

Big Data and Analytics for Performance Management Case Study - Blue Corporation

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An Assignment

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I. Worldwide Analysis

1) Elaborate a tab ranking country by revenue

	Country	Revenue	Rank
6	USA	\$1,697,110,399.53	1
0	Australia	\$761,681,611.27	2
3	Japan	\$227,982,217.89	3
5	Nigeria	\$85,003,218.08	4
2	Germany	\$69,249,072.33	5
4	Mexico	\$51,944,903.93	6
1	Canada	\$18,253,884.50	7

2) Which country has the most important revenue growth (in %) between 2011 & 2012?

	Country	Revenue Growth	Rank
1	Canada	30.66%	1
6	USA	29.57%	2
4	Mexico	27.09%	3
0	Australia	25.57%	4
5	Nigeria	24.28%	5
3	Japan	22.10%	6
2	Germany	15.62%	7

The country with the highest revenue growth rate between 2011 and 2012 is Canada.

3) Which country has the most important cumulative revenue growth (in %) between 2011 to 2018?

	Country	Cumulative Revenue Growth Rate
4	Mexico	15.92%
6	USA	13.75%
0	Australia	12.08%
1	Canada	11.76%
3	Japan	9.64%
2	Germany	7.81%
5	Nigeria	5.71%

The country with the highest cumulative revenue growth rate is Mexico.

4) List the top 5 best-selling products in the world

	Rank	ProductID	Product Name	Revenue
0	1	475	Maximus UM-80 Moderation	\$90,161,431.01
1	2	396	Maximus UM-01 Moderation	\$74,990,794.23
2	3	826	Natura UM-10 Moderation	\$53,272,274.65
3	4	635	Maximus UC-00 Convenience	\$46,973,975.90
4	5	604	Maximus UC-69 Convenience	\$46,602,455.00

5) List the top 5 best-selling products in Japan

	Rank	ProductID	Product Name	Revenue
0	1	475	Maximus UM-80 Moderation	\$8,692,887.79
1	2	396	Maximus UM-01 Moderation	\$6,780,305.70
2	3	635	Maximus UC-00 Convenience	\$4,814,582.06
3	4	604	Maximus UC-69 Convenience	\$4,698,809.06
4	5	609	Maximus UC-74 Convenience	\$4,165,971.28

6) What is the most expensive product?

	ProductID	Product	Price USD
308	309	Fama UE-30 Extreme	\$3,412.50

The most expensive product is Fama UE-30|Extreme, the price is \$3,412.50.

7) What is the biggest [manufacturer] contributor to revenue in the world?

	Rank	Manufacturer	Revenue
10	1	VanArsdel	\$1,281,418,188.10
5	2	Natura	\$594,258,648.76
1	3	Aliqui	\$347,432,115.22
2	4	Currus	\$264,569,247.71
7	5	Pirum	\$212,485,555.77
0	6	Abbas	\$66,199,762.45
9	7	Quibus	\$52,226,576.23
3	8	Fama	\$24,052,831.35
11	9	Victoria	\$21,608,078.66
4	10	Leo	\$19,800,432.36
8	11	Pomum	\$15,676,870.16
6	12	Palma	\$11,497,000.74

Manufacturer with the highest sales revenue: VanArsdel.

8) List the bottom 3 [manufacturer] contributor to revenue in Nigeria

	Rank	Manufacturer	Revenue
8	1	Pomum	\$296,405.70
6	2	Palma	\$366,277.92
11	3	Victoria	\$480,870.83

9) Provide the list of products with no revenue in 2017

	ProductID	Product	Date	Revenue
0	309	Fama UE-30 Extreme	NaT	NaN
1	347	Fama UE-68 Extreme	NaT	NaN
2	296	Fama UE-17 Extreme	NaT	NaN
3	334	Fama UE-55 Extreme	NaT	NaN
4	358	Fama UE-79 Extreme	NaT	NaN
...
132475	2209	Aliqui RP-06 Productivity	NaT	NaN
132476	2208	Aliqui RP-05 Productivity	NaT	NaN
132477	2302	Aliqui UR-05 Regular	NaT	NaN
132478	673	Maximus UC-38 Convenience	NaT	NaN
132479	1835	Pomum YY-30 Youth	NaT	NaN

1560 rows × 4 columns

10) Provide the list of products with no revenue in 2017 & 2018

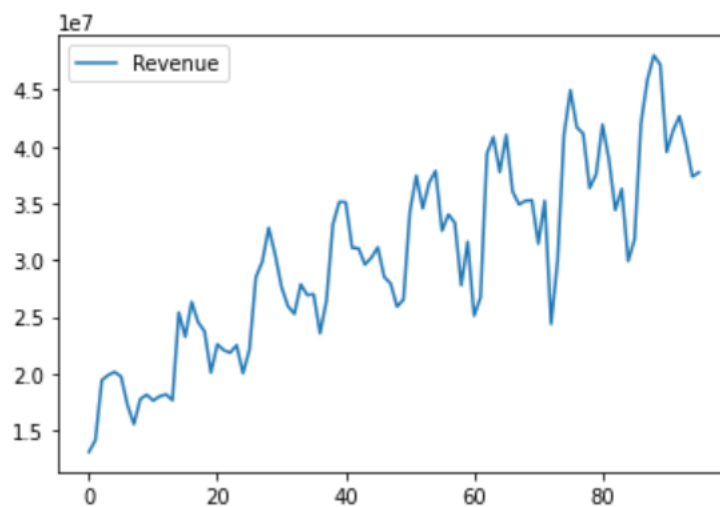
	ProductID	Product	Date	Revenue
0	309	Fama UE-30 Extreme	NaT	NaN
1	347	Fama UE-68 Extreme	NaT	NaN
2	296	Fama UE-17 Extreme	NaT	NaN
3	334	Fama UE-55 Extreme	NaT	NaN
4	358	Fama UE-79 Extreme	NaT	NaN
...
264640	2209	Aliqui RP-06 Productivity	NaT	NaN
264641	2208	Aliqui RP-05 Productivity	NaT	NaN
264642	2302	Aliqui UR-05 Regular	NaT	NaN
264643	673	Maximus UC-38 Convenience	NaT	NaN
264644	1835	Pomum YY-30 Youth	NaT	NaN

1439 rows × 4 columns

11) Provide a list of the top 3 products with the most important growth (in value) between 2016 to 2017

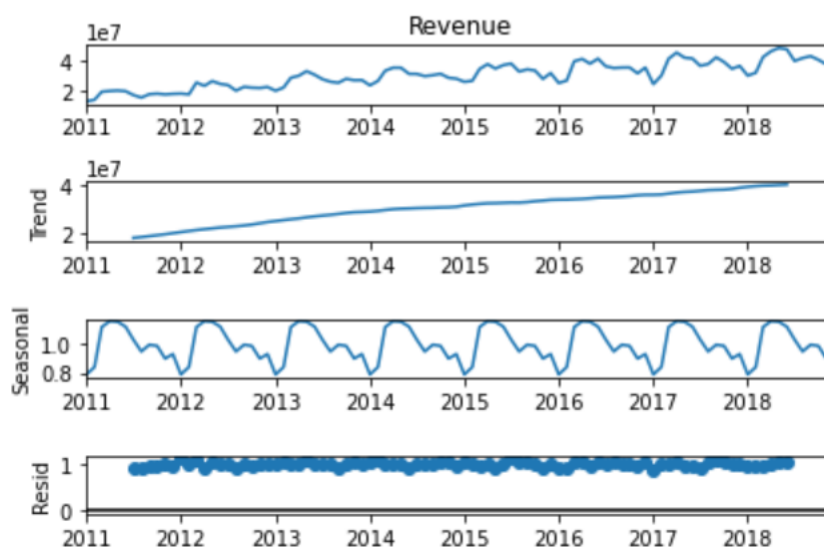
	ProductID	Product	Revenue in 2016	Revenue in 2017	Growth Revenue
0	657	Maximus UC-22 Convenience	\$3,032,364.88	\$9,901,877.54	\$6,869,512.66
1	475	Maximus UM-80 Moderation	\$14,256,473.00	\$19,083,146.94	\$4,826,673.95
2	1187	Pirum UE-23 Extreme	\$7,223.16	\$4,466,245.21	\$4,459,022.04

12) Is Blue Corporate a seasonal business? (Y/N)



Looking at the line plot, it appears like there may be a linear trend. Thus, seasonality exists, but the amplitude of the cycles appears to be rising, implying that it is multiplicative.

If yes: decompose this time series between seasonality & trend?



II. North America Analysis

13) Provide revenue of USA & Canada in January 2015

The sales revenue for the USA in January 2015 is \$11,920,371.96.

The sales revenue for Canada in January 2015 is \$114,479.40.

14) In the USA what is the top 3 states' contributor to revenue?

	Rank	State	Revenue
0	1	CA	\$341,316,649.06
1	2	FL	\$166,344,719.00
2	3	TX	\$163,058,553.68

The top three revenue contributors are California (CA), Florida (FL), and Texas (TX).

15) In the USA what is the region with the most important share of revenue?

	Rank	Region	Revenue	Share of Revenue
0	1	East	\$578,568,165.79	34.09%
1	2	Central	\$572,245,042.85	33.72%
2	3	West	\$546,297,190.90	32.19%

The region with the most important share of revenue is the East.

16) In the USA for 2014, what is the top 3 states with the most important volume of unit?

	Rank	State	Units
0	1	CA	131,432
1	2	TX	51,407
2	3	FL	42,913

The three states with the highest sales are California (CA), Texas (TX), and Florida (FL) respectively.

17) In Canada for 2017, what is the state with the most important volume of units and revenue?

	State	Units	Revenue
3	Ontario	2,178	\$863,539.90

Ontario is the state with the highest sales and revenue.