# Report 1

Creation Date: Thursday, 4 May 2023 13:51:24 Author: ayush.tankha@essec.edu

### Report 1

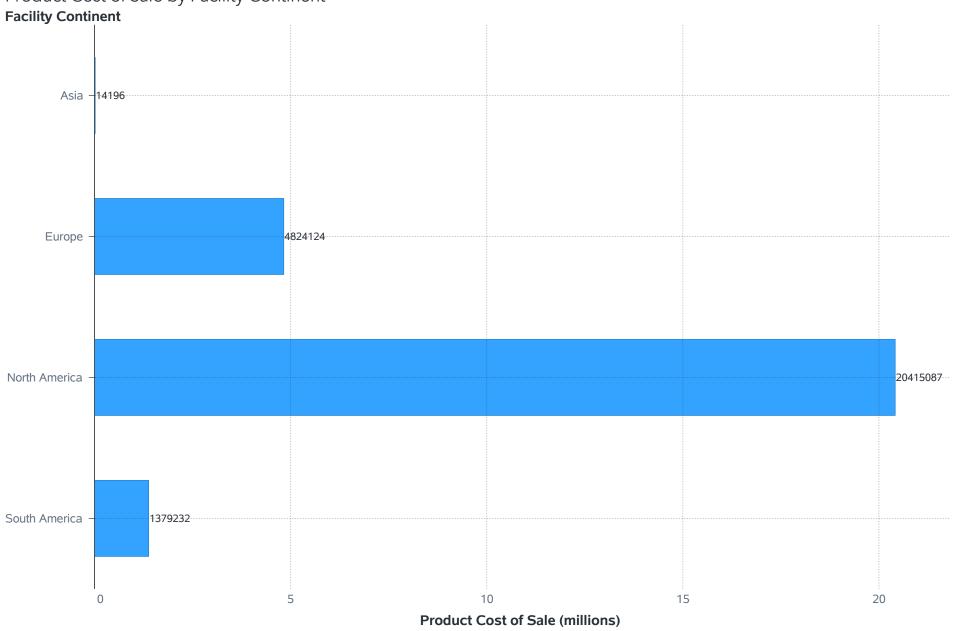
Q1 · · · · · · · · · · · · · · · · · · ·	1
Product Cost of Sale by Facility Continent	1.1
Q2	2
Product Cost of Sale by Product Line	2.1
Q3	3
Unit Capacity by Transaction Month	3.1
Q4	4
Product Sale by Facility Country	4.1
Q5	5
Product Sale by Facility Country	5.1
Product Sale by Facility Country	5.2
Product Sale by Facility Country	5.3
Q6 · · · · · · · · · · · · · · · · · · ·	6
Product Cost of Sale by Transaction Month	6.1
Q7 - Page 1	7
Product Sale by Transaction Year grouped by Product Brand	7.1
Slider - Transaction Year 1	7.2
Image 2	7.3
Text 2	7.4
Text 3	7.5
Key value - Product Sale 1	7.6
Key value - Facility Employees 1	7.7
Key value - Customer Satisfaction 1	7.8
Q7 - Page 2	8
Text 6	8.1
Product Sale by Facility Region grouped by Transaction Year	8.2
Key value - Product Sale 2	8.3

Q7 - Page 2	8
Key value - Customer Satisfaction 2	8.4
Q7 - Page 3	9
Product Sale by Facility Country	9.′
Coordinates Map of Facility	9.2
Q7 - Page 4	10
Product Quality by Product Line	10.1
Customer Satisfaction by Product Line, Transaction Year	10.2
Q7 - Page 5	11
Automated explanation - Product Sale 1	11.
What are the characteristics of Product Sale?	11.2
What factors are most related to Product Sale?	11.3
Summary	11.4
High	11.5
What is the relationship between Product Sale and Product Cost of Sale?	11.0
Relationships Description	11.
Q7 - Page 6	12
Automated explanation - Customer Satisfaction 1	12.
What are the characteristics of Customer Satisfaction?	12.2
What factors are most related to Customer Satisfaction?	12.3
Summary	12.4
High	12.5
What is the relationship between Customer Satisfaction and Sales Rep Rating?	12.
Relationships Description	12.7
Appendix	13
A1.2 - Product Sale by Facility Country	13
A1.3 - Product Sale by Facility Country	13
A1.4 - Product Sale by Facility Country	13
A2.1 - Product Cost of Sale by Transaction Month	13

Appendix	13
A3.1 - Text 3	13
A3.2 - Key value - Product Sale 1	13
A3.3 - Key value - Facility Employees 1	13
A3.4 - Key value - Customer Satisfaction 1	14
A3.5 - Product Sale by Transaction Year grouped by Product Brand	14
A4.1 - Product Sale by Facility Region grouped by Transaction Year	14
A4.2 - Key value - Product Sale 2	14
A4.3 - Key value - Customer Satisfaction 2	14
Expanded Pages	15
Bar - Facility Continent 2 Supplement 1	15
Box - Product Line 1 Supplement 1	16
Bar - Transaction Month 1 Supplement 1	17
Treemap - Facility Country 1 Supplement 1	18
Bar - Facility Country 1 Supplement 1	19
Pie - Facility Country 1 Supplement 1	20
Treemap - Facility Country 2 Supplement 1	21
Time - Transaction Month 1 Supplement 1	22
Key value - Product Sale 1 Supplement 1	23
Key value - Facility Employees 1 Supplement 1	24
Key value - Customer Satisfaction 1 Supplement 1	25
Time - Transaction Year 1 Supplement 1	26
Regional Analysis Supplement 1	27
Key value - Product Sale 2 Supplement 1	28
Key value - Customer Satisfaction 2 Supplement 1	29
Bar - Facility Country 2 Supplement 1	30
Geo coordinate - Facility 1 Supplement 1	31
Pie - Product Line 1 Supplement 1	32
Heat - Product Line 1 Supplement 1	33
Automated explanation - Product Sale 1 Supplement 1	34
Automated explanation - Product Sale 1 Supplement 2	35
Automated explanation - Product Sale 1 Supplement 3	36

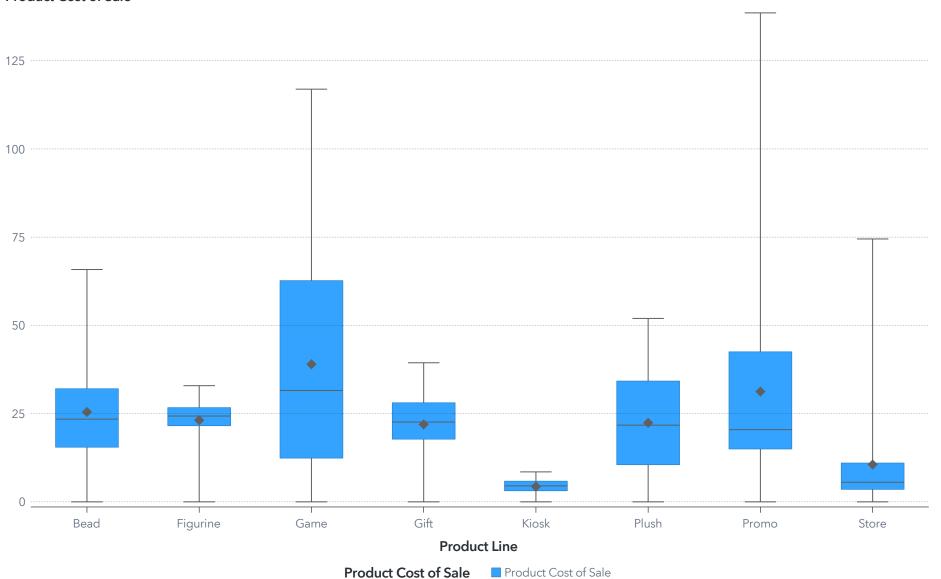
Expanded Pages	 15
Automated explanation - Customer Satisfaction 1 Supplement 1	 3
Automated explanation - Customer Satisfaction 1 Supplement 2	 38
Automated explanation - Customer Satisfaction 1 Supplement 3	 39

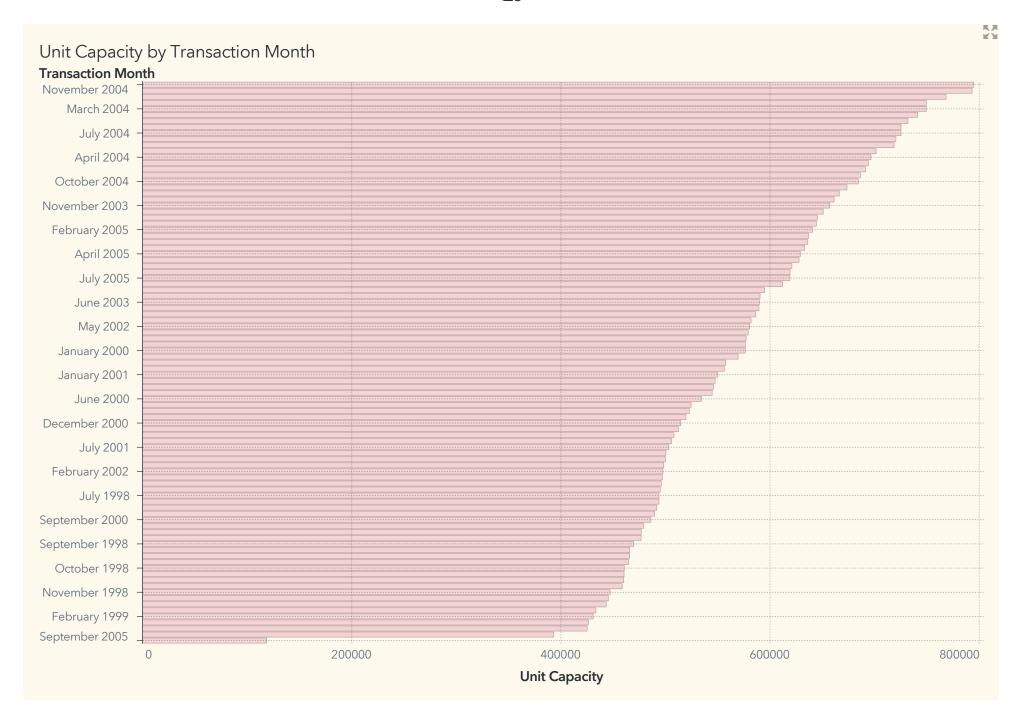
# Product Cost of Sale by Facility Continent



## Product Cost of Sale by Product Line

### **Product Cost of Sale**





## Product Sale by Facility Country

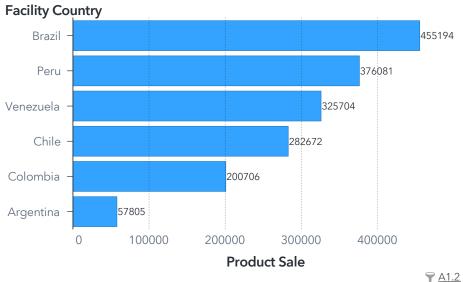
# **Facility Country** Denmark Norway Mexico Colombia Chile Italy France Venezuela Sweden Brazil Peru **United States** Canada Germany United Kingdom Spain







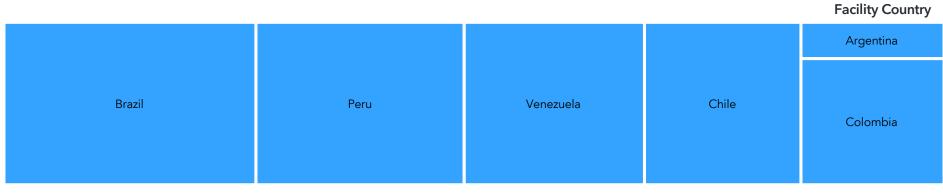
### Product Sale by Facility Country







### Product Sale by Facility Country

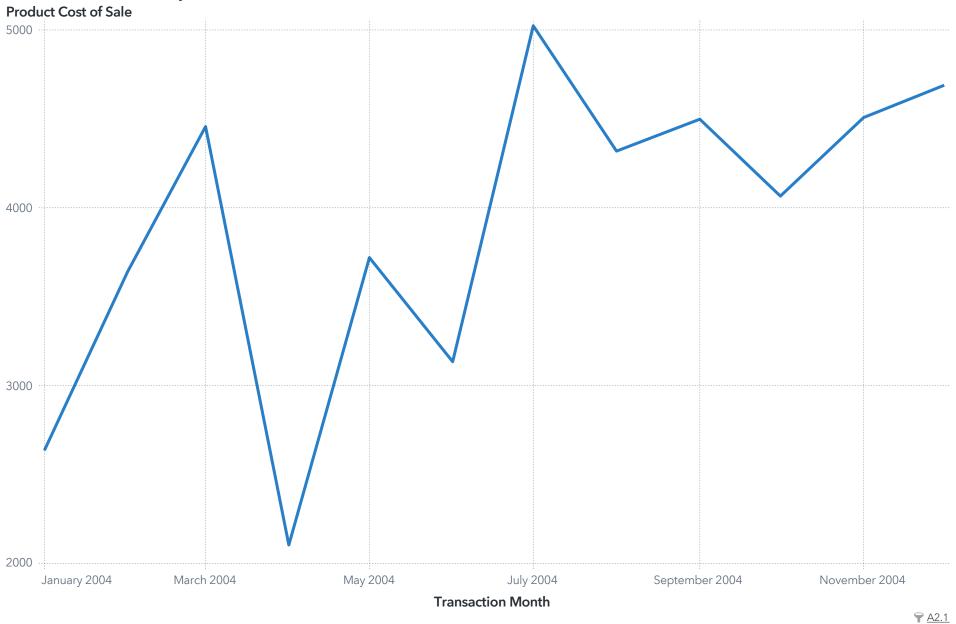




**Product Sale** 

**A**1.4

## Product Cost of Sale by Transaction Month





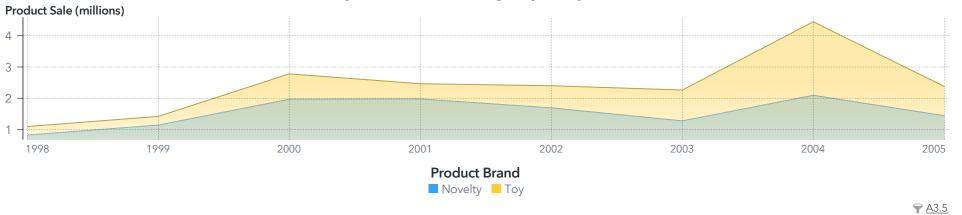
## **Executive Summary**

This is a subtitle

**▲** A3.1

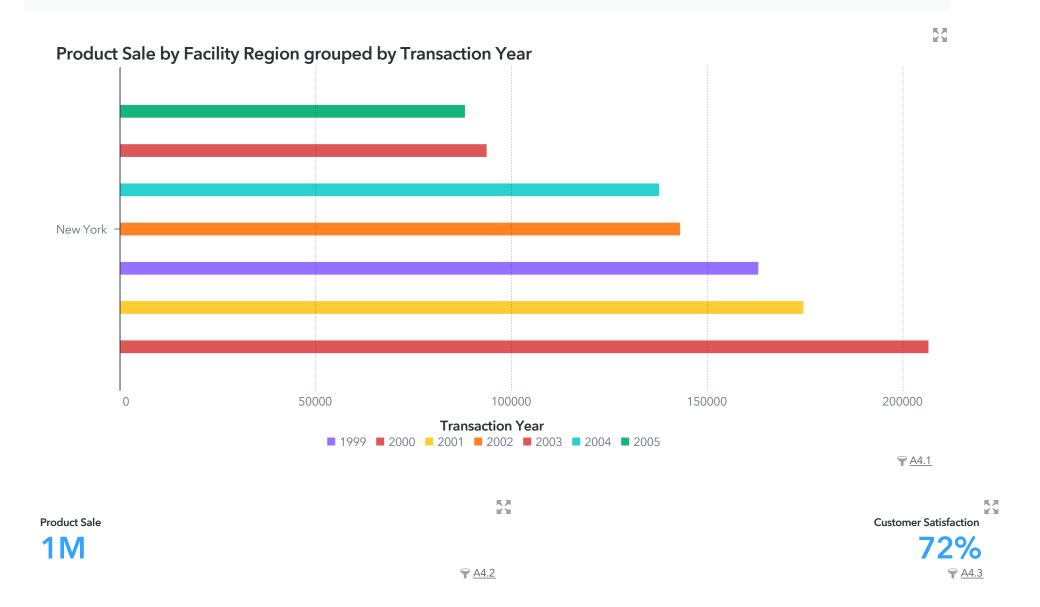


Product Sale by Transaction Year grouped by Product Brand



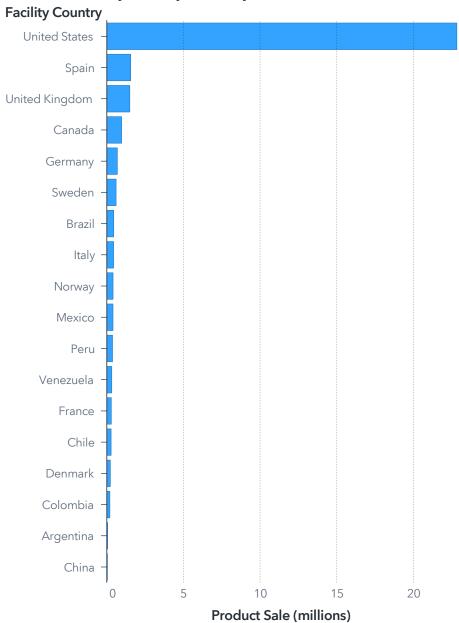
1998 to 2005

# Regions





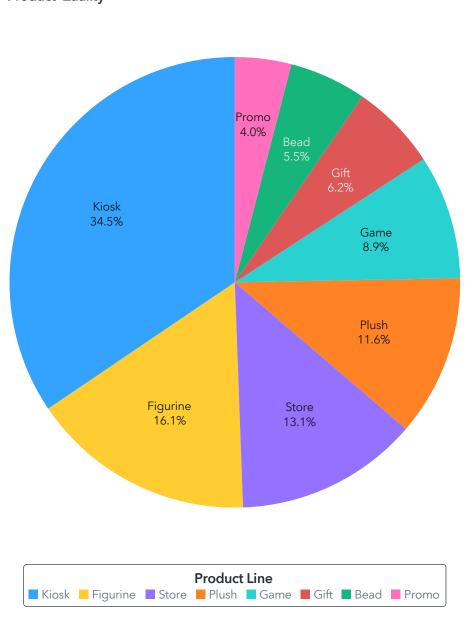




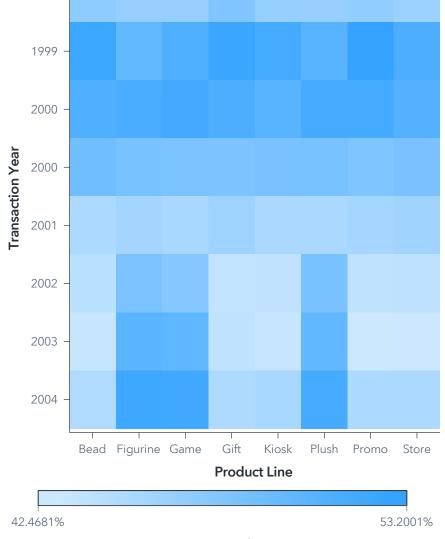


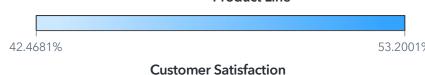


### Product Quality by Product Line **Product Quality**



Customer Satisfaction by Product Line, Transaction Year 1998 1999 -

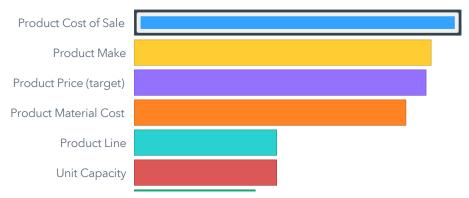




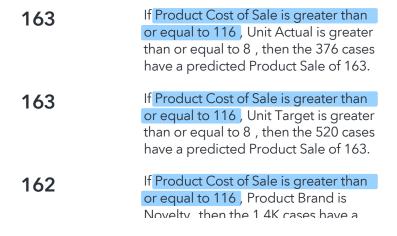
### What are the characteristics of Product Sale?

Product Sale ranges from 0 to 173. Average Product Sale is 20. Most cases (1.3M of 1.6M) have a Product Sale between 2.7 and 43. Product Price (target) best differentiates the highest (top 10%) and the lowest (bottom 10%) Product Sale cases. There are 113K cases that might be outliers, with Product Sale above 61.

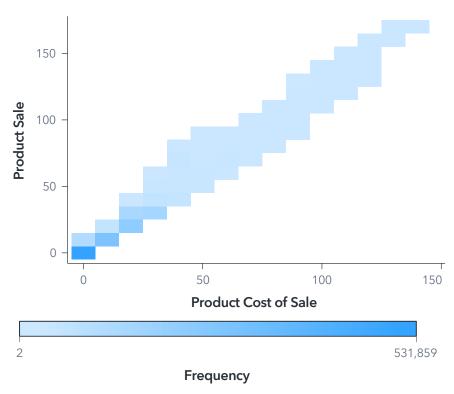
### What factors are most related to Product Sale?



What are the groups based on Product Cost of Sale by the average value of Product Sale?



What is the relationship between Product Sale and Product Cost of Sale?

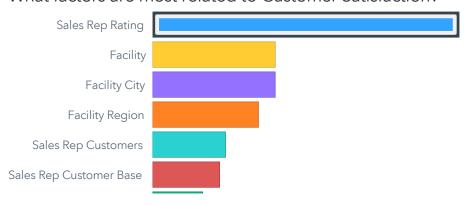


Product Sale may have a strong positive relationship with Product Cost of Sale. It appears to be a cubic relationship. Average Product Cost of Sale is 17, and it ranges from 0 to 139.

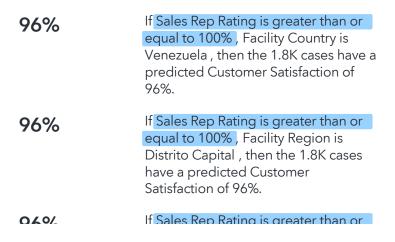
#### What are the characteristics of Customer Satisfaction?

Customer Satisfaction ranges from 19% to 100%. Average Customer Satisfaction is 47%. Most cases (1.3M of 1.6M) have a Customer Satisfaction between 30% and 71%. Sales Rep Rating best differentiates the highest (top 10%) and the lowest (bottom 10%) Customer Satisfaction cases. There are 79K cases that might be outliers, with Customer Satisfaction above 87%.

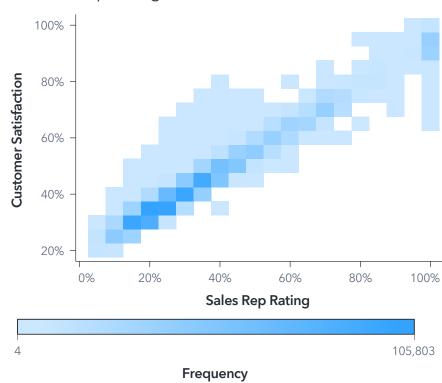
### What factors are most related to Customer Satisfaction?



What are the groups based on Sales Rep Rating by the average value of Customer Satisfaction?



What is the relationship between Customer Satisfaction and Sales Rep Rating?



Customer Satisfaction may have a strong positive relationship with Sales Rep Rating. It appears to be a cubic relationship. Average Sales Rep Rating is .38, and it ranges from .05 to 1.

### **Appendix**

, 10100	
A1.1 Report 1	
Parameters:	Parameter 1 = 0.00
A1.2 Product S	ale by Facility Country
Filters:	( Facility Continent In('South America') ) OR Facility Continent Missing
A1.3 Product S	ale by Facility Country
Filters:	( Facility Continent In('South America') ) OR Facility Continent Missing
A1.4 Product S	ale by Facility Country
Filters:	( Facility Continent In('South America') ) OR Facility Continent Missing
A2.1 Product C	ost of Sale by Transaction Month
Filters:	Facility City In('Atlanta') ( Transaction Month BetweenInclusive(January 2004; December 2004) ) OR Transaction Month Missing
<u>A3.1</u> Text 3	
Warnings:	The required roles have not been assigned a data item.
A3.2 Key value	- Product Sale 1
Filters:	Transaction Year BetweenInclusive(1998; 2005)
A3.3 Key value	- Facility Employees 1
Filters:	Transaction Year BetweenInclusive(1998; 2005)

Δ3.4	Key value	Customer	Satisfaction	,
A3.4	Nev value	- Customer	Salisiaction	ш

Filters:

Transaction Year BetweenInclusive(1998; 2005)

#### A3.5 Product Sale by Transaction Year grouped by Product Brand

Filters:

Transaction Year BetweenInclusive(1998; 2005)

#### A4.1 Product Sale by Facility Region grouped by Transaction Year

Filters:

Facility Region = 'New York'

#### A4.2 Key value - Product Sale 2

Filters:

Facility Region = 'New York'

#### A4.3 Key value - Customer Satisfaction 2

Filters:

Facility Region = 'New York'

Bar - Facility Continent 2 Supplement 1

Facility Continent

North America

South America

Asia Europe



Product Cost of Sale K

14196

4824124

Bead

Figurine

Game

Gift

Kiosk

Plush

Promo

Store

Box - Product Line 1 Supplement 1





Minimum

Lower Whisker First Quartile Average Median

Third Quartile

Upper Whisker

Maximum

88,295

255,845

140,903

100,235

184.075

64,562

211,013

2 555,072

Nonemical 7004  August 2004  Near 1707  Near	
Resemble 2016   August 2016   August 2016   August 2016   August 2017	apacity 💥
Description 2004 Ageins 2006 A	794840
August 2006  Percentage 2015  Percentage 2016  Percentage 2017  Percentage 2016  Percentage 2016  Percentage 2016  Percentage 2016  Percentage 2016  Percentage 2016  Percentage 2017  Percentage 2016  Percentage 2017  Percentage	793280
Descriptors 2004  2007-2007-2007-2007-2007-2007-2007-200	768341
Memora 2004 - Approach 2005 - Approach 2006 -	
James   Jame	749541
Septembro 2001	749363
January 7016 January 7017 January 7016 January 7016 January 7016 January 7017 January 7016 Janua	741128
Jay 2004 Jay 2004 Jay 2007 April 2007 Wey 2007 April 2007 Wey 2007 April 2007 Wey 2007 April 2007 A	731903
Jay 2014 Jane 2004 Jane 2004 Jane 2005 Actil 2006 May 2007 Actil 2006 May 2007 Actil 200	725299
June 2014  January 2013  January 2013  January 2013  March 2015  March 2015  May 2014  August 2015  May 2016  May 20	725245
December 2002	
James 2005 Marce 2007 Marce 2007 Marce 2008 November 2008 November 2008 November 2008 Marce 2008 Marce 2008 Marce 2008 Marce 2008 Marce 2008 Marce 2008 Jaly 2008 Censors 2000 Jaly 2008 Censors 2000 December 2001 Angual 2009 Angual 200	720352
Agail 2004 May 2005 May 2006 M	718609
March 2025 May 2004 Auguat 2025 May 2006 May 2007 May 2007 May 2007 May 2007 May 2007 May 2008 May 200	701485
March 2025 May 2004 Auguat 2025 May 2006 May 2007 May 2007 May 2007 May 2007 May 2007 May 2008 May 200	696516
May 2004 Anguer 2005 Centabre 2006 May 2005 Neverther 2009 Neverther 2009 Neverther 2009 Neverther 2009 Anguer 2005 Anguer 2005 Anguer 2006 Anguer 200	694040
August 2005 Ometas 2004 Novembrit 2002 May 2005 May 2006 July 2009 July 2009 July 2009 July 2009 Desember 2001 Centure 2008 February 2008 Personnel 2001 August 2002 April 2008 April 2009 April 2008	691201
October 2004  Jame 2005  November 2006  Jame 2005  November 2006  Jame 2008	
New Part	686382
June 2005	684404
May 200	673570
November 2003	666343
Neember 2009 July 2002 July 2002 July 2002 July 2003 July 2005 Determine 2001 August 2001 August 2003 August 2003 August 2006 Telestrany 2004 August 2002 May 2003 July 2006 July 2006 July 2008 July 2008 July 2009 July 2009 July 2009 August 2009 A	661291
July 2002 July 2003 Cotober 2003 February 2006 February 2006 April 2007 April 2008 April 2009 April 2008 April 2009 April 2009 April 2008 April 2009 April 2008 April 2009 April 2008 April 2009 April 2008 April	657132
July 2003 Cottober 2003 February 2005 Cottober 2001 November 2001 November 2001 November 2001 November 2000 February 2004 Cottober 2002 May 2003 July 2006 Juniumy 2000 March 2003 March 2003 Juniumy 2000 March 2003 March 2003 May 2000 Juniumy 2000 May 2001 Separation 2003 May 2000 Cottober 2004 Anguer 2003 Anguer 2003 May 2000 Anguer 2003 Anguer 2004 Anguer 2006 An	650873
Occiber 2005 December 2001 November 2007 April 2005 April 2005 April 2005 April 2006 April 2007 April 2008 Apr	
Pebnary 2005	645281
December 2001   August 2002   April 2003   April 2005	644270
Neverber 2001 Agnit 2002 Agnit 2003 Agnit 2004 Agnit 20	640533
Agein 2005 Agein 2005 Agein 2005 Agein 2006 Agein 2006 Agein 2007 Agein 2008	636828
August 2002 Agrat 2005 Agrat 2005 Agrat 2005 Agrat 2006 Agrat 2008 Agrat 2009 Agrat 2008 Agrat 2009 Agrat 2009 Agrat 2008 Agrat 2009	636105
April 2005 Pebruary 2019 May 2019 January 2019 March 2003 May 2010 September 2019 August 2003 August 2004 August 2005 August 2006 August 2006 August 2006 August 2006 August 2007 August 2008 August 2009 August 2008 August 2009 August 2009 August 2009 August 2008 August 2009 Augus	633080
February 2004   October 2002   July 2005   July 2006   June 2003   March 2009   June 2003   March 2009   June 2003   May 2000   September 2003   May 2001   September 2004   May 2001   June 2003   June 2003   June 2004   June 2005   June 2006   July 2001   September 1909   June 2008   July 2001   September 1909   July 2001   September 1909   July 2001   September 1909   July 2001   September 1909   June 2006   June 2006   June 2006   July 2001   September 1909   July 2001   July 2001   September 2006   July 2007   September 2007   July 2008   June 2008	629000
Octobar 2000           May 2003           July 2009           July 2009           March 2000           March 2003           May 2004           April 2003           May 2004           September 2003           May 2004           August 2001           August 2001           April 2002           April 2003           April 2004           August 2001           August 2000           Pebruary 2003           June 2004           Pebruary 2003           June 2006           Pebruary 2009           March 2009           July 2001           December 2000           March 2002           July 2001           September 2000           March 2002           December 2000           March 2002           September 2001           October 2004           July 2001           September 1999           November 1999           Percuary 2002           December 1998           July 1998           August 1999           June 1000           Aur 11999	
May 2003         July 2005           July 2004         March 2008           March 2008         March 2008           June 2003         May 2000           Appil 2003         September 2003           May 2002         September 2003           Suppin 2003         May 2002           September 2004         May 2002           August 2003         May 2002           Jamuary 2000         May 2001           Jamuary 2001         May 2001           Jamuary 2001         May 2001           February 2003         March 2002           Jamuary 2000         March 2002           July 2009         March 2002           March 2002         March 2002           July 2009         March 2002           September 2001         October 2000           July 2001         September 2001           October 2000         March 1099           Nowmber 1999         March 1099           Nowmber 1999         July 2001           December 1998         March 1099           Appil 2001         Appil 2001           Appil 2002         September 2002           Appil 2009         March 1099           Appil 2009         March 1099 </td <td>627741</td>	627741
July 2005   January 2002   January 2002   January 2003   January 2000   January	620888
July 2005  March 2003  March 2003  May 2004  April 2003  May 2006  April 2003  May 2006  April 2003  May 2006  September 2003  May 2006  August 2005  Cerobar 2001  August 2006  April 2007  August 2008  April 2008  April 2009  April 2009  April 2009  March 2009  May 2001  February 2001  November 2006  May 2001  February 2005  July 1999  December 2000  July 2001  September 2001  July 1999  March 2002  September 2001  July 2001  September 2001  July 2001  September 2001  July 2009  April 2006  September 2001  July 2001  September 2001  December 1999  March 1999  March 1999  March 1999  April 2004  September 1999  April 2006  September 1999  July 2000  December 1999  April 2006  September 1999  April 2006  September 1999  July 2009  December 1999  April 2006  September 1999  July 2009  December 1999  July 2009  December 1999  July 2009  December 1999  July 2009  July 2009  September 2000  April 1999  March 2001  April 1998  April 2008  April 1999  March 2001  April 1998  March 2001  April 1998  April 2008  April 1998  April 2008  April 1999  March 2001  April 1998  March 2001  April 1998  March 2001  April 1998  March 2001  April 1998  March 2001  April 2008  April 1998  March 2001  April 2008  April	619135
Innary 2002   March 2003   March 2003   March 2003   March 2003   March 2003   March 2003   May 2000   May 2001   May 2000   May 2	619028
March 2000           June 2003           May 2006           April 2003           Sectamber 2003           May 2007           Septamber 2002           August 2003           October 2001           Jamuary 2000           Application           August 2001           August 2000           Jamuary 2001           November 2000           May 2001           November 2000           May 2001           November 2000           June 2000           February 2003           June 2000           Septamber 2000           June 2002           Septamber 2001           June 2002           Septamber 2009           June 2009           Posember 2000           June 2002           Septamber 2001           October 2000           July 2000           March 1999           March 1999           March 1999           April 1990           April 1990           April 1999           April 1999           April 1999           April 1999           April 1999 <td>612065</td>	612065
June 2000           June 2003           May 2000           April 2003           September 2003           May 2000           September 2001           January 2000           August 2001           August 2001           January 2011           Nowember 2000           May 2001           February 2003           June 2000           February 2003           June 2000           February 2000           March 2002           June 2000           September 2000           June 2000           September 2000           October 2000           July 2001           September 1999           March 1999           March 1999           March 1999           March 1999           Pebruary 2002           December 1998           July 1998           August 1999           April 2000           September 2000           April 2001           September 2002           April 2004           September 2005           April 2006           September 2007	594735
June 2003 May 2006 May 2007 September 2003 September 2002 September 2009 September 2009 September 2009 September 2009 June 2009 September 2000 September 200	590461
April 2000           April 2003           September 2003           Mey 2004           September 2003           August 2003           October 2001           January 2000           August 2001           January 2001           November 2000           Mey 2001           February 2003           June 2000           February 2000           March 2002           June 2000           February 2000           March 2002           June 2002           September 2001           October 2000           June 2002           September 2001           October 2000           March 1999           March 1999           Fobruary 2002           December 1999           July 2001           December 1999           July 1998           August 1999           April 2001           April 2001           April 2001           April 2001           April 2001           April 2001           April 2002           April 2003           September 1998           June	
April 2003 September 2003 May 2002 September 2003 August 2003 August 2003 August 2001 January 2000 August 2001 August 2000 November 2000 May 2001 November 2000 May 2001 February 2003 June 2000 February 2000 Aurach 2002 July 1999 December 2000 July 2001 September 1999 November 1999 November 1999 November 1999 November 1999 November 1999 August 1998 January 1999 August 1998 January 1998	589782
September 2003           May 2002           September 2003           August 2003           October 2001           Jamuary 2000           April 2022           August 2001           August 2000           January 2001           November 2000           May 2011           February 2003           June 2000           February 2003           June 2002           July 1999           December 2000           July 2001           September 2001           October 2000           July 2001           September 2001           October 2000           July 2001           September 1999           November 1999           July 2001           September 1999           July 1978           August 1999           April 2001           April 2001           April 2001           April 2002           September 7000           April 2099           March 2001           February 2001           October 1998           June 1999           June 1999           J	589356
May 2002         September 2002           August 2003         Cctober 2001           January 2000         April 2002           August 2001         April 2002           January 2001         September 2000           Jerbruary 2003         June 2000           February 2003         June 2000           February 2000         September 2001           December 2000         June 2002           September 2001         September 2001           October 2000         September 2001           July 2001         September 1999           March 1999         Movember 1999           Nowmen 1999         September 1999           July 1998         July 1998           July 1999         September 1999           Juny 1999         September 1999           July 1999         September 1999	586325
May 2002         September 2002           August 2003         Cctober 2001           January 2000         April 2002           August 2001         April 2002           January 2001         September 2000           Jerbruary 2003         June 2000           February 2003         June 2000           February 2000         September 2001           December 2000         June 2002           September 2001         September 2001           October 2000         September 2001           July 2001         September 1999           March 1999         Movember 1999           Nowmen 1999         September 1999           July 1998         July 1998           July 1999         September 1999           Juny 1999         September 1999           July 1999         September 1999	581823
September 2002           August 2003           Cotober 2001           January 2000           April 2002           August 2000           January 2001           November 2000           May 2001           February 2003           June 2000           February 2004           March 2002           July 1999           December 2000           June 2002           September 2001           October 2000           July 2001           September 1999           March 1999           February 2002           December 1999           July 2001           December 1998           July 1998           August 1999           July 2001           December 1998           July 1999           May 1999           July 1999           May 1999           July 2001           September 1998           January 1999           September 1998           January 1999           January 1999           January 1998           January 1998           January 1998 <t< td=""><td>580518</td></t<>	580518
August 2003         Cxtober 2001           January 2000         April 2002           August 2001         August 2000           January 2001         August 2000           January 2001         August 2000           May 2001         February 2003           June 2000         August 2000           March 2002         August 2000           March 2002         August 2000           March 2002         August 2000           September 2000         August 2002           September 2001         August 2002           September 1999         August 1999           March 1999         August 1999           July 2000         December 1998           July 1998         August 1999           July 1999         August 1999           May 1999         August 1999           May 1999         August 1999           June 1999         September 2000           April 2001         April 2001           April 2001         April 200	
October 2001         January 2000           January 2001	579153
January 2000 April 2002 April 2000 January 2001 August 2000 January 2001 November 2000 May 2001 February 2003 June 2000 Jeberrary 2003 March 2002 July 1999 December 2000 July 2001 September 1999 November 1999 Robruary 2002 December 1999 July 2000 December 1999 August 1999 August 1999 August 1999 April 2001 April 2000 September 2000 April 1999 May 1999 May 1999 July 1998 June 1999 September 1998 June 1999 September 1998 June 1999 September 1998 June 1999 September 1998 January 1999 March 2001 February 2001 Cctober 1998 January 1999 June 1999 September 1998 January 1999	577016
April 2002 August 2001 January 2001 November 2000 May 2001 February 2003 June 2000 February 2003 June 2000 March 2002 July 1999 December 2000 June 2002 September 2001 July 2001 September 2001 July 2001 September 2001 July 2001 September 1999 March 1999 April 2002 December 1999 July 2000 December 1999 September 1999 September 1999 April 2001 December 1999 April 2001 April 2000 September 1999 April 2001 April 2000 April 1999 April 2001 April 2000 April 1999 April 2001 April 2000 April 1999 September 1000 April 1999 September 1000 April 1999 September 2000 April 1999 September 2000 April 1999 September 1998 January 1999	576518
April 2002 August 2001 January 2001 November 2000 May 2001 February 2003 June 2000 February 2003 June 2000 March 2002 July 1999 December 2000 June 2002 September 2001 July 2001 September 2001 July 2001 September 2001 July 2001 September 1999 March 1999 April 2002 December 1999 July 2000 December 1999 September 1999 September 1999 April 2001 December 1999 April 2001 April 2000 September 1999 April 2001 April 2000 April 1999 April 2001 April 2000 April 1999 April 2001 April 2000 April 1999 September 1000 April 1999 September 1000 April 1999 September 2000 April 1999 September 2000 April 1999 September 1998 January 1999	576335
August 2001 August 2000 January 2001 November 2000 May 2001 February 2003 June 2000 February 2000 March 2002 June 2000 March 2002 June 2000 July 2001 September 2001 October 2000 July 2001 September 1999 March 1999 February 2002 December 1999 July 2000 December 1998 July 2000 December 1998 August 1999 April 2001 September 2000 April 1999 May 1999 May 1999 May 1999 May 1999 July 2000 September 2000 April 1999 July 1988 Junuary 1999 May 1999 June 1999 September 2000 April 1999 September 1998 June 1998 June 1998	569441
August 2000         January 2001           November 2000         1           February 2003         1           June 2000         1           February 2003         1           March 2002         1           July 1999         1           December 2000         1           June 2002         2           September 2001         1           October 2000         1           July 2001         2           September 1999         1           March 1999         1           November 1999         1           February 2002         2           December 1998         1           July 2000         2           December 1998         4           July 1998         4           August 1999         4           July 1999         4           June 1999         5           September 2000         4           April 1999         4           May 1999         5           January 1999         4           January 1999         4           January 1999         4           January 1998         4	557677
January 2001 November 2000 May 2001 February 2003 June 2000 February 2000 March 2002 July 1999 December 2001 October 2000 September 1999 March 1999 November 1999 July 2000 December 1998 July 1999 July 1999 June 1999 April 2001 September 1999 June 1999 September 1999 July 1900 September 1999 July 2000 September 1998 July 1998 August 1999 April 2001 September 1999 June 1999 September 1999 July 1998 July 2000 September 1998 July 1999 July 1999 July 1999 July 2000 September 1999 July 1998 July 1998 July 1998 July 1998 July 1998	556299
November 2000           May 2001           February 2003           June 2000           February 2000           March 2002           July 1999           December 2000           June 2002           September 2001           October 2000           July 2001           September 1999           March 1999           November 1999           February 2002           December 1998           July 2000           December 1998           July 1998           August 1999           August 1999           Juri 2000           September 2000           April 2001           April 2999           June 1999           June 1999           January 1999           March 2001           February 2001           October 1998           June 1998           June 1998           January 1998           January 1998	
May 2001           February 2003           June 2000           February 2000           March 2002           July 1999           December 2000           June 2002           September 2001           October 2000           July 2001           September 1999           March 1999           November 1999           December 1999           December 1999           July 2000           December 1998           July 1998           August 1999           April 2000           September 2000           April 1999           May 1999           Jun 1999           May 1999           Jun 1999           March 2001           February 2001           October 1998           June 1998           June 1998           Junuary 1998	550055
February 2003         June 2000           February 2000         (Control of the state of the s	547507
June 2000 February 2000 March 2002 July 1999 December 2000 July 2002 September 2001 October 2000 July 2001 September 1999 March 1999 February 2002 December 1999 July 2000 December 1999 July 2000 December 1999 April 2000 December 1998 July 1998 August 1999 April 2000 April 1999 May 1999 March 2001 February 2002 December 1998 July 1998 May 1999 March 2001 February 2001 February 2001 February 2001 February 2001 February 2001 June 1998 June 1998 June 1998	545858
February 2000         March 2002           July 1999         ————————————————————————————————————	544654
March 2002           July 1999           December 2000           June 2002           September 2001           October 2000           July 2001           September 1999           March 1999           November 1999           February 2002           December 1999           July 2000           December 1998           July 1998           August 1999           April 2001           April 2000           September 2000           April 1999           May 1999           June 1999           September 1998           January 1999           March 2001           February 2001           October 1998           June 1998           January 1998	534412
March 2002           July 1999           December 2000           June 2002           September 2001           October 2000           July 2001           September 1999           March 1999           November 1999           February 2002           December 1999           July 2000           December 1998           July 1998           August 1999           April 2001           April 2000           September 2000           April 1999           May 1999           June 1999           September 1998           January 1999           March 2001           February 2001           October 1998           June 1998           June 1998	524562
July 1999         December 2000           June 2002         Cester and the contract of the	522861
December 2000           June 2002           September 2001           October 2000           July 2001           September 1999           March 1999           November 1999           February 2002           December 1999           July 2000           December 1998           July 1998           August 1999           April 2001           April 2000           September 2000           April 1999           May 1999           June 1999           September 1998           January 1999           March 2001           February 2001           October 1998           June 1998           June 1998           June 1998	519578
June 2002           September 2001           October 2000           July 2001           September 1999           March 1999           November 1999           February 2002           December 1999           July 2000           December 1998           July 1998           August 1999           April 2001           April 2000           September 2000           April 1999           June 1999           September 2000           April 1999           June 1999           September 1998           January 1999           March 2001           Cotober 1998           June 1998           June 1998           June 1998           June 1998	
September 2001         October 2000         July 2001         September 1999         March 1999         February 2002         December 1999         July 2000         December 1998         July 1998         August 1999         April 2001         September 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         June 1998         June 1998         January 1999	514598
October 2000           July 2001           September 1999           March 1999           February 2002           December 1999           July 2000           December 1998           July 1998           August 1999           April 2001           September 2000           April 1999           May 1999           June 1999           September 1998           January 1999           March 2001           February 2001           October 1998           June 1998           January 1998	512407
July 2001           September 1999           March 1999           November 1999           February 2002           December 1999           July 2000           December 1998           July 1998           August 1999           April 2001           April 2000           September 2000           April 1999           May 1999           June 1999           September 1998           January 1999           March 2001           February 2001           October 1998           June 1998           January 1998	508096
July 2001         September 1999         March 1999         November 1999         February 2002         December 1999         July 2000         December 1998         July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	505746
September 1999           March 1999           November 1999           February 2002           December 1999           July 2000           December 1998           July 1998           August 1999           April 2001           April 2000           September 2000           April 1999           May 1999           June 1999           September 1998           January 1999           March 2001           February 2001           October 1998           June 1998           January 1999	503166
March 1999         November 1999         February 2002         December 1999         July 2000         December 1988         July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1988         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	500427
November 1999         February 2002         December 1999         July 2000         December 1998         July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	
February 2002         December 1999         July 2000         December 1998         July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	499977
December 1999         July 2000         December 1998         July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	498348
July 2000       December 1998         July 1998       4         August 1999       4         April 2001       4         April 2000       5         September 2000       4         April 1999       4         May 1999       4         June 1999       5         September 1998       4         January 1999       4         March 2001       5         February 2001       6         October 1998       6         June 1998       6         January 1998       6	497578
December 1998         July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	497028
December 1998         July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	496017
July 1998         August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	495059
August 1999         April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	493792
April 2001         April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	
April 2000         September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	493752
September 2000         April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	491606
April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	489673
April 1999         May 1999         June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	486036
May 1999         June 1998         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	479137
June 1999         September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	476836
September 1998         January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	
January 1999         March 2001         February 2001         October 1998         June 1998         January 1998	476658
March 2001         February 2001         October 1998         June 1998         January 1998	469653
February 2001         October 1998         June 1998         January 1998	465895
February 2001         October 1998         June 1998         January 1998	465762
October 1998         June 1998         January 1998	464680
June 1998  January 1998	
January 1998	460698
	460409
	460067
October 1999	458589
November 1998	447005
March 1998	445339
August 1998	443329
June 2001	433498
February 1999	430831
May 1998	426336
April 1998	425001
	393208
February 1998 September 2005	118671

Treemap - Facility Country 1 Supplement 1

Facility Country

Argentina

Germany

Italy

Peru

Spain Sweden

United Kingdom

**United States** 

Venezuela

Mexico Norway

=	
Brazil	455194
Canada	969520
Chile	282672
China	16645
Colombia	200706
Denmark	234614
France	296303

Product Sales

57805

689530

445738 406205

409697 376081

1560412

607665

1501642

325704

Bar - Facility Country 1 Supplement 1

Facility Country

Brazil

Peru

Chile

Venezuela

Colombia

Argentina

\_

Product Sale

455194 376081

325704

282672

200706

Facility Country

Brazil

Peru

Chile

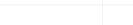
Venezuela

Colombia

Argentina

Pie - Facility Country 1 Supplement 1





Product Sale

455194 376081

325704

282672

200706

Facility Country

Argentina

Colombia

Venezuela

Brazil Chile

Peru

Treemap - Facility Country 2 Supplement 1

Product Sales

57805 455194

282672

200706 376081

Time - Transaction Month 1 Supplement 1

Transaction Month

January 2004

February 2004

March 2004

April 2004

May 2004

June 2004

July 2004

August 2004

September 2004

November 2004

December 2004

October 2004

Product Cost of Sale

2636

3641

4456

2104

3720

3134

5023

4319

4498

4066

4507

Key value - Customer Satisfaction 1 Supplement 1

Time - Transaction Year 1 Supplement 1

Transaction Year	Product Sale	Product Brand	M K AK
1998	824019	Novelty	
1999	1143323	Novelty	
2000	1969304	Novelty	
2001	1978457	Novelty	
2002	1693094	Novelty	
2003	1277314	Novelty	
2004	2095641	Novelty	
2005	1440523	Novelty	
1998	1095757	Toy	
1999	1420416	Toy	
2000	2780110	Toy	
2001	2465349	Toy	
2002	2399955	Toy	
2003	2264206	Toy	
2004	4447015	Toy	
2005	2373892	Toy	

Facility Region
New York

Regional Analysis Supplement 1

ЖK

Product Sale ▼ Transaction Year

206641 2000

174675 2001

163183 1999

143204 2002

137828 2004

93777 2003

Key value - Customer Satisfaction 2 Supplement 1

Bar - Facility Country 2 Supplement 1

**Facility Country** 

Denmark Colombia

Argentina

China

United States	22832243
Spain	1560412
United Kingdom	1501642
Canada	969520
Germany	689530
Sweden	607665
Brazil	455194
Italy	445738
Norway	409697
Mexico	406205
Peru	376081
Venezuela	325704
France	296303
Chile	282672

 $\blacktriangle$ 

Product Sale

234614

200706

57805

Geo coordinate - Facility 1 Su		i lik
Facility	The state of the s	K
ARBUENOS0118		
BRBELOHO0119		
BRRIODEJ0120		
BRSAOPAU0121		
CATORONT0049		
CAVANCOU0075		
CLSANTIA0122		
CNBEIJIN0127		
COBOGOTA0123		
DEBERLIN0106		
DEHAMBUR0107		
DKCOPENH0104		
ESBARCEL0110		
ESMADRID0112		
ESVALENC0111		
FRPARIS.0105		
GBLONDON0114		
GBMANCHE0115		
ITROME0108		
MXGUADAL0037		
MXMEXICO0038		
MXTIJUAN0036		
NOOSLO0109		
PELIMA0124		
SESTOCKH0113		
USALBUQU0082		
USATLANT0025		
USAUSTIN0011		
USBALTIM0032		
USBATONR0016		
USBILLIN0081		
USBIRMIN0018		
USBISMAR0058		
USBOISE.0080		
USBUFFAL0091		
USCHARLE0030		
USCHARLO0028		
USCHEYEN0087		
USCHICAG0041		
USCLEVEL0046		
USCOLORA0079		
USCOLUMB0026		
USCOLUMB0045		
USDALLAS0009		
USDENVER0078		
USDESMOI0050		
USDETROI0044		
USFORTWO0012		
USFRESNO0068		
USHOUSTO0008		
USINDIAN0042		
USJACKSO0020		
USJACKSO0023		
USJEFFER0057		
USKANSAS0055		
USLANSIN0043		
USLASVEG0085		
USLINCOL0060		
USLITTLE0015		
USLONGBE0064		
USLOUISV0021		
USMADISO0048		
USMIAMI.0024		
USMILWAU0047		
USMINNEA0053		
USNASHVI0019		
USNEWORL0017		
USNEWYOR0092		
USOAKLAN0070		
USOKLAHO0013		
USOLYMPI0074		
USOMAHA.0059		
USORLAND0022		
USPHILAD0093		
USPHOENI0076		
USPIERRE0061		
USPITTSB0094		
USPORTLA0071		
USRALEIG0027		
USRENO0084		
USRICHMO0029		
USSACRAM0069		
USSALEM.0073		
USSALTLA0086		
USSANANT0010		
USSANDIE0065		
USSANFRA0067		
USSANJOS0066		
USSANTAF0083		
USSEATTL0072		
USST.LOU0056		
USSTPAUL0054		
USTOPEKA0052		

USTRENTO0090 USTUCSON0077 USTULSA.0014 USWASHIN0031 USWICHIT0051 VECARACA0125

**Product Line** 

Kiosk

Plush

Game Gift

Bead

Promo

Figurine Store

Pie - Product Line 1 Supplement 1

Product Quality

47,079,713% 21,990,217%

17,953,467%

15,796,372% 12,165,342%

8,506,480%

7,549,496% 5,520,183%

Product Line	Transaction Year	Customer Satisfaction
Bead	1998	47%
Figurine	1998	46%
Game	1998	46%
Gift	1998	48%
Kiosk	1998	46%
Plush	1998	46%
Promo	1998	47%
	1998	46%
Store		
Bead	1999	53%
Figurine	1999	50%
Game	1999	51%
Gift	1999	53%
Kiosk	1999	52%
Plush	1999	51%
Promo	1999	53%
Store	1999	51%
Bead	2000	51%
Figurine	2000	52%
Game	2000	52%
	2000	
Gift		51%
Kiosk	2000	51%
Plush	2000	52%
Promo	2000	52%
Store	2000	51%
Bead	2001	49%
Figurine	2001	48%
Game	2001	48%
Gift	2001	48%
Kiosk	2001	48%
Plush	2001	48%
Promo	2001	48%
Store	2001	48%
Bead	2002	45%
Figurine	2002	45%
Game	2002	45%
Gift	2002	46%
Kiosk	2002	45%
Plush	2002	45%
Promo	2002	45%
Store	2002	45%
Bead	2003	44%
Figurine	2003	48%
Game	2003	47%
Gift	2003	43%
Kiosk	2003	43%
Plush	2003	48%
Promo	2003	43%
Store	2003	43%
Bead	2004	43%
Figurine	2004	50%
Game	2004	50%
Gift	2004	43%
Kiosk	2004	43%
Plush	2004	50%
Promo	2004	42%
Store	2004	43%
Bead	2005	44%
Figurine	2005	52%
Game	2005	52%
Gift	2005	45%
Kiosk	2005	45%
Plush	2005	52%
Promo	2005	45%
Store	2005	45%

	<ol> <li>Select response for Automated Explanation.</li> </ol>	A report author selected Product Sale as the response.	ÄŘ
2	2. Screen factors.	Automated Explanation modified or removed 22 of 51 factors. See the Screening Results tab for details.	
		Automated Explanation used a one-level decision tree for each factor to determine its relative	

MM

3. Determine most related factors. importance to Product Sale. For example, the input Product Make has a relative importance of 0.91 which means it is 0.91 times as important as Product Cost of Sale. Automated Explanation ran 9 decision trees with response Product Sale. The trees used Product

Cost of Sale and another important factor as predictors. The trees had 6 levels and 2 branches. 4. Find groups based on selected related factor. Each group describes a leaf from one of these trees.

Automated explanation - Product Sale 1 Supplement 1

Factor	Action Taken	I K
Customer	The category was rejected because too many distinct levels were detected.	
Customer Distance		
Customer Satisfaction		
Facility		
Facility Age		
Facility City		
Facility Continent		
Facility Country		
Facility Efficiency	The measure was converted to category because relatively few distinct levels were detected.	
Facility Employees	The measure was converted to category because relatively few distinct levels were detected.	
Facility Region		
Order	The category was rejected because too many distinct levels were detected.	
Product	The category was rejected because too many distinct levels were detected.	
Product Brand		
Product Cost of Sale		
Product Line		
Product Make		
Product Material Cost		
Product Price (target)		
Product Quality		
Product Style	The category was rejected because too many distinct levels were detected.	
Sales Rep	The category was rejected because too many distinct levels were detected.	
Sales Rep Customer Base	The caregory was rejected a containing an armount of the care and a containing and a contai	
Sales Rep Customers		
Sales Rep ID		
Sales Rep Rating		
Unit	The category was rejected because too many distinct levels were detected.	
Unit Actual	The eategory was rejected accounted the many alleunier levels were detected.	
Unit Age		
Unit Capacity	The measure was converted to category because relatively few distinct levels were detected.	
Unit Discard Rate	The measure was converted to category secause relatively lew distinct levels were detected.	
Unit Discards		
Unit Lifespan	The measure was rejected because it is too strongly correlated with another measure.	
Unit Lifespan Limit	The measure was rejected because it is too strongly correlated with unother measure.  The measure was converted to category because relatively few distinct levels were detected.	
Unit Reliability	The measure was converted to category because relatively lew distinct levels were detected.	
Unit Status	The factor was rejected because it is a constant value.	
Unit Status Code	The factor was rejected because it is a constant value.	
Unit Target	The factor was rejected because it is a constant value.	
Unit Yield Rate		
xyCustomer Lat		
xyCustomer Lon	Coo attributos latitudo and/ar langitudo usara vais et al	
xyFacility City Lat	Geo attributes latitude and/or longitude were rejected.	
xyFacility City Lon	Geo attributes latitude and/or longitude were rejected.	
xyFacility Continent Lat	Geo attributes latitude and/or longitude were rejected.	
xyFacility Continent Lon	Geo attributes latitude and/or longitude were rejected.	
xyFacility Country Lat	Geo attributes latitude and/or longitude were rejected.	
xyFacility Country Lon		
xyFacility Lat	Geo attributes latitude and/or longitude were rejected.	
xyFacility Lon	Geo attributes latitude and/or longitude were rejected.	
xyFacility Region Lat	Geo attributes latitude and/or longitude were rejected.	
xyFacility Region Lon	Geo attributes latitude and/or longitude were rejected.	

Factor	Importance
Product Cost of Sale	1.0000
Product Make	0.9081
Product Price (target)	0.8926
Product Material Cost	0.8310
Product Line	0.4359
	0.4359
Unit Capacity	
Unit Target	0.3700
Unit Actual	0.2808
Product Brand	0.2303
Unit Yield Rate	0.1501
Unit Reliability	0.1047
Product Quality	0.0866
Unit Discards	0.0745
Unit Discard Rate	0.0724
Unit Lifespan Limit	0.0406
Facility	0.0360
Facility City	0.0360
Facility Region	0.0356
Unit Age	0.0354
Facility Age	0.0200
xyCustomer Lat	0.0157
xyCustomer Lon	0.0139
Facility Country	0.0120
Sales Rep Rating	0.0109
xyFacility Country Lon	0.0106
Customer Satisfaction	0.0098
Sales Rep Customers	0.0097
Sales Rep Customer Base	0.0094
Facility Continent	0.0082
Facility Efficiency	0.0068
Sales Rep ID	0.0063
Customer Distance	0.0025
Customer	0.0000
Facility Employees	0.0000
Order	0.0000
Product	0.0000
Product Style	0.0000
Sales Rep	0.0000
Unit	0.0000
Unit Lifespan	0.0000
Unit Status	0.0000
Unit Status Code	0.0000
xyFacility City Lat	0.0000
xyFacility City Lon	0.0000
xyFacility Continent Lat	0.0000
xyFacility Continent Lon	0.0000
xyFacility Country Lat	0.0000
xyFacility Lat	0.0000
xyFacility Lon	0.0000
xyFacility Region Lat	0.0000
xyFacility Region Lon	0.0000

<ol> <li>Select response for Automated Explanation.</li> </ol>	A report author selected Customer Satisfaction as the response.	×
2. Screen factors.	Automated Explanation modified or removed 22 of 51 factors. See the Screening Results tab for details.	

Automated explanation - Customer Satisfaction 1 Supplement 1

Automated Explanation used a one-level decision tree for each factor to determine its relative 3. Determine most related factors. importance to Customer Satisfaction. For example, the input Facility has a relative importance of 0.4 which means it is 0.4 times as important as Sales Rep Rating.

Automated Explanation ran 9 decision trees with response Customer Satisfaction. The trees used

4. Find groups based on selected related factor. Sales Rep Rating and another important factor as predictors. The trees had 6 levels and 2

branches. Each group describes a leaf from one of these trees.

Automated explanation - Customer Satisfaction 1 Supplement 3	
Factor	Importance⊭
Sales Rep Rating	1.0000
Facility	0.4000
Facility City	0.4000
Facility Region	0.3453
Sales Rep Customers	0.2380
Sales Rep Customer Base	0.2188
Facility Country	0.1631
xyFacility Country Lon	0.1602
xyCustomer Lon	0.1558
xyCustomer Lat	0.1293
Facility Efficiency	0.1198
Facility Age	0.0961
Unit Lifespan Limit	0.0786
Sales Rep ID	0.0672
Customer Distance	0.0422
Unit Reliability	0.0272
Unit Age	0.0265
Product Sale	0.0224
Product Quality	0.0215
Product Cost of Sale	0.0213
Unit Yield Rate	0.0203
	0.0177
Unit Target	
Unit Discard Rate	0.0172
Unit Discards	0.0169
Unit Actual	0.0153
Product Make	0.0068
Product Price (target)	0.0067
Product Line	0.0064
Product Brand	0.0063
Unit Capacity	0.0055
Product Material Cost	0.0046
Facility Continent	0.0010
Customer	0.0000
Facility Employees	0.0000
Order	0.0000
Product	0.0000
Product Style	0.0000
Sales Rep	0.0000
Unit	0.0000
Unit Lifespan	0.0000
Unit Status	0.0000
Unit Status Code	0.0000
xyFacility City Lat	0.0000
xyFacility City Lon	0.0000
xyFacility Continent Lat	0.0000
xyFacility Continent Lon	0.0000
xyFacility Country Lat	0.0000
xyFacility Lat	0.0000
xyFacility Lon	0.0000
xyFacility Region Lat	0.0000
xyFacility Region Lon	0.0000