

**Name:** Declan O'Sullivan

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**Name of your supervisor:** Aideen Keaney

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## **Abstract**

Biometric technologies have been slow to make their way online but this is about to change due to renewed interest and investment by corporations such as Apple and the need to stop and reverse the growth in identify theft related crimes. Online biometrics is being hailed as the silver bullet in the fight against identify theft; however, there are external factors at play that may prevent this from happening. This study investigates if the following five factors, identified from a review of privacy and technology acceptance literature, have an influence on the potential adoption of online biometrics by the internet user community:- perceived security concern, perceived privacy concern, social influence, perceived ease of use and perceived usefulness. Additionally, it sets out to identify, as selected by the survey respondents, the best online biometric trait (Fingerprints) and best biometric security solution (biometric and pin combination). It also identifies whether or not the respondents are concerned about identify theft of which 90.4% said they were.

Seven hypotheses were formulated and each one tested using statistical analysis. In addition, a mixed-method approach using an online survey was targeted at the internet user community to collect quantitative and qualitative data for further analysis. The qualitative data being used to support findings. This study found that five of the hypotheses were supported with the three constructs perceived security concern, perceived privacy concern and social influence having a direct impact on the potential adoption of online biometrics. The findings suggest that respondents were willing to adopt and use online biometrics. Of interest is that higher security and privacy concerns specific to biometrics led to stronger potential adoption of online biometrics. So it would seem that for those surveyed, the benefit of this technology outweighs the security and privacy risks associated with it.