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Consumer Attitudes and Acceptance of Smart Technologies in Sports: A Consumer Perspective

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Background and Aim. The growing integration of wearable smart technologies in sports has transformed the way individuals monitor and enhance their physical activity and performance. Devices such as smartwatches and fitness trackers enable users to track physiological and performance-related data, which may influence motivation and training behaviours. Despite their increasing popularity, understanding the factors influencing consumer adoption and acceptance of these technologies in sports remains important. Therefore, the objective of this study was to investigate consumer attitudes towards wearable smart technologies in sports and to examine how perceived training effectiveness, device design satisfaction, and enhanced sports experience influence users' intention to adopt and continue using these technologies.

Methods. A quantitative cross-sectional survey was conducted among 601 participants using a structured questionnaire assessing perceptions of usability, functionality, and motivational impact of wearable smart devices in sports. Data were analysed using IBM SPSS Statistics. Descriptive statistics were used to summarise demographic characteristics, while Pearson correlation analysis was performed to examine relationships among variables.

Results. Among the participants, 49.4% were female, 24.6% were male, and 26.0% preferred not to disclose their gender. Correlation analysis revealed several statistically significant but weak relationships between device characteristics and user perceptions. A positive correlation was observed between perceived training effectiveness and satisfaction with device design ($r = 0.107$, $p < 0.01$). Additionally, enhanced sports experience was positively associated with the intention to continue using wearable technologies ($r = 0.097$, $p < 0.05$).

Conclusions. The findings indicate that consumers generally have positive perceptions of wearable smart technologies in sports, with usability, design, and perceived performance benefits influencing their acceptance and continued use.

Keywords: Wearable technology; smart wearable devices; technology adoption; consumer acceptance; sports technology

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