%	22.6%	31.5%	39.5%	45.8%
10	11.6%	21.9%	30.4%	38.3%	44.3%
11	11.3%	21.1%	29.3%	36.9%	42.6%
12	10.5%	19.6%	27.3%	34.4%	39.8%
13	9.0%	16.8%	23.5%	28.6%	33.5%
14	8.3%	15.4%	21.6%	25.8%	30.3%
15	8.1%	14.9%	20.7%	24.8%	29.0%
16	7.9%	14.4%	20.2%	24.0%	28.1%
17	7.7%	14.1%	19.6%	23.5%	26.9%
18	7.6%	13.9%	19.1%	22.8%	26.2%
19	7.4%	13.5%	18.7%	22.2%	25.3%
20	7.3%	13.2%	18.3%	21.6%	24.8%
21	7.2%	12.8%	17.7%	21.0%	23.8%
22	7.0%	12.5%	17.3%	20.4%	23.0%
23	6.9%	12.1%	16.7%	19.7%	22.1%
24	6.6%	11.7%	15.8%	18.8%	20.9%
25	6.1%	10.7%	14.1%	16.7%	19.1%
26	5.9%	10.2%	13.3%	15.8%	18.0%
27	5.7%	10.1%	13.0%	15.2%	17.4%
28	5.6%	9.9%	12.7%	14.8%	17.0%
29	5.6%	9.6%	12.4%	14.3%	16.8%
30	5.5%	9.5%	12.2%	14.0%	16.6%
31	5.5%	9.4%	11.9%	13.6%	15.7%
32	5.4%	9.2%	11.5%	13.1%	14.9%
33	5.3%	9.0%	11.4%	12.8%	14.1%
34	5.2%	8.9%	11.2%	12.5%	13.5%
35	5.2%	8.8%	11.0%	12.4%	13.3%
36	5.1%	8.4%	10.7%	12.1%	12.6%

Read down the "5x to 6x" column. If a customer just purchased for the fifth time and has recency = one month, the customer has a 59.6% chance of buying again in the next year. The customer is deemed "loyal".

However, if the customer lapses just one month and does not purchase again, the customer slips to the "5x to 6x" column with recency of two months. What is the annual repurchase rate at this stage in the customer life cycle?
- 58.1%.

What does that mean?

It means that the minute you finally generate a "loyal" customer the customer begins the inevitable process of decay … and the customer is no longer "loyal".

In fact, look down every column in the table. The customer, regardless of recency/frequency combination, is in a constant state of decay. No matter how hard you work, no matter the innovative marketing programs you put in place, your customers will decay on their way toward "Retirement". The only answer is to constantly find New + Reactivated buyers to replace the decay of your existing customer base.

The Time Lapse Analysis

The Time Lapse Analysis reviews how a customer file evolves over time. Each column represents a month in the past, from twenty-four months ago (left) to today (right). Each row represents a slice of your customer file, based on customer quality. If a customer purchased yesterday and spent $100, the purchase is weighted at 100%. That same purchase is "discounted" as time progresses, so that the purchase has much less weight after three years. Two years of weighted purchase history are included in the analysis.

First, let's look at customer count changes by weighted purchase history levels. Green cells represent growth, red cells represent contraction.

Household Counts by Weighted Dollar Bands
0-24 Month File: Month over Month Change

Weighted $	24mo	23mo	22mo	21mo	20mo	19mo	18mo	17mo	16mo	15mo	14mo	13mo	12mo	11mo	10mo	9mo	8mo	7mo	6mo	5mo	4mo	3mo	2mo	1mo	Today	LY/2Y	TY/LY
> $2,500	1.000	1.000	1.003	1.009	1.034	0.991	0.967	0.987	1.005	1.024	1.012	0.958	0.999	0.991	1.016	1.020	1.018	0.983	0.981	0.985	1.010	1.024	1.007	0.977	1.005	0.988	1.016
$2,000 to $2,499	1.000	0.990	1.035	1.018	0.996	0.996	0.968	0.954	0.999	1.050	0.996	1.008	0.958	0.992	1.012	0.998	1.014	0.991	0.964	0.966	0.988	1.025	1.042	0.980	0.973	0.965	0.944
$1,500 to $1,999	1.000	1.017	1.016	1.006	1.015	0.980	0.992	0.985	0.996	1.006	1.021	0.945	1.021	0.978	1.006	1.039	0.985	0.997	0.979	0.975	1.004	1.006	0.988	0.972	0.981	0.996	0.912
$1,250 to $1,499	1.000	0.996	0.989	1.004	1.019	1.016	0.965	0.996	0.964	1.022	1.023	0.974	0.959	0.985	0.989	0.996	1.034	0.987	0.985	0.979	0.994	1.032	1.007	0.967	0.985	0.926	0.939
$1,000 to $1,249	1.000	0.979	1.045	1.019	1.005	0.989	1.003	0.967	1.013	1.006	0.986	0.960	1.002	0.976	1.018	1.015	1.006	1.006	0.995	0.963	0.983	1.021	0.997	0.994	0.979	0.972	0.953
$750 to $999	1.000	0.997	0.999	0.996	1.034	0.999	0.975	0.986	1.002	1.016	1.013	0.959	0.988	0.993	1.012	1.008	0.989	0.966	0.988	0.999	1.021	1.011	0.981	0.996	0.985	0.953	0.953
$600 to $749	1.000	0.990	1.010	1.000	1.006	1.006	0.984	0.987	1.010	1.011	1.008	0.977	0.978	0.983	1.004	1.014	1.008	0.997	0.974	0.975	1.001	0.999	1.010	0.972	0.985	0.967	0.924
$500 to $599	1.000	0.995	1.007	0.994	1.012	0.999	0.994	0.993	0.986	1.019	1.007	0.973	0.982	0.984	1.026	0.990	1.002	0.992	0.982	0.984	0.991	1.026	0.996	0.978	0.970	0.959	0.923
$400 to $499	1.000	0.984	1.008	0.997	1.016	1.000	0.978	0.991	0.988	1.014	1.007	0.975	0.985	0.983	0.991	1.019	1.010	0.992	0.988	0.970	1.001	1.015	1.004	0.982	0.985	0.942	0.940
$300 to $399	1.000	0.986	1.004	0.998	1.013	0.992	0.994	0.990	1.000	1.007	1.007	0.974	0.977	0.980	0.999	0.996	1.004	0.998	0.995	0.981	0.987	1.013	0.997	0.981	0.980	0.942	0.914
$250 to $299	1.000	0.985	1.006	0.997	1.010	1.005	0.989	0.985	0.999	1.001	1.005	0.969	0.993	0.980	0.998	1.003	1.000	0.992	0.981	0.992	1.003	0.998	1.007	0.978	0.985	0.943	0.920
$200 to $249	1.000	0.994	0.997	0.996	1.000	0.994	0.990	0.995	0.997	1.012	0.997	0.977	0.978	0.983	0.996	1.006	0.996	0.996	0.985	0.987	0.997	1.015	0.991	0.992	0.981	0.930	0.927
$150 to $199	1.000	0.991	1.001	0.999	1.004	0.991	0.997	0.995	0.996	1.006	0.999	0.979	0.982	0.980	0.987	0.996	0.997	0.992	0.990	0.986	0.996	1.006	0.998	0.987	0.986	0.942	0.906
$100 to $149	1.000	0.990	0.997	0.998	1.004	0.995	0.996	0.992	0.997	1.008	0.999	0.985	0.987	0.988	0.988	0.997	0.992	0.987	0.985	0.985	0.996	1.007	1.003	0.988	0.985	0.947	0.904
$75 to $99	1.000	0.994	1.003	0.995	1.002	0.993	0.994	0.997	0.999	1.001	0.997	0.991	0.990	0.987	0.990	0.993	0.990	0.988	0.991	0.986	0.995	1.000	1.002	0.991	0.988	0.958	0.905
$50 to $74	1.000	0.992	0.995	0.997	0.997	0.995	0.997	0.995	0.998	1.008	1.003	0.993	0.993	0.993	0.990	0.995	0.992	0.989	0.986	0.985	0.991	1.000	0.998	0.997	0.991	0.966	0.912
$30 to $49	1.000	0.998	1.002	0.996	0.991	0.993	0.998	0.998	0.999	1.004	0.998	1.004	1.001	0.999	0.997	0.994	0.988	0.992	0.992	0.993	0.995	0.997	0.996	1.000	0.990	0.982	0.935
$20 to $29	1.000	1.013	1.012	1.000	0.994	0.994	0.991	0.991	0.989	1.000	1.003	1.017	1.008	1.007	0.999	1.000	0.990	0.996	0.992	0.994	0.990	0.988	0.998	1.013	1.009	1.012	0.976
$10 to $19	1.000	0.996	0.990	0.991	0.984	0.999	1.004	1.007	1.006	1.002	1.008	1.022	1.009	1.010	0.995	1.000	0.992	1.001	1.002	1.003	1.000	0.985	1.001	1.022	1.001	1.018	1.011
$0.01 to $9.99	1.000	1.001	0.988	1.007	0.992	1.013	1.017	1.011	1.016	0.991	0.978	1.004	1.014	1.015	1.002	1.004	1.002	1.014	1.028	1.019	1.010	0.982	0.981	1.006	1.006	1.032	1.071

Time Lapse Analyses are best analyzed by looking at the colors. The middle of the file is consistently yellow/orange, showing that the file is generally contracting. Over two years (far right column), the cells are uniformly dark red, showing that the majority of the customer file declined in size.

We see two columns where there were modest gains in customer counts (more green cells in these columns). We have data through the end of January, 2020, in this example. This means that the gains happened through the end of October of 2019 and through the end of October 2018. I reviewed what happened in each of those months. During those months, you increased your customer acquisition efforts.

Now look at the "1mo" and "13mo" columns … lots of orange/red there. Those months are December 2019 and December 2018. After reviewing your marketing plans, I noticed that you cut back significantly on customer acquisition efforts in December of each of the past two years. This might have been a good decision as far as profitability goes, but the decision impacted the health of your customer file (and subsequently, harmed future sales levels).

Only the very best customers (weighted spend of > $2,500 in the past two years) showed some signs of growth. This is the impact of your loyalty efforts with best customers. You

were able to reach the very best customers. However, you were not able to impact the remainder of the customer file, causing a top-line decline in sales.

I can also review how the customer file changed over time. I will show you two graphs, one for share of volume spent on new merchandise, and one for share of volume spent on items selling below their historical average price.

Let's start with items selling below their historical average price.

Percentage of Historical Volume by Time (Columns) and Weighted Historical Dollars (Rows)
0-24 Month File

Weighted $	24mo	23mo	22mo	21mo	20mo	19mo	18mo	17mo	16mo	15mo	14mo	13mo	12mo	11mo	10mo	9mo	8mo	7mo	6mo	5mo	4mo	3mo	2mo	1mo	Today
> $2,500	0.356	0.359	0.361	0.356	0.360	0.360	0.360	0.361	0.362	0.361	0.361	0.365	0.363	0.367	0.368	0.364	0.359	0.358	0.355	0.349	0.346	0.341	0.333	0.333	0.330
$2,000 to $2,499	0.347	0.345	0.348	0.349	0.350	0.353	0.355	0.352	0.346	0.346	0.355	0.363	0.357	0.368	0.372	0.367	0.363	0.359	0.363	0.358	0.349	0.340	0.332	0.338	0.331
$1,500 to $1,999	0.353	0.355	0.355	0.352	0.353	0.356	0.356	0.357	0.358	0.359	0.361	0.366	0.366	0.376	0.376	0.366	0.367	0.369	0.365	0.363	0.359	0.357	0.347	0.343	0.336
$1,250 to $1,499	0.358	0.354	0.356	0.359	0.357	0.355	0.356	0.357	0.358	0.360	0.367	0.372	0.372	0.383	0.385	0.377	0.368	0.366	0.367	0.364	0.358	0.348	0.343	0.346	0.342
$1,000 to $1,249	0.352	0.359	0.359	0.353	0.356	0.355	0.358	0.361	0.363	0.363	0.366	0.369	0.370	0.379	0.377	0.376	0.374	0.376	0.372	0.372	0.369	0.359	0.349	0.348	0.343
$750 to $999	0.358	0.360	0.361	0.357	0.360	0.359	0.362	0.361	0.361	0.364	0.370	0.376	0.375	0.383	0.391	0.385	0.384	0.387	0.385	0.379	0.368	0.364	0.355	0.359	0.355
$600 to $749	0.361	0.363	0.364	0.362	0.363	0.362	0.361	0.362	0.364	0.366	0.373	0.380	0.378	0.390	0.394	0.390	0.389	0.388	0.383	0.382	0.378	0.373	0.367	0.368	0.362
$500 to $599	0.360	0.367	0.367	0.364	0.365	0.362	0.366	0.366	0.371	0.370	0.378	0.381	0.382	0.394	0.394	0.391	0.391	0.393	0.392	0.386	0.381	0.375	0.366	0.368	0.362
$400 to $499	0.363	0.366	0.366	0.363	0.365	0.367	0.370	0.369	0.369	0.371	0.378	0.384	0.384	0.393	0.397	0.390	0.390	0.393	0.393	0.387	0.379	0.371	0.367	0.367	0.365
$300 to $399	0.367	0.369	0.370	0.365	0.368	0.367	0.369	0.368	0.369	0.372	0.379	0.386	0.385	0.396	0.399	0.394	0.392	0.395	0.391	0.386	0.383	0.373	0.367	0.371	0.365
$250 to $299	0.363	0.368	0.371	0.369	0.369	0.370	0.370	0.370	0.371	0.371	0.379	0.386	0.382	0.393	0.396	0.393	0.391	0.393	0.391	0.386	0.380	0.378	0.372	0.373	0.367
$200 to $249	0.368	0.370	0.371	0.368	0.369	0.368	0.372	0.372	0.370	0.370	0.376	0.384	0.382	0.392	0.393	0.386	0.385	0.386	0.385	0.383	0.377	0.368	0.365	0.369	0.364
$150 to $199	0.365	0.368	0.370	0.368	0.370	0.371	0.371	0.371	0.371	0.371	0.377	0.384	0.383	0.392	0.393	0.387	0.385	0.386	0.382	0.377	0.371	0.364	0.361	0.365	0.360
$100 to $149	0.365	0.369	0.372	0.370	0.371	0.370	0.371	0.370	0.369	0.366	0.373	0.381	0.378	0.387	0.390	0.385	0.382	0.382	0.379	0.374	0.368	0.361	0.359	0.364	0.358
$75 to $99	0.364	0.366	0.368	0.366	0.366	0.367	0.368	0.369	0.369	0.366	0.373	0.380	0.376	0.382	0.382	0.375	0.371	0.371	0.368	0.365	0.360	0.352	0.352	0.358	0.354
$50 to $74	0.367	0.369	0.370	0.367	0.366	0.365	0.366	0.365	0.364	0.361	0.368	0.377	0.373	0.379	0.382	0.377	0.374	0.374	0.370	0.364	0.359	0.351	0.350	0.351	0.347
$30 to $49	0.353	0.356	0.359	0.359	0.360	0.361	0.363	0.365	0.366	0.364	0.360	0.363	0.363	0.364	0.365	0.363	0.361	0.360	0.359	0.358	0.357	0.356	0.351	0.347	0.343
$20 to $29	0.342	0.343	0.344	0.341	0.339	0.336	0.337	0.338	0.336	0.338	0.336	0.336	0.339	0.343	0.342	0.343	0.340	0.340	0.341	0.341	0.342	0.341	0.332	0.328	0.328
$10 to $19	0.333	0.331	0.330	0.328	0.326	0.326	0.327	0.328	0.328	0.323	0.321	0.322	0.322	0.322	0.316	0.315	0.313	0.313	0.313	0.314	0.316	0.315	0.312	0.307	0.303
$0.01 to $9.99	0.375	0.370	0.365	0.362	0.359	0.356	0.356	0.356	0.357	0.353	0.351	0.352	0.352	0.353	0.351	0.352	0.350	0.352	0.352	0.350	0.353	0.352	0.353	0.346	0.341
Overall Averages	0.356	0.356	0.357	0.355	0.355	0.354	0.355	0.355	0.355	0.353	0.354	0.358	0.357	0.361	0.360	0.358	0.355	0.356	0.354	0.352	0.350	0.347	0.344	0.342	0.338
Average Change		0.3%	0.2%	-0.6%	-0.1%	-0.2%	0.3%	0.2%	-0.1%	-0.5%	0.2%	1.0%	-0.3%	1.1%	-0.1%	-0.7%	-0.7%	0.1%	-0.4%	-0.6%	-0.4%	-0.9%	-1.0%	-0.6%	-1.2%

Look at the green blob in the middle of the image. There was a period of time from about three months ago to about 14 months ago (about one year) where Management obviously decided to offer discounts/promotions to the middle of the customer file and/or there were significant liquidation efforts. Remember earlier in this analysis that the average price point per item purchased increased in the past year (along with a corresponding decline in annual repurchase rates and new/reactivated buyers). Clearly Management started a process fourteen months ago, ramped it up, then backed off. It looks to me that when the average price per item purchased increased customer response decreased.

The next time lapse analysis reviews share of weighed volume spent on new items (new in the past year). Again, we're looking for red cells vs. green cells. A green cell suggests that customers are spending more on new items, a red cell means customers are spending less on new items.

Percentage of Historical Volume by Time (Columns) and Weighted Historical Dollars (Rows)
0-24 Month File

Weighted $	24mo	23mo	22mo	21mo	20mo	19mo	18mo	17mo	16mo	15mo	14mo	13mo	12mo	11mo	10mo	9mo	8mo	7mo	6mo	5mo	4mo	3mo	2mo	1mo	Today
> $2,500	0.118	0.115	0.112	0.113	0.113	0.113	0.112	0.110	0.110	0.108	0.108	0.108	0.110	0.110	0.110	0.110	0.113	0.115	0.117	0.119	0.122	0.125	0.128	0.128	0.133
$2,000 to $2,499	0.120	0.118	0.120	0.118	0.119	0.120	0.117	0.114	0.110	0.110	0.113	0.113	0.113	0.113	0.116	0.121	0.125	0.123	0.124	0.124	0.123	0.128	0.132	0.137	0.139
$1,500 to $1,999	0.130	0.126	0.123	0.126	0.124	0.124	0.122	0.119	0.118	0.116	0.114	0.113	0.113	0.114	0.112	0.119	0.122	0.126	0.125	0.126	0.127	0.132	0.134	0.135	0.139
$1,250 to $1,499	0.124	0.123	0.123	0.127	0.130	0.127	0.130	0.129	0.126	0.124	0.122	0.120	0.118	0.119	0.121	0.123	0.131	0.128	0.125	0.127	0.128	0.132	0.135	0.138	0.139
$1,000 to $1,249	0.131	0.127	0.124	0.123	0.126	0.130	0.127	0.126	0.125	0.124	0.122	0.121	0.121	0.120	0.124	0.129	0.133	0.136	0.136	0.136	0.140	0.141	0.143	0.142	0.142
$750 to $999	0.135	0.132	0.130	0.131	0.133	0.134	0.133	0.132	0.130	0.126	0.121	0.122	0.122	0.121	0.122	0.124	0.132	0.136	0.139	0.138	0.137	0.140	0.143	0.146	0.149
$600 to $749	0.134	0.130	0.133	0.132	0.136	0.136	0.137	0.136	0.132	0.129	0.130	0.126	0.125	0.125	0.125	0.128	0.132	0.135	0.137	0.137	0.140	0.143	0.144	0.146	0.148
$500 to $599	0.137	0.134	0.131	0.131	0.133	0.135	0.137	0.135	0.133	0.134	0.129	0.130	0.130	0.128	0.126	0.130	0.134	0.135	0.136	0.138	0.139	0.143	0.146	0.149	0.149
$400 to $499	0.136	0.133	0.131	0.132	0.135	0.135	0.133	0.133	0.133	0.128	0.127	0.128	0.128	0.127	0.128	0.129	0.134	0.137	0.137	0.139	0.140	0.142	0.146	0.147	0.149
$300 to $399	0.139	0.135	0.133	0.132	0.132	0.134	0.133	0.134	0.133	0.131	0.129	0.127	0.127	0.127	0.127	0.128	0.132	0.134	0.136	0.136	0.139	0.141	0.146	0.147	0.149
$250 to $299	0.138	0.135	0.134	0.135	0.136	0.137	0.137	0.136	0.133	0.131	0.128	0.128	0.129	0.129	0.129	0.128	0.132	0.135	0.135	0.139	0.138	0.143	0.145	0.147	0.149
$200 to $249	0.140	0.136	0.135	0.134	0.135	0.135	0.136	0.135	0.135	0.134	0.133	0.134	0.130	0.128	0.127	0.129	0.132	0.135	0.135	0.136	0.138	0.142	0.145	0.147	0.149
$150 to $199	0.144	0.141	0.138	0.137	0.137	0.136	0.135	0.135	0.134	0.132	0.130	0.130	0.131	0.131	0.130	0.131	0.132	0.134	0.135	0.136	0.138	0.140	0.143	0.145	0.148
$100 to $149	0.144	0.141	0.139	0.139	0.139	0.138	0.137	0.136	0.135	0.134	0.132	0.131	0.131	0.130	0.129	0.129	0.131	0.133	0.134	0.135	0.136	0.140	0.143	0.144	0.147
$75 to $99	0.147	0.143	0.142	0.141	0.140	0.140	0.139	0.138	0.137	0.135	0.133	0.132	0.132	0.131	0.130	0.131	0.132	0.133	0.133	0.134	0.135	0.138	0.141	0.143	0.145
$50 to $74	0.150	0.146	0.144	0.143	0.142	0.141	0.139	0.139	0.138	0.137	0.135	0.135	0.134	0.133	0.132	0.132	0.134	0.134	0.134	0.135	0.136	0.137	0.140	0.143	0.146
$30 to $49	0.156	0.152	0.149	0.148	0.146	0.145	0.144	0.142	0.141	0.140	0.139	0.138	0.136	0.135	0.134	0.133	0.134	0.135	0.135	0.136	0.137	0.139	0.142	0.143	0.145
$20 to $29	0.162	0.157	0.154	0.152	0.150	0.149	0.148	0.147	0.146	0.145	0.143	0.143	0.141	0.140	0.139	0.138	0.138	0.137	0.136	0.136	0.136	0.137	0.138	0.139	0.142
$10 to $19	0.162	0.154	0.152	0.151	0.149	0.148	0.147	0.146	0.145	0.142	0.142	0.142	0.141	0.140	0.139	0.138	0.138	0.138	0.138	0.138	0.138	0.136	0.139	0.141	0.142
$0.01 to $9.99	0.162	0.150	0.147	0.146	0.143	0.142	0.142	0.141	0.140	0.137	0.137	0.137	0.137	0.137	0.136	0.135	0.134	0.134	0.133	0.134	0.133	0.131	0.132	0.133	0.135
Overall Averages	0.154	0.149	0.146	0.145	0.144	0.143	0.142	0.141	0.140	0.138	0.137	0.137	0.136	0.135	0.134	0.134	0.135	0.135	0.135	0.136	0.136	0.137	0.140	0.141	0.143
Average Change		-3.6%	-1.6%	-0.7%	-1.0%	-0.5%	-0.6%	-0.7%	-0.7%	-1.3%	-0.9%	-0.3%	-0.6%	-0.6%	-0.7%	-0.3%	0.7%	0.4%	-0.1%	0.5%	0.4%	0.6%	1.8%	1.1%	1.5%

Isn't this time lapse analysis interesting?

Your very best customers like old-school merchandise, and spend more dollars on best items than other customers. Look at the red cells at the top of the image – those are best customers, and they like the stuff they've always liked. On the right side of the image we observe an increase in "green" cells. This means that Management must have expanded the new merchandise offering, with the middle of the customer file embracing it at higher levels. Conversely, from 15 months ago to 8 months ago we see red cells in the middle of the file, suggesting that Management backed off on new merchandise.

In other words, I'm going to have to do more research to understand what is happening from a merchandise/pricing standpoint.

Let's use the Comp Segment framework to do just that! I analyze how customers who purchased exactly two times in the past year behave in the next month. By comparing year-over-year performance, I can see what issues are causing customers to develop faster or slower.

But first, I'll perform a comp segment new + reactivated customer count analysis.

Comp Segment:	New + Reactivated					
	This Yr.	Last Yr.	2Yrs. Ago	TY/LY	LY/2Y	TY/2Y
Jan20	132,778	138,107	132,904	-3.9%	3.9%	-0.1%
Dec19	131,809	136,556	132,903	-3.5%	2.7%	-0.8%
Nov19	131,623	136,505	132,874	-3.6%	2.7%	-0.9%
Oct19	132,188	136,295	131,624	-3.0%	3.5%	0.4%
Sep19	132,953	136,284	131,463	-2.4%	3.7%	1.1%
Aug19	134,431	135,785	131,740	-1.0%	3.1%	2.0%
Jul19	135,383	135,180	132,261	0.2%	2.2%	2.4%
Jun19	136,292	135,368	132,533	0.7%	2.1%	2.8%
May19	137,477	135,383	133,891	1.5%	1.1%	2.7%
Apr19	136,770	135,482	134,256	1.0%	0.9%	1.9%
Mar19	137,823	134,784	134,712	2.3%	0.1%	2.3%
Feb19	138,240	133,797	135,403	3.3%	-1.2%	2.1%
Totals	1,617,767	1,629,526	1,596,564	-0.7%	2.1%	1.3%

We observe that new + reactivated counts increased from about June 2018 to about June 2019. Since August 2019, counts have been in serious decline. This isn't a good trend for a brand that must increase new + reactivated buyer counts to succeed.

Ok, let's look at overall spend among customers with exactly two purchases in the past year.

Comp Segment:	2x Buyer Performance					
	This Yr.	Last Yr.	2Yrs. Ago	TY/LY	LY/2Y	TY/2Y
Jan20	$1.67	$1.67	$1.93	0.4%	-13.7%	-13.3%
Dec19	$1.56	$1.29	$1.34	21.3%	-3.7%	16.8%
Nov19	$2.76	$2.57	$3.03	7.6%	-15.3%	-8.8%
Oct19	$2.72	$2.62	$2.88	3.8%	-9.2%	-5.7%
Sep19	$1.95	$1.97	$2.29	-0.7%	-14.1%	-14.7%
Aug19	$1.60	$1.78	$1.97	-9.9%	-10.0%	-18.9%
Jul19	$1.48	$1.68	$1.63	-11.5%	2.6%	-9.1%
Jun19	$1.76	$2.03	$2.07	-13.3%	-2.0%	-15.0%
May19	$2.09	$2.52	$2.65	-17.2%	-5.0%	-21.3%
Apr19	$2.11	$2.06	$2.18	2.3%	-5.5%	-3.3%
Mar19	$2.22	$2.36	$2.57	-5.9%	-8.4%	-13.8%
Feb19	$1.66	$1.97	$1.75	-16.0%	12.3%	-5.6%
Totals	$23.58	$24.50	$26.31	-3.7%	-6.9%	-10.4%

In October 2019 a multi-year trend of negative performance ended. Since then, customers are spending more than in prior years. However, from a Customer Development standpoint, it is obvious that there are merchandising issues that are holding customers back. If we want to improve Customer Development trends, we first have to address

Merchandising trends. For too long, customers were spending less than the prior year, thereby hindering Customer Development.

Here is the comp segment analysis for new merchandise.

Comp Segment:	New Merchandise					
	This Yr.	Last Yr.	2Yrs. Ago	TY/LY	LY/2Y	TY/2Y
Jan20	$0.28	$0.20	$0.23	41.3%	-13.7%	22.0%
Dec19	$0.24	$0.14	$0.14	73.3%	-0.3%	72.9%
Nov19	$0.43	$0.24	$0.32	76.9%	-24.2%	34.2%
Oct19	$0.47	$0.28	$0.28	66.1%	1.1%	67.9%
Sep19	$0.28	$0.20	$0.27	35.7%	-23.5%	3.8%
Aug19	$0.25	$0.23	$0.26	5.7%	-10.4%	-5.3%
Jul19	$0.19	$0.20	$0.24	-5.4%	-15.1%	-19.7%
Jun19	$0.27	$0.27	$0.30	1.4%	-10.5%	-9.2%
May19	$0.34	$0.35	$0.42	-3.2%	-17.1%	-19.8%
Apr19	$0.28	$0.28	$0.29	-0.6%	-2.0%	-2.5%
Mar19	$0.27	$0.27	$0.36	0.9%	-25.9%	-25.2%
Feb19	$0.15	$0.20	$0.23	-24.2%	-16.0%	-36.3%
Totals	$3.44	$2.86	$3.34	20.2%	-14.1%	3.2%

New merchandise performance was awful 1-2 years ago, was tepid in the past year until July 2019, then it is obvious that Management made a major push into new items, causing significant spending increases on new merchandise. Every company that has strong customer performance (and consequently, strong Customer Development efforts) has a strong new merchandise program. If you want strong existing items in the future, you have to have strong new items today.

Here is the table for existing merchandise.

Comp Segment:	Existing Merchandise					
	This Yr.	Last Yr.	2Yrs. Ago	TY/LY	LY/2Y	TY/2Y
Jan20	$1.39	$1.47	$1.70	-5.2%	-13.7%	-18.2%
Dec19	$1.32	$1.15	$1.19	14.9%	-4.1%	10.2%
Nov19	$2.34	$2.33	$2.71	0.5%	-14.3%	-13.9%
Oct19	$2.25	$2.33	$2.60	-3.7%	-10.3%	-13.6%
Sep19	$1.68	$1.76	$2.02	-5.0%	-12.9%	-17.2%
Aug19	$1.35	$1.54	$1.71	-12.3%	-9.9%	-20.9%
Jul19	$1.29	$1.48	$1.40	-12.3%	5.6%	-7.4%
Jun19	$1.49	$1.76	$1.77	-15.5%	-0.6%	-16.0%
May19	$1.75	$2.17	$2.23	-19.4%	-2.7%	-21.6%
Apr19	$1.83	$1.78	$1.90	2.8%	-6.0%	-3.4%
Mar19	$1.95	$2.09	$2.21	-6.8%	-5.5%	-11.9%
Feb19	$1.51	$1.77	$1.52	-15.1%	16.7%	-0.9%
Totals	$20.14	$21.63	$22.98	-6.9%	-5.8%	-12.3%

We see a multi-year negative trend among existing items, don't we?

Outside of a gain in December 2019, existing merchandise is increasingly unfavored by the customer base.

In other words, PartyFest Depot is selling merchandise that customers no longer prefer, causing (in part) customers to have sluggish Customer Development metrics.

Here is the table for items selling at/above their historical average selling point.

Comp Segment:	Above Average Prices on Individual Items					
	This Yr.	Last Yr.	2Yrs. Ago	TY/LY	LY/2Y	TY/2Y
Jan20	$1.24	$1.12	$1.17	10.7%	-4.8%	5.4%
Dec19	$0.88	$0.62	$0.70	42.5%	-11.8%	25.6%
Nov19	$2.00	$1.52	$1.95	32.1%	-22.3%	2.7%
Oct19	$2.00	$1.77	$1.86	13.5%	-5.2%	7.6%
Sep19	$1.43	$1.28	$1.59	11.1%	-19.4%	-10.5%
Aug19	$1.15	$1.13	$1.35	1.8%	-16.3%	-14.8%
Jul19	$1.05	$1.03	$1.09	2.3%	-5.9%	-3.8%
Jun19	$1.09	$1.30	$1.42	-16.5%	-8.1%	-23.2%
May19	$1.37	$1.57	$1.69	-12.6%	-6.8%	-18.5%
Apr19	$1.53	$1.42	$1.56	7.6%	-8.7%	-1.8%
Mar19	$1.32	$1.51	$1.61	-12.3%	-6.4%	-17.9%
Feb19	$0.89	$1.11	$1.24	-20.3%	-10.3%	-28.5%
Totals	$15.95	$15.37	$17.23	3.8%	-10.8%	-7.4%

Only in recent months has the trend of items selling at/above their historical average price reversed (those are the months when new items were introduced at higher rates). Since your brand doesn't have a ton of new products, it is quite likely that a period of discounting/promotions ended.

Here is the same table for items selling below their historical average price.

Comp Segment:	Below Average Prices on Individual Items					
	This Yr.	Last Yr.	2Yrs. Ago	TY/LY	LY/2Y	TY/2Y
Jan20	$0.44	$0.55	$0.76	-20.5%	-27.5%	-42.4%
Dec19	$0.68	$0.67	$0.64	1.7%	5.2%	7.0%
Nov19	$0.76	$1.05	$1.08	-27.7%	-2.8%	-29.7%
Oct19	$0.71	$0.85	$1.02	-16.2%	-16.6%	-30.1%
Sep19	$0.53	$0.68	$0.70	-22.9%	-2.0%	-24.5%
Aug19	$0.45	$0.65	$0.62	-30.4%	3.8%	-27.8%
Jul19	$0.43	$0.65	$0.54	-33.1%	19.9%	-19.8%
Jun19	$0.67	$0.73	$0.65	-7.7%	11.2%	2.6%
May19	$0.72	$0.95	$0.97	-24.7%	-1.8%	-26.1%
Apr19	$0.58	$0.64	$0.62	-9.4%	2.7%	-7.0%
Mar19	$0.89	$0.85	$0.96	5.5%	-11.9%	-7.1%
Feb19	$0.77	$0.86	$0.51	-10.3%	67.2%	49.9%
Totals	$7.63	$9.12	$9.08	-16.4%	0.5%	-15.9%

There was obvious discounting happening 1-2 years ago. Since January 2019, it looks like Management cut back on promotions/discounts, and your brand was unable to make up the difference until recent months.

Let's look at two additional tables that help us understand what might be happening from a merchandising standpoint. The first table is called a "Class Of" table. We look at items that were introduced as a class, and follow their performance into subsequent years.

Class Of Merchandise Report (Sales and Units in 000s)

Item Introduction	Sales 4-5 Years Ago	Sales 3-4 Years Ago	Sales 2-3 Years Ago	Sales 1-2 Years Ago	Sales Past Year
4+ Years Ago	$131,099	$116,826	$100,857	$85,227	$67,798
3-4 Years Ago		$11,006	$16,140	$13,294	$10,062
2-3 Years Ago			$9,153	$13,576	$10,041
1-2 Years Ago				$8,173	$12,203
Past Year					$10,934

Item Introduction	Units 4-5 Years Ago	Units 3-4 Years Ago	Units 2-3 Years Ago	Units 1-2 Years Ago	Units Past Year
4+ Years Ago	17,360	15,173	12,772	10,464	7,963
3-4 Years Ago		1,470	2,208	1,826	1,369
2-3 Years Ago			1,147	1,716	1,246
1-2 Years Ago				958	1,400
Past Year					1,192

Item Introduction	Price 4-5 Years Ago	Price 3-4 Years Ago	Price 2-3 Years Ago	Price 1-2 Years Ago	Price Past Year
4+ Years Ago	$7.55	$7.70	$7.90	$8.14	$8.51
3-4 Years Ago		$7.49	$7.31	$7.28	$7.35
2-3 Years Ago			$7.98	$7.91	$8.06
1-2 Years Ago				$8.53	$8.72
Past Year					$9.17

	Metrics 4-5 Years Ago	Metrics 3-4 Years Ago	Metrics 2-3 Years Ago	Metrics 1-2 Years Ago	Sales Past Year
New Item Sales		$11,006	$9,153	$8,173	$10,934
New Item Units		1,470	1,147	958	1,192
New Item Price		$7.49	$7.98	$8.53	$9.17
Existing Item Sales		$116,826	$116,997	$112,097	$100,104
Existing Item Units		15,173	14,980	14,006	11,979
Existing Item Price		$7.70	$7.81	$8.00	$8.36
Total Item Sales	$131,099	$127,831	$126,150	$120,270	$111,037
Total Item Units	17,360	16,643	16,127	14,963	13,172
Total Item Price	$7.55	$7.68	$7.82	$8.04	$8.43
New Item Change			-16.8%	-10.7%	33.8%
Existing Item Change			0.1%	-4.2%	-10.7%
Total Sales Change		-2.5%	-1.3%	-4.7%	-7.7%

There's a lot of information here. Let's parse the data into bite-sizes pieces.

First, existing items slowly die off over time. Sales from items introduced 4+ years ago decreased from $131 million to $117 million to $101 million to $85 million to $68 million. You have no choice but to have a quality new merchandise program to replace the death of long-time items. If you want your Customer Development efforts to succeed, your merchandising strategy must succeed as well.

In the past year, PartyFest Depot suffered from sluggish new merchandise performance, generating $11.0 million in sales, then $9.2 million, then $8.2 million, before reversing the trend in the past year while generating $10.9 million.

Let's look at the price of existing items over time. Four years ago, existing items sold for an average of $7.70, then $7.81, then $8.00, and finally $8.36 in the past year. The items that are being carried over are slowly being sold for more each year.

Let's look at the price of new items over time. Four years ago, new items sold for an average of $7.49, then $7.98, then $8.53, then $9.17 in the past year.

In other words, Management is slowly pushing the price per item purchased higher, with significant increases in the past year. Correspondingly, rebuy rates plunged in the past year, and new + reactivated buyer counts were at a multi-year low in the past year. Without a doubt, there is a merchandising component to Customer Development struggles in the past year.

A final set of tables will help us obtain a last bit of clarity. Here we see new merchandise trends (total sales) by category.

New Merchandise Sales by Year (in Thousands)

Category	3-4 Years Ago	2-3 Years Ago	1-2 Years Ago	Last Year	Year 3 v. Year 4	Year 2 v. Year 3	Year 1 v. Year 2	Multi Year Trend
Other	$4	$7	$276	$145	49.7%	4077.8%	-47.4%	3187.1%
Category 01	$2,213	$2,010	$1,616	$1,667	-9.1%	-19.6%	3.2%	-24.6%
Category 02	$252	$265	$180	$159	5.1%	-32.3%	-11.7%	-37.2%
Category 03	$2,445	$1,822	$1,604	$2,139	-25.5%	-12.0%	33.4%	-12.5%
Category 04	$841	$403	$299	$361	-52.0%	-25.9%	20.8%	-57.1%
Category 05	$1,444	$915	$1,023	$1,303	-36.6%	11.8%	27.4%	-9.7%
Category 06	$807	$747	$827	$1,026	-7.4%	10.7%	24.1%	27.2%
Category 07	$994	$1,312	$1,136	$1,193	32.0%	-13.4%	5.0%	20.1%
Category 08	$990	$624	$448	$906	-36.9%	-28.3%	102.4%	-8.5%
Category 09	$2,560	$1,904	$1,615	$2,022	-25.6%	-15.2%	25.2%	-21.0%
Category 10	$3,255	$3,245	$2,862	$2,961	-0.3%	-11.8%	3.5%	-9.0%
Category 11	$1,581	$1,152	$948	$1,095	-27.1%	-17.7%	15.6%	-30.7%
Category 12	$2,785	$2,534	$2,272	$2,254	-9.0%	-10.3%	-0.8%	-19.1%

In the past year there has been an across-the-board category push to grow sales in new merchandise. Over the past three years, only categories 6/7 were grown, with contraction happening elsewhere.

Here is the trend among existing items, and then in total.

Existing Merchandise Sales by Year (in Thousands)

Category	3-4 Years Ago	2-3 Years Ago	1-2 Years Ago	Last Year	Year 3 v. Year 4	Year 2 v. Year 3	Year 1 v. Year 2	Multi Year Trend
Other	$63	$57	$50	$184	-9.3%	-13.2%	271.1%	192.1%
Category 01	$12,816	$12,322	$11,266	$10,203	-3.9%	-8.6%	-9.4%	-20.4%
Category 02	$1,889	$1,912	$1,814	$1,575	1.2%	-5.1%	-13.2%	-16.7%
Category 03	$9,448	$9,806	$10,050	$9,806	3.8%	2.5%	-2.4%	3.8%
Category 04	$4,756	$4,515	$4,452	$3,703	-5.1%	-1.4%	-16.8%	-22.1%
Category 05	$8,777	$8,879	$8,484	$7,492	1.2%	-4.5%	-11.7%	-14.6%
Category 06	$1,930	$2,516	$2,566	$2,330	30.3%	2.0%	-9.2%	20.7%
Category 07	$4,521	$4,730	$4,914	$4,105	4.6%	3.9%	-16.5%	-9.2%
Category 08	$5,754	$5,764	$5,371	$4,516	0.2%	-6.8%	-15.9%	-21.5%
Category 09	$9,698	$10,192	$9,672	$8,163	5.1%	-5.1%	-15.6%	-15.8%
Category 10	$17,244	$17,189	$16,311	$14,196	-0.3%	-5.1%	-13.0%	-17.7%
Category 11	$8,669	$8,668	$8,256	$7,385	0.0%	-4.8%	-10.5%	-14.8%
Category 12	$22,096	$22,658	$21,959	$20,148	2.5%	-3.1%	-8.2%	-8.8%

Total Merchandise Sales by Year

Category	3-4 Years Ago	2-3 Years Ago	1-2 Years Ago	Last Year	Year 3 v. Year 4	Year 2 v. Year 3	Year 1 v. Year 2	Multi Year Trend
Other	$67	$64	$326	$329	-5.5%	411.6%	1.0%	388.5%
Category 01	$15,029	$14,332	$12,882	$11,870	-4.6%	-10.1%	-7.9%	-21.0%
Category 02	$2,142	$2,177	$1,994	$1,733	1.6%	-8.4%	-13.1%	-19.1%
Category 03	$11,892	$11,628	$11,653	$11,945	-2.2%	0.2%	2.5%	0.4%
Category 04	$5,597	$4,918	$4,750	$4,063	-12.1%	-3.4%	-14.5%	-27.4%
Category 05	$10,220	$9,795	$9,508	$8,796	-4.2%	-2.9%	-7.5%	-13.9%
Category 06	$2,737	$3,263	$3,394	$3,356	19.2%	4.0%	-1.1%	22.6%
Category 07	$5,514	$6,042	$6,050	$5,298	9.6%	0.1%	-12.4%	-3.9%
Category 08	$6,744	$6,389	$5,819	$5,422	-5.3%	-8.9%	-6.8%	-19.6%
Category 09	$12,258	$12,097	$11,287	$10,185	-1.3%	-6.7%	-9.8%	-16.9%
Category 10	$20,499	$20,435	$19,173	$17,157	-0.3%	-6.2%	-10.5%	-16.3%
Category 11	$10,250	$9,820	$9,203	$8,480	-4.2%	-6.3%	-7.9%	-17.3%
Category 12	$24,882	$25,191	$24,231	$22,402	1.2%	-3.8%	-7.5%	-10.0%

Notice that existing merchandise experienced tepid performance 3-4 years ago and 2-3 years ago, before performing much worse in the past year. It looks to me like Management might have discontinued items and the new items that replaced the discontinued items did not pick up the slack. Or higher prices led to lower sales. While outside of the scope of a Customer Development project, it is clear that merchandise performance is down mostly across the board, with a lack of historical new products hurting Customer

Development efforts, and higher prices potentially hurting Customer Development endeavors. Sales across the board (with the exception of Category 06) are down 15% to 20% on average over the past three years.