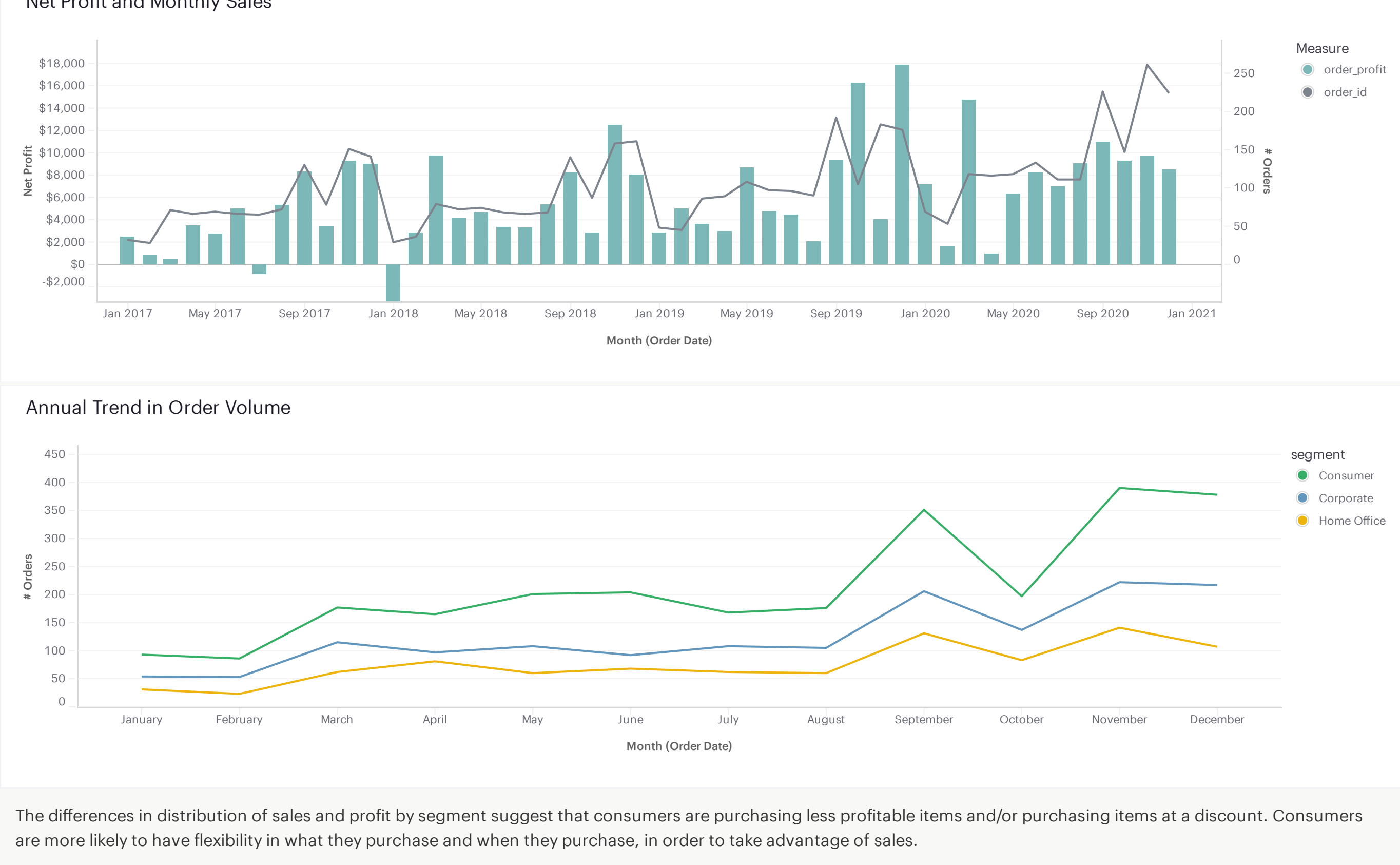
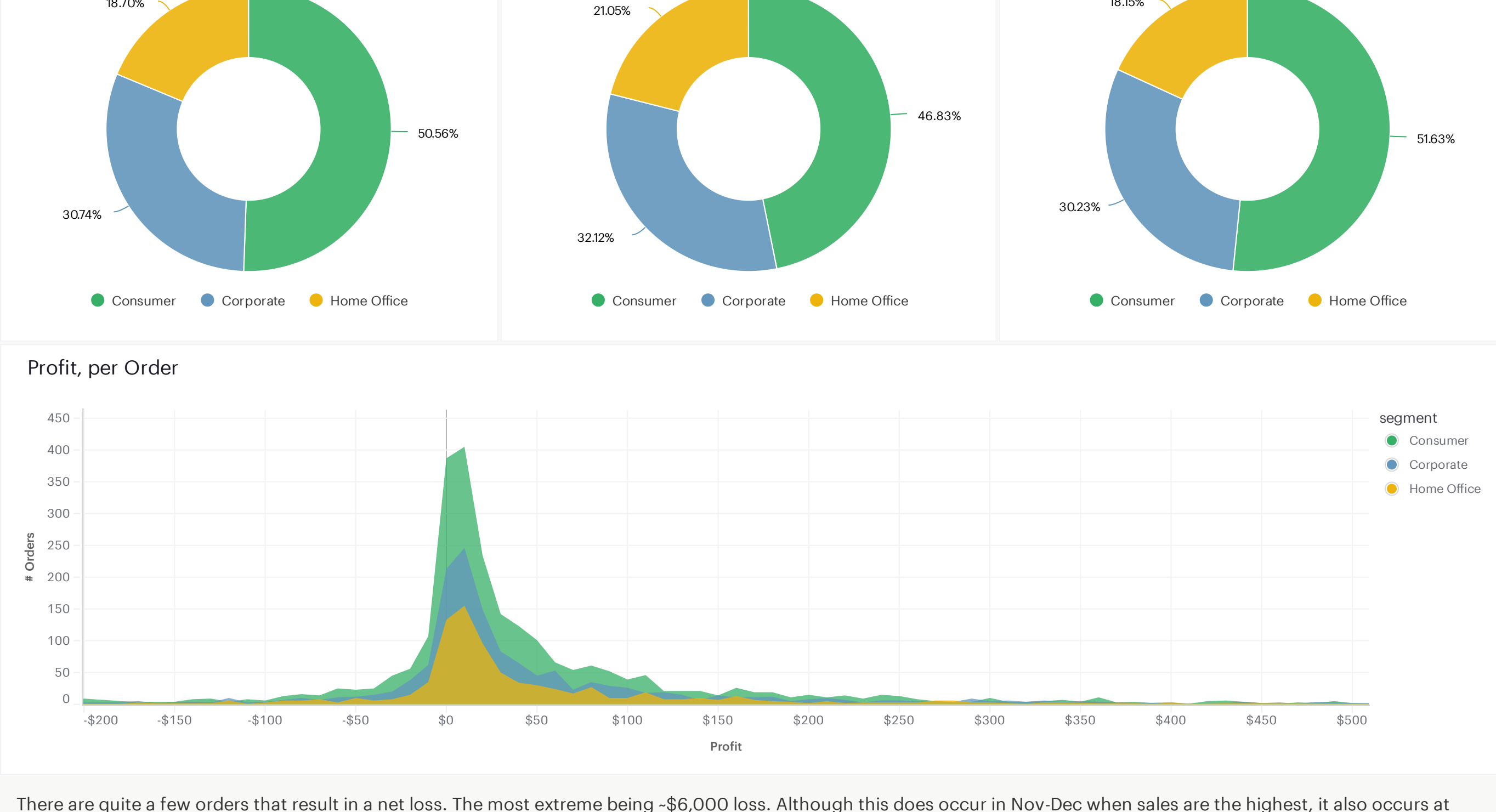


# Superstore Sales

Order volume tends to creep up during the year, reaching a peak in November or December, then drop over 60% in January. Although sales is growing year over year, the volatility makes it hard to forecast sales .



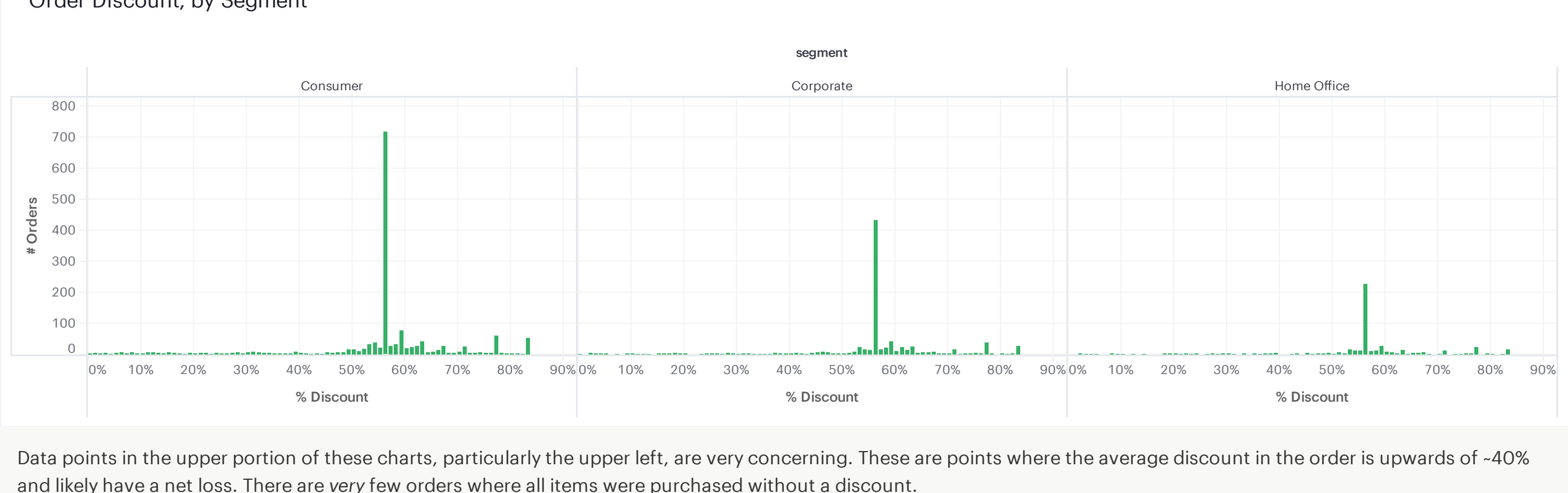
The differences in distribution of sales and profit by segment suggest that consumers are purchasing less profitable items and/or purchasing items at a discount. Consumers are more likely to have flexibility in what they purchase and when they purchase, in order to take advantage of sales.



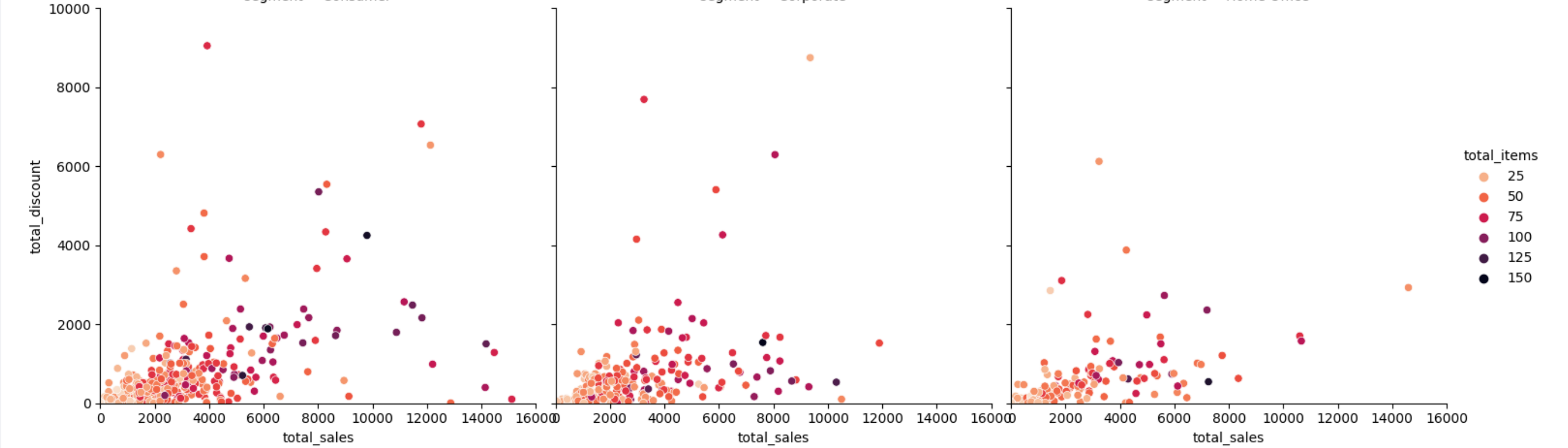
There are quite a few orders that result in a net loss. The most extreme being -\$6,000 loss. Although this does occur in Nov-Dec when sales are the highest, it also occurs at other points throughout the year (presumably during a large sale).



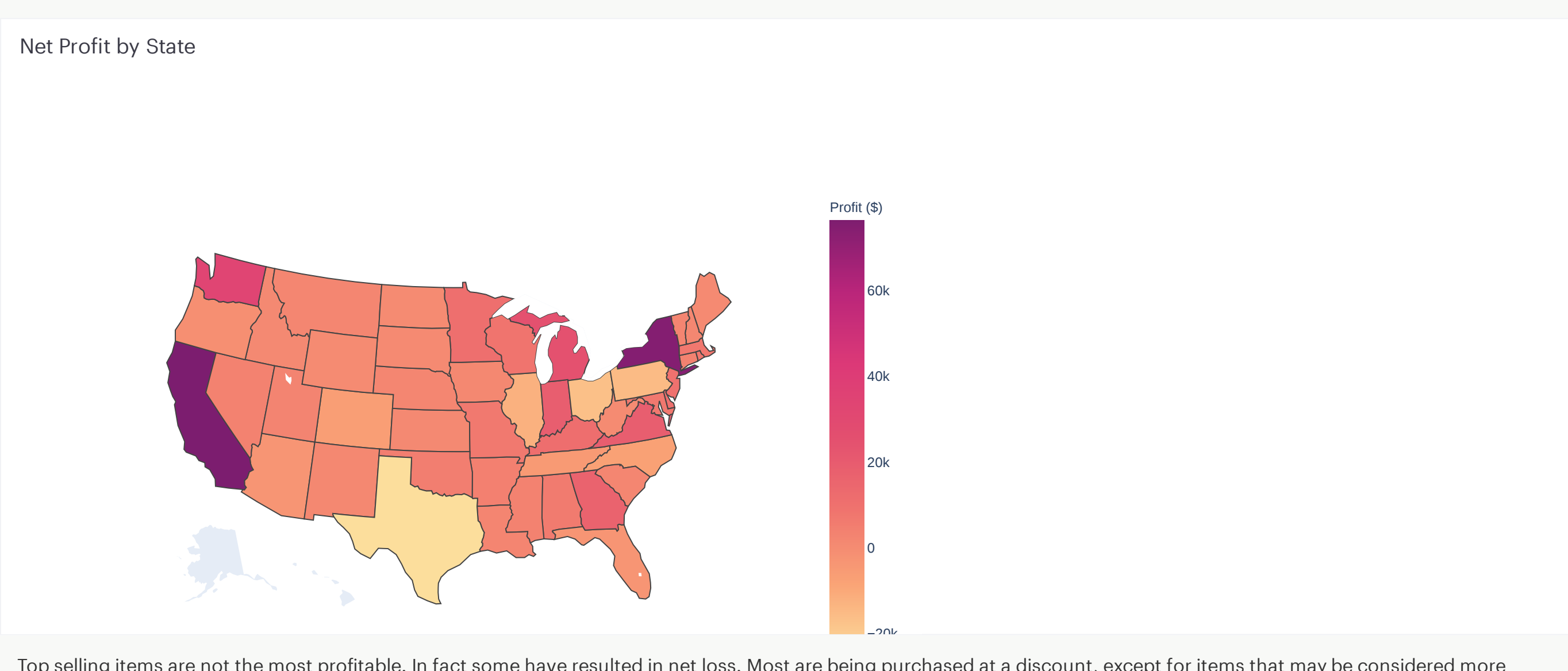
Distribution of orders by overall discount amount looks similar across the customer type segments. This indicates the previously noted different in sales and profit for consumers, relative to corporate and home office customers, is more likely due to the profitability of the items purchased. Across all segments, the majority of order have a discount of 50-65%.



Data points in the upper portion of these charts, particularly the upper left, are very concerning. These are points where the average discount in the order is upwards of ~40% and likely have a net loss. There are very few orders where all items were purchased without a discount.



Total profit by state, not surprisingly has California and New York as the most profitable states. There are states, notably Texas, where sales have resulted in a net loss. Are more discounts being offered there?



Top selling items are not the most profitable. In fact some have resulted in net loss. Most are being purchased at a discount, except for items that may be considered more necessary - paper, labels. Furniture, however, is usually purchased at a discount. Are these items offered at a discount more frequently? Or do sales spike when there is a discount?

product_name	category	sub_cate...	units_sold	product_total	product_profit	discount_total	discounted...	
GBC Premium Transparent Covers with Diagonal Lin...	Office Supplies	Binders	67	\$780	\$50	\$1,406	67	
Situations Contoured Folding Chairs, 4/Set	Furniture	Chairs	64	\$3,641	\$234	\$3,762	53	
Chromcraft Round Conference Tables	Furniture	Tables	61	\$8,209	-\$190	\$8,366	48	
Global Wood Trimmed Manager's Task Chair, Khaki	Furniture	Chairs	59	\$4,167	-\$503	\$4,822	53	
Wilson Jones Turn Tabs Binder Tool for Ring Binders	Office Supplies	Binders	59	\$212	\$59	\$174	36	
Cubify CubeX 3D Printer Triple Head USB 2.0	Technology	Accessories	57	\$478	\$65	\$161	18	
Fellowes Officeware Wire Shelving	Office Supplies	Storage	55	\$4,509	-\$332	\$2,156	24	
Global High-Back Leather Tilter, Burgundy	Furniture	Chairs	54	\$5,436	-\$475	\$4,920	40	
Xerox 226	Office Supplies	Paper	53	\$334	\$156	\$45	7	
SAFCO Arco Folding Chair	Furniture	Chairs	53	\$11,573	\$1,179	\$13,810	50	

The most profitable items are those that seem more geared towards businesses than consumers - copiers and binding machines. Currently, corporate customers make up ~30% of orders (and sales), this is a segment that deserves more focus in terms of marketing and acquiring more customers. Also stronger marketing of more profitable items seems worthwhile.

product_name	category	sub_cate...	units_sold	product_total	product_profit	discount_total	discounted...	
Canon imageCLASS 2200 Advanced Copier	Technology	Copiers	20	\$61,600	\$25,200	\$28,000	8	
Fellowes PB500 Electric Punch Plastic Comb Bind...	Office Supplies	Binders	31	\$27,453	\$7,753	\$25,420	20	
Hewlett Packard Laser Jet 3310 Copier	Technology	Copiers	38	\$18,840	\$6,984	\$14,400	24	
Canon PC1060 Personal Laser Copier	Technology	Copiers	19	\$11,620	\$4,571	\$8,400	12	
HP DesignJet T520 Inkjet Large Format Printer - 24"	Technology	Machines	12	\$18,375	\$4,095	\$5,250	3	
Ativa V4110MD Micro-Cut Shredder	Technology	Machines	11	\$7,700	\$3,773	\$0	0	
Ibico EPK-21 Electric Binding System	Office Supplies	Binders	13	\$15,876	\$3,345	\$15,120	8	
Zebra ZM400 Thermal Label Printer	Technology	Machines	6	\$6,966	\$3,344	\$0	0	
Honeywell Enviracaire Portable HEPA Air Cleaner f...	Office Supplies	Appliances	40	\$11,304	\$3,247	\$3,608	12	
Hewlett Packard 610 Color Digital Copier / Printer	Technology	Copiers	21	\$8,900	\$3,125	\$6,500	13	

Items being sold at a net loss are items that should be given strong consideration for elimination. If most or all are being sold at a discounted price, is that because they do not sell at a regular price? Are they not as appealing as other options? Are our regular prices too high relative to competitors? If we were to discontinue these products, is there a risk of losing business? Maybe, although these are items that are not regular purchases.

product_name	category	sub_cate...	units_sold	product_total	product_profit	discount_to...	discounted...	
Cubify CubeX 3D Printer Double Head Print	Technology	Machines	9	\$11,100	-\$8,880	\$27,000	9	
Lexmark MX611dhe Monochrome Laser Printer	Technology	Machines	18	\$16,830	-\$4,590	\$30,600	18	
Cubify CubeX 3D Printer Triple Head Print	Technology	Machines	4	\$8,000	-\$3,840	\$16,000	4	
Chromcraft Bull-Nose Wood Oval Conference Table...	Furniture	Tables	27	\$9,918	-\$2,876	\$13,224	24	
Bush Advantage Collection Racetrack Conference T...	Furniture	Tables	33	\$9,545	-\$1,934	\$10,605	25	
GBC DocuBind P400 Electric Binding System	Office Supplies	Binders	27	\$17,965	-\$1,871	\$31,303	23	
Cisco TelePresence System EX90 Videoconferenci...	Technology	Machines	6	\$22,638	-\$1,811	\$45,277	6	
Martin Yale Chadless Opener Electric Letter Opener	Office Supplies	Supplies	22	\$16,656	-\$1,299	\$8,328	10	
Balt Solid Wood Round Tables	Furniture	Tables	19	\$6,519	-\$1,201	\$4,911	11	
BoxOffice By Design Rectangular and Half-Moon Me...	Furniture	Tables	15	\$1,706	-\$1,148	\$3,281	15	

As a whole, tables and bookcases are losing money. These 2 item types, and furniture in general, should be re-evaluated. Furniture is less profitable than office supplies and technology. Can we reduce the amount of discounts on these items to make them more profitable? Do we lose anything if we stop selling tables? It should also be considered how we can increase sales of items in technology and/or expanding the items we sell in this category.



month	order_volume	customers	items_sold	total_sales	net_profit	mom_order_vol...	mom_total_sales	mom_net_profit
2020-12-01	224	195	1723	\$83,829	\$8,483	-14.2%	-29.2%	-12.5%
2020-11-01	161	216	1840	\$118,448	\$9,690	77.6%	52.3%	4.5%
2020-10-01	247	136	1133	\$77,777	\$9,275	-35.0%	-11.5%	-15.6%
2020-09-01	226	196	1660	\$87,867	\$10,992	103.6%	39.2%	21.6%
2020-08-01	111	104	884	\$63,121	\$9,041	0.0%	39.4%	30.0%
2020-07-01	111	102	840	\$45,264	\$6,953	-16.5%	-14.6%	-15.5%
2020-06-01	133	118	931	\$52,982	\$8,223	12.7%	19.7%	29.7%
2020-05-01	118	113	887	\$44,261	\$6,343	1.7%	21.2%	579.6%
2020-04-01	116	109	733	\$36,522	\$933	-1.7%	-38.0%	-93.7%
2020-03-01	118	115	885	\$58,872	\$14,752	122.6%	190.0%	814.1%