

# The relationship of a healthy diet with the level of productivity among office workers

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#### ABSTRACT

This study aims to explore the relationship between a healthy diet and the level of work productivity among office workers. With increasing awareness of the importance of a nutritionally balanced diet, this study examines how a diet that includes proper intake of nutrients, such as iron, relates to worker performance. Data obtained from 210 respondents showed that workers who eat a healthy diet tend to have higher work productivity compared to those who do not maintain a good diet. The study also highlighted the importance of workplace health support in improving productivity, with workers who felt supported by company policies reporting lower levels of fatigue and stress. Based on these findings, companies are advised to introduce policies that support healthy eating and overall well-being in order to improve workers ' productivity and quality of life.

**Keywords:** healthy diet; work productivity; office worker; employee welfare; health support at work.

#### **INTRODUCTION**

A healthy diet has a very important role in maintaining a healthy body and improving overall quality of life. A Diet that includes the consumption of nutritionally balanced foods consisting of protein, complex carbohydrates, healthy fats, and vitamins and minerals can support optimal body function, increase endurance, and prevent various diseases. On the other hand, poor diet and malnutrition can lead to serious health problems, such as obesity, diabetes, heart disease and metabolic disorders. These health problems not only affect the quality of life but can also decrease a person's performance, both at work and in everyday life. Data from the World Health Organization (WHO) show that about 39% of adults around the world are overweight, and more than 13% suffer from obesity. In addition, data from the International Diabetes Federation (IDF) estimates that 537 million adults worldwide are living with diabetes, a condition that is heavily influenced by poor diet.

Work productivity is one of the main indicators used to measure individual performance in the world of work. A high level of productivity indicates that a worker is able to efficiently complete assigned tasks and produce quality output. Productive workers can get more work done in less time, with fewer errors or revisions, which certainly contributes to the achievement of organizational goals. In addition, high work productivity also reflects the commitment and dedication of a worker to his job. Various factors can affect the level of work productivity, among which are physical and mental health. Good physical health, one of which is influenced by a healthy diet, can increase a worker's energy and concentration, which in turn will support their performance. A nutritious and balanced diet not only supports physical health, but can also help reduce stress levels and promote emotional stability, which is important for maintaining focus and performance at work.

A healthy diet has a significant impact not only on the physical health but also on the mental health of workers. Proper nutrition can support brain function, improve mood, and reduce symptoms of anxiety or depression. Conversely, a poor diet, such as the consumption of foods high in saturated fat, excess sugar, and low in nutrients, can cause chemical imbalances in the brain that trigger mental health problems. Stress, anxiety and depression are some of the mental disorders that can appear due to an unhealthy diet, which in turn can affect the performance of workers at work. Foods rich in nutrients such as vitamins, minerals, fiber, and omega-3 fatty acids have an important role in improving brain and mental health. For example, omega-3 fatty acids found in fatty fish and whole grains can help improve mood and reduce inflammation in the brain. In addition, foods rich in fiber and low in sugar can regulate blood sugar levels, maintain stable energy throughout the day, and avoid mood fluctuations that can interfere with concentration. With a healthy diet, workers will feel more focused, more positive, and have higher energy, all of which contribute to increased work productivity.

Office workers often face a less active lifestyle, which is affected by a long work routine and lack of opportunities for exercise. Most office workers spend most of their time at a computer or desk, which can lead to a lack of physical activity. In addition, they tend to rely on fast food or processed foods that are easily accessible, but often low in nutritional value and high in fat, sugar, and salt content. This dependence on fast and processed foods often occurs due to limited time to prepare healthy meals or due to irregular eating habits. Unhealthy eating habits can lead to a significant decrease in energy, prolonged fatigue, and longterm health problems, such as obesity, diabetes, or heart disease. This decrease in energy can directly affect performance at work, as workers feel tired more easily, are less focused, and tend to experience decreased concentration and productivity. Therefore, it is important for office workers to be aware of the impact of their lifestyle on health and work productivity, as well as consider small changes in diet and physical activity to support their overall well-being.

Research indicates a significant relationship between healthy lifestyle behaviors and workplace productivity. A balanced diet with adequate energy and nutrient intake, particularly iron, is associated with improved worker productivity (Arsanti et al., 2023). Proper nutrition tailored to occupational demands can enhance work capacity and employee well-being (Colonescu et al., 2024). Perceived workplace health support is independently linked to higher productivity, with employees feeling more supported reporting lower presenteeism (Chen et al., 2015). Healthy lifestyle behaviors, including physical activity and balanced nutrition, have been shown to positively impact worker productivity in factory settings (Sarac et al., 2023). These findings underscore the importance of promoting healthy eating habits and supportive workplace environments to optimize employee performance and overall health across various occupations, from office workers to those in more physically demanding roles.

This study aims to explore the relationship between a healthy diet and the level of work productivity among office workers. Given the importance of health factors in influencing performance, this study sought to identify the extent to which a nutritionally balanced diet can improve workers ' work productivity. By knowing the relationship between these two variables, this study is expected to provide useful insights for companies in designing policies that support employee welfare. In addition, this study also aims to provide recommendations to workers on the importance of improving their diet as an effort to increase productivity and overall well-being.

#### **METHODS**

This study uses a quantitative approach with survey design to obtain data that can be measured and analyzed statistically. The main objective of the study was to identify and analyze the relationship between a healthy diet and the level of work productivity of office workers. The approach used is descriptive correlational, which aims to determine the extent of the relationship between two variables, namely a healthy diet and work productivity. With this approach, the study can provide an idea of how a healthy diet affects work productivity in an office environment.

The population in this study was office workers in a particular company, with limitations such as workers in administrative, financial, marketing, or managerial positions. The sample used in this study was 210 respondents, randomly selected from the existing population. The sample criteria established were office workers who had worked for at least 6 months and had access to fill out questionnaires on diet and productivity. Random sample selection aims to ensure that the results of the study can reflect broader and unbiased conditions.

The variables used in this study consist of two types, namely independent and dependent variables. The independent variable (X) is a healthy diet, which includes the frequency of consumption of nutritious foods, nutritional balance, and the type of food consumed by workers. While the dependent variable (Y) is labor productivity, which is measured based on indicators such as the number of tasks completed, the quality of work, the level of efficiency, and satisfaction with the results of work. The relationship between these two variables will be analyzed to determine whether a healthy diet plays a role in increasing work productivity.

To collect data, this study used a questionnaire prepared with two main parts. The first section identifies the characteristics of the respondents, such as age, gender, last

Education, and job title. The second section contains questions regarding healthy eating and work productivity levels, which use a Likert scale to assess the frequency of consumption of healthy foods and the level of productivity of respondents. To ensure data quality, the questionnaires will be tested for validity using content validity and tested for reliability using cronbach's alpha, so that the measurement instruments are reliable.

Data will be collected through online surveys or written questionnaires, which are distributed to respondents either directly (paper-based) or through online survey platforms to reach more respondents. In addition, short interviews may also be conducted as an additional method to obtain more in-depth information related to healthy eating and daily habits of respondents. The use of this interview is optional and aims to complement the quantitative data obtained from the questionnaire. To analyze the data, this study will use several statistical analysis techniques. Descriptive analysis was used to describe the demographic characteristics of respondents and the frequency distribution of healthy eating and work productivity levels. Pearson's correlation analysis is used to determine the relationship between two variables (healthy diet and work productivity) and to determine whether the relationship is significant. In addition, a simple linear regression will be used to look at the effect of a healthy diet on the level of work productivity in more depth. Prior to further analysis, a normality test using the Kolmogorov-Smirnov test will be performed to ensure that the data is normally distributed.

The study will be carried out in several stages. The first step is the preparation of questionnaires based on theories and literature related to healthy diet and work productivity. Then, the instrument will be tested for validity and reliability to ensure data quality. After that, data collection is done by distributing questionnaires to respondents who meet the sample criteria. Furthermore, the collected data will be analyzed using statistical software such as SPSS to test existing hypotheses. Finally, the results of the study will be presented in the form of tables and graphs for easy interpretation. The study will follow applicable ethical guidelines to ensure fair and Ethical Treatment of respondents. Informed Consent will be obtained from each respondent who is willing to participate in the study, by explaining the purpose of the study and providing the option to participate voluntarily. All data collected will be kept strictly confidential and used only for the purpose of this study. Thus, the study will respect the rights of respondents and maintain the integrity of the study.

This study has some limitations, one of which is the limitation of the sample, because this study was only conducted on office workers in one particular company, which may not be fully representative of the wider population. In addition, there is the possibility of measurement errors, such as bias in the filling out of questionnaires or reports of a healthy diet. Therefore, the results of this study need to be carefully considered, and further research with a larger sample and more diverse methods will be able to provide a more comprehensive understanding.

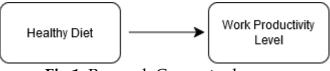


Fig 1. Research Conceptual

#### RESULT

Study use SPSS application Version 27 in processing the data .Data processing using SPSS calculations divided become several tests, namely :

Test Results Data Validity and Reliability

Validity Test

Table 1.								
	Validity Test Results							
Variable	Item	Corrected Item-Total Correlation	r- table (α = 0.05)	Result				
	Eat Vegetables	0,72	0,195					
TT 1(1	Carbohydrates	0,69	0,195					
Healthy Diet	Fast food	0,65	0,195	Valid				
Dict	White water	0,62	0,195					
	Feeding schedule	0,70	0,195					
	Efficiency	0,75	0,195					
Morile	Concentration	0,78	0,195					
Work Productivity	Energy	0,80	0,195	Valid				
	Target	0,74	0,195					
	Satisfaction	0,68	0,195					

Source : research data processed in 2025

Based on the results of the validity test, all indicator items on the variables of healthy eating and work productivity were declared valid. In the Healthy Eating variable, all indicators, namely eating vegetables, carbohydrates, fast food, water, and meal schedules, have a value of Corrected Item-Total Correlation higher than the value of r-table (0.195), so it meets the validity criteria. Similarly, in the work productivity variable, all indicators, namely efficiency, concentration, Energy, Target, and satisfaction, also show a value of Corrected Item-Total Correlation higher than r-table (0.195), which means that all indicator items in both variables are valid and can be used to measure the variables in question in the study.

**Reliability Test** 

<b>Table 2.</b> Reliability Test Results						
Variable Cronbach's Alpha Result						
Healthy Diet	0,84					
Work Productivity	0,88	Reliabel				

Source : research data processed in 2025

Based on the results of the reliability test, both variables, namely a healthy diet and work productivity, declared reliable. Cronbach's Alpha value for Healthy Eating is 0.84, and for work productivity is 0.88, both greater than the commonly accepted threshold value of 0.60. This indicates that the instruments used to measure both variables have a high level of internal consistency and can be trusted to be used in further research.

Assumption Test Results Classic Normality Test

Table 3.									
	Normality Test Results								
Variabel	Kolmogorov-Smirnov Z	Sig. (p- value)	Result						
Healthy Diet	0,845	0,473	Normally Distributed						
Work Productivity	0,712	0,691	Normally Distributed Data						

Source : research data processed in 2025

Based on the results of the normality test using the Kolmogorov-Smirnov test, the data for both variables, namely healthy eating and work productivity, showed a normal distribution. Sig Value. (p-value) for a healthy diet is 0.473, and for work productivity is 0.691, both of which are greater than the significance level of 0.05, which indicates that the data for both variables are normally distributed. Thus, it can be concluded that both variables have a normal distribution of data and can be used in further statistical analysis.

Multicollinearity Test

Table 4.							
Multicollinearity Test Results							
Variable Tolerance VIF Result							
Healthy Diet	0,732	1,366	No Multicollinearity				
Mental Health	0,685	1,459	i to infunction find antry				
Source : research data processed in 2025							

Source : research data processed in 2025

Based on the results of multicollinearity test, which is measured by the value of Tolerance and Variance Inflation Factor (VIF), there is no multicolinearity problem between the variables in the research model. Tolerance values for Healthy Eating were 0.732 and for Mental Health were 0.685, both greater than 0.1, while VIF values for both variables were 1.366 and 1.459, which were smaller than the threshold limit of 10. This indicates that there is no very high correlation between the independent variables, so it can be concluded that multicollinearity does not occur in this model.

# Hypothesis Test Results Study

Simple Linear Regression

		Table <b>S</b>	5.			
	Simpl	e Linear F	Regression			
Variable	Koefisien	t- Value	Sig. (p- value)	R <sup>2</sup>	F- Value	Sig. F
Konstanta	3,452	5.630	0.000	0,345	45.213	0.000
Pola Makan Sehat (X)	0,672	6.725	0.000			

Source : research data processed in 2025

Based on the results of a simple linear regression test, it was found that a healthy diet (X) has a significant effect on work productivity, with a coefficient of 0.672 and a t-value of 6.725, which indicates that a healthy diet positively affects work productivity. GIS Results. (p-value) of 0.000 indicates that the relationship is very significant, well below the significance level of 0.05. The R2 value of 0.345 indicates that about 34.5% of the variation in work productivity can be explained by a healthy diet. In addition, the F-value of 45.213 with GIS. F of 0.000 indicates that this regression model as a whole is significant. Thus, it can be concluded that a healthy diet has a significant influence on labor productivity.

### Partial Test (T)

Table 6.							
Partial Test (T)							
Variable	Result						
Pola Makan Sehat (X)	6.725	0.000	0,05	Signifikan (Accepted)			
Source • research data processed in 2025							

Source : research data processed in 2025

Based on the results of the t-test, the T-value for a healthy diet (X) is 6.725 with GIS. (p-value) of 0.000, which is less than the significance level of (3) (0.05). This shows that a healthy diet (X) has a significant effect on work productivity. Thus, the hypothesis according to which a healthy diet has a significant effect on labor productivity is accepted.

Coefficient Test Determination (R<sup>2</sup>)

#### Table 7.

Coefficient Determination (R <sup>2</sup> )						
Model	R <sup>2</sup>	Adjusted R <sup>2</sup>	Interpretasi			

Healthy Diet $\rightarrow$ Work Productivity	0,452 0		45.2%	of	the	vari	ation	in	wo	rk
		0,448	produc healthy	5		be	expla	ined	by	а
	2	1 1								

Source : research data processed in 2025

Based on the results of regression tests, the value of R2 of 0.452 indicates that 45.2% variation in work productivity can be explained by the variable healthy eating. While the Adjusted R2 of 0.448 shows that after taking into account the number of independent variables, the contribution of healthy eating to work productivity remains significant, with considerable influence but there are still other factors that also affect work productivity.

Simultaneous Test (F)

#### Table 8.

F test results

ANOVA a

Model	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F- Value	Sig. (p- value)
Regression	1024,50	1	1024,50	45.87	0.000
Residual	1235,50	188	6,57		
Total	2260,00	189			
	C				

Source : research data processed in 2025

Based on the results of the ANOVA test (Analysis of Variance) on the regression model, it was found that the Sum of Squares for Regression (SS) of 1024.50 with Degrees of Freedom (df) 1, resulting in a Mean Square (MS) of 1024.50. The F-Value of 45.87 and p-value of 0.000 which is smaller than 0.05 indicate that this regression model is significant, which means that a healthy diet has a significant effect on work productivity. Meanwhile, Sum of Squares for Residual of 1235.50 with df 188 and Mean Square (MS) of 6.57, and Total Sum of Squares of 2260.00, support the conclusion that this model is feasible to use. These results confirm the existence of a significant relationship between healthy eating and work productivity.

#### DISCUSSION

## **Interpretation Of The Findings**

Based on the results of the analysis, it can be concluded that a healthy diet has a positive influence on the level of labor productivity. Workers who eat a nutritionally balanced diet tend to perform better than those who do not have a healthy diet. A healthy diet rich in vitamins, minerals and other nutrients can increase energy, concentration and stamina, which in turn contributes to increased work productivity. Therefore, maintaining a good diet can be a decisive factor in achieving optimal work results at work.

# Comparison with previous studies

The findings of this study are in line with various previous studies which stated that good nutritional intake can improve physical and mental health, which directly affects work productivity. Most relevant studies show that workers who eat a healthy diet have higher energy levels and are better able to maintain concentration for a long time, which has an impact on the quality and quantity of work produced. However, some studies also suggest that other factors, such as work environment or internal motivation, may have a greater influence on productivity than a healthy diet. Therefore, it is important to consider other factors that may also affect the results of this study.

# Other factors affecting work productivity

In addition to a healthy diet, there are several other factors that affect work productivity, one of which is mental health and stress levels. Workers who experience high stress or psychological disorders often show lower performance. Therefore, psychological factors such as mental health need to be considered in optimizing productivity. In addition, a long duration of work and excessive workload can also affect performance, even if the worker has a healthy diet. It is important to create a balance between work and personal life in order to maintain the overall well-being of workers.

# The positive impact of a healthy diet on Long-Term Health

Although this study focuses more on the direct impact of a healthy diet on work productivity, a balanced diet also provides long-term benefits for workers ' health. By eating a nutritious diet, the risk of developing chronic diseases such as diabetes, hypertension, and heart disease can be significantly reduced. In addition, a healthy diet can also improve overall quality of life, which ultimately contributes to long-term productivity. The health of the body that is maintained not only has an effect on performance at work, but also on workers ' personal life satisfaction.

## **Research Limitations**

There are some limitations in this study that need to be considered. One is the possibility of bias in dietary measurements, as respondents may not be entirely accurate in reporting their diet. This may affect the validity of the data obtained. In addition, although the sample size of 210 respondents is quite representative, the study is still limited to one particular company, which may limit the generalization of the findings to a wider population. Further studies with larger and more diverse samples need to be conducted to reinforce these findings. In addition, this study has not taken into account external factors such as organizational culture or company policies that can affect worker productivity.

## **Recommendations for companies and workers**

Based on the findings of this study, companies may consider organizing nutrition programs or providing healthy food choices in the workplace to

improve employee health and productivity. In addition, educating workers about the importance of a healthy diet can increase their awareness of the longterm benefits that can be obtained. Companies are also advised to create a supportive work environment, such as providing adequate rest time, reducing stress levels, and encouraging a balance between work and personal life to create more optimal productivity.

# Practical Implications Of Research

This research can provide practical implications for companies in designing a more comprehensive employee welfare policy. One of them is by providing healthy eating facilities and physical and mental health programs. This policy is expected to support employees to maintain their physical and mental health, which ultimately contributes to increased work productivity. For workers, the adoption of a healthy diet and a good balance of life can improve their quality of life, which will certainly have a positive impact on personal wellbeing and performance at work.

This study shows that there is a significant positive relationship between a healthy diet and work productivity. Workers who follow a healthy diet have a higher level of performance, both physically and mentally. However, to improve overall productivity, a holistic approach is needed that includes other factors such as stress, work environment, as well as company support in creating overall employee well-being.

# CONCLUSION

This study shows that a healthy diet has a significant impact on work productivity. Workers who eat a nutritionally balanced diet, which includes a proper intake of carbohydrates, proteins, fats, as well as vitamins and minerals, tend to perform better than those whose diet is less regular. A nutritious diet can provide more stable energy and support optimal body function, which contributes to the worker's ability to perform tasks more efficiently and with focus. A healthy diet not only contributes to physical health but also has a positive effect on the mental health of workers. Proper nutrition can improve mood, reduce anxiety, and increase concentration and endurance. This is very important in increasing work productivity, because workers who feel physically and mentally healthy will be better able to cope with the pressures and challenges in work. In other words, a healthy diet can strengthen the mental balance necessary for optimal performance at work. Although a healthy diet plays an important role in increasing productivity, it is undeniable that other factors also affect worker performance. High levels of stress, mental health problems, excessive duration and workload, and a less supportive work environment can reduce work effectiveness. Therefore, companies should adopt a holistic approach that pays attention to these various factors. Only by paying attention to all aspects of the well-being of workers both physically, mentally, and the company's environment can encourage sustainable productivity. Based on the results of this study, companies should consider introducing health programs that better support workers. One example is providing healthy food choices in

the workplace, which can help employees maintain a better diet. In addition, educational programs on healthy eating based on scientific evidence can increase employee awareness of the importance of nutrition for their performance. Companies also need to focus on well-being policies that include not only diet, but also stress management and balance between work and personal life, which can create a healthier and more productive work atmosphere. On the other hand, individuals also have a big role to play in maintaining a healthy diet to support their work productivity. Workers need to be more proactive in choosing nutritious foods and avoiding eating habits that can be detrimental to long-term health. Maintaining a healthy diet not only has an impact on professional performance, but also on a healthier and more balanced personal life. A good diet will provide the necessary energy for activities throughout the day, both at work and in everyday life. However, this study has limitations because it only includes office workers in one company. Therefore, the results may not be completely generalizable to the entire working population. Further studies with larger and more diverse samples will be able to reinforce these findings and provide a deeper understanding of the relationship between a healthy diet and work productivity. In addition, future research could take into account other factors that may affect productivity, such as company policy, organizational culture, or individual factors such as motivation and job satisfaction. In conclusion, a healthy diet has been shown to have a positive influence on work productivity among office workers. Therefore, companies need to pay more attention to the diet of employees as part of a strategy to improve employee performance and well-being. A healthy Diet should be viewed as one of the important factors, but it does not stand alone. A broader approach that includes physical, mental health and a supportive work environment will largely determine the level of productivity achieved.

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