

Understanding the impact of online firm and user-generated content on sales –

An unstructured data analytics approach

Abstract

The Indian auto industry involves significant digital engagement from both firms and consumers. A study by Google Kantar TNS in 2020 reported that 90 percent of car purchases in India are digitally driven and the number of visits to brick-and-mortar stores prior to car purchase have dropped. Extensive online user-generated content is available in terms of product reviews. Automobile firms are continuing to increase their online presence by posting advertisements and other informational content on the online video-sharing platform YouTube. Given this, the thesis investigated the role of user-generated and firm-generated digital content in the automobile sector.

The research involved three studies. The first two studies examined the relationship between online reviews, online information search, and product sales. The third study focused on the impact of YouTube videos posted by firms on their official YouTube channels. Multiple sources of data have been integrated for the research. The final analysis included data on car sales, volume of online search, product reviews from popular online fora, online video features as well as data from Indian government websites to control for consumer sentiment and fuel price.

The first study assessed the association of six review features with car sales and the role of online information search on that association. The study found that the association of review volume with sales was fully mediated by online search and the association of review valence with sales was partially mediated.

The second study investigated the effects of the discussion topics, as well as uncertainty and trust reflected in the product reviews. It was found that during the period of analysis, the effects of the discussion topics are different for search and sales. It was observed that while trust had a positive association with both sales and search, the rating dispersion was negatively associated with online search.

The last study was related to YouTube videos posted by two car firms. It examined the low-level features related to the video's presentation, and the high-level features measuring the viewer perceptions of the story being told in the online videos. The study found that while the visual features gave the best prediction for one firm, inclusion of the textual features provided the best prediction for the other.

The three studies identified that user-generated and firm-generated content significantly correlated with the purchase and purchase intention in the Indian car market. In terms of managerial implications, the research highlighted the need for car firms to actively track online digital content and make it a part of their knowledge management systems. The theoretical contribution of the research included a

contribution to the mediation literature, and assessment of the role of uncertainty and trust reflected in product reviews. Lastly, the study also contributed to video and audio analytics, a fledgling area of research in information systems of YouTube videos, released by car firms.