

Probability and statistics critical thinking examples

[Business](#), [Management](#)



Article Critique

The paper focuses on critiquing the quantitative statistics in Davis and Heart (2008) article "electronic wastes: The local government perspective in Queensland, Australia". The study is a non experimental research. It aims at establishing the level of understanding and identifies actions undertaken to deal with electronic wastes by the Queensland local counties. In addition, it also aims at identifying areas of improvements in the management practices of e-wastes. The study is an explorative research which gathers information on the knowledge gap in the counties and identifies areas of future improvement in management practices of electronic wastes management. The problem of the research is well articulated in the article with increased use of internet, computers and small electronic components as main sources of electronic wastes. Evidence of increased e-wastes wastes has been presented to support the research problem. In this case, the Griffith's initiative in 2006 collected 785 e-wastes with a totaling to 4.9 tonnes. In addition, the article shows reference to prior study by the BBC in 2006 which indicated that e-waste was constituted by 1.61%, 1.26% and 2.87% for domestics, commercial, and industrial wastes. The problem is worsened by lack of national regulation to guide management of e-waste, and very few councils offer e-waste collection services. The research problem is well expounded and with substantial evidence to support the study.

The objectives of the research are stated in the article. They included identifying barriers to the collection and processing of e-waste, identifying best current practice, and formulating local and government perspective for legislation and funding of development projects on the same. These

objectives are attainable, realistic, and measurable. In addition, they span the aim of the research.

The research is designed to use a survey method for gathering information. The survey is an exploratory and descriptive. In this case, it aims at describing the various perspectives for dealing with e-wastes. The survey included 25 questions that are presented in table 2, in the article. They include open ended, tick box, and five point Likert scales. The questions were related to general recycling, e-waste, factors influencing recycling, fiancé and regulation of e-waste, perceived barriers to e-waste collection, and perceived impacts on the environment resulting from e-wastes. The questions for the research were reviewed, and edited to ensure that the survey questions are reliable. Moreover, abbreviations in the questionnaire were explained; thus, increasing reliability. The tick box survey questions included a space for additional commends. This increased the validity of the survey.

The target population for the survey composed of waste management officers, or recycling plants staff within the Queensland local counties. This is a representation of those who implement waste management policies and can provide the required information; therefore, the choice of the survey population was appropriate. The sampling process involves grouping the councils into six categories; these included major city, city, inner region, outer region, remote, and very remote, and with frequencies of 6, 4, 8, 5, 5, and 2 respectively. However, the sampling technique used to select the 30 councils out of the 170 active councils has not been disclosed in the article. The survey questionnaire was hosted in the Griffith's e-waste website to

facilitate filling in downloadable print form and online. In addition, facilitate delivery of results to a designated email address.

The results were analyzed from a centralized point as the survey responses were not assigned to any individual council. Results were received for 29 out of 127 potential councils. In addition, the response rate of the survey was 22.8% representing 74% of the Queensland population. The size of the population represented is sufficient to make a generalization with certainty. The data for the questions were analyzed as a percentage of the total responses, except for questions 12, 17-20, 21, 22, and 23. In addition, the analysis was done per question. The presentation for this data was in percentages. In this regard, the presentation of data as percentages was not adequate for easy comparison. Alternative methods of presentation such as pie charts and compound bar graph should have been used for easy comparison of the responses. On the other hand, the questions 21, 22, and 23 were analyzed using analyzed using percentages and presented using cumulative bar graphs for comparison. Although a cumulative bar chart was used in the presentation of this data, it was not suited for the comparison. Compound bar graph could have been used to compare the responses. In addition, question 12 and 17-20 were analyzed using chi-square, cross tabulations, and contingency test. However, there is no evidence provided for such analysis. The results of this analysis ought to be represented in the study. Questions 22 and 23 were analyzed for ANOVA and significance within the groups represented in table 6, in the article. In addition, descriptive statistics were also used for this questions as represented in table 5, in the article, and with a confidence interval of 95% indicated.

The survey findings show that there exist a variety of essential knowledge gaps across the councils within Queensland, Australia. In addition, there is a remarkably high support for inaction of laws to govern the e-waste management. This are justified by the realization that there is little data exist related to composition of waste, existence of few facilities for processing or recycling wastes, and presentation of diverse perspectives in proposing laws to govern the e-waste management.

References

Davis, G. & Heart, S. (2008). Electronic waste: The local government perspective in Queensland, Australia. *Resources, Conservation and Management*, 52, 1031-1039.