UK consumer's perception of facial recognition technology application for in-store marketing

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About FR

Facial recognition, a biometric technology that allows the identification, authentication, and analysis of an individual based of their facial features.
Application in retail:
- Security
- People analytics and flow management
- ID Management
- Advertising placement
- Service assistance robots
- Sales assistant

Some facts

in 2015, already 27% of retailers used facial recognition.
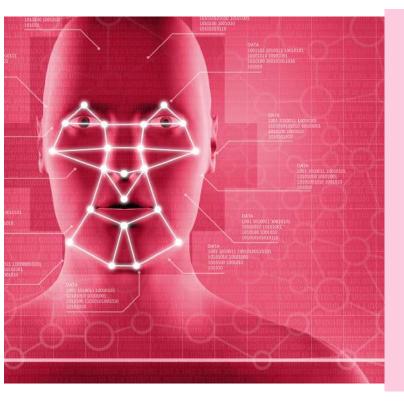
Example of where it's used in the UK:
- **Tesco**
- **London King's Cross railway station**
- **London Westfield shopping centers**
- **The World Museum – City of Liverpool**
- **The Millennium Point Conference Centre – City of Birmingham**
- **The Trafford Centre – City of Manchester**

Methodology

n: 315
To assess construct validity (i.e. accuracy of the measurement), this study uses a confirmatory factor analysis (CFA) to confirm instrument items after conducting an exploratory factor analysis (EFA). To analyze the proposed hypotheses, this study uses structural equation modeling (SEM) as it is the widely used method in technology acceptance studies and reliable estimation of hypothesized relationship strength between variables in this theoretical model.

Some Findings

- Covariance between Innovativeness and Awareness.
- Increased awareness about the application of facial recognition for marketing in retail stores has a positive influence on the individuals' perceived ease of use, perceived usefulness, and behavioral intentions to use the technology.
- Age has no effect on whether a person would accept the technology nor does their gender or their educational level.

42% of the respondents had a positive attitude towards facial recognition for instore marketing.

62% of respondents are worried that someone may hack into the retailer's system and steal their personal information and preferences or about the performance of the technology.

Model

17% of the respondents consider facial recognition to not be risky

Business Implications

- Marketers have an important role in technology acceptance.
- They should focus on increasing awareness and building brand trust when adopting new facial recognition.
- Ensure good data protection measures such as increased Cybersecurity or hire trust 3 rd parties.

Research Implications

Opens new avenues of exploration:

How can governments further protect the consumer and regulate the use of this technology for marketing?

Consumer traits: Age, Gender, Educational Level, Innovativeness
Technology related insights: Awareness, Prior Experience, Perceived risks
TAM: Perceived usefulness, Perceived ease of use, Attitudes towards using, Behavioural Intentions