

Patron Sentiment of Employee–Customer Interaction: Exploring Hotel Customer Reviews through Machine Learning: An Abstract



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Abstract Experiences are a critical element in creating value for customers of service companies. In the tourism industry, employee–tourist encounters are particularly important as a lever for experience value creation. However, typically such encounters are based on a service quality logic that is standardised and functional (based on standard quality theory), thus missing considerable opportunities for employee-related experience creation. In this research, we seek to apply big data analytics to identify the types of customer–employee interactions that are the most influential in improving customers’ perceptions of service, value and overall satisfaction. A popular and well-known review website was selected to provide data for a range of hotel rankings (one- to five-stars) and sentiment performance. English language reviews and related variables associated with each review were used. This provided more than a quarter of a million reviews for analysis. A dictionary of terms was created by collecting and compiling synonyms associated with the types of hotel customer–employee interaction based on personalisation, flexibility, co-creation, emotions and knowledge gain/learning. Dictionary terms were also developed for mentions of employees. The process helped us to develop a final list of 639 words. To improve the computational efficiency of the analysis, the data were pre-processed using Python’s Natural Language Toolkit. In order to focus on the most objective and reliable reviews, we reduced the sample to those reviews with a sub-

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jectivity level less than or equal to 0.5. Each review was then content-analysed for sentiment and interaction type in order to explore these important relationships statistically. ANOVA tests were applied to examine differences in service quality, satisfaction and value based. The overall assessment of our results appears to suggest that hotel customers are difficult to please; positive employee–customer interactions receive significant positive improvements in customer perceptions of satisfaction, values and service, but customers are extremely sensitive to any problems in employee–customer interactions. Amongst the types of employee interactions, emotional intelligence and co-creation of customer experiences appeared to be the most promising for increasing the three outcome variables, whilst flexibility appeared to be a critical element of employee interactions not to get wrong. The research has significant implications for future research and practice.

Keywords Consumer experience · Employee interactions · Text analytics
· Tourism

References Available Upon Request