Business Report

Nano Nexus

Sales Analysis

Customr Performance Analysis

Operational Efficiency Analysis

Jan 2017 - Dec 2019

Nano Nexus

Nano Nexus - New Zealand Sales & Operations Performance Dashboard

PREPARED BY

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11/27/2024

Title

Nano Nexus - New Zealand Sales & Operations Performance Dashboard

Context

Nano Nexus, operating across New Zealand, needed a comprehensive analytics solution to unify sales, customer, and operational data. The goal was to move from siloed departmental reporting to an integrated view that could drive strategic decisions across the entire business.

Problem / Question

How can Nano Nexus gain a holistic understanding of its New Zealand operations to simultaneously optimize

sales performance, customer relationships, and operational efficiency across different regions?

Tools Used

· Power BI: Primary dashboard development and visualization
· DAX: For advanced calculations (CLV, YoY growth, retention rates)
· Power Query: For data extraction, transformation, and cleaning
· Data Modeling: Built star schema with relationships between fact and dimension tables

Process Walk-through

1. Data Integration: Connected to multiple data sources (sales transactions, customer master, inventory records) using

Power Query. Cleaned and standardized data, especially location names (e.g., Auckland vs. AKL).

2. Data Modeling: Created a robust relational model with a central sales fact table linked to dimension tables for Date, Customer, Product, and Location.

3. DAX Calculations:

  · Sales: YoY Growth% = ([Total Sales] - [Sales PY]) / [Sales PY]

  · Customer: CLV = CALCULATE([Total Sales], ALL('Date')) (simplified version)

  · Operations: Inventory Turnover = DIVIDE([Total Cost of Sales], [Average Inventory])

4. Visualization Development: Built four interconnected analytical views corresponding to each analysis pillar.

Key Findings

· Sales: YoY growth was strong (15%) but primarily driven by 2 product categories, while others stagnated.

· Customer: The top 10% of customers (by CLV) contributed to 60% of total revenue, highlighting high dependency.

· Operations: Sales cycle length varied significantly by city, with Wellington being 20% faster than Auckland.

· Cities: Auckland generated 45% of total sales, but Christchurch showed the highest growth potential per capita.

Visuals with a Purpose

· Sales Trend Line Chart + YoY Growth Card: To show performance trajectory and overall health.

· Customer Segment Matrix (by CLV & Retention): To visually segment customers for targeted strategies.

· Map Visual of NZ: To instantly show geographic performance concentration.

· Inventory Turnover by Product Bar Chart: To identify slow-moving stock items.

Main Takeaway

The dashboard revealed that operational inefficiencies in Auckland (the largest market) were limiting growth potential. By addressing Auckland-specific

bottlenecks and replicating Wellington's efficient sales cycle, Nano Nexus could unlock significant additional revenue without increasing marketing spend.

What I Learned from this Case Study

· The power of integrating multiple business domains (sales, ops, customer) into a single view to uncover hidden

correlations.
· How to calculate and apply Customer Lifetime Value (CLV) in a practical business context for segmentation.
· The importance of geospatial analysis in a country-specific context to tailor regional strategies.

Reflection and Next Steps

· Reflection: The project successfully provided a 360-degree view. The initial model could be enhanced with more frequent data refreshes for real-time ops monitoring.
· Next Steps:
   1. Integrate marketing spending data to calculate ROI by region and customer segment.
   2. Develop predictive analytics for inventory demand forecasting.

   3. Create automated alerting for when inventory turnover drops below a threshold in key cities.

Invite Feedback

This was a comprehensive project, and I value your perspective!

· Which of the four analysis areas (Sales, Customer, Operations, Cities) do you find most insightful?
· How would you prioritize the suggested "Next Steps"?
· Is there another operational metric you think would be valuable to add?

Business Report

Nano Nexus

Sales Analysis
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Operational Efficiency Analysis

Jan 2017 - Dec 2019

Sales Analysis

Shipping Cost	Total Orders	Total Quantity	Total Conusmers	Profitability
$11.41M	13.27K	112.11K	7991	37.31%

Target by New Zealand per 2017 , 2018 & 2019

$30.3M ✓ (+1.13%)

Nano Nexus

Total Sales

$30.34M

Total Cost

$19.02M

Revenue

$11.32M

Total Sales and Total Cost by Month

● Total Sales ● Total Cost

Total Sales: $2.67M, $2.27M, $2.75M, $2.42M, $2.66M, $2.42M, $2.46M, $2.64M, $2.68M, $2.61M, $2.57M, $2.18M

Total Cost: $1.69M, $1.44M, $1.71M, $1.50M, $1.68M, $1.50M, $1.54M, $1.67M, $1.68M, $1.64M, $1.63M, $1.33M

Months: January, February, March, April, May, June, July, August, September, October, November, December

Total Sales Per City

Tasman Sea

NEW ZEALAND

Microsoft Bing

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Total Sales by Channel

Channel ● Wholesale ● Distributor ● Export
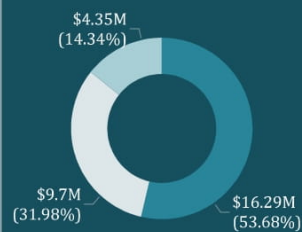
$4.35M (14.34%)

$9.7M (31.98%)

$16.29M (53.68%)

Total Sales, Revenue and %GT Revenue by Products

● Total Sales ● Revenue

Product	Total Sales	Revenue
EchoLink Router	$5.1M	$1.9M
VoltStream Pro	$5.1M	$1.9M
Nexus Beam	$4.4M	$1.7M
PulseBand	$4.0M	$1.5M
LuminaView	$3.4M	$1.3M
SonicSeal headphon...	$2.2M	$0.8M
Quantum Key Mini	$1.8M	$0.7M
Titan Charging Dock	$0.7M	$0.2M
StealthDrive External SSD	$0.6M	$0.2M
GlideTech Touch	$0.6M	$0.2M
SparkPod	$0.6M	$0.2M
AuraCast 360	$0.6M	$0.2M
CryoCore X7	$0.6M	$0.2M
OmniCam Home	$0.6M	$0.2M
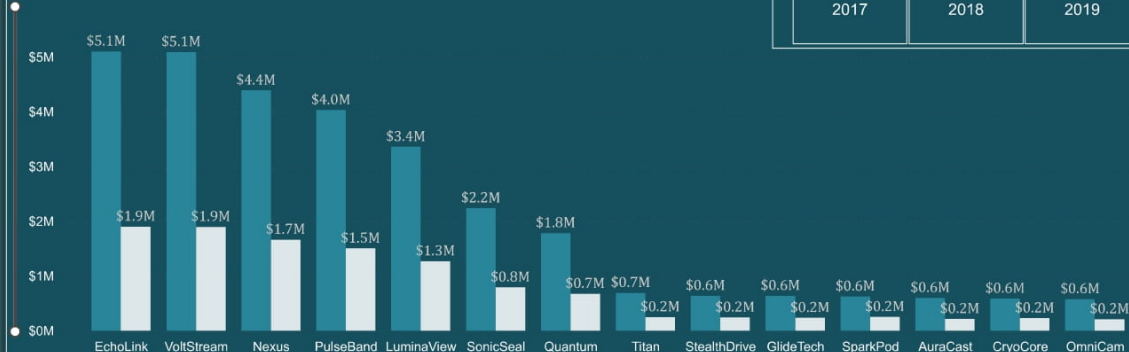
Years

2017	2018	2019

Total Quantity by Products

Product	Quantity
EchoLink Router	19K
VoltStream Pro	18K
Nexus Beam	16K
PulseBand	15K
LuminaView	12K
SonicSeal head...	9K
Quantum Key Mini	7K
Titan Charging ...	2K
StealthDrive Ext...	2K
AuraCast 360	2K
GlideTech Touch	2K
CryoCore X7	2K
SparkPod	2K
OmniCam Home	2K

0K   10K   20K
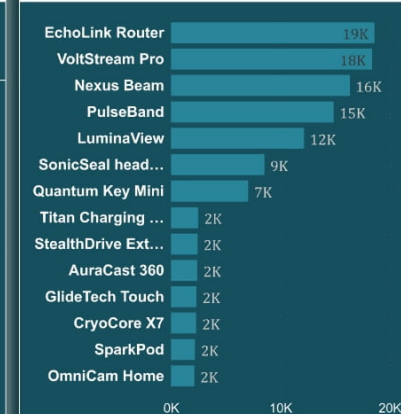
Detailed Sales Analysis

Total Sales % Revenue Flow

Channel ×	Item Name ×	City ×

	EchoLink Rou... $2,710.89K	Hamilton $201.20K
	VoltStream Pro $2,702.87K	Christchurch $184.65K
	Nexus Beam $2,281.38K	Waitakere $173.40K
	PulseBand $2,240.38K	Manukau $167.66K
Wholesale $16,285.07K	LuminaView $1,745.83K	Auckland $146.27K
Total Sales $30,338.34K	SonicSeal head... $1,185.46K	Palmerston No... $141.52K
Distributor $9,702.16K	Quantum Key ... $996.51K	Napier $123.42K
Export $4,351.12K	Titan Charging ... $388.31K	South Waikato $95.80K
	StealthDrive Ex... $358.21K	Dunedin $94.56K
	AuraCast 360 $342.34K	Wanganui $89.95K
	CryoCore X7 $337.93K	Whangarei $74.79K

Distribution of Products' Revenue
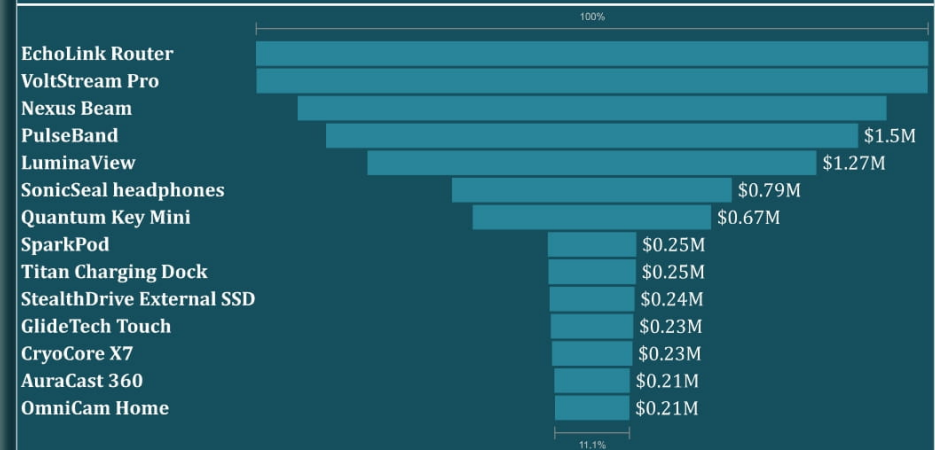
100%

Product	Value
EchoLink Router	
VoltStream Pro	
Nexus Beam	
PulseBand	$1.5M
LuminaView	$1.27M
SonicSeal headphones	$0.79M
Quantum Key Mini	$0.67M
SparkPod	$0.25M
Titan Charging Dock	$0.25M
StealthDrive External SSD	$0.24M
GlideTech Touch	$0.23M
CryoCore X7	$0.23M
AuraCast 360	$0.21M
OmniCam Home	$0.21M

11.1%

Total Sales by Category

Wholesale	Distributor	Export
$16.29M	$9.7M	$4.35M

Customers Analysis

Total Sales
$30.34M

Total Cost
$19.02M

Revenue
$11.32M

Total Orders
13.27K

Total Quantity
112.11K

Profitability
37.31%

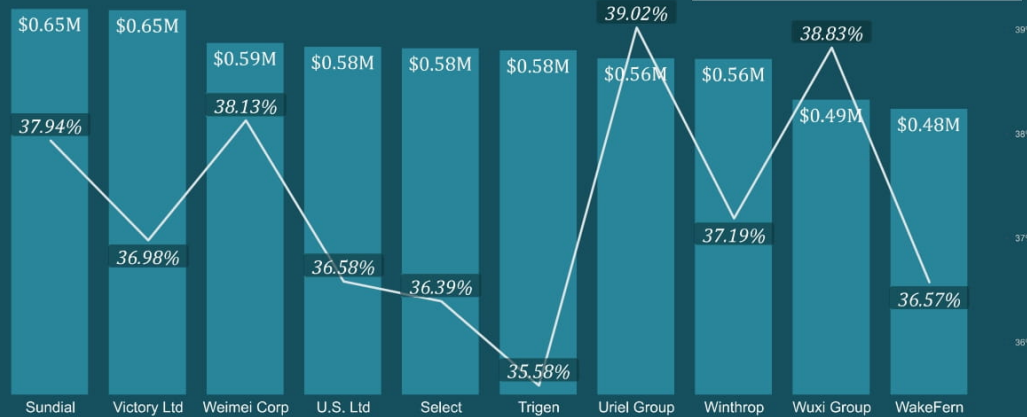### Top 10 Customers Sales , Profitability & Total Quantity
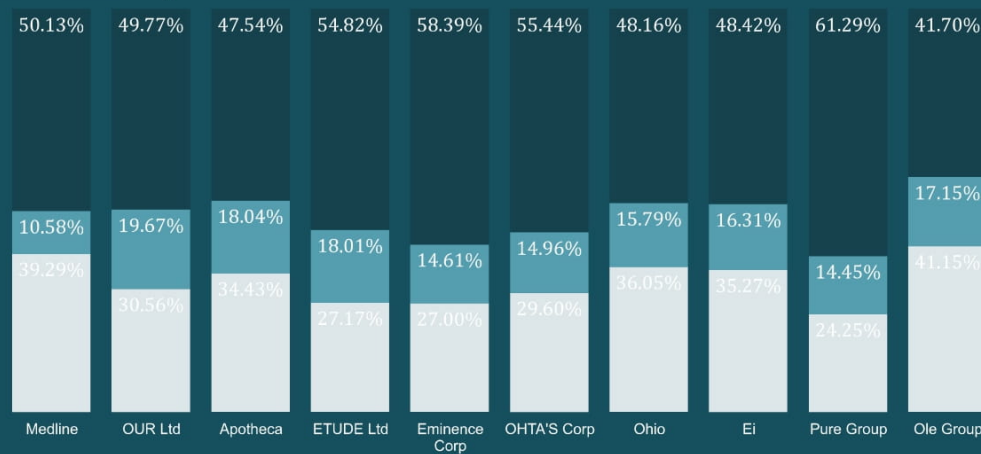● Total Sales ● Profitability

Years

| 2017 | 2018 | 2019 |

Customer	Total Sales	Profitability
Sundial	$0.65M	37.94%
Victory Ltd	$0.65M	36.98%
Weimei Corp	$0.59M	38.13%
U.S. Ltd	$0.58M	36.58%
Select	$0.58M	36.39%
Trigen	$0.58M	35.58%
Uriel Group	$0.56M	39.02%
Winthrop	$0.56M	37.19%
Wuxi Group	$0.49M	38.83%
WakeFern	$0.48M	36.57%

Total 10 Customers `s Locations
Customer Na... ● Apot... ● Ei ● Emi... ● ET... ● Medline ● Ohio ▶

Tasman Sea

NEW ZEALAND
South Island

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Total Revenues By The Top 10 Customers Including Category Distribution

Channel ● Distributor ● Export Wholesale

Customer	Total	Export	Wholesale
Medline	50.13%	10.58%	39.29%
OUR Ltd	49.77%	19.67%	30.56%
Apotheca	47.54%	18.04%	34.43%
ETUDE Ltd	54.82%	18.01%	27.17%
Eminence Corp	58.39%	14.61%	27.00%
OHTA'S Corp	55.44%	14.96%	29.60%
Ohio	48.16%	15.79%	36.05%
Ei	48.42%	16.31%	35.27%
Pure Group	61.29%	14.45%	24.25%
Ole Group	41.70%	17.15%	41.15%

Total Quantity For Top 10 Customers

Customer	Quantity
Medline	2998
Eminence Corp	2629
OHTA'S Corp	2553
Pure Group	2539
Ei	2515
Elorac	2494
OUR Ltd	2487
Ole Group	2470
Fenwal	2450
ETUDE Ltd	2434

Nano Nexus

Customers Analysis

Total Sales $30.34M

Total Cost $19.02M

Revenue $11.32M

Total Orders 13.27K

Total Quantity 112.11K
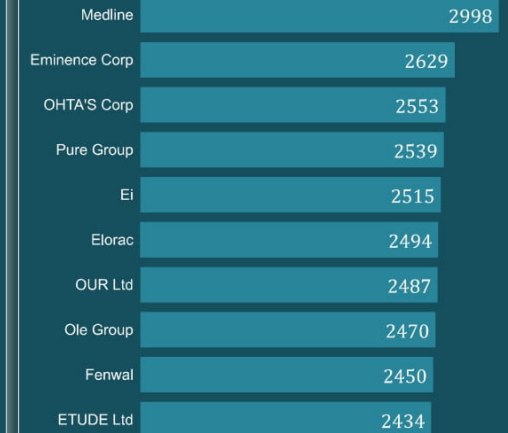
Profitability 37.31%

Customer Segmentation By Revenue

Customer Names	Total Sales	Total Cost	Shipping Cost	Average of Delivery Duration Days	Profitability	Total Orders	Total Quantity	Revenue	Customer Segmentation
Medline	$830,069.7	$519,571.198	$311,742.7188	10.21	37.41%	359	2,998	$310,498.502	Amazing
OUR Ltd	$713,007.3	$441,888.584	$265,133.1504	9.83	38.02%	293	2,487	$271,118.716	High
Apotheca	$709,932	$442,301.505	$265,380.903	10.69	37.70%	291	2,408	$267,630.495	High
ETUDE Ltd	$662,971.7	$395,739.989	$237,443.9934	10.04	40.31%	285	2,434	$267,231.711	High
Eminence Corp	$729,703.7	$466,401.472	$279,840.8832	9.88	36.08%	310	2,629	$263,302.228	High
OHTA'S Corp	$693,972.6	$431,514.639	$258,908.7834	10.51	37.82%	295	2,553	$262,457.961	High
Ohio	$656,204.7	$397,713.072	$238,627.8432	9.78	39.39%	275	2,343	$258,491.628	High
Ei	$660,606.6	$406,547.96	$243,928.776	10.23	38.46%	294	2,515	$254,058.64	High
Pure Group	$692,371.3	$438,336.177	$263,001.7062	9.90	36.69%	289	2,539	$254,035.123	High
Apollo Ltd	$651,863.1	$402,543.236	$241,525.9416	10.57	38.25%	280	2,419	$249,319.864	Average
Sundial	$647,447.8	$401,829.753	$241,097.8518	10.33	37.94%	272	2,277	$245,618.047	Average
Ole Group	$681,503.9	$439,019.175	$263,411.505	10.51	35.58%	290	2,470	$242,484.725	Average
Llorens Ltd	$610,805.5	$371,625.215	$222,975.129	10.39	39.16%	277	2,384	$239,180.285	Average
Victory Ltd	$645,471.3	$406,786.212	$244,071.7272	10.71	36.98%	284	2,427	$238,685.088	Average
Linde	$607,931.2	$371,125.529	$222,675.3174	10.16	38.95%	263	2,347	$236,805.671	Average
Prasco Group	$612,822.2	$378,510.872	$227,106.5232	10.51	38.23%	266	2,212	$234,311.328	Average
O.E. Ltd	$621,940.9	$388,036.664	$232,821.9984	10.68	37.61%	257	2,178	$233,904.236	Average
E. Ltd	$636,680.9	$403,093.708	$241,856.2248	9.92	36.69%	276	2,280	$233,587.192	Average
Nipro	$627,723	$396,741.639	$238,044.9834	10.18	36.80%	262	2,198	$230,981.361	Average
Rochester Ltd	$581,982.1	$353,667.808	$212,200.6848	10.50	39.23%	236	2,054	$228,314.292	Average
Fenwal	$614,698.2	$387,552.187	$232,531.3122	10.54	36.95%	284	2,450	$227,146.013	Average
Pacific Ltd	$603,857.6	$376,781.066	$226,068.6396	10.90	37.60%	283	2,372	$227,076.534	Average
Niconovum Corp	$591,275	$365,437.162	$219,262.2972	10.17	38.20%	284	2,388	$225,837.838	Average
Weimei Corp	$590,189.6	$365,166.616	$219,099.9696	10.83	38.13%	256	2,147	$225,022.984	Average
Capweld	$597,539.5	$372,985.65	$223,791.39	10.87	37.58%	245	2,083	$224,553.85	Average
Exact-Rx	$588,621.8	$365,959.293	$219,575.5758	10.04	37.83%	250	2,016	$222,662.507	Average
Qualitest	$625,880.5	$404,522.617	$242,713.5702	10.08	35.37%	280	2,307	$221,357.883	Average
AuroMedics Corp	$593,117.5	$371,946.346	$223,167.8076	10.74	37.29%	252	2,083	$221,171.154	Average
Uriel Group	$564,475	$344,213.438	$206,528.0628	10.71	39.02%	249	2,113	$220,261.562	Average
Elorac	$624,768.3	$404,736.213	$242,841.7278	10.68	35.22%	303	2,494	$220,032.087	Average
PEDIFIX	$556,997.8	$338,913.872	$203,348.3232	10.50	39.15%	239	2,016	$218,083.928	Average
S.S.S. Group	$576,762.8	$360,244.863	$216,146.9178	11.07	37.54%	267	2,219	$216,517.937	Average
21st Ltd	$628,419.8	$413,817.125	$248,290.275	10.14	34.15%	264	2,223	$214,602.675	Average
Procter Corp	$565,111.5	$350,709.49	$210,425.694	10.20	37.94%	244	1,993	$214,402.01	Average
Dharma Ltd	$570,632.3	$357,003.671	$214,202.2026	10.87	37.44%	243	2,049	$213,628.629	Average
U.S. Ltd	$583,610.2	$370,098.486	$222,059.0916	10.41	36.58%	260	2,245	$213,511.714	Average
Total	**$30,338,343.7**	**$19,019,425.474**	**$11,411,655.2844**	**10.42**	**37.31%**	**13,267**	**112,106**	**$11,318,918.226**	**Amazing**

Cities Analysis

Total Sales
$30.34M

Total Cost
$19.02M

Revenue
$11.32M

Total Orders
13.27K

Total Quantity
112.11K

Profitability
37.31%

Customer Segmentation By Revenue

City	Total Sales	Total Cost	Shipping Cost	Average of Delivery Duration Days	Profitability	Total Orders	Total Quantity	Revenue	Cities Segmentation
Christchurch	$2,341,737.1	$1,467,309.983	$880,385.9898	10.18	37.34%	967	8,131	$874,427.117	Amazing
Waitakere	$2,188,843.1	$1,380,209.38	$828,125.628	10.23	36.94%	909	7,852	$808,633.72	Amazing
Hamilton	$2,139,028.6	$1,335,139.016	$801,083.4096	10.63	37.58%	947	8,172	$803,889.584	Amazing
Manukau	$1,852,858.2	$1,153,025.177	$691,815.1062	10.45	37.77%	796	6,603	$699,833.023	High
Auckland	$1,520,632	$941,748.449	$565,049.0694	10.42	38.07%	708	5,817	$578,883.551	High
Napier	$1,562,587.4	$990,426.897	$594,256.1382	10.37	36.62%	675	5,749	$572,160.503	High
Palmerston North	$1,380,602	$860,605.352	$516,363.2112	10.80	37.66%	573	4,824	$519,996.648	High
South Waikato	$1,277,984.8	$797,117.559	$478,270.5354	10.39	37.63%	571	4,822	$480,867.241	High
North Shore	$967,225.4	$604,087.879	$362,452.7274	10.18	37.54%	425	3,437	$363,137.521	High
Whangarei	$934,703.6	$579,369.904	$347,621.9424	10.20	38.02%	418	3,544	$355,333.696	High
Dunedin	$913,538.3	$563,555.693	$338,133.4158	10.42	38.31%	419	3,493	$349,982.607	High
Thames-Coromandel	$886,128.6	$564,794.121	$338,876.4726	10.71	36.26%	377	3,202	$321,334.479	High
Wanganui	$663,212.9	$409,152.786	$245,491.6716	11.02	38.31%	255	2,107	$254,060.114	High
Clutha	$633,753	$380,094.283	$228,056.5698	10.24	40.02%	291	2,416	$253,658.717	High
Taupo	$651,193.1	$402,163.614	$241,298.1684	10.49	38.24%	276	2,318	$249,029.486	High
Timaru	$591,241.5	$369,596.187	$221,757.7122	9.72	37.49%	240	2,061	$221,645.313	High
Southland	$616,467	$399,563.478	$239,738.0868	10.12	35.18%	285	2,393	$216,903.522	High
Tasman	$601,023.5	$388,616.683	$233,170.0098	10.82	35.34%	264	2,274	$212,406.817	High
Tararua	$571,469.8	$364,953.891	$218,972.3346	10.55	36.14%	238	1,931	$206,515.909	Average
Upper Hutt	$533,467.4	$339,218.856	$203,531.3136	10.20	36.41%	232	1,925	$194,248.544	Average
Waitaki	$510,988.9	$320,262.412	$192,157.4472	9.94	37.32%	249	2,228	$190,726.488	Average
Waipa	$380,620.3	$236,062.507	$141,637.5042	10.52	37.98%	157	1,291	$144,557.793	Average
Waikato	$344,534.1	$207,251.033	$124,350.6198	11.35	39.85%	139	1,227	$137,283.067	Average
Nelson	$350,812	$223,201.991	$133,921.1946	10.00	36.38%	150	1,255	$127,610.009	Average
Far North	$311,590.2	$185,757.5	$111,454.5	9.99	40.38%	141	1,173	$125,832.7	Average
Rotorua	$342,711.7	$217,352.891	$130,411.7346	9.97	36.58%	142	1,210	$125,358.809	Average
Gisborne	$306,900.2	$188,743.221	$113,245.9326	9.84	38.50%	128	1,056	$118,156.979	Average
Central Otago	$332,246.3	$214,659.022	$128,795.4132	11.47	35.39%	145	1,247	$117,587.278	Average
Tauranga	$305,526.7	$189,839.14	$113,903.484	10.53	37.86%	130	1,129	$115,687.56	Average
Rangitikei	$308,139.7	$194,546.493	$116,727.8958	10.45	36.86%	126	1,104	$113,593.207	Low
Kapiti Coast	$287,443.4	$174,660.692	$104,796.4152	9.99	39.24%	136	1,160	$112,782.708	Low
Wellington	$313,821.3	$201,043.617	$120,626.1702	10.55	35.94%	144	1,222	$112,777.683	Low
Waitomo	$294,773.2	$184,225.612	$110,535.3672	10.10	37.50%	135	1,101	$110,547.588	Low
Waimate	$288,448.4	$179,151.032	$107,490.6192	11.68	37.89%	130	1,185	$109,297.368	Low
Matamata-Piako	$320,528	$214,265.799	$128,559.4794	11.44	33.15%	127	1,096	$106,262.201	Low
Queenstown-Lakes	$280,234.2	$177,719.242	$106,631.5452	9.43	36.58%	125	1,050	$102,514.958	Low
Total	**$30,338,343.7**	**$19,019,425.474**	**$11,411,655.2844**	**10.42**	**37.31%**	**13,267**	**112,106**	**$11,318,918.226**	**Amazing**

Efficiency Analysis

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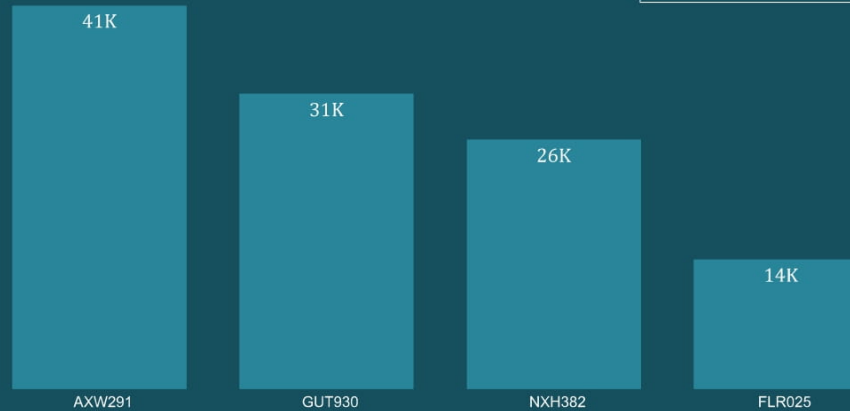
Inventory Turnover
1.25

Profitability
37.31%

Sum of Order Quantity by Warehouse Code

Warehouse Code	Order Quantity
AXW291	41K
GUT930	31K
NXH382	26K
FLR025	14K

Years
2017 | 2018 | 2019

Total 10 Customers `s Locations

Tasman Sea

NEW ZEALAND

Microsoft Bing

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Warehouse Code ● AXW291 ● FLR025 ● GUT930 ● NXH382

Average of Delivery Duration by Cities

City	Duration
Waimate	11.68
Central Otago	
Matamata-Piako	11.44
Waikato	
Waimakariri	11.11
Porirua	
Wanganui	11.02
New Plymouth	
Rodney	10.83
Tasman	
Palmerston North	10.80
Thames-Coromandel	
Hamilton	10.63
Wellington	
Tararua	10.55
Hauraki	
Tauranga	10.53
Waipa	
Taupo	10.49
Hastings	
Manukau	10.45
Rangitikei	
Dunedin	10.42
Auckland	
South Waikato	10.39
Napier	
Clutha	10.24
Invercargill	
Waitakere	10.23
Upper Hutt	
Whangarei	10.20

Average of Delivery Duration by Products

Product	Duration
StealthDrive External SSD	10.70
AuraCast 360	10.69
EchoLink Router	10.66
Titan Charging Dock	10.59
LuminaView	10.57
SparkPod	10.56
Nexus Beam	10.38
GlideTech Touch	10.35
SonicSeal headphones	10.33
VoltStream Pro	10.32
Quantum Key Mini	10.31
PulseBand	10.29
CryoCore X7	10.14
OmniCam Home	9.87