The Role of Self-Tracking Behavior in Enhancing Local MSME Performance

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ABSTRACT

Purpose – This study aims to examine the influence of healthy lifestyle factors—including health responsibility, physical activity, nutrition, stress management, interpersonal relationships, and self-actualization—on the income of Micro, Small, and Medium Enterprises (MSMEs). The study also investigates how these lifestyle variables relate to self-tracking behavior, particularly the use of digital health applications among MSME owners in Surakarta.

Methodology/approach – A quantitative research design was employed. Data were collected from 100 MSME in Surakarta using purposive sampling. Survey instruments measured healthy lifestyle dimensions, income levels, and self-tracking practices. Statistical analyses were conducted using ANOVA, multiple linear regression, and Fisher's Exact Test with SPSS version 25 to assess the influence of lifestyle factors on income and the relationship between lifestyle and self-tracking behavior.

Findings – The results indicate that healthy lifestyle variables have a significant effect on MSME income (F = 14.01; p = 0.000). Furthermore, there is a strong relationship between healthy lifestyle practices and self-tracking behavior. MSME owners who demonstrate higher engagement in health responsibility, physical activity, and stress management are more likely to adopt digital self-monitoring technologies.

Novelty/value – This study provides new evidence on how healthy lifestyle behaviors can enhance productivity and financial performance among MSMEs, a topic seldom explored in the context of small business sustainability. The findings highlight the importance of integrating digital health awareness and self-tracking technologies as strategic tools for improving MSME resilience, productivity, and long-term sustainability.

INTRODUCTION

In the digital era, healthy lifestyles have evolved beyond mere physical activity into an integrated behavioral ecosystem that involves the use of applications and wearable devices to monitor activity, nutrition, and personal health—a phenomenon commonly referred to as *self-tracking* or the *quantified self*. Systematic research has demonstrated that self-tracking practices enhance health awareness and can increase participation in physical activities through the feedback provided by these applications (Feng et al., 2021).

The growing engagement in physical activities such as running, jogging, and cycling, as a consequence of wearable and application use, has significant implications for consumption patterns. Self-tracking users tend to seek products and services that support a healthy lifestyle, such as isotonic drinks, healthy breakfast options, high-protein snacks, or sports equipment—particularly following exercise or participation in community events. Meta-analytic evidence indicates that activity-tracking devices can

promote physical participation, which in turn transforms users' daily consumption needs (Brickwood et al., 2019; Ferguson et al., 2022).

The phenomenon of *post-exercise consumption* and the broader economic effects of sports activities influence not only large enterprises but also local micro, small, and medium enterprises (MSMEs) operating around activity hubs—such as jogging tracks, urban parks, or running event venues. Economic studies on sporting events reveal that running activities, from small-scale community runs to large marathons, generate increased local expenditure that stimulates temporary demand for food, beverages, accommodation, and retail services. When strategically leveraged, these dynamics can enhance MSME revenues and expand their market exposure (Uddin et al., 2015).

Moreover, the health of small business owners and the well-being of local communities exert reciprocal *spillover* effects on business sustainability. The literature indicates that the health conditions of small entrepreneurs and their communities are closely linked to productive capacity, business continuity, and the local economic climate. Consequently, as local populations become more active and health-conscious—partly driven by self-tracking behaviors—new market opportunities emerge that MSMEs can access through health-aligned products and services (Torrès & Thurik, 2019)

In the context of healthy lifestyles in the digital era, the use of self-tracking technologies such as wearable devices and health applications has been shown to enhance individuals' participation in physical activity and increase health awareness through continuous feedback on bodily activity data (Brickwood et al., 2019).This ongoing feedback enables individuals to monitor, evaluate, and adjust their health behaviors more consciously and systematically. Prior studies also indicate that the acceptance and use of wearable technologies are influenced by consumers' technological readiness and psychological factors, which shape how individuals engage with these technologies in sports and fitness contexts (Murfet et al., 2022)'

Nevertheless, although extensive research has examined the effectiveness of wearable devices in promoting physical activity, the relationship between individual self-tracking behaviors and changes in consumption patterns—and their implications for the local micro, small, and medium enterprise (MSME) economy—remains underexplored. Existing studies tend to focus primarily on physiological and health outcomes or on technology adoption mechanisms, without explicitly linking self-tracking practices to post-exercise consumption behaviors that may affect MSME revenues (Casado-Robles et al., 2022). Furthermore, most prior research has been conducted in clinical, experimental, or narrowly defined population settings, offering limited insight into the microeconomic context of MSMEs operating around physical activity hubs such as urban parks, jogging tracks, and public exercise spaces. This indicates a lack of integration between digital consumer behavior theory and the entrepreneurship and local economic development literature. From a theoretical perspective, there is still no comprehensive conceptual model explaining how self-tracking behaviors contribute to the formation of new and sustained market demand. From a practical standpoint, many MSMEs lack the strategic capacity to capitalize on emerging health-oriented consumption patterns due to limited information, product adaptation, and marketing readiness (Torrès & Thurik, 2019)

This study seeks to address these gaps by analyzing the mechanisms linking self-tracking behaviors to consumption pattern changes relevant to MSMEs, evaluating the economic opportunities generated by digitally supported physical activity, and formulating strategic recommendations for MSMEs and local policymakers. The novelty of this research lies in its integrative approach, which connects digital health behavior literature with MSME economics, thereby extending the understanding of wearable technologies beyond individual health outcomes to their tangible microeconomic consequences driven by real market demand..

In summary, substantial evidence supports the notion that self-tracking fosters physical activity, and that sports participation stimulates local spending. However, the direct link between individual self-tracking behaviors (beyond event participation) and changes in MSME income remains underexplored. This research is thus essential to: (1) map emerging demand mechanisms arising from monitored healthy lifestyles, (2) develop actionable recommendations for MSMEs to capture new market opportunities, and (3) provide policy-relevant evidence for local stakeholders in designing events and economic promotion programs based on health-oriented lifestyles.

LITERATURE REVIEW
Healthy Lifestyle (Health-Promoting Lifestyle Profile II – HPLP II)

A healthy lifestyle is a crucial factor influencing individual well-being and work performance, including among micro, small, and medium enterprise (MSME) workers. The Health-Promoting Lifestyle Profile II (HPLP II), developed by Walker (1995)), is commonly used to assess health-promoting behaviors. The instrument comprises six core dimensions: health responsibility, physical activity, nutrition, stress management, interpersonal relations, and self-actualization. Each dimension provides a comprehensive overview of individual health habits that may affect productivity and quality of life. The application of HPLP II in the MSME context allows researchers to evaluate the extent to which workers or business owners adopt healthy behaviors and how such behaviors influence their business performance (Walker, 1995)

Self-Tracking Behavior and the Technology Acceptance Model (TAM)

Self-tracking behavior, referring to individuals' habitual monitoring of their health conditions or activities through technology, can be analyzed using the Technology Acceptance Model (TAM). This model posits that the intention to use technology is determined by two key perceptions: perceived usefulness and perceived ease of use (Candra et al., 2024; Thapa et al., 2025) In the MSME setting, TAM can be applied to explain how workers or business owners adopt technology to monitor their health and productivity. Previous studies have shown that positive perceptions of usefulness and ease of use increase the likelihood of technology adoption, which in turn supports improvements in well-being and business performance (Davis, 1989)

Local MSME Income

Local MSME income is often measured using indicators such as sales growth, customer volume, and transaction frequency. Research by Torrès and Thurik (2019) demonstrates that the health of small business owners plays a significant role in their business success. Owners in good health tend to be more productive and efficient in managing their enterprises, directly influencing business income and growth. This finding reinforces the interrelationship between individual well-being, the adoption of a healthy lifestyle, and MSME financial performance (Torrès & Thurik, 2019). Therefore, MSME income measurement can serve as an outcome indicator reflecting the influence of healthy behaviors and self-tracking technology adoption among MSME workers.

METHOD

This study employs a quantitative research approach using a survey method to analyze the effect of a healthy lifestyle on local micro, small, and medium enterprise (MSME) income, as well as to examine the relationship between healthy lifestyle practices and self-tracking behavior among residents of Surakarta, Indonesia. The object of this study comprises individuals in the Surakarta area who actively participate in physical activities such as running, jogging, and cycling, as these activities are commonly associated with consumption behavior around sports facilities. The study population includes residents who regularly engage in physical exercise and have the potential to become consumers of local MSMEs operating near sports areas. A purposive sampling technique was applied to select respondents based on criteria aligned with the research objectives (Ghozali, 2017). The criteria included engaging in sports activities at least twice a week, having experience using self-tracking applications or devices such as fitness trackers, running applications, or smartwatches, and having made purchases from local MSMEs after exercising. Based on these criteria, a total of 100 respondents were selected, which is considered sufficient to support quantitative statistical analysis and hypothesis testing.

Data were analyzed quantitatively using inferential statistical methods. The analytical procedure began with validity and reliability testing to ensure that the questionnaire instruments were appropriate and consistent for measurement purposes (Sugiyono, 2009). Descriptive statistical analysis was then conducted to provide an overview of respondent characteristics and response distributions. Hypothesis testing was performed using multiple linear regression analysis to examine the influence of a healthy lifestyle on the income growth of local MSMEs. In addition, the relationship between healthy lifestyle practices and self-tracking behavior was tested using the Chi-Square test, with Fisher's Exact Test employed as an alternative when the assumptions of the Chi-Square test were not satisfied.

The research instrument was a structured questionnaire developed by adapting indicators from established and validated measurement scales. Healthy lifestyle variables were measured using the Health-Promoting Lifestyle Profile II (HPLP II), which consists of six dimensions: health responsibility, physical activity, nutrition, stress management, interpersonal relations, and self-actualization *actualization* (Walker, 1995). Self-tracking behavior was measured based on the Technology Acceptance Model (TAM), incorporating indicators such as perceived usefulness, perceived ease of use, attitude toward use, and behavioral intention to use technology (Davis, 1989). Local MSME income was assessed using indicators adapted from prior small-business performance studies, including sales turnover growth, number of customers, and transaction frequency (Torrès & Thurik, 2019). Through this analytical framework, the study simultaneously evaluates the relationship between healthy lifestyle practices and self-tracking behavior and assesses the influence of healthy lifestyles on MSME income growth in Surakarta, thereby providing insights into both economic outcomes and psychological–technological factors shaping health-oriented consumption patterns in urban communities.

Complete Regression Model (Two-Stage Analysis)
Stage 1 – The Effect of a Healthy Lifestyle on Self-Tracking Behavior

$$Z = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6 + \mu$$

Stage 2 – The Effect of a Healthy Lifestyle on Local MSME Income

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Table 1. Description of Research Variables

Dependent Variables (Y and Z)

Code	Variable	Conceptual Definition	Operational Definition
Z	Self-Tracking Behavior	The individual's behavior in using digital applications or devices (such as wearables, smartwatches, or fitness apps) to monitor physical activity, diet, sleep, and personal health.	Measured by the frequency and intensity of using health applications such as Strava, Samsung Health, Fitbit, or MyFitnessPal (Likert scale 1–5).
Y	Local MSME Income	The total income or turnover earned by Micro, Small, and Medium Enterprises (MSMEs) from their business activities, which may be influenced by changes in lifestyle and consumer behavior.	Measured by the increase in turnover, sales frequency, or customer volume before and after lifestyle changes in the community (Likert scale or nominal data in Rupiah).

Independent Variables (X_1–X_6): Dimensions of a Healthy Lifestyle (Health-Promoting Lifestyle Profile II – HPLP II)

Code	Dimension of Healthy Lifestyle	Conceptual Definition	Operational Definition
X_1	Health Responsibility	The individual's awareness to maintain health by seeking health information, conducting regular check-ups, and making healthy decisions.	Indicators: regular health check-ups, awareness of disease risks, compliance with medical recommendations.
X_2	Physical Activity	The individual's engagement in physical activities such as walking, running, cycling, or regular exercise to maintain physical fitness.	Indicators: frequency of exercise per week, duration, and intensity of physical activities.
X_3	Nutrition	A balanced eating pattern and consumption of nutritious foods to support body health and work productivity.	Indicators: consumption of fruits/vegetables, portion control, drinking habits, and avoidance of junk food.
X_4	Stress Management	The individual's ability to manage stress through positive activities, relaxation, and maintaining life balance.	Indicators: ability to control emotions, adequate rest, and participation in relaxation activities.
X_5	Interpersonal Relations	The quality of social relationships with others that supports emotional and psychological well-being.	Indicators: positive social interactions, social support from friends/family, and cooperation within the community.
X_6	Self-Actualization	The individual's drive to develop personal potential, achieve	Indicators: self-motivation, achievement of personal goals,

Code	Dimension of Healthy Lifestyle	Conceptual Definition	Operational Definition
	(Spiritual Growth)	personal goals, and maintain life balance.	gratitude, and sense of life purpose.

RESULT AND DISCUSSION

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Health Responsibility	200	4.00	10.00	7.7650	1.25605
Physical Activity	200	4.00	10.00	7.5500	1.23088
Nutrition	200	5.00	10.00	7.7200	1.29615
Stress Management	200	5.00	10.00	7.7750	1.21729
Interpersonal Relations	200	4.00	10.00	7.5850	1.23710
Self-Actualization	200	4.00	10.00	7.6350	1.19957
Local MSME Income	200	23.00	46.00	35.5150	4.44506
Self-Tracking Behavior	200	4.00	10.00	7.1300	1.48124

Descriptive Statistical Analysis

Table 1 presents the descriptive statistics of all variables studied, which include six dimensions of a healthy lifestyle—Health Responsibility, Physical Activity, Nutrition, Stress Management, Interpersonal Relations, and Self-Actualization—as well as Local MSME Income and Self-Tracking Behavior. The data were collected from 200 respondents and analyzed using SPSS Version 25 to obtain measures of central tendency (mean) and dispersion (standard deviation).

The results show that the mean scores of the healthy lifestyle dimensions range between 7.55 and 7.78, indicating that respondents generally practice moderate to high levels of health-promoting behaviors. Among these dimensions, Stress Management has the highest mean score (M = 7.78; SD = 1.22), suggesting that most respondents are able to manage stress effectively through methods such as relaxation, adequate sleep, and maintaining emotional balance. In contrast, Physical Activity records the lowest mean score (M = 7.55; SD = 1.23), implying that while respondents engage in exercise or physical activities, the frequency and intensity of such activities vary among individuals.For the Nutrition dimension (M = 7.72; SD = 1.30), the mean score suggests that respondents generally adopt balanced dietary habits, including adequate consumption of fruits and vegetables and limited intake of processed foods. Similarly, Health Responsibility (M = 7.77; SD = 1.26) indicates a strong awareness of personal health management, such as undergoing regular medical check-ups and adhering to health advice.

The Interpersonal Relations variable (M = 7.59; SD = 1.24) and Self-Actualization (M = 7.64; SD = 1.20) show relatively high averages, reflecting that respondents maintain positive social interactions and a strong sense of personal growth, motivation, and life purpose. Regarding the dependent variables, Self-Tracking Behavior has a mean value of 7.13 (SD = 1.48), which falls within the moderate range. This indicates that although respondents are familiar with digital health tools such as fitness apps or wearables, their usage is not yet consistent or fully integrated into daily routines. Meanwhile, Local MSME Income exhibits a mean value of 35.52 (SD = 4.45), with a minimum of 23.00 and a maximum of 46.00. This variation demonstrates differences in income levels among MSME owners, potentially influenced by personal health behaviors and shifts in consumer lifestyle patterns.

In summary, the descriptive analysis reveals that participants display positive health-promoting behaviors across all lifestyle dimensions. However, there remains room for improvement, particularly in increasing physical activity levels and optimizing the use of digital self-tracking technologies. Strengthening these aspects may indirectly contribute to improving MSME performance and supporting local economic growth.

Table 2. Validity Test

item	Correlation with Total Score	Sig. (2-tailed)	Validity	Item	Correlation with Total Score	Sig. (2-tailed)	Validity
H1	0.533	0.000	Valid	TAM1	0.396	0.000	Valid
H2	0.487	0.000	Valid	TAM2	0.342	0.000	Valid
H3	0.521	0.000	Valid	TAM3	0.352	0.000	Valid
H4	0.478	0.000	Valid	TAM4	0.326	0.000	Valid
H5	0.432	0.000	Valid	TAM5	0.302	0.000	Valid
H6	0.645	0.000	Valid	TAM6	0.304	0.000	Valid
H7	0.400	0.000	Valid	TAM7	0.325	0.000	Valid
H8	0.451	0.000	Valid	TAM8	0.560	0.000	Valid
H9	0.655	0.000	Valid	UMKM1	0.536	0.000	Valid
H10	0.420	0.000	Valid	UMKM2	0.513	0.000	Valid
H11	0.452	0.000	Valid	UMKM3	0.465	0.000	Valid
H12	0.492	0.000	Valid	UMKM4	0.537	0.000	Valid
				UMKM5	0.571	0.000	Valid
				UMKM6	0.451	0.000	Valid

Validity Test Analysis

The validity test was conducted to determine whether each questionnaire item was able to measure the intended construct accurately. The results in Table 2 show that all items have correlation coefficients (r-count) greater than the minimum validity threshold of 0.30 and significance values (Sig. 2-tailed) less than 0.05.

This indicates that all items are valid and can be used in further analysis. Specifically, the correlation coefficients for the healthy lifestyle items (H1–H12) ranged from 0.400 to 0.655, while those for the Technology Acceptance Model (TAM1–TAM8) ranged from 0.302 to 0.560. Likewise, the MSME income items (UMKM1–UMKM6) showed correlations between 0.451 and 0.571.

The strong and significant correlations suggest that the indicators within each construct are internally consistent and theoretically aligned with the research variables. Therefore, the questionnaire instrument used in this study is considered valid for measuring the constructs of Healthy Lifestyle Dimensions, Technology Acceptance Behavior, and Local MSME Income.

Table 3. Reliability Test

Cronbach's Alpha	N of Items
0.832	26

Source: SPSS Version 25

Reliability Test

The reliability test was performed to evaluate the internal consistency of the research instrument used in this study. Based on the results presented in Table 3, the overall Cronbach's Alpha value is 0.832 for a total of 26 items. According toHair, (2019) ; Nunnally, (1994), a Cronbach's Alpha value above 0.70 indicates acceptable reliability, while values above 0.80 demonstrate high internal consistency among items measuring the same construct. Thus, the result of 0.832 signifies that the questionnaire items used in this study are highly reliable and consistently measure the intended variables. This implies that respondents provided stable and dependable responses, and the instrument can be considered statistically robust for further analyses, including correlation, regression, or structural equation modeling (SEM).

Table 4. Classical Assumption Tests

No	Assumption Test	Method / Statistic	SPSS Output	Conclusion
1	Normality	One-Sample Kolmogorov–Smirnov	Asymp. Sig. (2-tailed) = 0.000 < 0.05	Residuals are not normally distributed
2	Multicollinearity	Tolerance & VIF	H1–H12: VIF = 1.091–11.690; Tolerance = 0.796–0.916	No multicollinearity, except for H6 & H9 (VIF > 10; Tolerance < 0.1)
3	Heteroscedasticity	Regression coefficients vs. residuals (abs_res)	Sig. of all variables > 0.05	No heteroscedasticity detected
4	Autocorrelation	Run Test (median)	Z = –0.709, Asymp. Sig. (2-tailed) = 0.478 > 0.05	No autocorrelation

Source: SPSS Version 25

Interpretation: The results of the classical assumption tests indicate that the residuals are not normally distributed (Asymp. Sig. = 0.000 < 0.05), implying that the assumption of normality is violated. This condition may affect the precision of the t and F tests. However, the multicollinearity test shows that most independent variables are within acceptable tolerance and VIF limits, except for H6 and H9, which exhibit high multicollinearity (VIF > 10, Tolerance < 0.1), suggesting potential redundancy or overlap between predictors. The heteroscedasticity test indicates homoscedastic residuals (Sig. > 0.05 for all variables), confirming constant variance across the data. Meanwhile, the Run Test (Z = –0.709; Sig. = 0.478 > 0.05) confirms the absence of autocorrelation, implying that residuals are randomly distributed. Overall, despite the non-normality issue, the regression model remains statistically robust and suitable for further analysis.

Table 5. Multiple Linear Regression (ANOVA Test)

No	Type of Variance	Sum of Squares	df	Mean Square	F	Sig. (p-value)
1	Regression	1192.85	6	198.808	14.01	0.000
2	Residual	2739.105	193	14.192		

3	Total	3931.955	199			

DISCUSSION

1.   The Influence of Lifestyle on MSME Income

The ANOVA test results show an F-value of 14.01 with a *p-value* of 0.000, which is smaller than the significance level of 0.05. This confirms that the independent variables—self-actualization, stress management, nutrition, physical activity, health responsibility, and interpersonal relationships—simultaneously have a significant effect on MSME income. In other words, at least one of these independent variables has a significant impact on the dependent variable, indicating that the regression model used in this study is appropriate for predicting MSME performance or income.

A deeper analysis reveals that psychological variables, such as self-actualization and stress management, play a vital role in determining the success of MSME management. This aligns with the findings of Tisu et al., (2023), who found that entrepreneurs' psychological well-being contributes significantly to productivity and operational efficiency, especially in developing economies. Individuals who can manage stress effectively and are motivated toward self-actualization tend to be more adaptive to business challenges, thus positively affecting business income.

Furthermore, physical health factors such as nutrition and physical activity also play an important role. Entrepreneurs who maintain a balanced diet and engage in regular physical exercise are more likely to sustain their energy and concentration, positively influencing decision-making and business management. This finding is supported by (Liu et al., 2022). who discovered that the frequency and intensity of physical exercise are positively correlated with entrepreneurial behavior and business performance. Therefore, attention to physical health can enhance decision-making ability and financial stability in MSMEs.

Interpersonal relationships are also found to be influential in determining MSME income. Entrepreneurs with strong social networks, effective communication, and the ability to build partnerships are more likely to succeed in developing their businesses. According to Ivanycheva et al., (2024), entrepreneurial lifestyles emphasizing social relationships and work–life balance can promote innovation and sustainability in small businesses.

Overall, this study highlights that MSME development requires a holistic approach that considers psychological well-being, physical health, and social relationships. Training or intervention programs focusing on stress management, quality of life improvement, and social network development are expected to significantly enhance MSME income and competitiveness (Barbosa et al., 2024).

2.   The Relationship Between a Healthy Lifestyle and the Use of Self-Tracking

Table 6.Interpretation of Regression Results (based on SPSS output)

Variable	Coefficient (β)	Sig. (p-value)	Interpretation
Health Responsibility (X_1)	$\beta_1 > 0$	0.000	The higher the health responsibility, the greater the MSME income. Business owners who are concerned about their health tend to be more productive.
Physical Activity (X_2)	$\beta_2 > 0$	0.000	Physical activity increases energy and focus, thereby improving work effectiveness and business turnover.
Nutrition (X_3)	$\beta_3 > 0$	0.000	A healthy diet supports work stamina and enhances decision-making quality.

Stress Management (X_4)	$\beta_4 > 0$	0.000	Entrepreneurs who can manage stress effectively have more stable and productive business performance.
Interpersonal Relationships (X_5)	$\beta_5 > 0$	0.000	The ability to build strong relationships with customers and partners increases loyalty and sales.
Self-Actualization (X_6)	$\beta_6 > 0$	0.000	The drive for self-development makes MSME owners more innovative and adaptive to market opportunities.

The Relationship Between a Healthy Lifestyle and the Use of Self-Tracking Behavior

Based on the results of the Fisher's Exact Test, all independent variables—namely health responsibility, physical activity, nutrition, stress management, interpersonal relationships, and self-actualization—showed a p-value of 0.000, which is less than 0.05. This indicates that each of these variables has a statistically significant relationship with *Behavior_Attention*, reflecting the level of individual awareness and engagement in self-tracking behavior.

Health Responsibility refers to Individuals with a high sense of health responsibility tend to be more active in monitoring their health conditions, such as blood pressure, sleep patterns, or treatment adherence. This finding aligns with research showing that consumers who take greater responsibility for their health are more likely to use technology to monitor and improve their well-being (Taiminen et al., 2020). Physical Activity means Regular physical activity encourages individuals to record their daily steps or workouts to track progress. Research indicates that participation in physical activity is associated with increased use of technology to monitor health and fitness (Hayes, 2024). Nutrition means Nutritional awareness leads individuals to track their food intake and calorie consumption. Studies have found that food intake monitoring through technology can help individuals achieve dietary goals and improve their overall well-being (Schock et al., 2024). Stress Management refers to Effective stress management encourages the use of self-tracking tools to monitor mood, sleep quality, or relaxation strategies. Research suggests that tracking stress through technology helps individuals manage stress and improve mental well-being (Hayes, 2024).Interpersonal Relationships means Healthy interpersonal relationships enhance motivation through sharing tracking results with friends or support groups. Studies indicate that social support plays an important role in boosting motivation and success in using technology for health monitoring (Schock et al., 2024). Self-Actualization refers to A focus on self-actualization drives individuals to monitor personal goals and productive habits. Research shows that individuals oriented toward self-actualization are more likely to use technology to monitor and improve their quality of life (Taiminen et al., 2020).

Overall, factors related to health responsibility, physical activity, nutrition, stress management, interpersonal relationships, and self-actualization play significant roles in enhancing individuals' engagement with self-tracking behavior. Monitoring health-related behaviors through technology can help individuals achieve their health goals and improve their overall quality of life.

CONCLUSION

Based on the statistical analysis and discussion, it can be concluded that a healthy lifestyle has a significant influence on MSME income and self-tracking behavior. The results of the ANOVA test indicate that all dimensions of a healthy lifestyle—namely self-actualization, stress management, nutrition, physical activity, health responsibility, and interpersonal relationships—simultaneously affect the income of MSME entrepreneurs. This finding emphasizes that psychological and physical well-being play a crucial role in enhancing productivity and business performance. Furthermore, the results of the regression and Fisher's Exact Test reveal that these six lifestyle dimensions also have a significant relationship with self-tracking behavior. Individuals who demonstrate

higher health responsibility, regular physical activity, and effective stress management tend to use digital technologies more frequently to monitor their health conditions. This suggests that a healthy lifestyle not only contributes to individual well-being but also fosters efficiency, innovation, and sustainability within small and medium enterprises. Therefore, strengthening healthy lifestyle practices through education, training, and technological support is essential for improving MSME performance and income. Collaborative efforts among the government, educational institutions, and private sectors are necessary to develop empowerment programs that integrate health promotion and digital transformation, ultimately fostering a healthier, more productive, and competitive entrepreneurial communi

Limitations – Despite these meaningful findings, this study has several limitations. First, the data were collected from MSME entrepreneurs in a single geographic area, namely Surakarta, which may limit the generalizability of the results to other regions. Second, the study relies on self-reported data, which may be subject to response bias or social desirability bias. Third, the cross-sectional design does not allow for the determination of causal relationships between healthy lifestyle variables, income, and self-tracking behavior. Finally, the analysis does not include external factors such as market conditions, digital literacy, or access to health technologies, which may also influence the outcomes.

Suggestions – Future research should consider expanding the sample to include MSMEs from various regions or across different sectors to enhance generalizability. Longitudinal or experimental designs are recommended to better understand the causal pathways between healthy lifestyle behaviors and business performance. Researchers should also incorporate additional variables such as digital literacy, access to technology, financial constraints, and environmental factors that may influence self-tracking adoption. Furthermore, qualitative approaches could provide deeper insights into the motivations and barriers experienced by MSME entrepreneurs in integrating healthy lifestyles and digital monitoring into their daily business activities.

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