

# Determinants of the use of mobile phone applications and sport watches among runners

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## DETERMINANTS OF THE USE OF MOBILE PHONE APPLICATIONS AND SPORT WATCHES AMONG RUNNERS: IMPLICATIONS FOR MARKETING STRATEGIES

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AIM OF THE PAPER

Over the last years, usage of mobile fitness applications (apps) is rising (Middelweerd et al., 2014). Especially in individual and lighter forms of sports, like running, the use of apps and other monitoring devices has increased to a large extent. However, research on profiles of running related mobile phone applications and monitoring devices users, such as sport watches, is scarce. The purpose of this paper is to analyse the use of running related applications and sport watches among event runners. The runners are distinguished into short long-distance runners (5k), middle long-distance runners (21,1k) and marathon runners (42,2k). First, this study tries to identify the determinants (socio-demographic, running-related and psychographic characteristics) of the use of running applications and/or sport watches. Second, we try to define, among users, which variables determine the use of brand specific running applications and sport watches.

THEORETICAL BACKGROUND

Previous research showed the importance of sport lifestyle and psychographic characteristics in understanding the decision to consume sport apparel and sporting goods (Scheerder, Vos & Taks; 2011). Running only requires a limited amount of apparel, such as shoes and clothes (Borgers, Scheerder & Vos, 2015). Nevertheless, the consumption of running related goods is considerable. Thereby keeping in mind that running is the second largest sport in the Netherlands and still growing (Scheerder, Breedveld & Borgers, 2015).

A large scale study on running in Flanders (Belgium) revealed that the main expenditures are found for apparel (shoes and clothes). However, also supplementary materials such as sport watches (including heart rate monitors) have a considerable share in the total expenditures on running (Borgers, Scheerder & Vos, 2015; Vos & Scheerder, 2009). Therefore it is key to understand which characteristics of runners determine usage (and thereby expenditure) of these specific supplementary materials as applications and sport watches. These characteristics can be translated into runners' profiles which can assist marketers to refining their strategies and optimize their services.

## MATERIALS AND METHODS

The data for this study were drawn from the Eindhoven Running Survey 2014. This is a standardized online questionnaire which collects information among event runners on (1) the use and interest in running applications and sport watches, (2) socio-demographic characteristics (such as age, gender and level of education), (3) running characteristics (frequency, context, event participation, etc.) and (4) psychographic characteristics such as attitudes and opinions regarding running.

For this paper, a sub-dataset (N=3.120) was constructed containing only those runners that participated in 2014 in the Marathon Eindhoven, including a 5km city run (n=449), half marathon (n=2.064) and marathon (n=607). The socio-demographic of the respondents were comparable to running populations in previous large scale running studies (in Flanders (Belgium) and the Netherlands).

Binary logistic regressions were executed to analyse the contribution of the different independent variables (socio-demographic, running-related and psychographic characteristics) to the use of applications and sport watches among event runners. Multinomial logistic regression analyses were carried out on both brand specific applications and sport watches among the participants of the half marathon to get insight in user profiles.

## RESULTS

Results show that usage of both running applications and sport watches are determined by socio-demographics, running-related characteristics and psychographic characteristics. Also significant differences were found between the different running distances. With regard to the use of sport watches by 21,1k runners, significant effects were found for age (i.e., higher age groups), running frequency (i.e., more frequent), event participation (i.e., high participation rates), running context (i.e., club membership) and attitudes towards running benefits (i.e., highly favourable attitude). In contrast, the use of running related apps is more likely for runners from lower age groups, with less event participation, which run individually and more likely to dropout.

The brand specific analysis reveals that the most popular application among 21,1k runners is Runkeeper (50.8%) followed by Runstatic (16.0%) and Nike+ Running (11.1%). Garmin was found to be the most popular brand among users of sport watches (43.9%), where Polar (27.4%), TomTom and Nike (both 7.4%) are less used. Detailed results of both the binary logistic regression analyses on the three selected groups of event runners, and the multinomial regression analyses on brand specific determinants will be presented at the conference.

## CONCLUSION

The use of sport watches is determined by different characteristic as use of running applications. This implicates that the market of runners who like to have feedback on their performance consists of different segments. It emphasizes the need for more differentiated and effective approaches by both developers of monitoring devices and marketers.

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