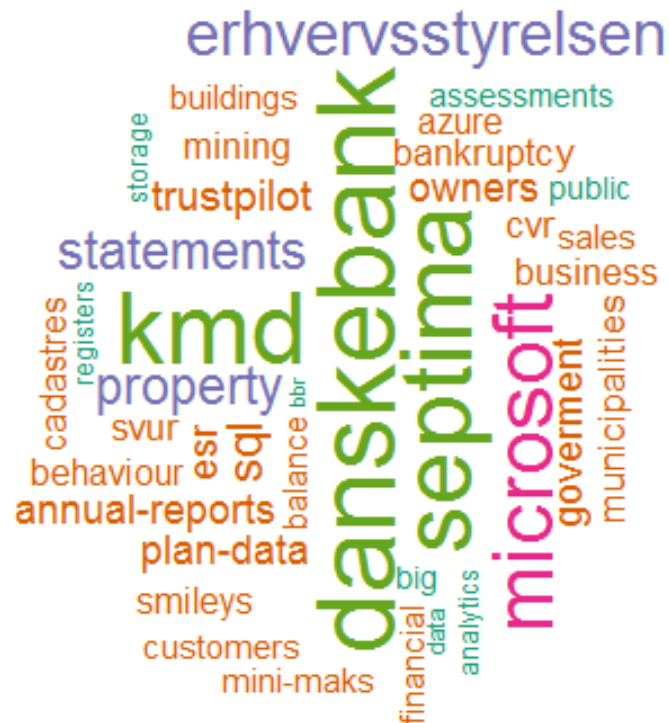


BUSINESS ANALYTICS CHALLENGE 2017

DATA



OVERVIEW

INTRODUCTION

FINANCIAL DATA

- BEHAVIOURAL DATA (DANSKE BANK)
- ANNUAL REPORTS

OPEN DATA

- REGISTER DATA
- LAND REGISTRATION

EXTERNAL DATA

- ATTRACTIONS (SEPTIMA)
- SMILEY
- TRUSTPILOT

CONNECTING DATA

General Information

- Online sessions
- Why “big” data?
- Connecting data

Financial data

- Behavioural data
- Financial data (simulated)
- Annual reports

Public data

- Registers
- Smiley
- Registration of property

External data

- Attractions
- Trustpilot

Top 10 Trends For Digital Transformation In 2017



7. Big data and analytics: The importance of big data in the business world can't be overstated. We know that there's a dizzying amount of valuable data in the world, but few companies are using it to maximum effect. Analytics drive business by showing how your customers think, what they want, and how the market views your brand. In the age of Digital Transformation, almost everything can be measured. In the coming year this will be a cornerstone of how businesses operate. Every important decision can and should be supported by the application of data and analytics.

According to **McKinsey Global Institute** data driven companies are:

- 23 times more likely to acquire customers.
- 6 times as likely to retain those customers.
- 19 times as likely to be profitable as a result.

More data has been created in the past two years than in the entire previous history of the human race. – Bernard Marr

Less than 0.5% of all data is ever analysed and used.– Bernard Marr

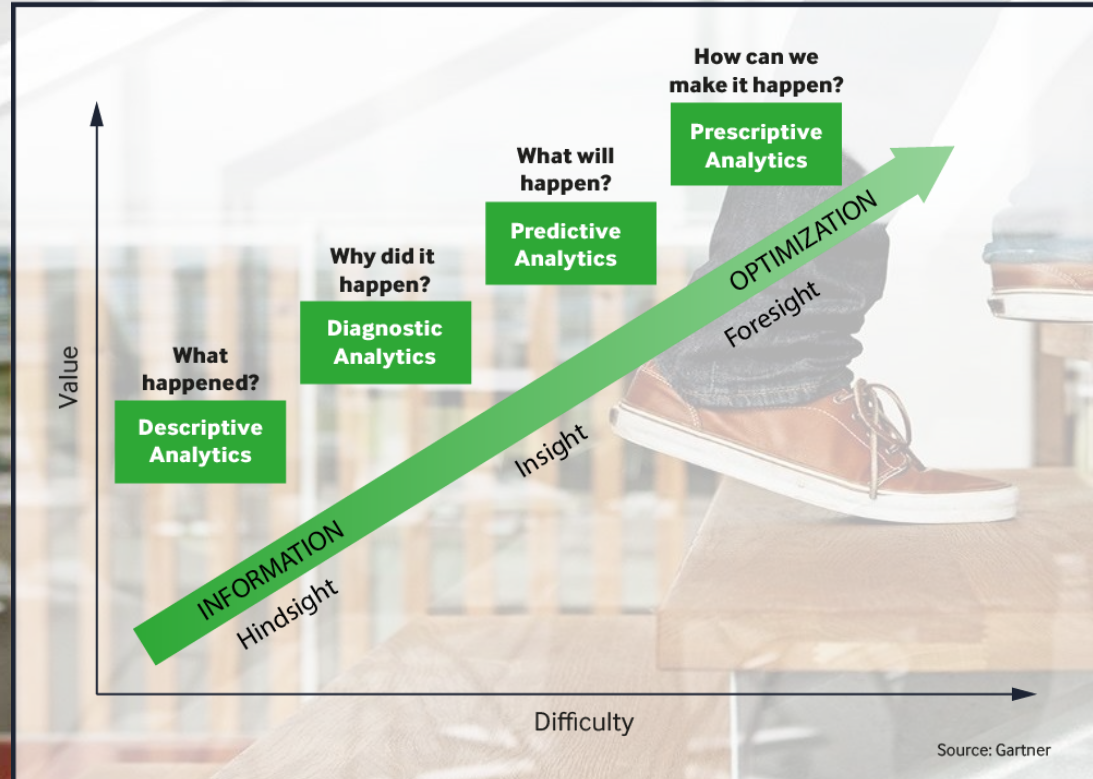
ADDING VALUE TO DATA



Danske Bank



Analytic Value Escalator



DANSKE BANK DATA DESCRIBES THE FINANCIALS AND THE CREDIT WORTHINESS OF THE CUSTOMER



Customer information

- Anonymised customer id
- Industry
- Flag for default
- Tenure
- Ownership percent



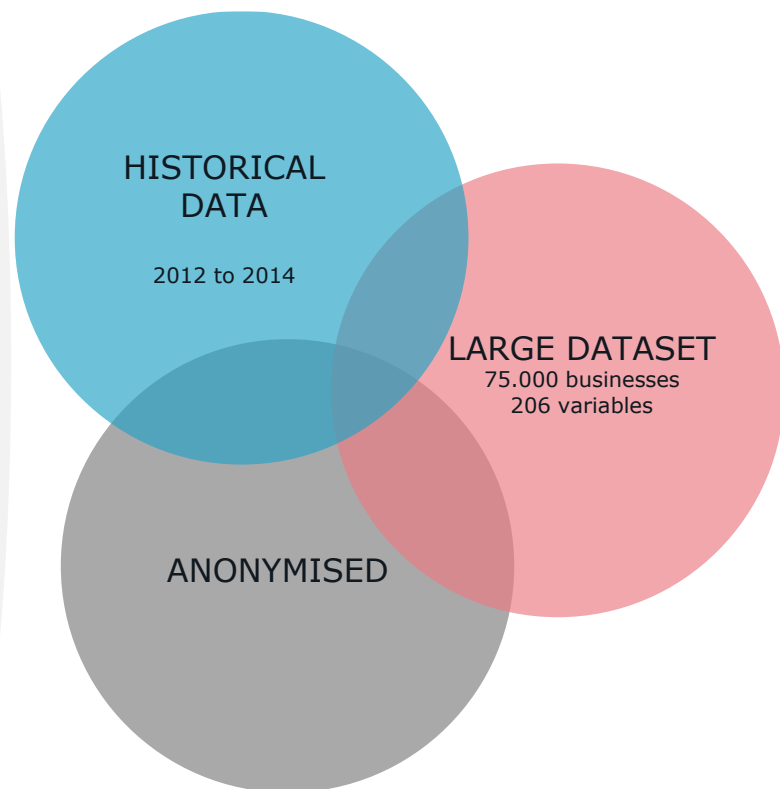
Credit Behaviour

- Overdraft and reminder information
- Balances
- Satisfaction scores
- Credit rating



Financials

- Simulated based on yearly statements
- Key Balance sheet figures
- Profit and loss figures



Data cleansing

- Behavior data not cleaned
- Use business logic on financial data e.g. negative assets
- Missing values & outliers

Feature engineering & Modelling

- Test and train dataset
- Consider how YOUR model can predict better than the others

Business interpretation

- Interpret variables and relate them to business understanding
- Google can help!



KMD A/S ANNUAL REPORT 2015

Årsrapport
KMD A/S
Lautrupparken 40, 2750 Ballerup,
CVR no. 26 91 17 45
For 1. januar - 31. december 2015
er fremlagt og godkendt på selskabs-

Ballerup
CVR no. 26 91 17 45
14th financial year



Uddrag af årsrapport 2016

Danske Bank-koncernen

Microsoft Danmark ApS

Kanalvej 7, 2800 Kgs. Lyngby

CVR no. 13 61 28 70

Financial highlights

DKK'000	2016/16	2014/15	2013/14	2012/13	2011/12
Key figures					
Revenue	1,092,883	1,031,235	940,205	962,692	871,336
Operating profit	198,873	179,565	154,728	166,783	138,187
Net financials	29,110	805	463	346	7,406
Profit/loss for the year	183,329	138,399	117,150	124,829	111,110
Total assets					
Investment in property, plant and equipment	25,016	7,381	3,299	6,427	1,618
Equity	666,701	621,372	599,973	606,823	593,094
Financial ratios					
Operating margin	18.2%	17.4%	16.5%	17.3%	15.9%
Solvency ratio	60.1%	57.6%	59.4%	59.4%	64.6%
Return on equity	28.5%	22.7%	19.4%	20.8%	20.7%
Average number of employees					
	452	446	442	419	412

CVR
(Central Business Register)

BBR
(Building and housing register)

ESR
(property ownership)

Plan data
(Municipal plans)

MiniMaks
(Cadaster register)

SVUR
(property assessments)

Registration of property
(included but not documented)

Smiley

Other data sources:

Kulturstyrelsen, Adresser, Geodata (GST), Miljøportalen, GeoDanmark, GEUS, Offentligt Trafik, Jordklassificering, Socialstyrelsen, Momsomsætning, Danmarks statistik, UdINaturen, Motorregistret, Energimærkning, Stoffer i kemiske materialer, Vindkraftanlæg, Folketingets åbne data, Mastedatabasen, Nøgletal Social og Indenrigsministeriet, Open data København, Open data Aarhus, Open data Odense, Husdyrbrugregister, Advokatnævnet, Pengeinstitutankenævnet, Arbejdsmarkedet, Sundhedsstyrelsen Læger, Domstolene, Politiet, Statstidende, Realkreditrådet, Sundhedsregistrer, Sundhedsregister, Lægemedler, Arbejdstilsynet, Tilsynsliste læger, Sundhedsprofildata, Ankestyrelsen, Undervisning, Facilitetsdatabase, Eleftersynsrapporter.



Completed in 2015

Building area: 19061 m²

Number of floors: 6

Basement area: 12010 m²

Geo coordinates

Easting: 720060,40

Northing: 6186391,71

Estimated cost:
29,768,000 DKr

Number of toilets: 0

MiniMaks

- _Cadester register
- _forest protection
- _protection of dunes
- _pollution

Plan data

- _Register of municipal plans

CVR

- _all businesses in Denmark.
- _See next slide.

CVR EXAMPLE



Danske Bank



[Front](#) > [Search CVR](#) > [Results](#) > Search CVR

[Dansk](#) | [English](#)

KMD A/S

Kurv

CVR number 26911745
Address Lautrupparken 40
Postal code and city 2750 Ballerup
Start date 03.12.2002
Company type Aktieselskab
Advertising protection No
Status Normal
[All entities on the address](#)

Print
 Save
 Save contact details

Select view

Expanded business information



Management, auditor, ownership and power to bind



Financial statements



Production units



Registration history



Historical basic data



Number of employees



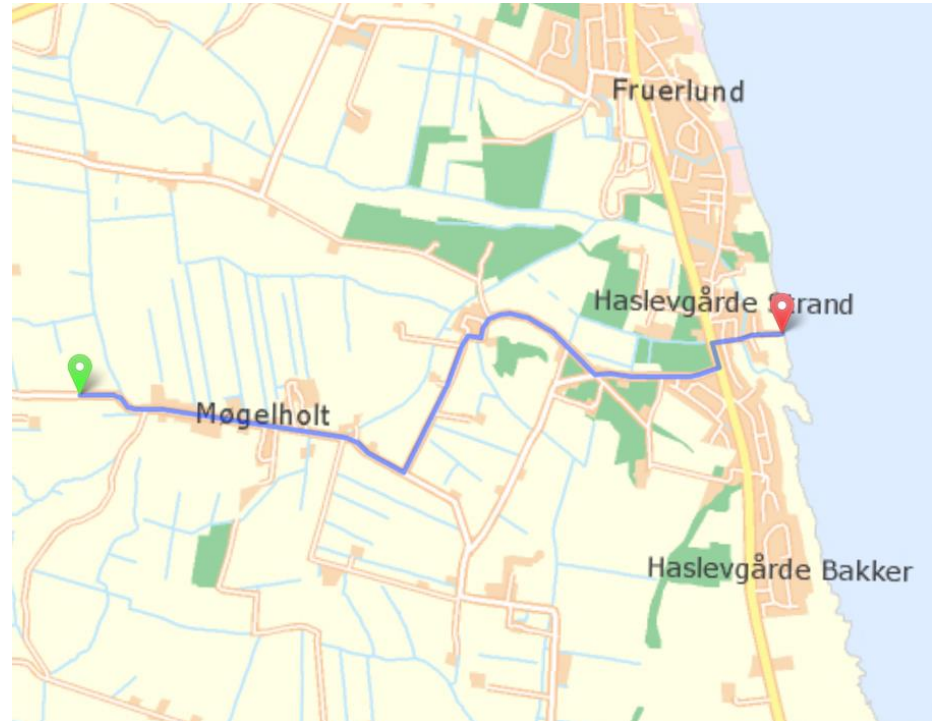
Data enrichment on all 800.000 production units (P-units)
in the Central Business Register (CVR)

Distance - direct straight line to:

- | | | |
|-------------------------|---------------|----------------|
| ■ Bus/Metro/Train stops | ■ Tiny lake | ■ Small forest |
| ■ Windmill | ■ Small lake | ■ Large forest |
| | ■ Medium lake | ■ Coast |
| | ■ Large lake | |

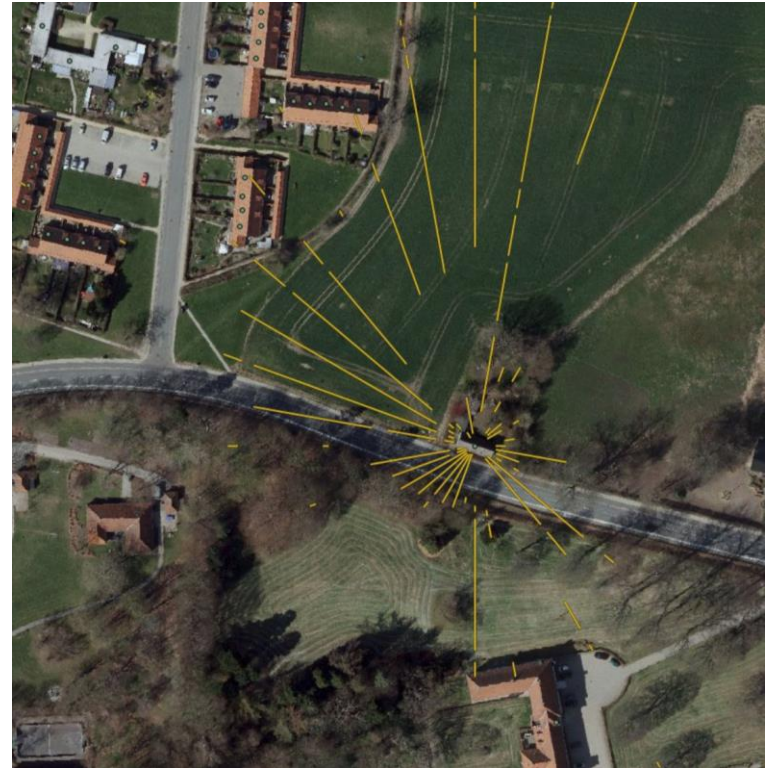
ATTRACTIONS

- Driving time in car to the coast line
- Driving distance in car to the coast line




Quality of view indicator

Quantification of view from all
business addresses (production units)




Contains control reports of companies selling or handling food.

Smileys are given according to compliance of regulations.



Fodevarestyrelsen

Kontrolrapport



Virksomhed/iser Food Services, KMD

Kontore _____

Adresse: Luthvæj 2 _____

Postnr/Bx: 2750 Ballerup _____

CVR nr: 44139612 _____

Kontrolleret	Resultat
Hygijene: Håndtering af fødevarer	1
Rengøring	1
Vedligeholdelse	1
Virksomhedens egenkontrol	1
Offentliggørelse af kontrolrapport	1
Udvalgte i hygiejne	
Mærkning og information	1
Gæstebøger m.v.	1
Særlige mærkningsordninger	
Varetemperatur	
Tilværgelsesplaner m.v.	
Særlige foranstaltninger	
Erstatninger m.v.	
Andet	

Alle ikke regulerede kontrolleret hver gang

Resultat	Betydning
1	Ingen anmærkninger
2	Indskærpskræft
3	Flådet eller forbedret
4	Kontroltag, udførelse af kontrol, dokumentation eller registrering fulgtes

Gældende resultat (baseret på den seneste 4 rapporter og de seneste 12 mdr.)

Elev Ingen anmærkninger på de seneste 4 rapporter og de seneste 12 mdr.

Denne kontrol, dato: **08-06-2015**

Tidligere kontrol

Dato: **13-08-2013**

Dato: **04-03-2013**

Dato: **03-02-2012**

Tilværgendes bemærkninger side 1

Hygijene: Håndtering af fødevarer: Følgende er kontrolleret uden anmærkninger: Faciliteter i hygiejnisk håndvask, Temperatur i køleskab.

Hygijene: Rengøring: Kontrolleret rengøring af følgende lokaler: Køkken med opvask og buffetområde. Ingen anmærkninger.

Hygijene: Vedligeholdelse: Kontrolleret vedligehold af følgende lokaler: Køkken med opvask og buffetområde. Ingen anmærkninger.

Virksomhedens har fremsendt termometer.

Virksomhedens egenkontrol: Følgende er kontrolleret uden anmærkninger: Virksomhedens risiko-analyse, herunder HACCP plan. Samt set dokumentation for modtagelse og opbevaring.

Offentliggørelse af kontrolrapport: Opslagning af kontrolrapport kontrolleret. Ingen anmærkninger.

Mærkning og information: Der er kontrolleret for sporbarhed på varer fra anden virksomhed.

Gæstebøger m.v.: Kontrolret virksomhedens varudevalg. Ingen anmærkninger.

Kontroltype og -aktivitet

☒ Officielt kontrol ☐ Kontrolbegrænsning

☐ Ekstern kontrol

☐ Andet kontrol

Fodevarestyrelsen

Telefonnumre: 21 22 22 22 (Ballerup)
21 22 22 22 22 (Ballerup)

1 side

Kontroltype og -aktivitet

Handwritten signature

Side 1 af 1

Public assessments of companies.

[Kategorier](#) | [Log ind](#) | [Tilmeld dig](#)

[For virksomheder](#)



Anmeldelser af Danske Bank

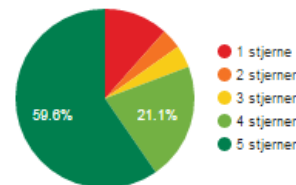
God **8.8** fra 0 - 10



Bedøm virksomhed

4.568 anmeldelser på Trustpilot

Beder om anmeldelser



Torben

2 anmeldelser



Offentliggjort 26 timer siden

Bekræftet ordre

Alletiders bank

Havde en god oplevelse



CONNECTING DATA



Danske Bank

