








Identifying the influence of obsolescence risk and health beliefs in fitness wearable healthcare technology

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ABSTRACT

This study aimed to examine factors influencing the adoption of fitness wearable technologies (FWTs) by extending the Unified Theory of Acceptance and Use of Technology (UTAUT2). A survey was conducted with 574 fitness wearable users in India to test a conceptual Fitness Wearable Adoption Model (FWAM) incorporating additional constructs of obsolescence risk, health belief, and perceived accuracy alongside UTAUT2 variables. Structural equation modeling revealed performance expectancy, effort expectancy, social influence, hedonic motivation, price value, health belief, and obsolescence risk positively affected adoption intentions, while perceived security had no effect. Perceived accuracy mediated the impact of performance expectancy, while price value mediated the relationship between obsolescence risk and intentions. The research makes key contributions by adapting UTAUT2 to a new context, integrating additional adoption factors, identifying mediating mechanisms, and revealing moderating effects of age. Findings provide valuable insights into consumer acceptance of fitness wearables that can inform strategies for manufacturers, marketers, and health practitioners to promote adoption. A major focus of the investigation is to develop strategies for increasing the adoption of wrist-worn fitness technology that provides an opportunity for fitness wearable technology manufacturers to strengthen relationships with older age groups through effective communication techniques.

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KEYWORDS

Technology adoption; fitness wearables; purchase intentions; health belief; obsolescence

1. Introduction

In recent years, there has been a growing interest in contemporary healthcare technology, specifically fitness wearables, which encompass eyeglasses, watches, clothing, or jewelry

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