A group of business professionals in a meeting. One person is pointing at a tablet displaying a data visualization with two overlapping circles. Another person is holding a smartphone, and a third is holding a coffee cup. The background is a blurred office setting.

Chapter 6: Enhancing Business Intelligence Using Information Systems

Assoc Prof. Dr. M. Said Hasibuan



- **Business Intelligence**

Describe the concept of business intelligence and how databases serve as a foundation for gaining business intelligence.



- **Business Intelligence Components**
- Explain the three components of business intelligence: information and knowledge discovery, business analytics, and information visualization.

Business Intelligence

BI



Collection



Reporting

Data
Engineering



Storage



Analysis

BI
Tools

Social Media

- Social media has not only become an important source of up-to-date information for businesses, but it is also emerging as a valuable resource for police and other first responders.
- Social media users have demonstrated that information about crises can travel at a rate that rivals 911 services. Indeed, analyzing public information is not unusual in the world of intelligence gathering either.

Grup

Cari grup

- Information Access Center 2018
Terakhir aktif 11 tahun yang lalu
- Lihat Selengkapnya

Grup yang Anda bergabung di dalamnya [Lihat semua](#)

- Lexus RX Indonesia
Terakhir aktif 2 hari yang lalu
- info cegatan jogja
Terakhir aktif 2 jam yang lalu
- Reviewer 2 Must Be Stopped!
Terakhir aktif sekitar satu jam yang lalu
- PhD and Postdoc Positions | Official
Terakhir aktif 9 menit lalu
- NGAJI BARENG GUS BAHU'
Terakhir aktif 10 jam yang lalu
- INFORMASI BANDAR LAMPUNG
Terakhir aktif 2 menit lalu
- TOYOTA HARRIER CLUB
Terakhir aktif 35 menit lalu
- Nissan Terrano Community (NTC)

Fauzisetia
9 jam · 🌐

Hati"yg lewat jln colombo banyak lubang, kl hujan isi air kadang ada yg jatuh, lokasi sbml pertigaan colombo/gejayan



Info Cegatan

Tentang

Harap membaca dan memahami aturan grup sebelum membuat postingan.

Segala hal yang tidak diperbolehkan menurut standar komunitas Facebook juga t... [Lihat selengkapnya](#)

Publik
Siapa pun bisa melihat siapa saja anggota grup ini dan apa yang mereka posting.

Dapat dilihat
Siapa saja yang bisa menemukan grup ini.

Yogyakarta

Media terbaru

Mobil-Motor Wajib Asuransi, Dibayar Bareng Perpanjangan STNK
Rangga Rahadlansyah · detikOto



Why Organizations Need Business Intelligence

- To realize the goals of their strategic plans, organizations must have up-to-date, accurate, and integrated information to monitor and fine-tune a broad range of business processes.
- Consequently, information systems that provide business intelligence—by collecting and analyzing data and delivering needed information to the right decision maker at the right time—facilitate the effective management of modern organizations



2019
every
MINUTE
of  *the*
DAY

PRESENTED BY DOMO

1,000,000
VIDEOS

TUMBLR

— USERS PUBLISH

92,340

POSTS

4,500,000
VIDEOS

TWITTER

— USERS SEND

511,200

TWEETS

390,030

APPS ARE DOWNLOADED

188,000,000

EMAILS ARE SENT

18,100,000

TEXTS ARE SENT

SKYPE

— USERS MAKE

231,840

CALLS

GOOGLE

INSTAGRAM

HOTEL DATA MAP

Booking data sources:

- Internal: hotel website, CRS, PMS
- External: GDSs, OTAs, booking and metasearch engines

Main data points:

- Basic guest info
- Stay histories
- Room rates and revenues
- KPIs

Procurement data source:

- eProcurement system

Main data points:

- Vendor info
- Catalogs of items procured
- Priced paid

Housekeeping data sources:

- PMS
- Housekeeping software

Main data points:

- Cleaning times
- Staff KPIs
- Scores for cleanliness

Public reputation data sources:

- Review platforms
- Social media
- Hotel website

Main data points:

- Guest feedback
- Hotel ratings

Guest data sources:

- PMS, CRM

Main data points:

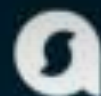
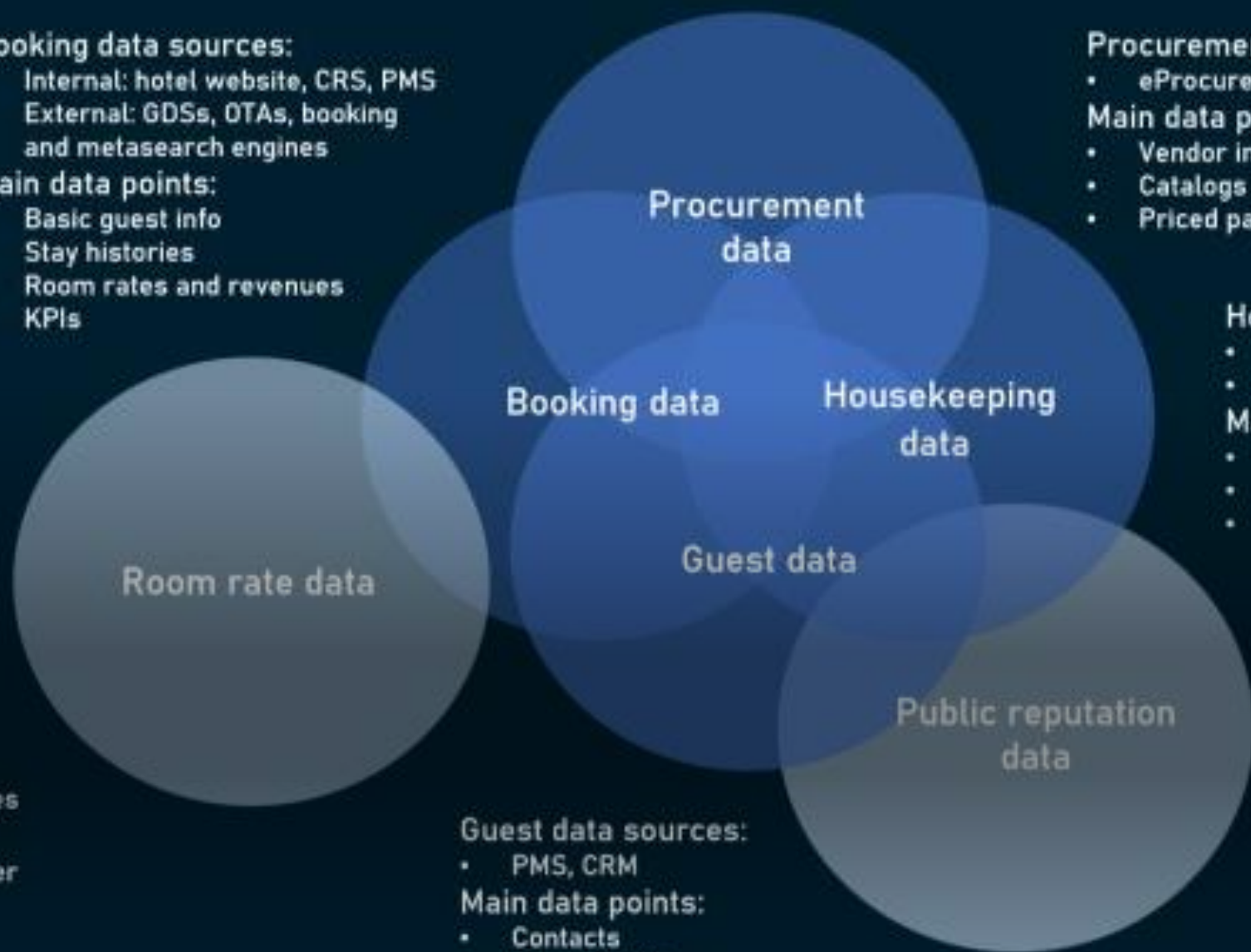
- Contacts
- Demographics
- Preferences
- Revenue

Room rate data sources:

- GDSs
- OTAs
- Booking engines
- Metasearch engines

Main data points:

- Room rates of other hotels



Velocity

Speed at which data is emanating and changes are occurring between the diverse data sets

Velocity



Volume

This refers to the sheer volume of data being generated every second.

Volume



Variety



Variety

Can use structured as well as unstructured data.

5V'S OF BIG DATA

Value



Value

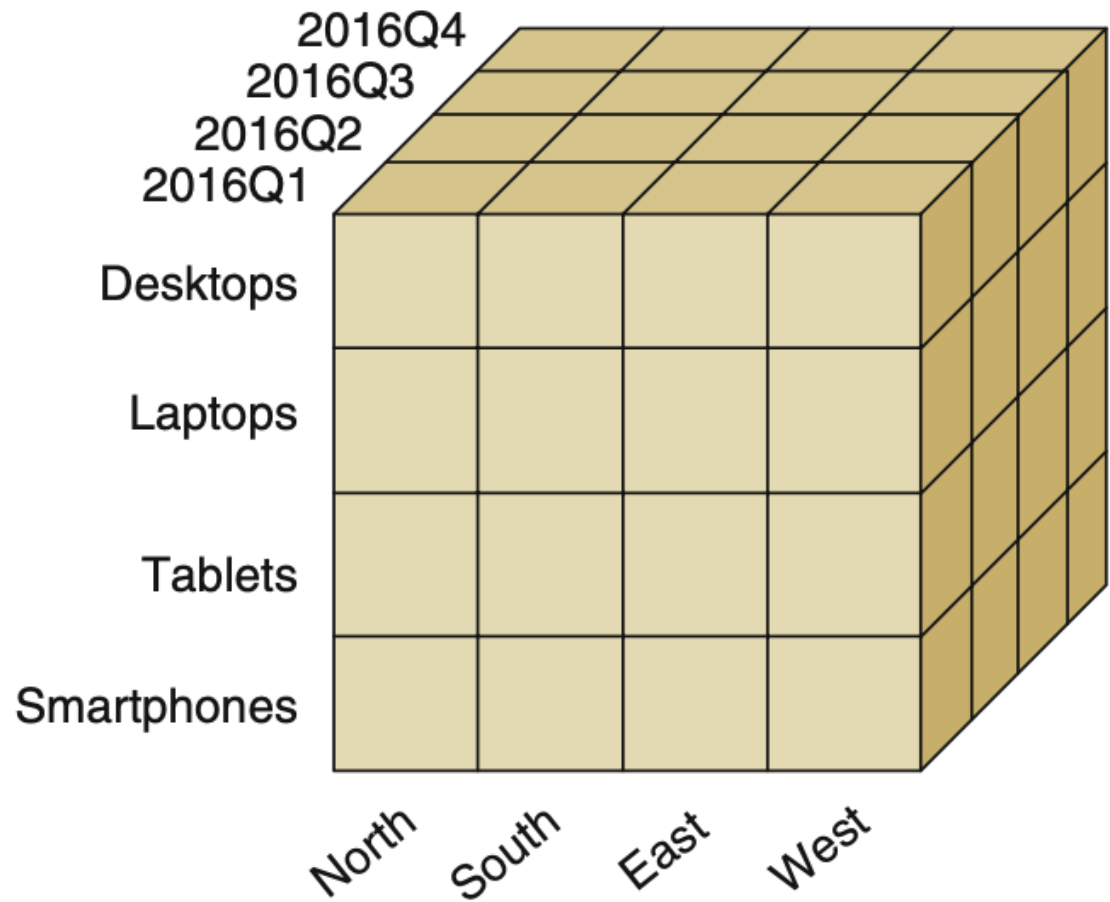
Having access to big data is all well and good but that's only useful if we can turn it into a value.

Veracity

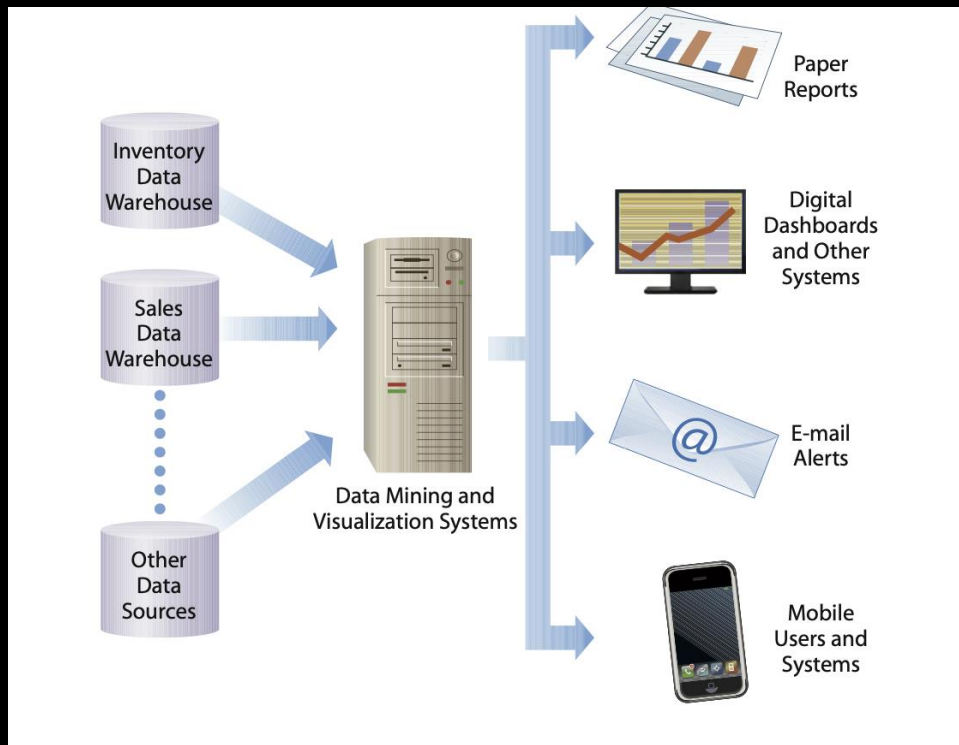


Veracity

Data reliability and trust.
Verifying and validating the data



- Cubes, Slicing, and Dicing To enable such multidimensional analyses, OLAP arranges the data in so-called cubes. An OLAP cube is a data structure allowing for multiple dimensions to be added to a traditional two-dimensional table (Figure 6.10).
- Although the figure only shows three dimensions, data can be analyzed in more than three dimensions. Analyzing the data on subsets of the dimensions is referred to as slicing and dicing



Data mining results can be delivered to users in a variety of ways

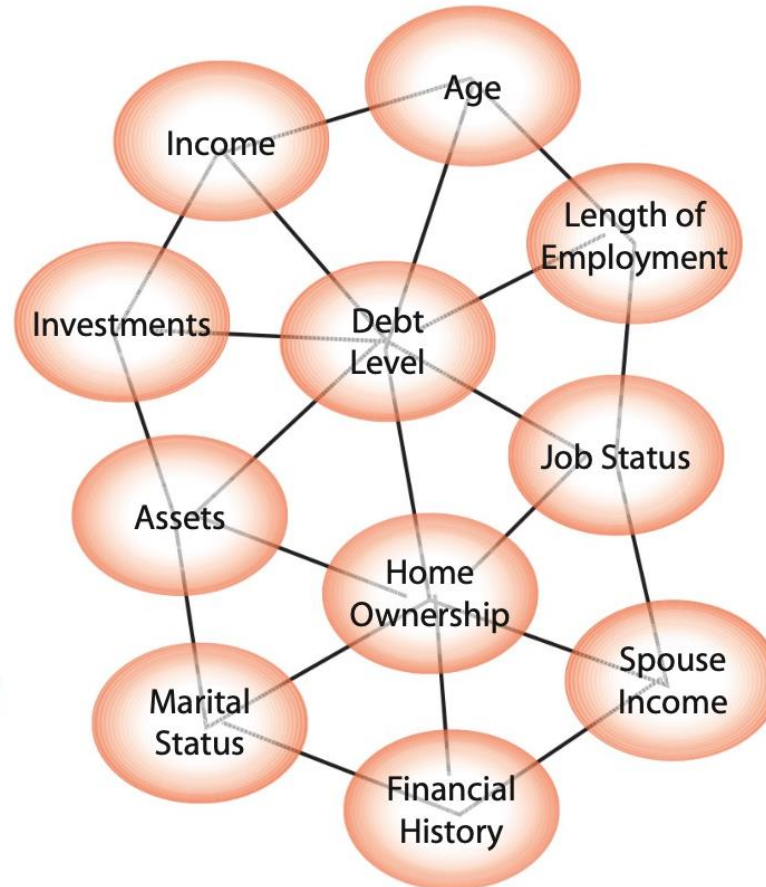
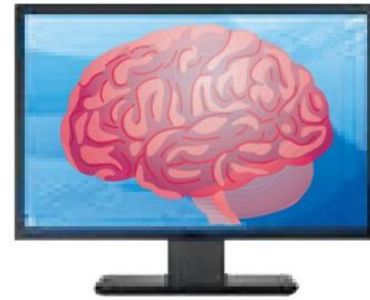
Neural Network System

Input

Age
Income
Debt Level
Financial
History
Job Status
Length of
Employment
Home Ownership
Assets
Investments
Marital Status
Spouse Income
Dependents
Health
...



Process



Output

Recommendation

- Approve Loan
- Reject Loan



terima kasih

A white, torn paper-like border runs along the bottom edge of the image, starting from the left and curving upwards towards the right. The texture of the border is irregular and fibrous, resembling a piece of paper that has been torn.