THE EFFECT OF TRAINING ON WORK MOTIVATION, ATTITUDE, FATIGUE, AND PRODUCTIVITY

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ABSTRACT:
This study aims to examine the relationship model of work productivity reflected in an simultaneous assessment to the intensity and model of causality, motivation (achievement, friendship, power), work attitude (knowledge, assertiveness, and tendency to act), non-physical fatigue and labor productivity. The method used is a quantitative study with the implementation of field experiment of the variables expected to have direct or indirect effect on work productivity. Subjects of this study were 22 people in the experimental group and 22 people in the control group of emping melinjo entrepreneurs in industrial centers in East Java, the local distribution in Magetan, Ponorogo, Pacitan, and Kediri. The study used several research instruments, among others: attitude questionnaire, non-physical fatigue questionnaire, productivity questionnaire, documentation, and test. Measurement tools developed needed to be field tested before the study was done (try-out); both of them regarding employee motivation and burnout. Data were analyzed using path analysis. The results showed that achievement motivation training was partially able to increase the intensity of work motivation, especially achievement motivation, work attitude, and work productivity, and the interaction was able to change the model of the relationship between their own work motivation, work ethic, and non-physical fatigue of work and work productivity. Achievement motivation remained strong against work productivity, and the role this happened either directly or indirectly through work attitude that strengthened due to achievement motivation training.

Keywords: work productivity, attitudes, fatigue, work motivation

1 Emping are a type of Indonesian chips, a bite-size snack kripik cracker, made of melinjo or belinjo (Gnetum gnemon) nuts (which are actually seeds). Emping crackers have a slightly bitter taste [1]. Emping snacks are available in markets plain (original), salty, or sweet, depending on the addition of salt or caramelized sugar. (https://en.wikipedia.org/wiki/Emping)
1. INTRODUCTION

Major challenges on how to increase work productivity in Indonesia compared to other Asian countries are caused by several things such as, weak motivation, discipline, work ethic, lack of training, lack of awareness, and knowledge to the future (Manurung Ricardo, 1998). The low productivity, if not immediately addressed, will bring negative impact on increasing poverty. Increasing poverty is one of the forms of inconsistencies of the development goals. One of the strategic efforts to encourage the increase in public revenue is to increase work productivity, so that people do not always expect subsidies from the government. It implies that the strategy of increasing work productivity must first deals with the issue of work productivity both directly and indirectly. Anything related to poverty must be a priority in order to raise the degree of public welfare.

The root of poverty is the low work productivity caused by malnutrition, poor health, low skills, low income, low savings, low investment, low production, and low productivity. This relationship illustrates that productivity is not the sole factor as a predictor of job performance but it interacts with many factors, both from within individuals, such as physical and psychological, as well as external factors or environmental factors.

Vinacke (1952) has also revealed these factors influencing productivity, such as intelligence, skill, experience, work experience, and motivation. On the same notion, Yoder (1962) states that the expertise, experience, age, education, training characteristics, intelligence, initiative, talent, emotional assertiveness, attitude towards work, and personality all have an influence on employee performance. Michell states that high work performance and work productivity require two important factors, namely ability and personal motivation. Without the presence of both factors, high performance will not be achieved. However, different views exist, stating that ability, which is generally seen as the most important factor of motivation, does actually not play such role (Pratiknja et al., 1992).

The role of motivation and work attitude in increasing work productivity is dominant, as work productivity is known as the result of a change in behavior, while behavior itself occurs through a process of change in attitudes. Changes in behavior begin with change in one’s own attitudes; this means that work attitude is a predisposition against a person, idea, or object containing the components, as according Fisbein and Ajzen (1975), of cognitive, affective, and intention. All three interact with each other in such a harmonious and consistent way, when faced with the same object. In this study, the three components are explicitly declared as a variable of knowledge, assertiveness, and tendency to act.

Several factors interact with work productivity in addition to the factors above. Pratiknja et al. (1992) also reveal in their research that psychological factors other than physical quality factors also affect the productivity interacting with other factors, one of which is achievement motivation. Other findings show that there are differences in the interaction of input factors such as food and interactions of different sexes and type of work on work productivity. Further said that health of workers is also decisive in the acquisition of job performance, and at the specific level, health will also cause a certain level of job performance as well. As well as the relationship between fatigue and work productivity, in which fatigue is a protective mechanism of the body to avoid further damage marked with tiredness and decreased alertness, a chronic and psychosocial phenomenon that has a very significant relationship with work productivity.

The relationship between fatigue and productivity is also found from several studies suggesting that fatigue affects productivity (Gilmer, 1966; Cameron, 1973; Lience, 1992; and Kartasmita, 1997). Those opinions clearly state that work productivity closely related to increased welfare is not a single factor but is an interaction of several factors including education. Education can influence a person’s work productivity in order to improve the quality of work needed, and as a modifier of attitude of a worker (Vinache, 1952; Kubr, 1986; Buchori Mochtar, 1993).

Education to improve the quality of human resources has several types, including formal and non-formal education. Formal education takes place in institutions run legally under the government’s regulations aiming to achieve the goal of national education according to the standards prescribed. Non-formal education can be obtained from a variety of activities outside the formal education that aims to provide experience, knowledge, and certain skills to improve the quality of human resources, such as through trainings. The important role of training in human resource development is very significant. American research shows that 70% of American entrepreneurs are given trainings; approximately 59% of HR executives have never been to trainings outside the United States; and only 5% who never get trainings. The importance of training is also...
acknowledged in other countries, for example, Japan needs three years in preparation for managers before being given task. Similarly, France, Spain, Sweden, and Germany always participate in the survey in terms of global training experience for both senior and potential managers. The role of education and training in productivity is also revealed by Ishikawa (1991) showing that quality of human resources (HR) productivity is determined by the quality of education and training as well as development, to foster employment skills (proficiency) and professional job performance. To support the need to develop such things as volunteerism, personal self-development, development of mutually beneficial cooperation, as well as full participation, education or training is absolute, both in service on service training. Education influence is already evident in solving the problems of life and work productivity. In the case in Japan as stated by Ozawa (1988), that employee productivity Japan ranks the highest in the world because Japan has invested enormous fund to develop a system of education or training, and is clearly seen in aspects of daily life. The results of education and training in Japan, among others are self-development, voluntary action, group activities, individual role, mastery of technology implementation, rooted work ethics, discipline in quality control, development of mutually beneficial cooperation, creative, and dynamic as well as awareness and experience in work quality and continuous development issues (Asip, 1993). Development, self-acceptance, and hard work, is an expression of attitude, and this attitude is very important in increasing the productivity. Work attitude also greatly affects the productivity of a person's work. Without a positive attitude towards work, then it will not produce work productivity (Manulang, 1989).

From the example, it is clear the important role of the quality of human resource training, as quality of human resources is obviously important for work productivity, and an increase in productivity will indirectly increase the degree of community health or entrepreneurs who will ultimately improve the quality of human resources. The role of training is thus important in Indonesia, along with the development of training as an effort to increase work productivity. The question arising is in terms of relevance and quality of training to the needs of human resources. The problems concerning the issue of competence and expectations of the development of human resources towards work productivity associated with other factors such as health and poverty. Training as an effort to improve productivity is especially relevant. Therefore, the study evaluates the impact of training on achievement motivation and work productivity, either directly or indirectly, considering that training has been long adopted as a way to improve achievement motivation and to empower human resources in Indonesian.

This study aims to examine the concept of achievement motivation training, as achievement motivation is believed as both a single need, and a multidimensional need. In this regard, this study aims to examine the relationship model of work productivity reflected in a simultaneous assessment to the intensity and model of causality, motivation (achievement, friendship, power), work attitude (knowledge, assertiveness, and tendency to act), non-physical fatigue and labor productivity.

2. RESEARCH METHOD

Design

This study is a quantitative study with the implementation of field experiment of the variables expected to have direct or indirect effect on work productivity. In this study, the variables that are considered as dominant are motivation (achievement, friendship, power), work attitude (knowledge, assertiveness, and tendency to act), non-physical fatigue and labor productivity. In this study, an experimental study was conducted in the form of a quasi-experimental in term of field study, which according to Kerlinger (1990) is to test the effect, and the process of social change as well as complex psychological matter, in circumstances similar to the reality of life. Based on the understanding of the notion of experiment above, then this study aims to examine the direct and indirect effect of the achievement motivation training on work motivation, work ethic, fatigue, and productivity. Relationships between variables revealed operationally shows pattern of relationship of work motivation variable (achievement, friendship and power), work attitude (knowledge, assertiveness, tendency to act), and non-physical fatigue on work productivity.

Subject

The study involved 22 people in the experimental group and 22 people in the control group of empling melinjo entrepreneurs in industrial centers in East Java, the local distribution in Magetan, Ponorogo, Pacitan, and Kediri.
Variable

The dependent variables are work productivity, work motivation, work ethic, and non-physical fatigue (psychological). The independent variables are achievement motivation training. Control variables are age, family responsibilities, gender, environment experimentation, room temperature, consumption, time, instructor, teaching aids, stationery, lighting, and level of education.

Instrument

The instruments consist of attitude questionnaire, non-physical fatigue questionnaire, productivity questionnaire, documentation, and test. Measurement tools developed needed to be field tested before the study was done (try-out); both of them regarding employee motivation and burnout.

Data Analysis

The collected data were analyzed by using path analysis.

3. FINDINGS AND DISCUSSION

The Results of Path Analysis on the Causality Relationship of Work Motivation, Work Attitude, Non-Physical Fatigue, and Work Productivity before Motivation Achievement Training

Model of the relationship between work motivation (achievement, friendship, and power), work attitude (knowledge, assertiveness, and tendency to act), non-physical fatigue and work productivity is a function: work productivity = F (work motivation, work ethic, non-physical fatigue). The results of the research presented is reconstruction of a natural field, as referred to in a model derived from the study of the variables prior to achievement motivation training, according to the problem, hypothesis and research objectives to be achieved. The results of the analysis are in the form of model and table of causality described as follows:

Figure 1. The Result Model of Path Analysis of Work Motivation, Work Attitude, Non Physical Fatigue on Work Productivity

Note:

A1 = Work motivation
A2 = Work attitude
A3 = Non-physical fatigue
A4 = Work productivity
The model shows that variables with significant effect (alpha 5%) on work productivity are non-physical fatigue (negative) and work motivation. The variable of non-physical fatigue is dominant, both indirectly through motivation and directly on work productivity.

The Results of Path Analysis on the Causality Relationship of Work Motivation, Knowledge Assertiveness Tendency to Act, Non-Physical Fatigue, and Work Productivity

The results of the analysis in Figure 2 is a model of path analysis results with partial variable that include achievement motivation, work attitude, which includes knowledge, assertiveness, and tendency to act, and non-physical fatigue believed as a predictor of work productivity.

Work productivity or F includes achievement motivation, knowledge, assertiveness, and a tendency to act, non-physical fatigue. The results of the research presented is reconstruction of a natural field, as referred to in a model derived from the study of the partial variables (achievement motivation, work attitude, which includes knowledge, assertiveness, and tendency to act) in the absence of intervention, in accordance with the problems, hypotheses and research objectives to be achieved. The results of the analysis are in the form of model and table of causality described as follows:

Figure 2. The Result Model of Path Analysis of Work Motivation, Knowledge Assertiveness Tendency to Act, Non-Physical Fatigue, and Work Productivity

Note:
A11 = Work motivation  A3 = Non-physical fatigue
A21 = Knowledge  A4 = Work productivity
A22 = Assertiveness
A23 = Tendency to act
Based on the path analysis results, it is known that non-physical fatigue directly affects achievement motivation, knowledge, and tendency to act. Achievement motivation directly affects work motivation and indirectly through knowledge, assertiveness, and tendency to act. The relationship of work attitude is very consistent toward work attitude, in which knowledge affects assertiveness and tendency, and further tendency affects work productivity. Seen from the meaning (alpha 5%), it is obvious that non-physical fatigue is very dominant toward achievement motivation, and this effect is indirect effect of non-physical fatigue toward work productivity. The effect of non-physical fatigue appears on work attitude such as knowledge and tendency to act, but do not have a direct effect on work productivity. The effect of non-physical fatigue on attitude is inconsistent, and non-physical fatigue has no direct effect towards assertiveness. Consistency of work attitude does not happen, it seems that knowledge affects assertiveness, but assertiveness does not affect tendency to act, as well as its effect on work productivity.

**The Results of Path Analysis on the Causality Relationship of Work Motivation, Work Attitude, Non-Physical Fatigue, and Work Productivity**

Reconstruction model at Figure 3 and Figure 4 below is the result of non-field analysis, but the results of the study on work motivation, work ethic, fatigue, and work productivity after achievement motivation training (experiment). The existence of path analysis of work motivation is motivation achievement, friendship, and power as well as work attitudes such as knowledge, assertiveness, and a tendency to act, as a partial analysis that eliminates motivation and work attitude deeper. The results of the path analysis of causality relationship are more clearly presented in the form of explanation, images, and tables as described below.

**The Results of Path Analysis on the Relationship of Work Motivation, Work Attitude, Non-Physical Fatigue, and Work Productivity**

The results of path analysis, as shown in Figure 3, is a model that is studied based on the variables of work motivation, work attitude in total, and non-physical fatigue suspected as a predictor of work productivity. The model is the answer to all three problems and it aims at proving the third hypothesis that achievement motivation training will change the model of the relationship between work motivation, work ethic, non-physical fatigue, and work productivity under the function of work productivity = F (work motivation to, work attitude, non-physical fatigue). The results of the path analysis is a reconstruction assessment and not based on field observation; it is a model derived from the study of changes in the intensity of the variables after training on achievement motivation, according to the problem, hypothesis and research purposes to be achieved.

The results of path analysis in the form of table and model of causality are presented as follows:
Visualization model of a causal relationship between non-physical work fatigue, motivation, and work attitude toward work productivity as in Figure 3 looks inconsistent after achievement motivation training. The dominant influence of non-physical work fatigue, the significance level (5%) does not appear as seen in the model prior to the training to work productivity, work motivation, and work attitude. The model of causal relationship appears to have changed the position of non-physical work fatigue which is dominant in the field observation model (before training achievement motivation); within the new model, this role is replaced by a work attitude.

Similarly, the role of work motivation directly on work productivity, which in the beginning is dominant before training on achievement motivation, seems to disappear, and this role is replaced by work attitude. The changes that appear cause achievement motivation, which previously has a direct effect on the work productivity, has indirect effect on work productivity through work attitude. The consequences of change in the influence of non-physical fatigue by working attitude causes work motivation to have indirect, yet strong, effect compared to before training on achievement motivation.

The Results of Path Analysis on the Causality Relationship of Achievement Motivation, Knowledge, Assertiveness, Tendency to Act, Non-Physical Fatigue, and Work Productivity

The model as the results of path analysis is the relationship model that involves partial variables like achievement motivation, working attitude including knowledge, assertiveness, tendency to act, and non-physical work fatigue thought to be a predictor of work productivity, which is the answer to the third problem and hypothesis.

Training on achievement motivation will change the model of the relationship between achievement motivation, knowledge, assertiveness, tendency to act, and, non-physical work fatigue, and work productivity stated in the following function: work productivity = F (achievement motivation, knowledge, assertiveness, tendency to act, and, non-physical work fatigue).
Reconstruction on the relationship among variables is not based on field observation; it is a model derived from the study of changes in the intensity of the partial variables (achievement motivation, knowledge, assertiveness, tendency to act, and, non-physical work fatigue) after training on achievement motivation, according to the problem, hypothesis and research purposes to be achieved.

Figure 4: The Results of Path Analysis between Work Motivation, Knowledge, Assertiveness, Tendency to Act, Non-Physical Fatigue, and Work Productivity

Note:
- B11 = Work motivation
- B21 = Knowledge
- B22 = Tendency to act
- B23 = Assertiveness
- B3 = Non-physical fatigue
- B4 = Work productivity

Based on Figure 4, the model of the relationship between non-physical fatigue, achievement motivation, knowledge, assertiveness, and tendency to act, does not differ with the model of causal relationships before achievement motivation training. Thus, it can be said that the training does not affect achievement motivation to change the model of causal relationship between non-physical fatigue, achievement motivation, knowledge, assertiveness, and tendency to act on work productivity. However, if the relationship is partially observed at the significance level of 5%, the changes become immediately apparent—that non-physical fatigue, which at the beginning of the training tends to be dominant, the effect of it after achievement motivation training is not visible at all.

From this model, the influence of achievement motivation seems dominant either directly or indirectly, and there is increasing direct influence of achievement motivation on work productivity as well and indirect influence of achievement motivation through work attitude, which before being given achievement motivation training, the effect of work attitude is not visible. It is seen that the indirect effect of achievement motivation is very dominant compared to other variables; this happens because of the direct relationship between achievement motivation and work attitude before training where it is not visible because of the dominant effect of non-physical fatigue. The influence of achievement motivation indirectly is very strong against work productivity, because the existence of the path between the influence of achievement motivation on knowledge, and knowledge is directly related to work productivity.

In terms of attitudes, it is clear that achievement motivation is able to bring the attitudes in the work relationship model that previously is not visible or significance. The effect of changes in the model appears
clear that non-physical fatigue that previously has direct effect on knowledge, and knowledge that is
dominant toward assertiveness and tendency to act, after achievement motivation training such dominance
does not matter anymore.

Independence occurs on attitudes towards work productivity; knowledge affects assertiveness and
tendency to act, and ends up on work productivity. In addition, the indirect effect is quite strong compared to
before achievement motivation training.

4. DISCUSSION

From the results of the study, it can be clearly seen that, in the beginning, work motivation in the
causality relationship model has a direct influence on work productivity without the interference of work attitude. However, this finding changes after the assignment of achievement motivation training in that the direct influence weakens and changes into an indirect influence through work attitude. Moreover, the total influence of this training is stronger than before the assignment of the training.

From the fact, it can be concluded that the achievement motivation training can turn the pattern of relationship between work motivation and work attitude into in line with work productivity. This is in accordance with Newcomb et al (1985) who assert that motivation is the cause of a certain action and work attitude reflects one's readiness or tendency to act. The view on the model of achievement motivation is reasonable and in line with Deci (1975) who states that intrinsic motivation results in one's feeling of being competence. The attitudes as the result of intrinsic motivation are twofold. First, the one causing an increase of stimuli and the second, the one encouraging one to face a situation or challenge. All this motivation is stimulated by a cognitive representation.

The existence of achievement motivation seems to change the model of this relationship in that the training gives a direct influence and the influence consistently exists through knowledge. This finding is in line with McClelland's assumption in that the need of achievement puts an emphasis on one's tendency to get involved in an activity related to the power of cognitive expectation, while this attitude will move toward a certain consequence and result (Atkinson & Brich, 1978; Mulyani, 1984).

The relationship between work motivation and work productivity found from the field proves that there has been change to work productivity, though relatively small, after the achievement motivation training. This change is reasonable as the productivity itself refers to forms of action and the training reflects a communication stimulus. If the fact is brought back to the concept of behavior change manifested through work productivity, thus the concept is accepted as the training process is the process of new cognitive change which, in turn, will change the behavior. Individuals who receive an achievement motivation training are defined that they have experienced a new association and stimulus in the form of learning strengthening. Moreover, there will be an unbalance cognitive which will form a new association due to the existence of a moving power. It is this power that will act as the balancing factor of attitude or work productivity.

This phenomena is interesting as the achievement motivation, which was believed as the road to change a behavior (in this case, work productivity) as a result of change to knowledge, is not able to provide a dominant influence. This fact is different with Steer and Porter's opinion (1982) and Siagian's opinion (1995) who state that as a response to a stimuli, the resulted cognitive will be a fundamental factor that influences one's performance in carrying out the defined job.

The results of the study show that the achievement motivation training not only increase its intensity and influence toward work productivity but also reduce the influence non-physical fatigue within the causality relationship. This is interesting as the training was supposed to give impact on the change to achievement motivation or changes in work attitude, such as knowledge, assertiveness, and tendency to act.

The training, moreover, also produces some side effects toward entrepreneurs joining the training. There might be a release of pressing energy during the training, such as boredom, decrease of motivation, leading to strengthened achievement motivation and work attitude (knowledge, assertiveness, and tendency to act).

Communication, as the medium of pressures which lead to non-physical fatigue during the training process, is beneficial as there is a medium of emotion among friends and working colleagues. This is in line
with Noi (1994) who concludes that to some extent, revealing one’s feeling is the easiest way to state the emotion, and this opportunity might help him or her to reduce negative emotion by talking.

5. CONCLUSIONS AND SUGGESTIONS

Conclusions
From the findings and afore-presented discussion, the following conclusions can now be drawn:

1. Training on achievement motivation is able to increase the intensity of work motivation (achievement, friendship and power), and the intensity is very strong. While for power and friendship, achievement motivation training is less able to increase the intensity, this may be likely caused by other factors such as cultural system of society, with a strong familial trait and cooperativeness that is a part of life in the village; therefore, carefulness in changing the entrepreneurial spirit is necessary. Training on achievement motivation is able to change the intensity of work attitude on entrepreneurship knowledge, entrepreneurship assertiveness, and tendency to act; this positive effect also applies to changes in work productivity, although the effect is small. Training on achievement motivation, though capable of changing the intensity of achievement motivation and work attitude completely, the effect on non-physical fatigue is not visible. However, the existence of achievement motivation training would be able to reduce the role of non-physical fatigue in the interaction model between work motivation, work attitude, and work productivity.

2. In relation to the model of relationship, it has been found that there is a consistency between the work motivation, work attitude, and non-physical fatigue as a predictor of work productivity. The influence of non-physical fatigue is very dominant, yet negative in relation to work productivity model simultaneously and is rarely observed in the study of work productivity. From the interaction model, work motivation is able to directly affect work productivity, and indirectly has a strong influence through attitude. The direct effect also occurs in non-physical fatigue on work productivity and non-physical fatigue is also able to affect work productivity indirectly through motivation and work attitude. Attitude in higher accuracy studies has been found to have weaken effect, meaning that there is something to be examined on work attitudes in society, especially small industry, namely knowledge, assertiveness, and tendency to act in entrepreneurship. Partially i.e. studies based on motivation (achievement, friendship, power) and work attitude (knowledge, assertiveness, and a tendency to act) show that non-physical fatigue is able to predict the influence on work productivity, which lies in the dominant support of achievement motivation. Friendship and power as predictor in the relationship model cannot become a predictor of work productivity. Of the two events, achievement motivation has a very strong effect toward work productivity without going through attitude, such as knowledge, assertiveness, and tendency to act whose role is very weak.

3. Training on motivation achievement has partially been able to increase the intensity of work, especially motivation achievement, work attitude, and work productivity; the interaction has been able to change the model of the relationship between work motivation, work attitude, non-physical fatigue, and labor productivity. On work motivation partially, the influence of achievement motivation remains strong against work productivity, and the role happens directly or through attitude as achievement motivation training as well as knowledge previously their role is not visible.

Suggestions
Based on the research results, and ideas developed after that, the following suggestions are given:

1. An interesting finding from this study that a training regardless of the purpose, if it wants to empower small industries, especially in the countryside, the system or the perspective of training should be examined in a partial the system of cultural production. If the industries are centralized to growing naturally, the roles of communities, families need to be studied in depth, if possible included as perspective in enhancing work productivity. Under these conditions, “achievement motivation” which is according to Mc Clelland (1987), is the sole requirement, needs to be considered again despite training is believed to increase new entrepreneurs.

2. This study is very important to be developed, in a broader discourse by taking into account the local culture where the industry is growing, especially for home industry, the household is a variable for productivity growth that may have a very strong role.
3. Assessment of measuring tools need to be considered, especially related to attitudes especially when the measuring instrument is used in different industries, and is necessary to study the attitude of ‘social rebel’ within the framework of the cultural system productivity (production, marketing, technology, and information).

4. The need for observed patterns of production carried out from the aspect of both technology and ergonomics of work. They hold dominant role to increase work productivity.

5. In order to develop the measuring instruments for fatigue, a study to review the measurement results of the instrument of non-physical fatigue and physical fatigue is needed.
REFERENCES


