

Achievement Motivation and Work Attitudes Predicting Work Efficiency of Information Technology Employees

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Abstract

This research aimed to 1(study the level of work efficiency, achievement motivation, and work attitudes of employees, 2(study the correlation between achievement motivation and work efficiency of employees, 3(study the correlation between work attitudes and work efficiency of employees, and 4(predict work efficiency of employees from achievement motivation and work attitudes. Samples were 102 employees responsible for information technology of a bank. Research instrument was a questionnaire. Statistics used for analysing data were percentage, mean, standard deviation, Pearson correlation coefficient, and stepwise multiple regression analysis. The results showed that 1(work efficiency of employees was in a high level ($\bar{x} = 4.30$, S.D. = 0.58), achievement motivation was in a high level ($\bar{x} = 4.55$, SD = 0.57), and achievement motivation was in a high level ($\bar{x} = 4.30$, S.D. = 0.58), 2(achievement motivation was negatively correlated ($r = -0.210$) with work efficiency of employees at a statistical significance level of 0.05, 3(work attitudes were positively correlated ($r = 0.419$) with work efficiency of employees at a statistical significance level of 0.01, and 4(work attitudes could predict work efficiency, considered as 17.60%.

Keywords: - Achievement Motivation, Work attitudes, Work efficiency, Employees

Introduction

Millet (1954) described that efficiency was job performance which resulted in satisfaction and profits, and the satisfaction meant satisfaction in providing services to people such as providing services to everyone equally, promptly, sufficiently, continually, and progressively, etc. Thochu (2016) explained that efficiency was how an individual applied factors and

processes in performing the job. The efficiency might not be displayed as numbers, however, it is displayed as how an individual spends money, uses materials, and manages people and time in performing the job economically, in addition, appropriate strategies and practical techniques are employed to increase greater productivity.

Nowadays, there has been an intense competition in economic, social, and political system. Along with the globalization, everyone needs to constantly change and compete. Therefore, the potential of most of organizations depends on how the organization effectively manages organizational resources, and human resource management is the most important thing of all because human resource is considered as the most important factor in operating the organization. It is an important part that helps the organization achieve its goals. The organization shall generate the motivation in the personnel so that they can achieve success. The executive shall prioritize and be aware of how to motivate the personnel so that they entirely dedicate to work. The organization that prioritizes motivation obtains masterly and good personnel for achieving the organization's goals (Meegate & Preedaanathasuk, 2021).

Work attitudes of employees have received much attention in business as work attitudes of employees influence the organization's achievements. If employees have bad work attitudes, work efficiency of employees could decrease, followed by work quality and productivity. Also, the absence, leave, and turnover rate could increase, on the other hand, if employees have positive work attitudes, job performance is positively influenced. Moreover, positive work attitudes reflect not only work efficiency but also leadership of the executive (Homudomsap, 2019).

According to the aforementioned, the researchers are thus interested in studying achievement motivation and work attitudes predicting work efficiency of employees because increased work efficiency improves the organization's competitiveness which is useful for achieving success shortly and decreases mistakes at work.

Objectives

- (1) To study the level of work efficiency, achievement motivation, and work attitudes of employees
- (2) To study the correlation between achievement motivation and work efficiency of employees
- (3) To study the correlation between work attitudes and work efficiency of employees
- (4) To predict work efficiency of employees from achievement motivation and work attitudes

Literature Review

Work Efficiency

Millet (1954) described that efficiency was job performance which resulted in satisfaction and profits, and the satisfaction meant satisfaction in providing services to people such as

providing services to everyone equally, promptly, sufficiently, continually, and progressively, etc. Suksaen (2013) defined work efficiency as how an individual intelligently learned something, found a way to achieve goals shortly, and made mistakes at work as less as possible. Peterson et al. (1953) stated that work efficiency was profoundly managing and investing in one product with “the quality of efficiency”. Good results and achievements were expected from competence and performance.

Components of Work Efficiency

Suksaen (2013) explained that work efficiency consisted of 5 components: 1) Promptness, 2) Accuracy, 3) Knowledge, 4) Experience, and 5) Creativity. Peterson and Plowman (1995) mentioned components of work efficiency as follows: 1) Quality which had to be high enough for producers and users’ benefits and satisfaction, 2) Quantity which had to match the expectations of the organization, 3) Time which was appropriate and up-to-date for principles and work process, 4) Cost which had to be low and provide the most profit.

Achievement Motivation

McClelland (1961) defined achievement motivation as a desire to achieve something by trying to meet high standards. A pleasant feeling occurs after achieving a goal, however, an anxious feeling occurs after facing failures, and the achievement is not a result of fortune or luck. Kottavanich (2003) stated that achievement motivation was a motivation occurred from a need to successfully perform an assigned task no matter what difficulties or obstacles. Korlertvolapong et al. (2016) also defined achievement motivation as a desire to achieve something by trying to meet high standards. A pleasant feeling occurred after achieving a goal, however, an anxious feeling occurred after facing failures. Nonetheless, enthusiasm, planning, and determined effort were needed in order to meet high standards.

Components of Achievement Motivation

Panmanee (2003) indicated that achievement motivation was derived from the nature of an individual. Everyone had their unique nature or characteristics which consisted of 1) Drive which was a basis of behaviors such as a need for food and water, stress, and pain, 2) Anxiety which affected learning and behaviors, an individual with high anxiety tended to misbehave than an individual with no anxiety. Harimtepathip (2020) stated that drive was an important source of motivation. Drive occurred from physical or psychological stress on trying to get what one wanted. Therefore, the level of drive depended on 1) Need which was a basis of life, 2) Desire which was the need for identity, pride, or values, desire was powerful than a basic need, 3) Attitudes which were knowledge, beliefs, and a tendency to perform an action regarding one’s attitudes, 4) Incentive which was a compensation for exhibiting a target behavior, an individual could directly get what one wanted or something that led to what one wanted, 5) Preference which occurred from having choices of ways to exhibit specific behavior, 6) Emotion which was the most uncertain thing, it depended on time, opportunity, and situations, different emotions resulted in different drives, 7) Goal which led to specific behavior, goal and incentive were connected when exhibiting specific behavior, 8) Perception

which greatly influenced how an individual assessed whether the incentive was worth their actions, 9) Social Environment which was external factors such as norms, traditions, and culture.

Research Related to Achievement Motivation and Work Efficiency

Buapong (2020) found that average achievement motivation and work efficiency of researchers of Thailand Institute of Scientific and Technological Research (TISTR) were in a highest level. Achievement motivation to achieve challenging goals and to be socially accepted influenced researchers' work efficiency in terms of time, quality, and quantity at a statistical significance level of 0.05. Renata, Wardiah, and Kristiawan (2018) discovered that achievement motivation and work efficiency of employees were correlated at a statistical significance level of 0.05. Prajit & Thaweepaiboonwong (2020) also discovered that achievement motivation positively influenced work efficiency of employees at a statistical significance level of 0.05. Aloysius (2012) revealed that achievement motivation was positively correlated ($r = 0.702$) with work efficiency of teachers.

Work Attitudes

Jaikwang (2008) defined work attitudes as an individual's thoughts or feelings towards their work, and those feelings reflected in specific work behavior. Sriwichan (2011) defined work attitudes as an individual's positive or negative feelings towards the organization, colleagues, the executives, and environment. Sirisakorn (2013) defined work attitudes as an individual's positive or negative mindset, manners, thoughts, and prejudice towards any information. Work attitudes affected behaviors since attitudes consisted of emotions and feelings.

Components of Work Attitudes

Gilmer (1975) proposed that work attitudes consisted of 10 components as follows: 1. Security, 2. Opportunity for advancement, 3. Company and management, 4. Wages, 5. Intrinsic aspects of the job, 6. Supervision, 7. Social aspects of the job, 8. Communication, 9. Working condition, and 10. Benefit

Research Related to Work Attitudes and Work Efficiency

Rattanaburi (2013) found that work attitudes, self-esteem, and work efficiency of employees in a construction materials industry were in a high level, and work attitudes and work efficiency were positively correlated. Numsumk (2013) analyzed behaviors and attitudes, and she concluded that some variables could predict work efficiency while some variables could not at a statistical significance level of 0.05. Butthongdee (2016) found that work attitudes in terms of work characteristics affected work efficiency of factory workers at a statistical significance level of 0.05 ($t=4.216$, $sig = 0.000$). Jumratsri (2009) found that work efficiency of office workers was in a high level. Different personal factors which were gender and working hours affected and were correlated with different level of work efficiency at a statistical significance level of 0.05. Inuwa, Mashi, and Salisu (2017) found that work attitudes and work efficiency were correlated at a statistical significance level of 0.01.

Methodology

Methodology

This research is a quantitative research in which research methods were population and samples identification, research instrument development, data collection, and statistical data analysis. Predictor variables were achievement motivation and work attitudes, and criterion variable was work efficiency.

Research Methods

1) Population in this research was 1,500 information technology employees of a bank located in Nonthaburi, Thailand.

2) Samples were information technology employees of a bank. The researchers determined the appropriate and sufficient sample size using a statistical program of Soper (2021) in which the researchers determined the correlation coefficient at 0.05 and 2 variables. The least number of sample size was 67, however, the researchers added to 102 in case some of the questionnaires were not completed by the respondents.

Research Instrument

The questionnaire consisted of 4 sections. The 1st section was a set of 5 checklists regarding the respondent's personal factors, including gender, age, education, working hours, and job position. The 2nd section was a 20-item questionnaire regarding achievement motivation based on theory of McClelland (1961). The 3rd section was a 24-item questionnaire regarding work attitudes based on theory of Gilmer (1975). The 4th section was a 16-item questionnaire regarding work efficiency based on concepts of Suksaen (2013).

For the 2nd, 3rd, and 4th section, the respondents were required to answer to what extent each statement corresponded to their notions, feelings, or behaviors. The questionnaire was a single-selection rating scale questionnaire ranging from strongly agree, agree, moderately agree, disagree, to strongly disagree. The score ranged from 5, 4, 3, 2, to 1, respectively. The index of item-objective congruence (IOC) was then calculated. In regard to content validity, any item with an IOC of 0.5 or higher was considered acceptable for the study (Kongsat & Thammawong, 2008).

The researchers tried out the questionnaire with 30 bank officers working in Bangkok. Each item was then calculated discriminating power using corrected item total correlation coefficient. According to Tirakanan (2007) discriminating power of each item should be 0.2 or higher. Any item with a discriminating power of lower than 0.2 should be eliminated. Afterwards, each item was calculated reliability using Cronbach's alpha coefficient. Any item with Cronbach's alpha coefficient of 0.07 or higher was considered highly reliable (Taber, 2016). Reliability of the questionnaire was shown in Table 1 below.

Table 1 *Discriminating Power and Reliability of the Questionnaire*

Variables	Items	Discriminating Power	Reliability
Achievement Motivation	20	.272 - .730	.885
Work Attitudes	24	.362 - .853	.940
Work Efficiency	16	.429 - .806	.924

Discriminating power of achievement motivation, work attitudes, and work efficiency were 0.272 - 0.730, 0.362 - 0.853, and 0.429 - 0.806, respectively. For reliability, the numbers were 0.885, 0.940, and 0.924, respectively.

Data collection

Researchers have made a permission letter requesting for data collection. After researchers received permission, questionnaires were distributed via Google form to sample size employees.

Statistical data analysis

Statistics used for analyzing data were percentage, mean, standard deviation, Pearson correlation coefficient, and stepwise multiple regression analysis.

Results

Achievement motivation was in a high level ($\bar{x} = 4.55$, S.D. = 0.57), work attitudes was in a high level ($\bar{x} = 4.12$, S.D. = 0.69), and work efficiency was in a high level ($\bar{x} = 4.30$, S.D. = 0.58).

The correlation between achievement motivation and work efficiency was shown in Table 2 below.

Table 2 *The Correlation between Achievement Motivation and Work Efficiency of Employees*

Variables	Work Efficiency of Employees	
	r	p
Achievement Motivation	-.210*	.034

* Statistically significant at 0.05 level

Achievement motivation was negatively correlated with work efficiency of employees ($r = .210$) at a statistical significance level of .05.

The correlation between work attitudes and work efficiency was shown in Table 3 below.

Table 3*The Correlation between Work Attitudes and Work Efficiency of Employees*

Variables	Work Efficiency of Employees	
	r	p
Work Attitudes	.419**	.000

** Statistically significant at 0.01 level

Work attitudes was positively correlated with work efficiency of employees)r = .419(at a statistical significance level of 0.01.

Stepwise multiple regression analysis of work efficiency was shown in Table 4 below.

Table 4*Stepwise Multiple Regression Analysis of Work Efficiency of Employees*

Predictor Variable	R	R ²	AdjR ²	SE _{est}	F	p
Work Attitudes	0.419	0.176	0.168	0.534	21.346**	0.000

** Statistically significant at .01 level

According to the results, work attitudes could predict work efficiency of employees, considered as 17.60%.

Table 5*Stepwise Multiple Regression Analysis in order to Find the Equation for the Prediction of Work Efficiency of Employees*

Predictor Variable	b	S.E.b	β	t	p
Constant	2.839	0.321		8.836**	0.000
Work Attitudes	0.356	0.077	0.419	4.620**	0.000

** Statistically significant at 0.01 level

According to stepwise multiple regression analysis, it was discovered that work attitudes could predict work efficiency of employees. The equation in a raw score form for the prediction was as follows: Work Efficiency of Employees = 2.839 + 0.356 (Work Attitudes).

When converting a raw score to a z-score, the equation for the prediction was as follows: Work Efficiency of Employees = 0.419 (Work Attitudes).

Conclusion

According to a 21-item questionnaire regarding achievement motivation, average achievement motivation was in a high level ($\bar{x} = 4.55$, S.D. = 0.57). According to a 23-item questionnaire regarding work attitudes, average work attitudes was in a high level ($\bar{x} = 4.12$, S.D. = 0.69). According to a 16-item questionnaire regarding work efficiency, average work efficiency was in a high level ($\bar{x} = 4.30$, S.D. = 0.58). After analysing the correlation between variables, it was found that achievement motivation was negatively correlated with work efficiency at a statistical significance level of .05 ($r = 0.210$), and work attitudes was positively correlated with work efficiency at a statistical significance level of 0.01 ($r = 0.42$). According to a stepwise multiple regression analysis, it was found that work attitudes could predict work efficiency of employees at a statistical significance level of 0.01, considered as 17.60%.

Discussion

This research found that achievement motivation was negatively correlated with work efficiency of employees at a statistical significance level of 0.05. It can be implied that an employee with high achievement motivation has low work efficiency. This is not in accordance with research findings of Aloysius (2012) in which achievement motivation was positively correlated ($r = 0.702$) with work efficiency of teachers; a teacher with high achievement motivation also has high work efficiency. The researchers see that information technology employees working to check and examine the bank's IT systems were assigned their work during COVID-19 pandemic, and they had to work from home. With limited responsibilities, employees had low work efficiency in spite of their high achievement motivation. Thus, achievement motivation is negatively correlated with work efficiency of employees.

This research also found that work attitudes was positively correlated with work efficiency of employees at a statistical significance level of 0.01, and work attitudes could predict work efficiency of employees. It can be implied that an employee with positive work attitudes has high work efficiency. This is in accordance with research findings of Butthongdee (2016) in which work attitudes in terms of job characteristics affected work efficiency of factory workers at a statistical significance level of .05 ($t=4.216$, sig = 0.000). The researchers see that information technology employees see the importance of their work which is checking and examining the bank's IT systems. Their work is related to national security, so any small mistake can affect a large group of people and cause damage to the organization. Employees also have positive attitudes towards colleagues and supervisors as the executives care and sometimes is a counsellor for them, help them solve problems which they cannot solve by themselves, so work attitudes is positively correlated with work efficiency of employees.

Recommendations

Recommendations for Applying the Results

According to this research, work attitudes is positively correlated with work efficiency of employees, so the executive should prioritize work attitudes of employees by encouraging and supporting employees to see the importance of their work and have positive attitudes towards colleagues, supervisors, and the organization. Another way to encourage positive attitudes of employees is encouraging employees to have self-confidence and self-efficacy and to believe that they can solve any problem and their colleagues, supervisors, and the executives are always supportive. The executive should assign quantitatively and qualitatively challenging work to employees in order for them to have positive work attitudes regardless of their different level of achievement motivation, resulting in increased work efficiency.

Recommendations for Future Research

An experimental research should be conducted to assess work efficiency of employees before and after work attitudes training to see to what extent work efficiency increases after the training. In addition, a research should be conducted using qualitative method such as interviewing employees, supervisors, and executives to find guidelines for encouraging employees to have positive work attitudes and to verify that work attitudes is correlated with work efficiency of employees.

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