Comparative Analysis: Classical exploratory methods vs Generative AI in extracting value from user reviews

Anaya Kumar[1], Anuragini Shirish[2], Jean Moscarola[3]

[1]Université Paris-Saclay – anaya.kumar@imt-bs.eu

[2]Université Paris-Saclay – anuragini.shirish@imt-bs.eu

[3]Université Savoie Mont Blanc – jmoscarola@lesphinx.eu

Abstract

Organizations often gather user feedback and reviews through surveys, yet the analysis of such 'Big Data' is curbed by human capacity limits, especially for extracting insights from unstructured data. Traditional exploratory textual data analysis (TDA) involves a two-step process: a statistical classification to reveal lexical structures and a subjective interpretation of these clusters, which relies heavily on the analyst's skills, which could constrain the quality of insights. The advent of generative AI tools like ChatGPT promises to overcome these limitations by providing broader connections and meaningful interpretations. This paper investigates the potential of ChatGPT in exploratory TDA through a case study analyzing 1636 user reviews of digital workplace platforms from a reputable source. By comparing the outcomes of human analysis and ChatGPT's interpretation using the Dataviv by Sphinx TDA tool, The study illustrates the complementary nature of TDA and generative AI, suggesting ChatGPT's utility in broadening researchers' inquiry scopes without replacing the rich, nuanced interpretations necessary for converting unstructured data into insightful research findings. This juxtaposition underscores the distinct advantages and insights each method brings to qualitative research.

Keywords: qualitative analysis, exploratory textual data analysis, generative AI, ChatGPT.