KALBISocio Jurnal Bisnis dan Komunikasi *Kalbisocio, Jurnal Bisnis & Komunikasi, Vol. 12, No. 3, September 2025, E-ISSN 2829-1301*

Factors Affecting Runners' Continuance Intention on Strava Running Apps Usage In Jakarta

Ferdinandus Winandy Soesilo[1)*], **Cecelia Suprapti Hendharta**[2)],
[1,2)] Business School, Raffles College
Jl. Arjuna Utara No.35, RT.8/RW.1, Daerah Khusus Ibukota Jakarta 11510
**Email Korespondensi: ferdinandus.soesilo2305@gmail.com*
Email: caecelias.80@gmail.com

Abstract: This study aims to analyze the influence of perceived ease of use, perceived usefulness, and social influence on the continuance intention to use the Smart running application (Case Study: Strava App Users in Jakarta). A survey of 110 respondents (54.55% male, 45.45% female) was conducted, with the dominant age range being 31-40 years (35.45%) and professions primarily private employees (28.18%) and entrepreneurs (24.55%). Data were analyzed using SmartPLS 3.0, including validity, reliability, determination, and significance tests. The results show that perceived ease of use and social influence significantly influence continuance intention, while perceived usefulness does not significantly influence it. The independent variables explain 41% of the variance in continuance intention. Future research is advised to expand the number of respondents, geographical area, and examine other variables such as word-of-mouth marketing or brand awareness.
Keywords: Perceived ease of use, perceived usefulness, social influence, continuance intention.

Abstrak: *Penelitian ini bertujuan menganalisis pengaruh, manfaat yang dirasakan, dan pengaruh sosial terhadap niat penggunaan berulang aplikasi lari Smart (Studi Kasus: Pengguna Strava Apps di Jakarta). Survei terhadap 110 responden (54,55% pria, 45,45% wanita) dilakukan dengan rentang usia dominan 31-40 tahun (35,45%) dan profesi didominasi pegawai swasta (28,18%) serta wiraswasta (24,55%). Data dianalisis menggunakan SmartPLS 3.0, mencakup uji validitas, reliabilitas, determinasi, dan signifikansi. Hasil menunjukkan bahwa kemudahan penggunaan yang dirasakan dan pengaruh sosial berpengaruh signifikan terhadap niat penggunaan berulang, sementara manfaat yang dirasakan tidak berpengaruh signifikan. Variabel independen menjelaskan 41% varians niat penggunaan berulang. Penelitian selanjutnya disarankan untuk memperluas jumlah responden, wilayah, dan menguji variabel lain seperti word-of-mouth marketing atau brand awareness*
Kata kunci: *Kemudahan penggunaan yang dirasakan, manfaat yang dirasakan, pengaruh sosial, niat penggunaan berulang*

I. INTRODUCTION

The development of time has encouraged people to adopt a healthy lifestyle. Indonesia was in the top five in terms of number of people with diabetes in 2021 ("Indonesia Masuk 5 Besar Negara Kasus Diabetes Tertinggi Di Dunia," 2021), this might be one of the reasons that people have started adopting a healthy lifestyle, one of which is doing workout especially running. Running has become one of the most popular sports among Indonesians, evidenced by the growing number of running communities and races (Putra, 2014) & (Yudhi Tri Atmoko, 2021). This trend's development has led more people to take up running and seriously participate in races. This is a driving force for sports app developers, particularly for running apps like Strava and Garmin, to continuously enhance their features. These features aim to help users monitor and review their performance in every running activity uploaded to the app via smartwatch synchronization through Bluetooth, thereby providing convenience and benefits to runners (Vos et al., 2016)& (Janssen et al., 2017).

Initially, the main motivations of running are fitness, competition and success (Malchrowicz-Mośko et al., 2020). However, with the development of time, the motivation of running has shifted from self-achievement and success to

psychological, physiological and social factors and needs. The motivation trends have shifted from competitive and serious sport into more pleasure, fun, unorganized and low-intensity sport (Cheng et al., 2022).

As the vast growing number of running participants and communities increase in diversity, several issues and problems need to be managed. For example, many people who are intensively engaged in running are inexperienced and have lack of knowledge and experience which can cause injury prone and running demotivation.

Therefore, complete and serious guidance is required to solve this issue (Vos et al., 2016).

Therefore, the current technological advancement in the sports industry has facilitated the availability and use of mobile applications (apps) and sport watches(Cheng et al., 2022). Vast choices of apps and sport watches are available nowadays in the Indonesian market and been used by many people ((Zhafira, 2021)) & (Nilawati, 2021). These wearable devices especially sport watches help runners who do not have resources and access to skilled trainers and coaches monitoring and tracking their performance and health condition.

Running apps support and help people tracking and monitoring their performance and health data and encouraging people to participate more into health activities for health purposes(Janssen et al., 2017) &. These apps can be synchronized to the smartwatch by using Bluetooth, Global Positioning System (GPS) and internet connection. Runners' performance and health data can be uploaded to the apps by synchronizing the smartwatch with the running app and shared with others to inspire one another (Janssen et al., 2017).

Furthermore, running apps have also provided features in which runners can interact, communicate and compete with other runners and also post pictures and tagging friends in their workout activities. This feature allows runners to inclusively create an online running community and club in the app and allow other people to join the community, interact with other members and also motivate one another (Zakiah, 2022) & (Mateo, 2022).Therefore, running apps can also be considered as a social media for runners because of its feature allowing runners posting and tagging pictures with their friends in their workout activities.

The market size for running apps is estimated around USD 550 million in 2021 and is projected to expand to USD 1438.6 million in 2028 (Global Running Apps Market Size and Value Expected to Reach USD 1438.6 Million, 2022). This indicates that the demand of running apps is still growing rapidly and indicates that the number of populations of running apps is still increasing significantly every year. According to (*Digital Fitness & Well-Being Apps*, 2022), Indonesia is in the top five in terms of digital and well-being apps revenue maker with an estimated almost USD 699 million and is projected to keep growing significantly over the years.

As running is getting more popular, the number of running apps and users are increasing. Many running apps have been launched in the Google Play Store and Apple Store to satisfy the increasing demand of running advantages through the apps by providing value through multiple touch points by ensuring applications provide multiple and unique experiences to the customers. It is critical for industry marketers to understand the mobile apps user behavior.

One of the most famous running apps in the world is Strava with an estimate of almost 100 million users globally in 2021 (*Strava Hits 100 Million Users as Number Doubles in Two Years.*, 2022). According to Strava's year-end report, the number of athletes joining clubs on Strava increased by 37% in 2021 and more than 189,000 new clubs were created on Strava (Mateo, 2022). This indicates that running applications has not only encouraged runners to adopt a healthy lifestyle but also encouraged runners to be more active in the social communities and groups.

Additionally, social factors can also influence the continuance intention to use

these applications because Indonesian society tends to exhibit high collectivism, where social relationships are prioritized. In the context of using running apps, the influence of running friends and communities can affect the intention to continue using the application (Ghazali et al., 2019). Few studies have explored the factors that influence consumer's intention to use running apps on the value and technical features of these apps. Sport apps companies should consider these impacts in order to stay competitive in the sport apps industry market (Janssen et al., 2017). In addition, no studies have explored the factors that influence consumer's intention to use running apps based on social factors such as social influences. Social factors should be taken into account as well for sport apps companies to stay competitive in the industry as the number of running communities, running races and marathon races are growing significantly (Mateo, 2022). Social factors may play an important role in affecting runners' intention to use running apps.

Research Objectives

1. To analyse whether Perceived Ease of Use affects Continuance Intention on Usage for Strava running application users in Jakarta.
2. To analyse whether Perceived Usefulness affects Continuance Intention on Usage for Strava running application users in Jakarta.
3. To analyse whether Social Influences affect Continuance Intention on Usage in Strava running application users in Jakarta.

Research Urgency

The use of sports applications is currently increasing and is increasingly in demand by the public. However, for application users, especially running lovers, there are several factors that become their consideration to continue using running applications, starting from the features available that are easy to use and useful for running lovers, especially those who are serious about participating in running competitions. Applications that provide features such as auto synchronised to smartwatch, detailed features of running activities such as duration, distance, time and heart rate monitor are the main choices. Followed by the social influence of the running community and friends of running sports lovers to use running applications continuously makes many people continue to use the application. The explanation of previous studies and the urgency of this research finally form a novelty with the addition of social influences variables in explaining the intention of repeated use of Strava running applications. The use of Strava running applications and running sports lovers in Jakarta adds a contribution to the novelty factor of this research.

II. RESEARCH METHODS

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a theory developed and adapted from Fishbein's (1975) Theory of Reasoned Action, aiming to explain consumer behavior in technology use. Studies on technology acceptance focus on understanding the influence of two key elements: ease of use and usefulness on technology adoption.

Consumer technology adoption is influenced by several factors, such as Perceived Ease of Use and Perceived Usefulness. Perceived ease of use refers to the stage where consumers believe that using a particular technology will require minimal effort(Cheng et al., 2022). Consumers believe they won't need to exert much effort to use the technology, which means it simplifies their daily lives and activities(Cho, 2016). Perceived ease of use can also mean that technology can be used anytime and anywhere, and it's associated with convenience and comfort in use.

Perceived Usefulness, or perceived benefit, is the stage where consumers believe that using a technology can help improve their lives and daily activities (Cheng et al., 2022).

In relation to running applications, perceived ease of use and perceived

usefulness can be observed in the features provided by the apps to users. Running apps allow individuals to track and monitor their performance and health data, encouraging them to engage more with health activities to maintain well-being (Janssen et al., 2017)& (Vos et al., 2016). These applications can connect to smartwatches via Bluetooth, GPS, and internet connections.

Performance and health data can be uploaded to the app by synchronizing smartwatches with the running app and shared with others to inspire each other (Janssen et al., 2017). The features and benefits provided by running apps help runners enhance their abilities and fitness, and therefore, can influence their continuance intention to use the running application (Cheng et al., 2022) & (Vos et al., 2016). Based on the explanations above, this study proposes the following hypotheses:

H1: Perceived ease of use significantly influences continuance intention on Strava application usage.

H2: Perceived usefulness significantly influences continuance intention on Strava application usage.

Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) provides an explicit explanation of how an individual behaves and what factors influence individual behavior, with social influences being one of the primary factors (Ghazali et al., 2019) & (Watjatrakul, 2013). This theory, developed by Ajzen and Fishbein (1975), has been widely used in various studies related to social factors affecting individual behavior.

Social influence is defined as the way in which others affect an individual's attitudes, behaviors, and beliefs (Ghazali et al., 2019). An individual's attitudes, behaviors, and beliefs are shaped by three processes: the compliance process, the internalization process, and the identification process. The compliance process relates to expectations based on punishment or reward. The internalization process involves accepting the beliefs and values of others. The identification process is concerned with satisfying and liking others (Yang, 2019).

Social influence can originate from family members, friends, groups, colleagues, communities, and organizations. The social environment plays a crucial role in influencing people's daily lives by fostering the adoption of certain traits and behaviors, known as norms (Ghazali et al., 2019).

There are two types of norms that can influence traits and behavior: subjective norms and group norms. Subjective norms are informal rules that govern accepted and unaccepted traits and behaviors within a social environment. Group norms are informal rules associated with a social group (Yang, 2019).. These norms help people change their behaviors from unacceptable to acceptable by the social environment, a phenomenon known as conformity.

(Goularte & Zilber, 2019) state that social factors play a significant role in influencing consumer behavior in technology use in countries with high collectivism, such as Indonesia. Individuals in highly collectivistic countries tend to follow rules set by their environment and adhere to the obligations of various social groups.

The social environment can play a major role in influencing technology use, particularly in the adoption of sports applications. The social environment influences individual behavior by determining acceptable and unacceptable traits if an individual wishes to be part of a community and environment, which are known as environmental and group norms. One prominent norm in a highly collectivistic environment is that everyone uses smartphones to stay connected with many people. This has a role and influence on technology usage behavior (Goularte & Zilber, 2019).

Regarding technology use, the intention to use technology is mostly influenced by interpersonal communication, where individuals are persuaded and affected by their social

environment, such as group members, affiliations, and communities. Their social environment influences them to use applications to stay connected and be part of the community and social environment, and to maintain communication and relationships with others (Yang, 2019). & (Ghazali et al., 2019).

In relation to the continuance intention for running applications, social influence might play a significant role in affecting runners' intention to use the app. With communication features for communities and groups within the app, runners can communicate, interact, and comment on the activities of fellow runners and themselves. They can also compete and compare their performance with other group members. Additionally, social media features in running apps allow runners to post pictures and videos of their running activities and tag fellow running friends in photos, enabling them to stay connected with friends and communities.

Based on the explanations above, this study proposes the following hypothesis:

H3: Social Influence significantly influences continuance intention on Strava application usage.

Based on the development of the hypothesis above, the research framework is presented in Figure 1 below:

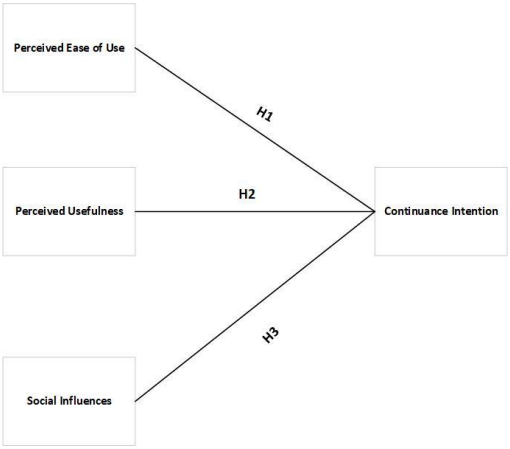

Figure 1. Research Framework
Source: Processed by Researcher, 2024

2.4 Research Methodology

The research is quantitative research. The population in this study were users of the Strava application based in Jakarta. The number of samples in this study were 110 samples by multiplying the number of questionnaire indicators by 13 questions.

Determination of this sample size follows the guidelines for the number of indicators multiplied by 5-10 (Hair et al., 2010). Field data collection is carried out using a questionnaire instrument arranged on a Likert measuring scale of 1-5 (Strongly Disagree - Strongly Agree).

III. RESULTS AND DISCUSSION

Research respondents were obtained through online questionnaire distribution, and all data were analyzed using the Smart PLS 3.0 program. The number of respondents was 110 people.

Based on the results of data processing through the Smart PLS program, the number of male respondents was 45.45% and the number of female respondents was 54.55%. Most respondents aged 21-30 years with 30.91% and 31-40 years as much as 35.45%. By type of work, 24.55% are self-employed and 28.18% are private employees.

Table 1 Average Variance Extracted Validity Test

Variable	Average Variance Extracted
Continuance Intention	**0.646**
Perceived Ease of Use	**0.702**
Perceived Usefulness	**0.664**
Social Influence	**0.901**

Source: Processed by Researcher, 2024

The AVE (Average Variance Extracted) value and communality value in Table 1 show the result that the value is greater than 0.5. It can be concluded that all variables in this study meet the requirements of the convergent validity test. This means that more than half of the indicators forming variables can be explained by the parent variable.

Table 2 Alpha Cronbach and Composite Reliability

Variable	Cronbach Alpha	Composite Reliability
Continuance Intention	**0.72**	**0.845**
Perceived Ease of Use	**0.79**	**0.876**

Perceived Usefulness	**0.83**	**0.887**
Social Influence	**0.89**	**0.948**

Source: Processed by Researcher, 2024

The Cronbach's alpha and composite reliability values of all variables show values greater than 0.7, which means that all variables in this study are considered to fulfil the reliability test.

Table 3 R-Square

	R Square
Continuance Intention	**0.410**

Source: Processed by Researcher, 2024

Based on the R-Square value in Table 3, it can be concluded that the continuance intention variable is influenced by the Perceived Ease of Use, Perceived Usefulness and Social Influence variables by 41% and the remaining 59% can be explained by other variables.

Table 4 T-Statistics Significance test

Variable	T Statistics	P Values
Perceived Ease of Use -> Continuance Intention	**4.157**	**0.000**
Perceived Usefulness -> Continuance Intention	**1.277**	**0.202**
Social Influence -> Continuance Intention	**1.967**	**0.050**

Source: Processed by Researcher, 2024

Based on the results of the t-statistic test above, it can be concluded that:

1. Perceived Ease of Use has a significant effect on Continuance Intention, then Ha1 is accepted and Ho1 is rejected, because the T-statistic value is 4.157> 1.96 and the P-value is 0.00 <0.05.

2. Perceived Usefulness has no significant effect on Continuance Intention, then Ha1 is rejected and Ho1 is accepted, because the T-statistic value is 1.277<1.96 and the P-value is 0.202>0.05.

3. Social Influence has a significant effect on Continuance Intention, then Ha1 is accepted and Ho1 is rejected, because the T-statistic value is 1.967> 1.96 and the P-value is 0.05.

The AVE (Average Variance Extracted) value and communality value in Table 1 show the result that the value is greater than 0.5. It can be concluded that all variables in this study meet the requirements of the convergent validity test. This means that more than half of the indicators forming variables can be explained by the parent variable.

IV. CONCLUSION

Based on the results of this study, it can be concluded that Perceived Ease of Use and Social Influences have a significant effect on Continuance Intention. Meanwhile, Perceived Usefulness does not have a significant effect on Continuance Intention.

This research only analyzes three variables that may have an impact on continuance intention on applications usage, whereas there are many other factors that may have more impact on continuance intention in applications usage such as word of mouth, brand awareness, brand image, brand loyalty and many other variables that may be taken into account.

Furthermore, this research only takes 110 respondents for the analysis, as in terms of running community and runners' population are vast and large, further study should take account of more samples for greater analysis and accuracy of research data.

Moreover, the research location is only in Jakarta, whereas runners' population is widely spread not only in Jakarta, but many other cities such as Bandung, Surabaya, Yogyakarta, and many other well-known cities. Further study may take account these cities as the research location.

REFERENCES

Cheng, L. K., Huang, H.-L., & Lai, C.-C. (2022). Continuance intention in running apps: the moderating effect of relationship norms. *International Journal of Sports Marketing and Sponsorship*, *23*(1), 132–154. https://doi.org/10.1108/IJSMS-08-2020-0143

Cho, J. (2016). The impact of post-adoption beliefs on the continued use of health apps. *International Journal of Medical Informatics*, *87*, 75–83. https://doi.org/10.1016/j.ijmedinf.2015.12.016

Digital Fitness & Well-Being Apps. (2022). Statista. https://www.statista.com/outlook/dmo/digital-health/digital-fitness-well-being/digital-fitness-well-being-apps/indonesia

Ghazali, E., Mutum, D. S., & Woon, M.-Y. (2019). Exploring player behavior and motivations to continue playing Pokémon GO. *Information Technology & People*, *32*(3), 646–667. https://doi.org/10.1108/ITP-07-2017-0216

Global Running Apps Market Size and Value Expected to Reach USD 1438.6 Million. (2022). Digital Journal. https://www.digitaljournal.com/pr/global-running-apps-market-size-and-value-expected-to-reach-usd-1438-6-million-growing-at-cagr-of-14-7-forecast-period-2022-2028#:~:text=Running%20Apps%20Market%20Insight%3A&text=According%20to%20our%20latest%20study,14.7%25%20over%20the%20analysis%20period.

Goularte, A. da C., & Zilber, S. N. (2019). The moderating role of cultural factors in the adoption of mobile banking in Brazil. *International Journal of Innovation Science*, *11*(1), 63–81. https://doi.org/10.1108/IJIS-11-2017-0119

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Pearson.

Indonesia Masuk 5 Besar Negara Kasus Diabetes Tertinggi di Dunia. (2021, December 6). *CNN Indonesia*. https://www.cnnindonesia.com/gaya-hidup/20211206080008-255-730258/indonesia-masuk-5-besar-negara-kasus-diabetes-tertinggi-di-dunia

Janssen, M., Scheerder, J., Thibaut, E., Brombacher, A., & Vos, S. (2017). Who uses running apps and sports watches? Determinants and consumer profiles of event runners' usage of running-related smartphone applications and sports watches. *PLOS ONE*, *12*(7), e0181167. https://doi.org/10.1371/journal.pone.0181167

Malchrowicz-Mośko, E., Castañeda-Babarro, A., & Guereño, P. L. (2020). On the Way to the Marathon—Motivation for Participating in Mass Running Events Among Children and Adolescents: Results of the Poznan Half Marathon Pilot Study. *International Journal of Environmental Research and Public Health*, *17*(14), 5098. https://doi.org/10.3390/ijerph17145098

Mateo, A. (2022, June 15). How to Build an Inclusive Running Group. *Yahoo Life*.

Nilawati, P. P. (2021, October 7). Kesadaran Jaga Kesehatan Meningkat di Masa Pandemi, Smart Watch Makin Diminati untuk Olahraga. *Tribun Jabar*. https://jabar.tribunnews.com/2021/10/07/kesadaran-jaga-kesehatan-meningkat-di-masa-pandemi-smart-watch-makin-diminati-untuk-olahraga

Putra, D. F. (2014, November 16). Kenapa Lari Menjadi Sangat Populer? *CNN Indonesia*. https://www.cnnindonesia.com/gaya-hidup/20141116173748-255-11834/kenapa-lari-menjadi-sangat-populer

Strava hits 100 million users as number doubles in two years. (2022, May 22). Velonews. https://velo.outsideonline.com/road/road-racing/strava-hits-100-million-users-as-number-doubles-in-two-years

Vos, S., Janssen, M., Goudsmit, J., Lauwerijssen, C., & Brombacher, A. (2016). From Problem to Solution: Developing a Personalized Smartphone Application for Recreational Runners following a Three-step Design Approach. *Procedia Engineering*, *147*, 799–805. https://doi.org/10.1016/j.proeng.2016.06.311

Watjatrakul, B. (2013). Intention to use a free voluntary service. *Journal of Systems and Information Technology*, *15*(2), 202–220. https://doi.org/10.1108/13287261311328903

Yang, X. (2019). Social influence or personal attitudes? *Kybernetes*, *48*(3), 424–437. https://doi.org/10.1108/K-05-2018-0223

Yudhi Tri Atmoko, E. (2021, July 29). Mengapa Lari Disebut Olahraga Yang Paling Mudah dan Murah?. . *Kompas*. https://www.kompas.com/sports/read/2021/07/29/19000058/mengapa-lari-disebut-olahraga-yang-paling-mudah-dan-murah-?page=all

Zakiah, N. (2022, March 8). 5 Fitur di Aplikasi Strava yang Bikin Termotivasi Olahraga. *IDNTimes*. https://www.idntimes.com/tech/trend/nena-zakiah-1/fitur-unggulan-aplikasi-strava?page=all

Zhafira, A. N. (2021, September 23). Aplikasi kesehatan dan fitness semakin diminati saat pandemic. *Antaranews*. https://babel.antaranews.com/berita/223041/aplikasi-kesehatan-dan-fitness-semakin-diminati-saat-pandemi.