

Brad Hill – Senior Technical Sales Consultant



# Data Analysis

*Analysing data with IBM SPSS Statistics*



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## Analytics



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### Customer information

UserID	Title	Position	Department	MixCode	OrgName	OrgActiveFlag	CurrentUser	AccountType	AccountCategory
1									
2									
3	3 Ms	Research Associate	company3			Inactive	Inactive	Commercial	Customer
4	4	Vice President Retail Financial Serv	US0775802	company4		Active	Active	Commercial	Customer
5	5	Tropical Medicine & School Public Health	company5			Active	Active	Academic	Customer
6	6 Ms	Sales Manager	04090000	company6		Active	Active	Commercial	Customer
7	7 Ms	Executive Assistant	company7			Inactive	Active	Commercial	Customer
8	8 Ms	Sen. Business Analyst	US090000	company8		Active	Active	Commercial	Customer
9	9 Ms	Statistical Analyst	Statistics Branch Preeps	company9		Active	Active	Public Sector/Government	Customer
10	10 Ms	Statistical Analyst	Statistics Branch U	company9		Active	Active	Public Sector/Government	Customer
11	11 Ms	Statistical Analyst	Statistics Branch D008	company9		Active	Active	Public Sector/Government	Customer
12	12 Ms	Statistical Analyst	Statistics Branch A050405C	company9		Active	Active	Public Sector/Government	Customer
13									
14	14 Ms	Knowledge Manager Deployment Services	company13			Inactive	Inactive	Commercial	Customer
15	15 Ms	Manager Retail Retail Strategy	D6597	company14		Active	Active	Public Sector/Government	Customer
16	16 Ms	Manager Retail Retail Strategy	U	company15		Active	Active	Public Sector/Government	Customer
17	17	SOC Analyst	Security Operations Centre	company16		Active	Active	Commercial	Customer
18	18 Ms	ADTT Consultant	Quality Lab	company17		Inactive	Active	Academic	Customer
19	19 Ms	ADTT Consultant	Quality Lab	AU0702000	company18	Active	Active	Academic	Customer
20	20	Programmer		company19		Active	Inactive	Commercial	Customer
21	21	Lecturer		company20		Active	Active	Academic	Customer
22	22	COMPUTER SUPPORT		company21		Active	Active	Commercial	Customer
23	23	Business Manager	Golden Oaks N0410000	company22		Active	Inactive	Commercial	Customer
24	24 Dr	Principal Project Off Energy Analysis	AU0507000	company23		Active	Inactive	Public Sector/Government	Customer
25	25	Principal Project Off Energy Analysis	AU0507000	company24		Active	Inactive	Public Sector/Government	Customer
26	26	Principal Project Off Energy Analysis	U	company25		Active	Inactive	Public Sector/Government	Customer
27	27	50 Ms		company26		Inactive	Inactive	Academic	Customer
28	28	51 Mr	Director	AU0601000	company27	Active	Active	Commercial	Prospect
29	29	52 Ms		company28		Inactive	Inactive	Commercial	Customer
30	30	53 Mr	Manager Participation Development	company29		Active	Inactive	Public Sector/Government	Customer
31	31	54 Mr		company30		Inactive	Inactive	Commercial	Customer
32	32	55 Mr	Level B	company31		Active	Inactive	Public Sector/Government	Customer
33	33	56 Mr		company32		Inactive	Inactive	Commercial	Customer
34	34	57 Dr	Data Analyst	AU0710000	company33	Active	Active	Commercial	Customer
35	35	58 Mrs	Quality Coordinator	company34		Active	Active	Health	Customer
36	36	59 Dr	Health Unit	U	company35	Active	Active	Commercial	Customer
37	37	60 Dr	Health Unit	D6596	company36	Active	Active	Commercial	Customer
38	38	61 Ms	Health Unit	company37		Active	Inactive	Commercial	Customer
39	39	62 Mr	Adolescent Medicine	company38		Active	Inactive	Commercial	Customer
40	40	63 Mr	D0008	company39		Active	Active	Commercial	Customer
41	41	64 Mr	Senior Project Mana Office of Info	C-04030500	company40	Active	Active	Public Sector/Government	Prospect
42	42	65 Mr		company41		Inactive	Inactive	Commercial	Customer
43	43	66 Mr		company42		Active	Active	Commercial	Customer

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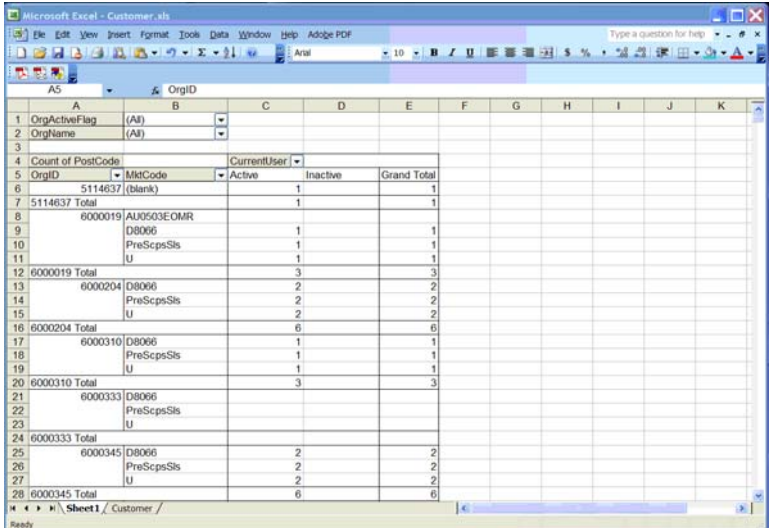
### Transactional data

Date	ID	ProductLine	Amount	ProductNumber
29-Oct-2001	9,374	500	178	506
01-Jan-2004	28,234	500	155	596
01-Jan-2004	7,235	500	174	581
01-Jan-2004	33,478	500	219	561
01-Jan-2004	28,571	500	171	560
01-Jan-2004	7,720	500	171	560
01-Jan-2004	7,308	500	155	559
01-Jan-2004	15,163	500	215	559
01-Jan-2004	14,024	500	207	556
01-Jan-2004	1,197	500	202	551
01-Jan-2004	12,176	500	161	540
01-Jan-2004	28,559	500	198	533
01-Jan-2004	3,954	500	194	533
01-Jan-2004	36,775	500	183	521
01-Jan-2004	29,287	500	151	514
01-Jan-2004	383	500	152	508
01-Jan-2004	31,764	500	195	505
01-Jan-2004	35,997	400	105	491
01-Jan-2004	1,011	400	120	485
01-Jan-2004	37,989	400	122	476
01-Jan-2004	37,937	400	133	476
01-Jan-2004	25,679	400	130	475
01-Jan-2004	30,856	400	131	472
01-Jan-2004	17,359	400	126	470
01-Jan-2004	31,909	400	141	441
01-Jan-2004	35,822	400	148	436
01-Jan-2004	22,416	400	146	433

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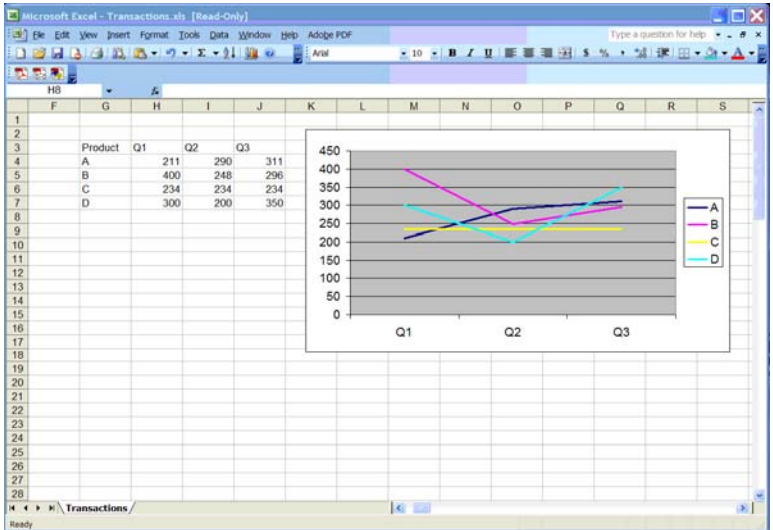


### Reporting



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### Charting



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Surveys

### Human Capital Management

How long does it take you to commute to work currently?

More than 90 min  
  60-90 min  
  30-60 min  
  Less than 30 min

Do you think your place of employment is an enjoyable place to work?

Yes  
  No

Please tell us how satisfied or dissatisfied you are with the following aspects of your job.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
I find my job challenging.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy with my current position.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have all the resources I need to do my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Previous
Next

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Research

ANOVA

Total DVD assessment

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1294.481	5	258.896	6.993	.000
Within Groups	2295.532	62	37.025		
Total	3590.013	67			

Means Plots

Age group	Mean of Total DVD assessment
Under 25	28.8
25-34	31.8
35-44	37.2
45-54	39.2
55-64	28.5
65 and over	28.0

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The screenshot displays a survey interface titled "Human Capital Management" with questions about employee contribution and job satisfaction. It also shows a "Means Plots" chart with a line graph showing investment trends across age groups and a summary table of statistics.

Statistic	Mean	Std. Dev.	N	Min.	Max.
Total DDP investment	12.500	1.500	100	10.000	15.000
Age group	35.000	10.000	100	20.000	50.000

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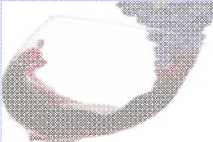
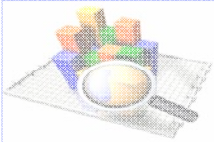

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The icons represent the core processes of Business Analytics: Data access (hand pointing to data), Manipulation & preparation (hand pouring data into a funnel), Analysis (magnifying glass over data blocks), and Automation (robotic assembly line).


- Data access
- Manipulation & preparation
- Analysis
- Automation


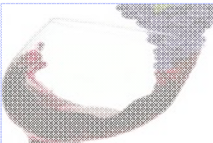
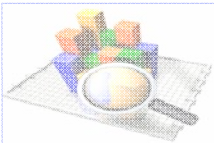

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Data access	Manipulation & preparation	Analysis	Automation

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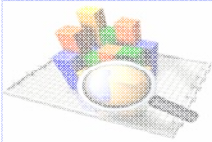

			
Data access	Manipulation & preparation	Analysis	Automation

- Variety of sources
- Data view
- Variable view


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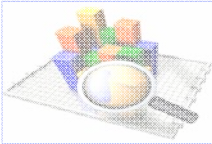



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 Data access	 Manipulation & preparation	 Analysis	 Automation
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 Data access	 Manipulation & preparation	 Analysis	 Automation
<ul style="list-style-type: none"><li>• Variety of sources</li><li>• Data view</li><li>• Variable view</li></ul>	<ul style="list-style-type: none"><li>• Clean data</li><li>• Merge data</li><li>• Compute new fields</li><li>• Restructure the data</li><li>• Sort cases</li><li>• Select subsets</li></ul>		

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Data access

Manipulation & preparation

Analysis

Automation

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### Decision Tree

Opened New Account

Node 0		
Category	%	n
No	50.5	2520
Yes	49.5	2474
<b>Total</b>	<b>100.0</b>	<b>5000</b>

Term Savings Account  
Improvement=0.084

No Yes

Node 1		
Category	%	n
No	42.0	1703
Yes	58.0	2474
<b>Total</b>	<b>85.3</b>	<b>4267</b>

Node 2		
Category	%	n
No	100.0	733
Yes	0.0	0
<b>Total</b>	<b>14.7</b>	<b>733</b>

Age of Client (Years)  
Improvement=0.023

<= 65.5 > 65.5

Node 3		
Category	%	n
No	39.0	1500
Yes	61.0	2250
<b>Total</b>	<b>77.0</b>	<b>3850</b>

Node 4		
Category	%	n
No	70.3	293
Yes	29.7	124
<b>Total</b>	<b>8.3</b>	<b>417</b>

Gender of customer  
Improvement=0.001

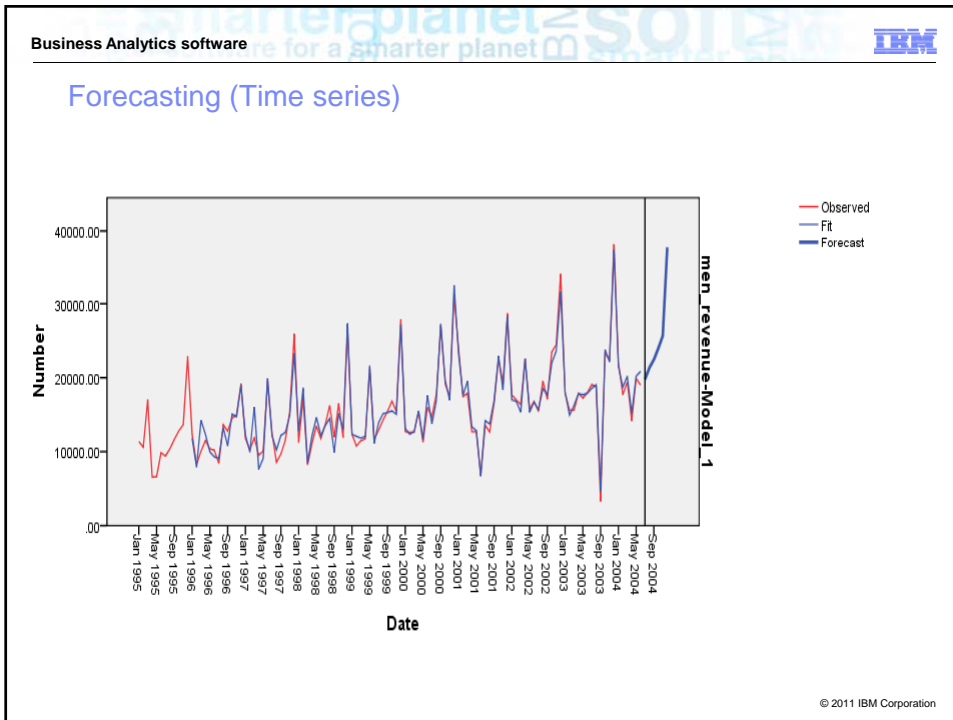
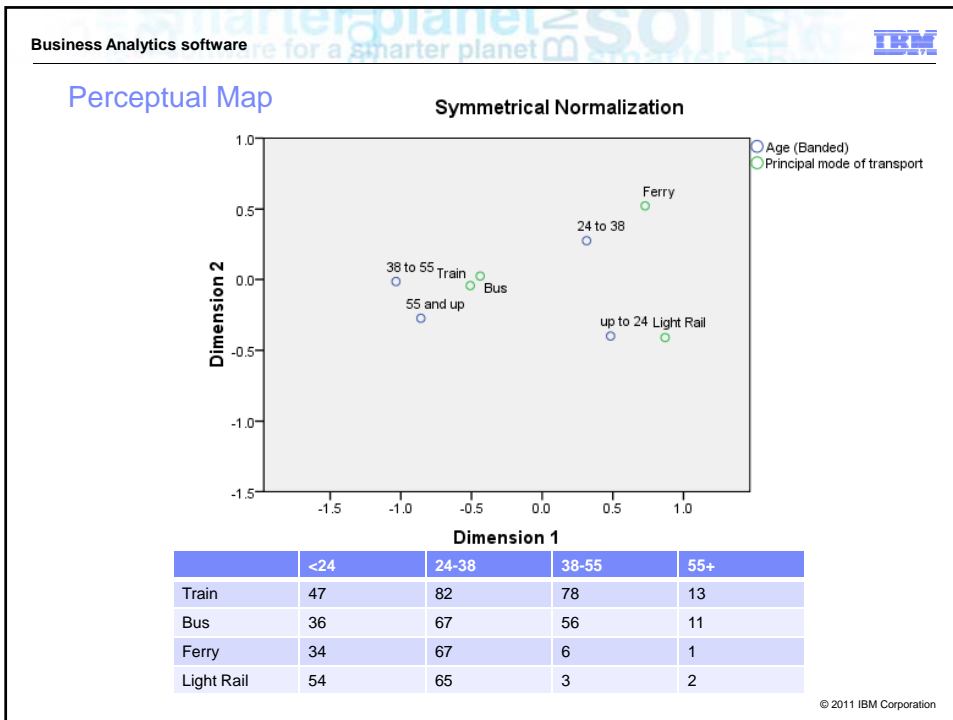
Male Female

Node 7		
Category	%	n
No	63.4	111
Yes	36.6	64
<b>Total</b>	<b>3.5</b>	<b>175</b>


Node 8		
Category	%	n
No	75.2	182
Yes	24.8	60
<b>Total</b>	<b>4.8</b>	<b>242</b>


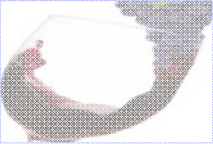


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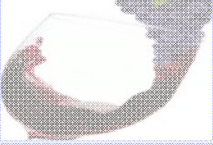
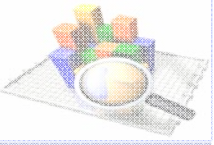



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 <b>Data access</b> <ul style="list-style-type: none"><li>• Variety of sources</li><li>• Data view</li><li>• Variable view</li></ul>	 <b>Manipulation &amp; preparation</b> <ul style="list-style-type: none"><li>• Clean data</li><li>• Merge data</li><li>• Compute new fields</li><li>• Restructure the data</li><li>• Sort cases</li><li>• Select subsets</li></ul>	 <b>Analysis</b> <ul style="list-style-type: none"><li>• Range of capabilities</li><li>• Modular application</li><li>• Extendable</li><li>• Bundles available</li></ul>	 <b>Automation</b>
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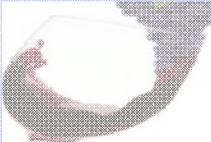
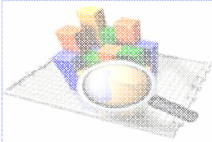

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 <b>Data access</b>	 <b>Manipulation &amp; preparation</b>	 <b>Analysis</b>	 <b>Automation</b>
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<b>Data access</b>	<b>Manipulation &amp; preparation</b>	<b>Analysis</b>	<b>Automation</b>
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Seminar feedback

**WIN** an Apple iPad2!!  
Just complete the online survey  
via email link after the event.



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