

# Collection Methods

Unit R012 - Understanding tools, techniques, methods and processes for technological solutions

# Introduction

- There are many different methods that can be used to collect data and information. The method that is chosen will depend on:
  - **What data** and information is to be **collected**
  - **Where** the **data** and information is to be **collected**
  - **How** the collected data and information will be **stored** and processed.

# Introduction

- Some of the different methods that could be used to store data are:
  - **Questionnaires and Surveys**
    - Online / paper based
  - **Email**
  - **Sensors**
  - **Interviews**
  - **Consumer panels**
  - **Loyalty schemes**
  - **Statistical reports**
    - Government reports
  - **Secondary research methods**
    - Search engines



# Questionnaires and Surveys

- **Questionnaires/Surveys** are a set of **questions** designed to extract information from whoever is completing it.
- Questionnaires/Surveys can ask a range of question types like:
  - **Open** questions
  - **Closed** questions
  - **Rank order** questions
  - **Rating** questions



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# Questionnaires and Surveys

- **Questionnaires/Surveys** can be used to **collect statistical** data that can be processed to provide useful information.
- Paper based **questionnaires/surveys** need to have their **answers input** into a **computer** in order to be effectively processed and this can **produce errors**.
- **Online questionnaires/surveys** allow the data to be **automatically analysed** as it is input directly into the processing software and this is **less likely** to produce **errors**



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# Questionnaires and Surveys

Advantages	Disadvantages
Large numbers of people can be asked to fill in the same questionnaire/survey	If the questionnaire/survey is online, people need the technology to be able to complete it.
Comparisons are easy to formulate (E.g. 75% think this...)	A badly designed question may not get the required data in the right format
Cheaper than interviews for a large number of people	



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# Email

- **Information** can be **gathered** by **email** by sending an interactive form.
- The form can be **completed** and **returned** to the **sender** and in some cases **imported** directly into a **database/spreadsheet**.
- This **reduces** the potential for **human error**.



# Email

Advantages	Disadvantages
The same email can be sent to many people at the same time.	Emails may be diverted into Spam/Junk folders
The results from emails can be automatically input into software for analysis	If fields don't match then the data being collected may be worthless
Little risk of human error when the data collected is input into software	





# Sensors

- A **sensor** is device that **responds** to a **change** from the **environment** around it.
- Examples of inputs to sensors could be:
  - **Heat**
  - **Light**
  - **Motion**
  - **Pressure**
  - **PIR (Infra red)**



# Sensors

- Examples of **outputs** to sensors could be:
  - **Sounds/Alarms**
  - **Lights**
  - Human readable **displays**.
- Sensors can be **found** in **homes**, **cars** and in **human wearable technology** and can gather a range of data.



# Sensors

Advantages	Disadvantages
Once set up, no human interaction is needed as data can be sent electronically.	The position of sensors need to be carefully considered to gain accurate data.
The data collected is usually more accurate than if it was collected by a person	Sensors may stop working.



# Interviews

- **Interviews** are **conversations** between two or more **people** in which **questions** are **asked**.
- The questions should be **planned** in advance and the **answers** given will provide the information to be processed.
- The types of **question asked** will **depend** on the **data** that needs to be **collected** but the answers will need to be collated manually.



# Interviews

Advantages	Disadvantages
Questions can be modified based upon the answers that have been given.	Can be time consuming and costly to carry out.
A rapport can develop between interviewer and interviewee.	Poor interviewing can lead to misleading or insufficient data being gathered.
Additional questions can be asked to clarify key points	Not suitable for gathering data from large numbers of people.



# Consumer Panels

- **Consumer panels** are **groups** of **people** who are **asked** by a business to give their **opinions** about **products** or **services**.
- The panel will give their **feedback** by answering **questions**.
- If a product needs to be **tested**, the **business** will have to **provide** this to the panel in **advance**.



# Consumer Panels

- **Consumer panels** will be able to provide **feedback** about the **look** and **feel** of a **product** and how it can be **improved**.
- Feedback given will be **opinions** but if it is gathered from a **range** of people then the **feedback** will be **helpful**.



# Consumer Panels

Advantages	Disadvantages
The cost of consumer panel feedback can be low if online feedback methods are used.	If a product needs to be provided to the panel, there may be a delivery cost for this.
The feedback is specific to a product or service	Needs a range of people on the panel to avoid biased feedback.
Response rates are high as participants have agreed to take part.	The format of the feedback needs to match the processing that is to be carried out.





# Loyalty Schemes

- **Loyalty schemes** are **offered** by a **range** of **businesses** to their customers.
- In return for **belonging** to the **scheme**, customers will receive **points** for **money off** their next **purchase** or other rewards.
- Some retailers are then able to use this **information** gathered to find **sales patterns** and **trends** to help them **make** business **decisions**.



# Loyalty Schemes

- The process of adding points to a customers loyalty card would be:
  1. The **customer record** is **located** in the **database**.
  2. When **payment** has been **accepted**, the **cost** of **goods** bought is **converted** into **points**.
  3. The **new points** are **added** to the **current points total**.
  4. The **new points total** is **updated** in the customer **record**.



# Loyalty Schemes

Advantages	Disadvantages
A loyalty scheme can keep customers using the business.	Some customers may feel that the data collected is an invasion of privacy.
Data is collected every time a purchase is made so customer shopping habits can be collected.	



# Statistical Reports

- **Statistical reports** contain **analysed data** that have **already** been **collected** and is available on the Internet.
- The **validity** of the **websites** where these are found should always be **confirmed** so that the **data** can be **trusted**. For example:
  - gov.uk
  - streetcheck.co.uk
  - metoffice.gov.uk



# Statistical Reports

Advantages	Disadvantages
If trusted sources are used then these reports are reliable.	May not have been collected for the same purpose and may not provide clear data.
Some processing may already have been carried out.	Statistics need to be collected knowing how they are going to be analysed and stored.
Statistics can show trends and patterns that can help with decision making	Statistics show data from a sample of people rather than a true representation.



# Secondary Research Methods

- There are **two** different types of **research methods**:
  - **Primary** research
    - This is where the data is collected is fresh and done yourself for a specific purpose.
      - E.g. Questionnaires, sensors, interviews, loyalty schemes
  - **Secondary** research
    - This is where data has already been collected.
      - E.g. Statistical reports, loyalty schemes
- **Loyalty schemes** can be both **primary** and **secondary** because the **business** running the scheme will **collect** the data but a **manufacturer** of the product could also use the data to **target customers** based upon their purchase history.

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# Secondary Research Methods

Advantages	Disadvantages
The data has already been collected and possibly processed	The data may not be exactly what is required.
Data collection is quicker than having to collect the data yourself	It is sometimes not possible to tell if the data is real/genuine.

