

SUCCESS STORIES - SUMMARY

Project Name	Client	Brief Description	Services	Impact
Vital Proteins	Health supplements provider	Forecast revenue for the two main digital channels Direct to Consumer (DTC) and Amazon	Revenue forecasting	Forecasting results showed less than 20% mean average error in traffic predictions

REVENUE FORECASTING FOR COLLAGEN-BASED HEALTH SUPPLEMENTS PROVIDER

ABOUT THE CLIENT

Client is a **collagen-based health supplements provider** with presence in U.S. and multiple countries across the world



SITUATION

- Client's Direct to Consumer (DTC) website **revenue was on the decline** and testing of a **few strategies to increase revenue by forecasting** revenues for upcoming months and next FY was needed
- Merilytics partnered with the client to build a revenue forecasting model to test different revenue improvement strategies



VALUE ADDITION

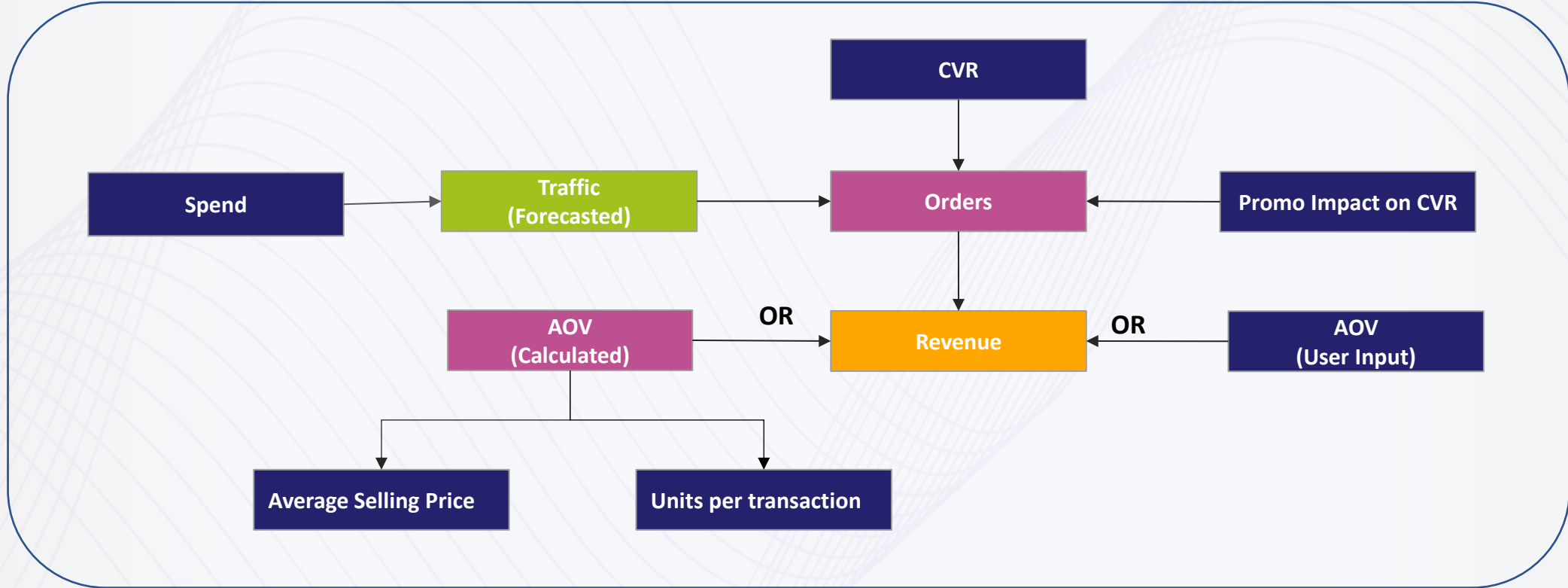
- **Created an automated Revenue Forecasting Model** with Marketing Spend, CVR and AOV as user inputs. Using the forecasted traffic, Conversion Rate (CVR), and Average Order Value (AOV), the model forecasted revenue for upcoming months and year
- **As a fully online sales channel, DTC's revenue was primarily driven by the Traffic to the website.** Created time series forecasting scripts in Saturn cloud to forecast traffic for each marketing channel using fbProphet. The forecasting scripts leveraged historical traffic, historical spend and upcoming budgeted spend data from data lake and google sheets
- **Provided the flexibility for users to include promotion impact** sheet to account for revenue from future promotion campaigns. The user can enter the details of the planned promotion such as days, type and expected lift in CVR and traffic in this sheet.
- **Scheduled the model to update automatically** every month using scheduled jobs on Saturn Cloud, bringing the latest data and forecast revenue automatically



IMPACT

- Using the model, **the client would be able to strategize revenue improvement by using spend, CVR and promotions as levers**
- The model provided more accurate predictions than conventional methods, taking growth and seasonality into consideration. **The test results showed less than 20% mean** average error in traffic predictions.

METHODOLOGY/ APPROACH



Legend

User Input

Calculated

Forecasted

Output

EXHIBIT #1 – FORECAST INPUTS

ILLUSTRATIVE

Inputs									
Input the Spend, Traffic, CVR and AOV in this page									
Spend - User Input									
Spend used to forecast traffic									
Month	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
User Input	\$615,440	\$661,598	\$616,098	\$1,033,464	\$806,345	\$816,384	\$779,421	\$843,395	\$832,774
Budget	\$615,440	\$661,598	\$616,098	\$1,033,464	\$806,345	\$816,384	\$779,421	\$843,395	\$832,774

Legend

User Input

Forecasted

Historical

User inputs planned spend, which will be used to forecast traffic

CVR - User Input									
Channel Group	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Paid Search	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Paid Social	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%	0.16%
Direct	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%	2.26%
Organic Search	2.11%	2.11%	2.11%	2.11%	2.11%	2.11%	2.11%	2.11%	2.11%
Organic Social	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%
Email	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%
SMS	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Self-Referrer	2.18%	2.18%	2.18%	2.18%	2.18%	2.18%	2.18%	2.18%	2.18%
Other	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%	1.88%

Input CVR is used to calculate the orders which is multiplied with AOV to calculate revenue

EXHIBIT #2 – FORECAST OUTPUTS

ILLUSTRATIVE

Summary

Legend

Forecasted

Historical

Sessions are forecasted based on historical traffic, historical spend and user provided spend as inputs to predict website traffic

Sessions are multiplied by CVR to obtain or

Sessions

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan (NY)	Feb (NY)	Mar (NY)	Apr (NY)	May (NY)	Jun (NY)
Paid Search	423k	304k	336k	229k	237k	219k	244k	237k	269k	236k	232k	207k	385k	280k	280k	259k	282k	272k
Paid Social	397k	211k	68k	143k	180k	159k	128k	131k	154k	259k	154k	149k	190k	167k	167k	163k	169k	167k
Direct	243k	199k	205k	177k	187k	175k	159k	169k	185k	143k	176k	162k	249k	196k	195k	183k	193k	187k
Organic Search	276k	256k	298k	249k	231k	203k	182k	218k	188k	170k	74k	138k	139k	208k	343k	207k	113k	141k
Organic Social	40k	45k	37k	25k	57k	42k	35k	59k	37k	34k	29k	27k	26k	25k	23k	22k	20k	19k
Email	117k	129k	133k	124k	142k	151k	146k	148k	126k	108k	206k	136k	140k	148k	176k	162k	166k	179k
SMS	20k	26k	24k	24k	28k	28k	27k	21k	13k	12k	46k	21k	36k	38k	35k	36k	42k	41k
Self-Referrer	89k	72k	66k	55k	66k	71k	63k	66k	59k	53k	65k	64k	64k	63k	63k	62k	61k	61k
Other	94k	87k	84k	105k	135k	147k	106k	85k	77k	72k	201k	131k	153k	138k	140k	139k	187k	200k

Orders

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan (NY)	Feb (NY)	Mar (NY)	Apr (NY)	May (NY)	Jun (NY)
Paid Search	4.6k	3.6k	3.1k	2.1k	2.4k	2.0k	1.9k	1.8k	2.3k	2.1k	5.9k	3.5k	5.8k	4.2k	4.2k	3.9k	4.2k	4.1k
Paid Social	0.2k	0.2k	0.2k	0.2k	0.3k	0.3k	0.1k	0.1k	0.1k	0.1k	0.3k	0.3k	0.3k	0.3k	0.3k	0.3k	0.3k	0.3k
Direct	3.9k	3.3k	3.2k	2.6k	2.6k	2.6k	1.9k	2.1k	1.8k	1.6k	4.3k	4.1k	5.6k	4.4k	4.4k	4.1k	4.4k	4.2k
Organic Search	4.4k	4.1k	4.1k	3.2k	3.2k	2.5k	2.1k	2.5k	1.7k	1.5k	1.7k	3.3k	2.9k	4.4k	7.2k	4.4k	2.4k	3.0k
Organic Social	0.2k	0.2k	0.1k	0.1k	0.4k	0.3k	0.1k	0.3k	0.1k	0.1k	0.2k	0.2k	0.2k	0.2k	0.1k	0.1k	0.1k	0.1k
Email	2.1k	3.0k	2.5k	2.4k	1.9k	1.9k	1.5k	1.6k	1.4k	1.0k	5.4k	3.7k	3.4k	3.6k	4.3k	3.9k	4.0k	4.3k
SMS	0.5k	0.7k	0.7k	0.5k	0.4k	0.7k	0.4k	0.3k	0.2k	0.2k	1.7k	0.8k	1.2k	1.3k	1.2k	1.2k	1.4k	1.4k
Self-Referrer	1.3k	1.2k	1.0k	0.8k	0.9k	0.9k	0.7k	0.8k	0.7k	0.6k	1.5k	1.6k	1.4k	1.4k	1.4k	1.4k	1.3k	1.3k
Other	1.0k	1.1k	1.1k	1.2k	1.3k	3.2k	0.8k	0.8k	0.6k	0.5k	4.1k	2.8k	2.9k	2.6k	2.6k	2.6k	3.5k	3.8k

EXHIBITS #3 – FORECAST SUMMARY

ILLUSTRATIVE

Output with forecasted revenue by channel

Revenue	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan (NY)	Feb (NY)	Mar (NY)	Apr (NY)	May (NY)	Jun (NY)
Paid Search	\$152k	\$120k	\$113k	\$84k	\$96k	\$75k	\$68k	\$72k	\$89k	\$80k	\$217k	\$128k	\$210k	\$153k	\$153k	\$141k	\$154k	\$149k
YoY % change	-57%	-62%	-61%	-66%	-52%	-59%	-58%	-43%	14%	10%	115%	28%	38%	28%	35%	68%	61%	97%
Paid Social	\$7k	\$6k	\$5k	\$6k	\$9k	\$10k	\$3k	\$3k	\$3k	\$2k	\$9k	\$9k	\$10k	\$9k	\$9k	\$9k	\$9k	\$9k
YoY % change	-84%	-79%	-82%	-77%	-45%	-38%	-70%	-42%	-17%	-59%	7%	133%	47%	53%	78%	39%	2%	-9%
Direct	\$153k	\$137k	\$130k	\$122k	\$116k	\$107k	\$89k	\$100k	\$86k	\$86k	\$187k	\$180k	\$244k	\$192k	\$191k	\$179k	\$189k	\$183k
YoY % change	-55%	-50%	-51%	-48%	-39%	-39%	-50%	-37%	-36%	-25%	41%	53%	60%	40%	47%	47%	63%	71%
Organic Search	\$174k	\$159k	\$164k	\$135k	\$132k	\$103k	\$89k	\$108k	\$76k	\$65k	\$70k	\$136k	\$121k	\$181k	\$298k	\$180k	\$98k	\$123k
YoY % change	-28%	-13%	-12%	-14%	2%	-30%	-42%	-32%	-46%	-49%	-46%	18%	-30%	14%	82%	33%	-26%	19%
Organic Social	\$8k	\$7k	\$4k	\$4k	\$16k	\$8k	\$5k	\$14k	\$7k	\$5k	\$7k	\$7k	\$6k	\$6k	\$6k	\$5k	\$5k	\$4k
YoY % change	-71%	-65%	-75%	-78%	19%	6%	-47%	34%	-57%	-23%	-44%	-3%	-27%	-22%	23%	40%	-69%	-44%
Email	\$76k	\$111k	\$97k	\$97k	\$75k	\$78k	\$59k	\$62k	\$54k	\$41k	\$209k	\$144k	\$131k	\$139k	\$165k	\$152k	\$156k	\$168k
YoY % change	-64%	-10%	-35%	-26%	-34%	-6%	-41%	-48%	-29%	-41%	15%	106%	73%	25%	71%	57%	107%	115%
SMS	\$15k	\$22k	\$24k	\$20k	\$15k	\$20k	\$14k	\$11k	\$7k	\$6k	\$56k	\$27k	\$40k	\$42k	\$39k	\$40k	\$47k	\$46k
YoY % change	747%	350%	145%	152%	108%	55%	-3%	-27%	-27%	-37%	89%	50%	170%	94%	59%	100%	206%	128%
Self-Referrer	\$60k	\$59k	\$54k	\$58k	\$54k	\$48k	\$38k	\$41k	\$38k	\$34k	\$83k	\$85k	\$75k	\$74k	\$73k	\$73k	\$72k	\$71k
YoY % change	-57%	-43%	-52%	-38%	-31%	-25%	-46%	-37%	-30%	-14%	53%	129%	24%	25%	36%	26%	33%	47%
Other	\$37k	\$39k	\$43k	\$46k	\$50k	\$42k	\$32k	\$28k	\$26k	\$22k	\$131k	\$89k	\$92k	\$83k	\$85k	\$84k	\$113k	\$120k
YoY % change	65%	27%	83%	86%	157%	146%	44%	63%	21%	-34%	251%	264%	148%	110%	98%	84%	124%	185%