Assignment 1

Unit 3

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UTC Reading

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# P1

## Types of Information

There are two types of information: Qualitative and Quantitative.

### Qualitative

Qualitative data is data that describes feelings, opinions etc. It cannot contain numbers or yes/no questions but question such as “How do you feel about…”

### Quantitative

Quantitative data is data that is *pure* data. It is thing such as name, mobile number etc. Not all data that is numerical is quantitative. Questions such as “out of 10, rate…” would be qualitative as they are surveying opinions.

## Sources of Information

Information sources can split up into two sections: Primary and Secondary.

### Primary

Primary information is information that was sourced directly by you (person or company). This information is usually very expensive but can be very specific to what you need from it. This type of information is often called “tailor-made data” as it is so specific to the need. This is usually sourced with: surveys/questionnaires, CCTV, logs, observations etc.

### Secondary

Secondary information is information that was sourced. This means that you didn’t collect the information yourself but you used information someone else collected. This type of information is usually cheaper but less specific to the case you need it for. It can be found from: the internet, television, articles etc.

## Purpose of Information

Information is used for many things in the work place. Some examples are:

### Operational Support – EPOS

This is where information is collected from the business’s operations and changes are made from that. Due to the fact that this information is so specialised this data has to be primary. One example of using EPOS is a supermarket. If the supermarket starts to get quite busy then there is more of a need for people on the checkouts to prevent queues, so more people will be put on checkouts.

### Analysis

Analysis is where you collect data over a period of time to spot patterns and trends. This is closely linked to Big Data. If a supermarket starts to spot that the supermarket is getting busier and busier then they know they will need to employ more staff. They can also spot the busiest parts of the day/week to bring more staff in at those times. Analysis is all about trying to pre-empt things so that they are not as big of a deal when they come

### Decision Making

Using data for decision making is very similar to that of analysis. The differences between them is that decision making uses information about event not closely related to your company whereas analysis uses information directly linked to the company. This means that you can use secondary data for decision making. An example of decision making is National Grid finds out that the most popular time to watch TV is at 8:30 pm. This means that National Grid knows to supply more electricity to households at this time to deal with the excessive need.

### Gaining Advantages

Gaining advantage is again, very closely linked to decision making. The main difference here is that the information found has potential for advantage rather than disadvantage. In decision making it is needed to find information and act upon it so that your company doesn’t get effected by it (National Grid having a power outage for not supplying enough power). In gaining advantages the company wants to seek profit from these events. An example of this is Sainsbury’s finding that the most popular time of year to watch a movie is during summer, they could directly advertise popcorn that they make the most money on during the summer, so that people will buy it and it will make Sainsbury’s lots of money.

## Business functional areas

Businesses create information. They can be made internal or externally. Here is a list of common departments that make information and what type of information it is.

|  |  |
| --- | --- |
| Department | Type of Information Produced |
| Administration | Some organizations store any data with administration for security purposes(archives) or for general recall of information. |
| Finance | Information about cash flow, income, payroll, assets, taxes etc. |
| Manufacturing | Information about resources used and time-scale information such as throughput, resource lead time etc. |
| Marketing | Customers' information such as ID, age, name, D.O.B. etc. |
| HR. | Organizations employees, work flow, wage, grade, skill etc. |

Here is a list of external sources information and type of information available from each source.

|  |  |
| --- | --- |
| External Source | Type of Information Produced |
| Commercially available databases | Companies that monitor the markets will often have databases about the markets that are open to the public and business’s. Available information is dependant on what the market is. One example of this is 'Which?'. They provide advice to the public on the best products within certain markets. To do this they gather lots of information about the market. For a vacuum cleaner they might find the best selling vacuums on the market. They would then find people who bought them and ask some questions. They would also review the product themselves. At the end of this they would publish their opinions and also raw data about their findings (interview notes, market data, features about each product they liked and disliked etc.) A company such as Hoover could then read these reports and act upon them accordingly. |
| Government | Most governments require information about companies in the area. This could be for uses from tax calculation through to what area of the economy needs a boost. This information will then be processed by the government and then used for whatever purposes it is required. After this point it is common that the government publishes its findings and the data received. This is, however, usually very specialised so not to be of any infringements of data protection acts. This means it is often not very useful for other business’s |
| Researchers | It is quite common that a company outsources some of its work to other companies that are more specialised in the area. This is not untrue of information gathering. There are many business's that offer research. They will use highly trained workers that know exactly where to look and how to uncover obscure pieces of data. This saves other companies lots of time but it often comes at a high cost. |

# M1

## Diagram

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## Explanation

The worker will be someone who will be directly interfacing with the user, the product, system etc. When the user finds something that he is unsure how to fix with his own knowledge he will call his line manager over and tell him the problem. If the line manager doesn’t know what to do he will firstly check the archives for any solution that he can relay to his staff. This type of information will also be relayed to staff on training days.

If no solutions are found then the fault is taken forward more formally. The line manager will notify the technician with an email or letter (something that can be later archived). The technician (more skilled than the line manager) will give any advice he has to fix the error. If this is not successful then the technician will again check the archives. This is because he may have higher access rights to the archives to things that may not have been fully written up, he may be able to understand some of the information a bit better and because the the archives may have been updated since the line manager checked.

If the technician still cant find anything he will directly contact the head of cyber security. He will then find resolutions to the error which can be passed back down the line so that the problem is resolved. If the head of cyber security believes it to be past the abilities of the worker then he may either get the technician to complete the task or do it himself.

Once a correct solution has been found, this will then be written up into the archives in a manner that is easy to use for reference and explains all without need of personal contact to the head of security.

# P2

Below are some characteristics of “good information”.

### Validity

The data should be unbiased, representative of what it is trying to show and also verifiable with other sources.

### Reliability

The Source should be known and trustworthy. The information should fit in with other *facts* that you know.

### Timely

The information should be around when it is needed rather than after. If the information is old when using it, it may be less reliable.

### Accuracy

The information should contain the required accuracy (e.g. not rounded to the nearest 10% when you need to be very accurate)

# P3

# M1

# M2

# D2