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Predictive analytics for decision making: Human computer interaction perspective from online purchasing

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The internet-based technologies have influenced all parts of human lives within a short time. The internet is used for conducting commercial transactions electronically and it is the base of the concept called e-commerce. Most of the businesses have engaged in utilizing the Internet to sell their product and services. Hence, spend millions of dollars to create and maintain their corporate websites. The consumer behaviour in online shopping is continuously changing due to the personal characteristics of the shoppers as well as the environmental factors. The e-commerce based transactions are becoming increasingly popular and the number of consumers who interact with the e-commerce sites have been drastically increased along with the reviews they leave after purchases. This makes it difficult for potential customers to read, comprehend, and make sound decisions on individual purchases. Furthermore, makes even difficult task for the corporate entities to track their websites to manage customer opinions. Text mining is the process which explores, evaluates, and interprets data patterns by converting unstructured text data into more meaningful information. In this study, we address the aforementioned issues by proposing a *Human Computer Interaction (HCI)* enabled *Naïve Bayes* classi*cation* approach to categorize the online reviews of e-commerce websites. HCI factors such as; usability, simplicity, and accessibility are considered along with consumer reviews extracted from the attribute dictionaries such as stanford parser. The study has derived different data patterns from the text mining exercises which will be beneficial for predictive analytics from the customers' as well as from the corporate standpoint for online purchases.

Keywords: Human computer interaction, Online purchasing, Predictive analytics, Text mining