

## Abstract

The purposes of this survey research, "*The Effect of Big Five Personality Factors on Work Safety Behavior: A Case Study of Operation Workers at the Siam Cement (Ta Luang) Co.,Ltd.*" were: to study the level of work safety behavior; to find the effect of big five personality factors on work safety behavior; and to construct an equation predicting work safety behavior by using big five personality factors as predicting variables.

The sample group consisted of 216 operation workers of the Siam Cement (Ta Luang) Co.,Ltd. The instrument employed was questionnaire consisting of three parts: Part 1: Personal characteristics (3 items); Part 2: Measurement of the big five personality factors (57 items, with the reliability of .686); Part 3: Measurement of the work safety behavior (22 items, with the reliability of .855).

The statistical analysis included frequency, percentage, arithmetic mean, standard deviation, One-Way ANOVA, and Stepwise Multiple Regression Analysis. The results of the study revealed that:

1. Operation workers had high level of work safety behavior.
2. Operation workers, who had high and medium scores of neuroticism personality, had lower level of their working safety behavior than the ones who had low neuroticism personality scores. However, operation workers who had high and medium scores of neuroticism personality did not show any differences in the level of working safety behavior.
3. Operation workers, who had high scores of extraversion personality, had higher level in work safety behavior than the ones who had medium and low scores. However, there were no significant difference of work safety behavior between operation workers who had medium and low scores of extraversion personality.
4. Operation workers, who had different openness to experience personality, did not have any differences in work safety behavior.

5. Operation workers, who had high scores of agreeableness personality, had higher level in work safety behavior than the ones with low scores. The operation workers, who had medium scores of agreeableness personality, did not show any significant differences in work safety behavior from the ones who had high or low scores.

6. Operation workers, who had high scores on conscientiousness personality, had higher level in work safety behavior than the ones who had medium and low scores. However, there were not any differences in the level of working safety behavior between operation workers who had medium and low scores of conscientiousness personality.

7. The stepwise multiple regression analysis revealed that neuroticism personality and conscientiousness personality could predict operation workers' work safety behavior. These could explain work safety behavior at 15.4%.

The result of this study is applicable for recruitment, selection, training, and organization development in terms of occupational health and work safety.