For: ATHE Level 7 Diploma in Strategic Management
ATHE Level 7 Extended Diploma in Strategic Management

Unit 9 Quantitative Methods Assignment

Assignment Scenario

A friend of the family, Ali Lam, has recently gained the role of Chief Executive in a small organisation. The remit given to the organisation by the Board is to develop the business so that it is more financially secure and has a larger market share. It is evident that this requires clarity on the business's current position and the vision going forward so that the steps to achieving the goals are relevant, realistic, challenging but achievable. It is also clear that the thinking and decision-making needs to be informed by accurate data.

The Board has agreed to fund a part-time employee on a fixed term contract who has studied quantitative methods as part of their qualification. Ali Lam has asked you to undertake this role.

Task 1

Ali needs to understand the types of quantitative data that can be used by organisations to monitor and improve performance. He has asked you to produce a report which:

- Evaluates the different types of data which can be gathered by organisations to monitor and improve performance
- Distinguishes between alternative sampling methods and measurement scales

Learning outcomes and assessment criteria

LO1 AC 1.1, 1.2

Task 2

Ali wants to see analysis and evaluation of raw data so the Board can see how this works before it is applied to their own organisation.

You need to supply an example of raw business data that is analysed and evaluated to show how it can be used to inform business decision-making.

- Analyse raw business data from a range of examples using appropriate quantitative methods
- Apply a range of quantitative methods for business decision-making for quality, inventory and capacity management

Use this information to show Ali how it can support effective business decision-making by using your worked example. The data must illustrate decision-making on quality, inventory and capacity management.

Extension activities

To achieve a **Merit**, you must provide Ali with additional information which:

- Evaluates the differences in application between descriptive statistics, inferential statistics and measuring association
- Justifies the application of appropriate quantitative methods used by specific organisations

To achieve a **Distinction**, you must also provide information which recommends business decisions based on the application of quantitative methods.

Learning outcomes and assessment criteria

LO2 AC 2.1, 2M1
LO3 AC 3.1, 3M1, 3D1

Task 3

Ali Lam has asked for advice on the presentation of data in reports so that in future they can request data to be presented in particular ways. Produce a report which:

- Explains different ways of summarising and presenting a set of business statistics
- Constructs appropriate tables and charts with a commentary, using summary data

Extension activities

To achieve a **Merit,** you must also justify the rationale for choosing the methods for communicating the data.

To achieve a **Distinction,** you must also evaluate the use of different types of charts and tables for communicating given variables to inform decision-making.

Learning outcomes and assessment criteria

LO4 AC 4.1, 4.2, 4M1, 4D1

Note: When citing sources of information that you have used, provide a reference using an appropriate format, e.g., Harvard.

Guidelines for assessors

The assignments submitted by learners must achieve the learning outcomes and meet the standards specified by the assessment criteria for the unit. To achieve a merit or distinction grade, the learners must demonstrate that they have achieved all the criteria set for these grades. Where work for the pass standard is marginal, assessors can take account of any extension work completed by the learners. The suggested evidence listed below is how learners can demonstrate that they have met the required standards. The command verbs contained within the AC are highlighted in bold in the suggested evidence boxes.

Task number	LOs and AC	Suggested evidence PASS	Suggested additional evidence MERIT	Suggested additional evidence DISTINCTION
1.	**LO1** AC 1.1, 1.2	The report must be appropriately written for the identified person. **AC1.1** The **evaluation** must be balanced and relate to qualitative and quantitative data. It should examine strengths and weaknesses and/or similarities and differences of different approaches. **AC1.2** The learner must **distinguish** between alternative sampling methods and measurement scales. The information on sampling needs to be clear and cover a range of sampling methods in detail.		
2	**LO2** AC 2.1 2M1 **LO3** AC 3.1 3M1, 3D1	The learner needs to provide sufficient quantitative and qualitative raw business data from a range of examples which facilitates analysis and evaluation.	**2M1** The **evaluation** must be balanced, identifying the strengths and weaknesses in application between the methods listed ie descriptive statistics, inferential statistics and measuring association. The learner	**3D1** The learner needs to consider the data and the results of the application of the quantitative methods. The learner must come to some conclusions and make **recommendations** to support rational business decisions.

		AC2.1 The **analysis** must be accurate and detailed and use appropriate quantitative and qualitative methods. AC3.1 The learner must **apply** a range of quantitative methods to support business decision-making in quality, inventory and capacity management. This work should examine trends and the variability of business processes. The learner must explore various types of distribution and the calculations must be accurate with appropriate graphical representations.	should refer to worked examples to illustrate the points made. **3M1** The learner must identify named organisations and the quantitative methods used. The **justification** must give a comprehensive explanation of the reasons for application of these methods. In addition, the learner must produce a balanced evaluation of the strengths and weaknesses of the different approaches.	
3	**LO4** AC 4.1, 4.2 4M1, 4D1	AC4.1 The learner must **explain** in detail the different ways of summarising and presenting a set of business statistics. The learner should use examples to illustrate the points which are made. AC4.2 The charts and tables **constructed** must be appropriately presented with a detailed commentary explaining the information provided. The learner may utilise data already produced for earlier tasks.	**4M1** The learner must give a comprehensive explanation and **justification** of the choice of communication methods.	**4D1** The learner must **evaluate** the use of different types of charts and tables for communicating variables to inform decision-making. The learner needs to make valid conclusions and judgements.