

## Tableau assignment: Spend analysis and data visualization

Part of the *Generic Skills programme 2016* | *Honours in Logistics Management*

Type of assignment: Individual and Group

### Completion Dates:

Individual (quiz)	–	SUNLearn: 15 May 2016 @ 23h59
Group ([a] Tableau packaged Workbook and [b] Small report)	–	SUNLearn: 25 May 2016 @ 23h59
Group (Presentation)	–	25 May 2016 @ 14h00 in Schumann 207A

### 1. Background

You have two industry sample data sets of a manufacturing company's spend data for 2012 and 2013 (The currency is in US Dollars). The data typical represents transactional records that companies keep in their ERP system repositories based on invoices received and payments made to e.g. their suppliers (vendors). Some of the typical fields of data is indicated in Table 1.

Table 1: Typical fields of data stored per transaction in ERP systems (e.g. An invoice paid to a vendor for a specific order)

Invoice Date	Line Item Quantity	Category	Vendor Postal Code	Vendor Name
InvoiceID	Unit Price	Item	Vendor Country/Region	LocationID
ItemID	Invoice LOC Amount	Commodity Detail	VendorID	Discount Days
CurrencyID	Commodity	Vendor City	Total Spend	Discount Percent
Line Item	Sub Category	Vendor State	Tier	Payment Terms Days

### 2. What is this assignment about?

This assignment relates to spend analysis data visualization by using Tableau software. Spend by category is a fundamental initial step in spend analysis and provides an overview to strategic sourcing teams in companies. Examining top categories also reveals whether the categorization structure is too wide or too narrow. Examining spend by supplier also reveals the degree of spend fragmentation by category, as well as potential opportunities for improving negotiation strength.

### 3. What you need to do?

You will answer some individual questions (via a quiz in SUNLearn) and work on a group assignment for data visualization.

#### 3.1. Individually

An individual assignment with the purpose of evaluating your skill and insight gained in exploring the data sets provided by using Tableau software.

### 3.2. As a group

You should collaborate as a group and create a set of dashboards, story points and an underlying summary report in the process of analysing the manufacturing company's spend on goods and services for a specific commodity category (also taking at the various vendors involved). Table 2 indicates what commodity category each team should focus on.

Table 2: Commodity categories each team will focus on

Team name	Commodity category
LM-1	Fabrication
LM-2	Metals
LM-3	Sales & Marketing
LM-4	Manufactured Components
LM-5	Outsourced
LM-6	Maintenance & Repair
LM-7	IT
LM-8	Molds
LM-9	Logistics

You should typically explore the following areas:

- How the commodity relates to the spend categories, sub-categories, commodity detail, and item level description?
- Who the top vendors are?
- Are there any demand cycles, trends or seasonality in the item usage?
- Which vendors gives the highest discount on what and when?

### 3.3. To be handed in as a group (Uploaded in SUNLearn)

Your data visualisation with Tableau should ultimately be submitted as a **single packaged workbook** (Tableau file name format to identify team: "Team LM-X.twbx"). You can hide your individual contributing sheets, but your dashboards and "story points" must be clearly visible in the packaged workbook that you will ultimately use for the presentation session.

A **one-page summary document** of maximum 500 words (body text) should also be submitted per group. This summary must be well-structured and consist of at least three cohesive paragraphs that highlight the following related to your data visualization with Tableau (vizzes):

- How were you able to make sense of the large volume of transactional data?
- What were your reasoning for using the type of graphs for your vizzes?
- How did you use the dashboards and "story points" to effectively communicate and answer the questions at hand?

### 4. Resources

You will find a number of resources at your disposal in SUNLearn under:

*Research Assignment – 773 module*

*>>> Tableau desktop – introduction, software, usage, etc.*

*>>> Resources.*

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