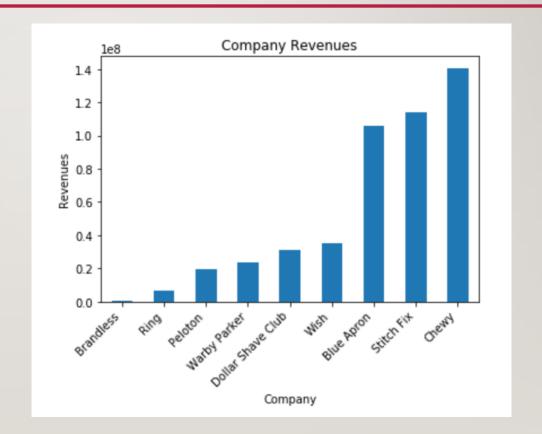
E-COMMERCE WINNERS

MICHAEL CHO 2/7/2020

E-COMMERCE WINNERS

- Blue Apron
- Brandless
- Chewy
- Dollar Shave Club
- Peloton
- Ring
- Stitch Fix
- Warby Parker
- Wish



COMMON PATTERNS AVERAGE METRICS

Company	Subscription	Lifetime Value	MoM User Growth	Avg. Life	Monthly Churn Rate	MoM Sales Growth	ARPU	ARPT
Brandless	Non-Subscription	\$110	11%	2.6	35%	10%	\$43	\$38
Wish	Non-Subscription	\$213	29%	3.7	32%	27%	\$66	\$48
Ring	Non-Subscription	\$303	43%	3.1	29%	27%	\$165	\$157
Dollar Shave Club	Subscription	\$342	511%	42.4	9%	419%	\$9	\$8
Warby Parker	Non-Subscription	\$368	5%	2.5	40%	5%	\$143	\$126
Chewy	Non-Subscription	\$745	166%	8.2	14%	176%	\$88	\$68
Stitch Fix	Subscription	\$873	16%	7.8	16%	21%	\$105	\$63
Blue Apron	Subscription	\$1,107	19%	7.6	14%	34%	\$144	\$61
Peloton	Subscription	\$2,395	17%	9.8	16%	33%	\$300	\$250
Average		\$718	91%	9.7	23%	84%	\$118	\$91
Median		\$368	19%	7.6	16%	27%	\$105	\$63

COMMON PATTERNS

- •Month over Month Revenue Growth: Companies experience explosive growth in beginning years (almost double-digit average month over month Sales and User growth) and growth starts to slow in year 5 and 6. Median Average MoM Revenue Growth across observation companies is 27%.
- •Average Life: Median Average Life of a Customer is at least 7.6 months. Subscription companies like Blue Apron, DSC, Peloton, Stitch Fix are able to keep customers for at least 7 months. DSC customers have an average life of 44 months!
- •Lifetime Value: Excluding Brandless, average Lifetime Values are at least 200-300 dollars per user. Brandless is the lowest at \$110 dollars per user. Peloton has the highest average Lifetime Value at \$2,395 dollars given the high average revenue per user and fairly long life of 9.8 months.

COMMON PATTERNS

- •Monthly Churn Rate: This is a very important metric in that it tracks how many people leave. In other words, they find no more value in your product. Warby Parker and Brandless have the highest churn between 35-40%. The Subscription companies have the lowest churn between 9-16%. This can be roughly estimated to be between 80-90% retention rates for your customer. Chewy is a non-subscription website, but people consistently return to feed their pets and sports a low churn rate. This is unlike Ring, Wish, Brandless and Warby Parker, where the transactions are one and done, and value delivered is inconsistent. Less churn = more life, which ultimately increases lifetime value.
- •Average Revenue Per User or Transaction: ARPU and ARPT numbers range widely given the different types of products. This number becomes more insightful when paired with average customer life, to get to lifetime values.
- •Subscription/Non-Subscription: The subscription companies beat the non-subscription companies in every metric. This is a small dataset but I believe there is some insight here on the value of subscription business models.

COMMON PATTERNS AVERAGE METRICS

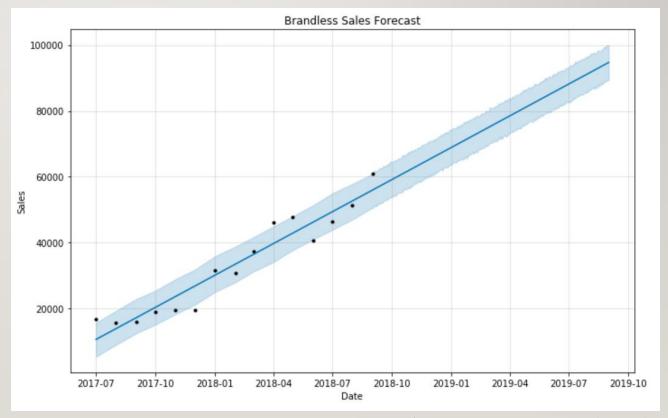
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Average		\$718	91%	9.7	23%	84%	\$118	\$91
Median		\$368	19%	7.6	16%	27%	\$105	\$63

COMMON PATTERNS MEDIAN METRICS

Company	Subscription	Lifetime Value	MoM User Growth	Avg. Life	Monthly Churn Rate	MoM Sales Growth	ARPU	ARPT
Brandless	Non-Subscription	\$115	1.5%	2.6	38%	7%	\$43	\$38
Ring	Non-Subscription	\$144	4.3%	2.4	25%	0%	\$100	\$87
Wish	Non-Subscription	\$175	3.0%	3.6	27%	3%	\$46	\$25
Dollar Shave Clul	Subscription	\$182	3.3%	19.8	5%	3%	\$9	\$8
Warby Parker	Non-Subscription	\$351	0.4%	2.5	40%	1%	\$146	\$128
Chewy	Non-Subscription	\$738	6.1%	8.1	12%	7%	\$90	\$69
Stitch Fix	Subscription	\$815	6.6%	7.1	14%	7%	\$111	\$63
Blue Apron	Subscription	\$994	7.2%	7.0	14%	7%	\$146	\$61
Peloton	Subscription	\$2,063	8.3%	7.3	13%	0%	\$269	\$227
Average		\$620	4.5%	6.7	21%	4%	\$107	\$79
Median		\$351	4.3%	7.0	14%	3%	\$100	\$63

FORECAST BRANDLESS SALES

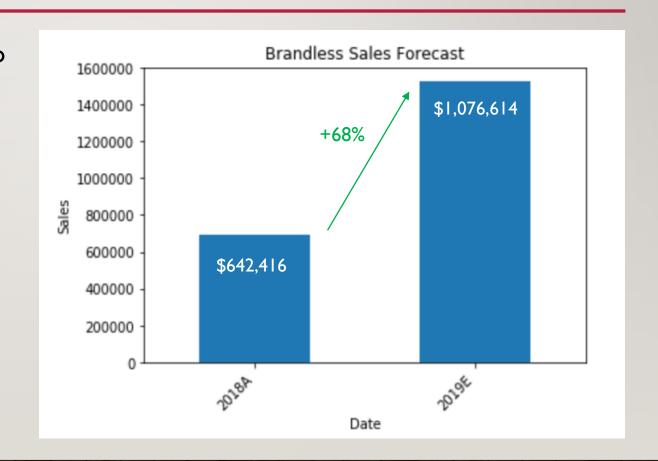
- Brandless Sales are forecasted to hit \$95,000 in monthly sales in September 2019, a 69% year over year growth in monthly sales.
- The next twelve month forecast averages a 4.2% month over month growth, quite low relative to 'ecommerce winners'.



*Used a decomposition regression model (FBProphet)

FORECAST BRANDLESS SALES

- Brandless Sales are forecasted to grow in annual Sales from \$642,416 to \$1,076,614, an annual increase of 68%.
- Brandless is forecasted to achieved over \$1 million in Sales in 2019.



BRANDLESS A WINNER?

- Brandless' trajectory is very similar to Warby Parker in terms of a non-subscription business model experiencing high user and revenue growth. Brandless is in its second year of business, a time when companies experience high growth.
- With the exception of Warby Parker, Brandless underperforms against the 'e-commerce winners' on all other metrics.
- Average Life is low at 2-3 months, very high churn, ultimately decreasing Lifetime Values.
- At Brandless' current stage, I believe it is unlikely Brandless will become a sustainable winner.

ADDITIONAL DATA

- The dataset we observed is bias in that all companies in the set have been successful (survivorship bias). It would be interesting to study relative companies that have not done so well to understand what went wrong and also get a better gauge of the probability of success.
- In addition to this study of user data, we can study other types of data:
 - Gross margins
 - company culture (via Glassdoor ratings and reviews)
 - employee growth/job openings (attractiveness of the firm via Linkedin)
 - social media following (via Facebook, IG, Tiktok, Twitter, etc.)
 - product reviews (via cold calling, websites)
 - website traction (via Similar Web, google trends)

COMPANIES CURRENT STATUS

- In hindsight, these companies may have been successful. Looking forward to today:
 - Successful
 - Dollar Shave Club (acquired by Unilever for \$1B in 2016)
 - Ring (Acquired by Amazon for \$1B+)
 - Stitch Fix (89% Appreciation since IPO; 44% Short % of Float)
 - Chewy (acquired by Petsmart in 2017; IPO in 2019 for \$22 to \$30 today. 25% Short % of Float)
 - To be determined
 - Peloton (84% Short % of Float)
 - ContextLogic dba Wish (IPO in next year or two)
 - Warby Parker (not in a hurry to go public, still unprofitable, valued at 1.7 billion)
 - Unsuccessful
 - Blue Apron (42% Short % of Float, IPO at \$140 to \$3 today.)
 - Brandless (Shut Down)