

## Case Study about Women Driving in Saudi Arabia Announced in 2018: Netnographic and Data Mining Study

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**Abstract :** The 'netnographic study' and data mining have been used to monitor the public interaction on Social Media Sites (SMSs) to understand what the motivational factors influence the Saudi intentions regarding allowing women driving in Saudi Arabia in 2018. The netnographic study monitored the publics' textual and visual communications in Twitter, Snapchat, and YouTube. SMSs users' communications method is also known as electronic word of mouth (eWOM). Netnography methodology is still in its initial stages as it depends on manual extraction, reading and classification of SMSs users text. On the other hand, data mining is come from the computer and physical sciences background, therefore it is much harder to extract meaning from unstructured qualitative data. In addition, the new development in data mining software does not support the Arabic text, especially local slang in Saudi Arabia. Therefore, collaborations between social and computer scientists such as 'netnographic study' and data mining will enhance the efficiency of this study methodology leading to comprehensive research outcome. The eWOM communications between individuals on SMSs can promote a sense that sharing their preferences and experiences regarding politics and social government regulations is a part of their daily life, highlighting the importance of using SMSs as assistance in promoting participation in political and social. Therefore, public interactions on SMSs are important tools to comprehend people's intentions regarding the new government regulations in the country. This study aims to answer this question, "What factors influence the Saudi Arabians' intentions of Saudi female's car-driving in 2018". The study utilized qualitative method known as netnographic study. The study used R studio to collect and analyses 27000 Saudi users' comments from 25th May until 25th June 2018. The study has developed data collection model that support importing and analysing the Arabic text in the local slang. The data collection model in this study has been clustered based on different type of social networks, gender and the study main factors. The social network analysis was employed to collect comments from SMSs owned by governments' originations, celebrities, vloggers, social activist and news SMSs accounts. The comments were collected from both males and females SMSs users. The sentiment analysis shows that the total number of positive comments Saudi females car driving was higher than negative comments. The data have provided the most important factors influenced the Saudi Arabians' intention of Saudi females car driving including, culture and environment, freedom of choice, equal opportunities, security and safety. The most interesting finding indicted that women driving would play a role in increasing the individual freedom of choice. Saudi female will be able to drive cars to fulfill her daily life and family needs without being stressed due to the lack of transportation. The study outcome will help Saudi government to improve woman quality of life by increasing the ability to find more jobs and studies, increasing income through decreasing the spending on transport means such as taxi and having more freedom of choice in woman daily life needs. The study enhances the importance of using use marketing research to measure the public opinions on the new government regulations in the country. The study has explained the limitations and suggestions for future research.

**Keywords :** netnographic study, data mining, social media, Saudi Arabia, female driving

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