INTRODUCTION

Excellent health in workers can determine high work productivity, but the ability to think or do physical work can decrease when workers’ health is disturbed. One example of health problems that workers can experience is work fatigue. Industrial workers are the workers who are most vulnerable to health problems. Previous research stated that 43.3% of workers in the informal sector experienced health problems, one of which was fatigue, which could result in decreased productivity. Increasing quantity and quality together can be used to interpret productivity. The capacity of an individual or group of individuals to produce products in the form of goods or services, both in terms of quantity, quality and varying degrees, is called work productivity. The person’s health is one of the key elements that can affect productivity at work. An indicator of how well workers are utilized in a production process to produce the desired output is labor productivity. One of the supporting elements is the age level of the workforce. Workers with a productive age level of 15-50 years can adapt quickly to new tasks and are easy to understand and use technology. However, it is different with non-productive age workers, whose physical abilities are certainly decreasing, and it is difficult to adapt to technology, so their work productivity will decrease.

Increasing staff productivity is one of the ways the business works to become more competitive. But raising productivity at work is not always simple. To boost job productivity, senior management of an organization or company typically faces numerous challenges. This calls for a unique strategy, especially from the company’s staff.

One of the many variables affecting a worker’s productivity level is their nutritional status. According to the Manpower Act, there are 6 working days every week. Working hours are 7 hours per day for 40 hours per week; on days with five working hours, working hours are 8 hours per day for 40 hours per week. A person can typically work well for 6 to 10 hours each day. The ability to work for extended amounts of time is only one aspect of extending working hours; working for extended periods also increases the risk of exhaustion, health issues, illness, accidents, and discontent. Excessive workloads can have a negative impact on work quality and performance. Adverse effects can include decreased reaction time, increased decision-making errors, decreased concentration ability, and increased potential for work accidents. A physiologically excessive workload will have an impact on health and work productivity.

Therefore, this study was conducted to determine whether nutritional status, workload and years of service can affect workers’ productivity levels. If these factors affect workers’ productivity level, this can provide an appropriate evaluation in regulating the work system to improve productivity in workers. So that the performance of workers can increase and this can increase the company’s targets and all work activities in the workplace can be carried out properly.
METHODS

Materials
With an observational research design and cross-sectional methodology, this study employs quantitative research methods. One of the state-owned businesses in the city of Samarinda, PT.Z, served as the site of this study.

Data collection procedures
There were 45 workers in this study's entire population, including all workers. There are 45 responders because the sample used in this study is the whole population. Primary data are gathered through interview techniques, questionnaires, and direct observation.

Data analysis
The logistic regression test was employed in this study to ascertain the relationship between the dependent variable (work productivity) and the independent variables (Nutritional Status, workload, and tenure). When the hypothesis is evaluated using a p-value of less than 0.05, it is assumed that the independent variable affects the dependent variable.

RESULTS

Distribution of nutritional status, workload, work period and worker productivity
The following are the findings of the research investigation of how worker productivity is impacted by nutritional state, workload, and work duration. According to Table 1, 58% of respondents have a moderate burden, whereas 42% have a light workload. The distribution of years of service shows that 67% of respondents have a work period of more than 10 years, while 33% have a work period of less than or equal to 10 years (Table 2).

The results on the distribution of nutritional status showed that 40% of respondents had overweight nutritional status, 38% had normal nutritional status, and 22% of respondents had underweight nutritional status (Table 3). Based on Table 4, the productivity distribution shows that 58% of respondents have a less productive status, while 42% have a productive work status.

Workload analysis
Productivity is impacted by nutritional state, workload, work period, and tenure. When the hypothesis is evaluated using a p-value of less than 0.05, it is assumed that the independent variable affects the dependent variable.

DISCUSSION
Work productivity is the capacity of an individual or a group to produce products in the form of goods or services, both in terms of quantity and quality, and to do regularly. Numerous variables, including the workplace, environment, personality, and health, can affect how productive an individual is at work. This study found that the workload has an effect of 5.5 times on workers’ productivity levels. This result is in line with research conducted on employees of PT. Bank Syariah Mandiri Harapan Raya Pekanbaru Branch states that workload (X) positively and significantly affects employee work productivity. Based on the research results from Musdalifah (2017), Workload and productivity at work are significantly correlated or related. The productivity of work decreases as the workload increases. This results from a shortage of hotel attendants at KTM Resort Batam.

The tenure element considerably
impacts the degree of worker productivity, according to the study’s findings. The productivity of employees is 7.5 times more affected by the work period. According to research by Aprilyanti S (2017) and Pamungkas et al. (2017), the duration of the workday is one of the elements that affects a person’s productivity at work. Someone who was employed has stopped. A worker's skills and ability to perform the work will improve the longer they work there. Continuous work experience might help a person become more technically mature. A person's technical equipment implementation proficiency depends on their tenure. The amount of time/age of work, level of knowledge and abilities, and mastery of the task and equipment are among the variables that determine whether an employee is experienced and, at the same time, an indicator of work experience.

The results of this study found that nutritional status has a significant influence on worker productivity. Nutritional status affects the level of productivity of workers 13 times. The low level of productivity can be caused by health conditions such as general illnesses, occupational diseases, the nutritional state of the workforce, the environment, to aspects of work psychology. According to Utami (2015), age, amount of formal education, job experience, remuneration, and workload to the outpouring of labor are a few characteristics that can affect labor productivity. Nutritional status is related to work productivity, so nutritional status factors need attention because they are related to health and body resistance and can ultimately affect work productivity. The results of this nutritional status are also in accordance with the research of Utami (2012), which argues that there is a relationship between nutritional status and the productivity of female workers in the Spinning 1 unit of the Winding section of PT.  

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**CONFLICT OF INTEREST**

The authors declare that they have no known competing financial interests.

**ETHICAL CLEARANCE**

The study received ethical approval from Universitas Nahdlatul Ulama Surabaya with number 045/EC/KEPK/UNUSA/2022.

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**AUTHOR CONTRIBUTIONS**

All authors work equally in doing this research and writing this research article.

**REFERENCES**