Good example of essay on statistics

Business, Marketing

Definition of statistics

Statistics can be defined as the science involved in the study of data. It entails collection (acquisition), organization and analysis of data which allows for drawing of conclusions. It also allows for measuring, controlling and communication of uncertainty (Witte & Witte, 2010).

Types and level of statistics

There are two types of statistics, namely: descriptive and inferential statistics. Descriptive statistics quantitatively describes features of a set of data represented numerically. It involves summary of the population data numerically or pictorially/graphically thereby deriving measures of central tendency, measures of dispersion, relationship and correlation and measures of Skewness and kurtosis (Witte & Witte, 2010). Inferential statistics entails studying a statistical sample and from it infer population parameters and model relationships within the data. Such statistics allow for estimation of population values based on sample data, developing mathematical relationships and hypothesis testing.

Role of statistics in business decision making

Statistics plays a big role in determination of product design, when to produce, for whom to produce and the quantity to produce, statistical analysis is inevitable. Analysis of the market statistically is necessary for the success of the business. It helps ascertain what can be sold and best strategy for marketing (Witte & Witte, 2010). It also helps in assessing purchasing power and consumer behavior. In accounting, particularly auditing, sampling is employed. Similarly, statistical analysis is necessary in

order for financial organizations to meet their objectives. For effective control by management, businesses use both statistical and accounting data to budget. These budget items include material, labor, other costs, sales and capital requirement. Investors need statistical analysis to evaluate which securities are safe and have prospects of yielding income. Banking industry also employs statistics in analyzing general economic situation and in specific industries in which they have interests thereby influencing their decision making (Witte & Witte, 2010).

Problem situations that require use of statistics

Estimation of demand for a new product requires effective market research which employs statistical analysis. Before undertaking an improvement of a service or product a business has to do a research so as to establish consumer needs. Similarly, statistical analysis is necessary in the prediction of stock prices so as to reduce the risks involved in the stock. Establishing consumers' purchasing power would require proper market research and analysis using statistical parameters.

References

Witte, R. S., & Witte, J. S. (2010). Statistics (Ninth ed.). Hoboken, NJ: J. Wiley & Sons.