Perception Of Crowded Workplace and Emotional Management Skills Predicting Safe Driving Behaviors of Public Transportation Drivers

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Abstract

This research aimed 1) to study levels of safe driving behaviors, perception of crowded workplace, emotional management skills, and safe driving behaviors of public transportation drivers, 2) to study the relationship between perception of crowded workplace and safe driving behaviors of public transportation drivers, 3) to study the relationship between emotional management skills and safe driving behaviors of public transportation drivers, and 4) to study the prediction about safe driving behaviors based on perception of crowded workplace and emotional management skills of public transportation drivers. The sample was 381 public transportation drivers and the research instrument was a questionnaire. Statistics for data analysis were frequency, percentage, mean, standard deviation, Pearson's correlation coefficient, partial correlation coefficient, and stepwise multiple regression analysis. The research results revealed that 1) safe driving behaviors of most of the public transportation drivers were at the highest level ($\overline{x}$ = 4.28, S.D. = .42), perception of crowded workplace was at a high level ($\overline{x}$ = 3.94, S.D. = .79), and emotional management skills were at the highest level ($\overline{x}$ = 4.23, S.D. = .42), 2) perception of crowded workplace was negatively related to safe driving behaviors of public transportation drivers, 3) emotional management skills were positively related to safe driving behaviors of public transportation drivers with the statistical significance level of 0.01, and 4) perception of crowded workplace and emotional management skills regarding emotion encoding and decoding, emotional understanding, and emotion regulation could predict safe driving behaviors by 47.20%

Keywords: perception of crowded workplace, emotional management skills, safe driving behaviors of public transportation drivers.

1. Introduction

Due to the rapidly changing economic and social conditions, it is necessary to adapt to the current situation both at the general public level and by private and public sector operators, resulting in no liquidity in the economy and finance. An increasing number of people are using public transit to commute to work or to other locations in order to save money for themselves and their families. Public bus drivers must encounter a large number of people who use their services on a daily basis, which can result in the following areas of perception and expression:

Safety driving behaviors: the personnel is the most valuable asset the organization and is one of the resources that executives place great importance. If personnel work with understanding and happiness, it will benefit the organization and personnel themselves; therefore, the organization needs to understand the safety driving behavior of personnel as well. It was found that one bus driver with different age, marital status,

educational level, work experience in public bus driving and accident experience had the same driving behavior (Tantaleela S. and Samutanon T., 2012).

Crowded workplace is one of the reasons that can make public bus drivers to have a safer driving behavior. Montano & Adarmoponious (1984) said that bus drivers are a profession that involves meeting a large number of people on a daily basis that causes bus drivers to respond to their behavior. The organization should have to determine the number of passengers to be suitable for each round of passenger transportation.

In addition to perception of crowded workplace, emotional management skills are also factors that affect safe driving behavior. Emotional management skills are essential for working with individuals within the organization and those outside the organization without being able to separate them, which is very important for the change to work if the organization does not support emotional management skills for employees (Mahamud T., Punto S., 2020).

Consequently, the researchers selected to study perception of crowded workplace and emotional management skills that predict safe driving behaviors of public transportation drivers in Bangkok to be used as a guideline to design, plan, and develop employees for modifying and preventing undesirable behaviors that shall occur in the future.

2. Objectives

1. To study levels of safe driving behaviors, perception of crowded workplace, emotional management skills, and safe driving behaviors of public transportation drivers.

2. To study the relationship between perception of crowded workplace and safe driving behaviors of public transportation drivers based on crowded workplace.

3. To study the relationship between emotional management skills and safe driving behaviors of public transportation drivers, and

4. To study safe driving behaviors through perception of crowded workplace and emotional management skills of public transportation drivers.

3. Literature review

3.1 Safe driving behaviors

Napaporn and Siriporn (2020) defined safe driving behavior as the ultimate responsibility for the safety of personnel, service users and traveling companions. it is important for employees to be aware of safety at all times.

Patraporn (2019) defined safe driving behavior means that the bus driver tends to strictly follow the orders of the supervisors and the organization's practices which can create pressure and increase stress. Bus drivers need to be calm, tolerant of stimulus and to deal with unexpected behavioral behaviors or events that can be encountered during the course of work, and the organization should develop personality training for bus drivers at all times.

Razmara A., Aghamolaei T., Madani A., Hosseini Z. and Zare S. (2018). defined safe driving behavior as driving behavior as one of the behaviors of people, communities and is related to attitudes and habits. Habits can greatly influence one's intentions and behaviors, including perceptions, behavior control, attitudes, and habits demonstrating safe driving behavior.

Dadipoor S., Ghaffari M., Rakhshanderou S. and moradabadi A. (2019) defined safe driving behavior as a perception of behavior that occurs both within oneself and in a different society by cultivating the values, habits and attitudes of reducing accidents, raising awareness of the dangers of unsafe driving.

Razmara A., Aghamolaei T., Madani A., Hosseini Z. and Zare S. (2018) defined safe driving behavior as having a positive attitude leading to safe driving, being able to learn, practice skills, modify safe driving, and build good habits to be able to control safe driving behavior.

Yang Y. and Lee H. (2021) defined safe driving behavior as paying attention to safe driving skills, exposure to internal and external environments, perception of visual behavior, cognitive, auditory or visual acuity contributes to safe driving behavior.

From the definitions mentioned in this study, the researchers defined safe driving behaviors as the actions of drivers that express the attitudes, habits and behaviors of the individual reflected to be seen while driving a public service that expresses responsibility to its users including having a good driving attitude, being aware of one's behavior while driving, having good human relations and good-naturedness, showing attentive behavior towards users, being able to control one's behavior while driving to be safe and to drive the passenger safely according to standards.

Because of this research, the population and the sample were public bus drivers who must comply with the standards of Transport Co., Ltd., which Transport Co., Ltd. had prepared a driver's manual (2018). The driver's manual refers to safe driving behavior, which means oversight of safety and environmental measures, committed to operating a passenger transport business with public buses and being a good service provider, with service standards that are acceptable to users as well as being socially and environmentally responsible, which will work together to prevent accidents and injuries that may occur from the operation of road transport by public buses in accordance with the transportation strategy of Thailand, especially to reduce the risk of road safety operations and to build confidence in the safety of service users.

For safe driving in passenger cars according to standards, each organization has set safety and environmental measures that must comply with the law and provide good service to users to be socially and environmentally responsible for preventing accidents that will occur and to build confidence in the safety of service users. There are regulations for bus drivers as follows: 1) Employees are required to dress elegantly and must wear uniforms at all times while on the job. 2) Employees must show polite manners to customers, colleagues. 3) Employees must wear personal protective equipment as specified by the company. 4) Employees must strictly follow the delivery procedures set by the company. 5) Employees must be careful not to cause damage to passengers. 6) Employees must not park or drive off the road without permission. 7) Employees must report the facts of the performance of the work. 8) Employees must perform their duties in an orderly manner so that they do not receive complaints from customers. 9) Employees must agree to allow the company to check the amount of alcohol and drugs according to the company regulations. 10) Employees must perform their duties with care to avoid accidents and damage to the company. 11) Employees must completely unload passengers. 12) Employees must not cause quarrels with customers, employees, or with others while performing their duties. 13) Employees must not bring narcotics, lethal weapons, explosives or other illegal things into the workplace. 14) Employees must not use drugs or drink alcohol while on duty. 15) Employees must not contain alcohol in their breath and or drug substances in the body. 16) Employees must give true statements about the accident. 17) Employees must not modify the condition of the car. 18) Employees must perform their duties with care to

prevent possible damage. 19) Employees must not act negligently that may cause serious damage to the company.

3.2 Crowded Workplace

The researchers reviewed the literature and found that in Thailand there are no studies on perceptions of the workplace crowd, and most of them are found in foreign countries, and most of the research found is in the workplace, but there is no study among public bus drivers.

Perception means that a person has an idea that is affected by the environment or various facilities that cause misunderstandings that lead to misunderstandings of the person because they perceive that their personal space is being violated from those around us in society.

Thongthai C. (2013) defines perception means the expression of knowledge, acquaintance, and perception of information from various sources. It is perceived information from people who have the knowledge to convey experiences and are perceived by various media.

The term "Crowded" conveys a wide range of ideas which affect research and understanding. Different definitions can cause conflicting and confusing findings. To see the developments in the study of Crowds, the researchers will conduct a literature review from various perspectives on crowd and congestion from the perspectives of academics as following:

Krathaworn P., Piashue N. and Noinam S. (2013) defined crowded people as crowded. people, traffic congestion, full of many pollutants, thus making the sample in the perimeter to perceive the environment of the neighborhood higher than the sample in Bangkok. This is consistent with a study by Bhattacharya (2006) that found that 300 residents of urban slums had a negative perception of the environment in which they lived due to the need to live in slums, poor ventilation, noisy, putrid smell from drainage and waste. disposal systems, and lack of facilities. Crowded people make noise that disturbs their concentration at work. Crowded people make it difficult to ventilate, causing bad smell while working.

Booth A., Chmutina K. and Bosher L. (2020) defined crowded that congestion caused by people congregating in places such as shopping centers, stadiums, transportation hubs, entertainment venues and tourist attractions, etc., which are places where people can access easily including public places.

Park I., Kim J., Kim S., Lee J. and Giroux M. (2021) defined crowd as congestion as a determining factor for consumer satisfaction when considering travel options and influenced by the perception of congestion from crowded. Consumers, in particular, will reduce the demand for crowded travel and congestion caused by grouping to the perception of overcrowding in that area. Therefore, the perception of crowd may arise from the feeling that space is limited by the number of people or the number of objects that occupy that space. Crowded areas can make users feel that their personal space is being compromised.

Stokols D. (1972) defined crowded workspaces as congested working areas, giving the experience of confined space to work. The presence of crowds in the car led to the sudden high temperature in the work area leading to a delay in adaptation. Congested areas cause deterioration, causing the body to malfunction and physical discomfort.

Based on that definition in this study, the researchers defined Crowded Workplace perceptions as the thoughts and feelings that drivers have in the minds of drivers about crowded condition, i.e. crowd caused by people gathering on public transport until the vehicle is too crowded. The fact that the space inside the car is so crowded make drivers feel that they have lost their privacy while driving, having the passengers make loud

noises at the same time can distract the driver's attention. The fact that the inside of the car has passengers crowding each other, causing poor ventilation and causing foul odors while driving. Crowded public cabin spaces create a debilitating and physical sensation.

3.3 Emotional Management Skills

Patraporn (2019) defined emotional management skills as bus drivers manage their emotional state appropriately so that they are ready and able to work normally. It can be seen that bus drivers are aware of their own emotions and feelings, how they feel and what causes them, as well as their understanding of the state of their emotions and how they affect their work. and people around them, as a result, public bus drivers are able to manage and control their emotions and to express themselves appropriately with their operations and with others. They have good human relations, humility, respect, listen to other people's opinions so that they can work well to achieve goals.

Hodgson and Wertheim (2007) in İrem H., Kozan O., BALOĞLU M. and Kesi S. (2019) define emotional management skills as a Emotional management skills that are aware of the emotions experienced at the moment. Then they can understand, control and work effectively with those emotions with better mood management skills. Emotion management consists of recognizing physical responses, separating and verbally expressing emotions and coping behaviors.

Shipman A., Friedrich T., Vessey S., Connelly S. and Day E. (2010) He defines emotional management skills as the skills to manage volatile, high-stress situations by interacting with people of diverse cultures and backgrounds, requiring a cognitive approach, skill. Emotion management expressions include basic knowledge of emotions, control skills in managing emotions, multicultural experiences, perception of one's own emotional level and managing emotions and positive thinking.

Bellocchi A. (2018) states that emotional management skills are defined as emotional management skills, social engagement, attempting to modify one's own emotions, expressing one's own emotions from within to others. Emotions can be manipulated or altered on their own, and perceived situations are assessed to manage emotions.

Ryan M. (2019) defined emotional management skills as ranking the importance of one's own emotions, being able to suppress the emotions that arise, suppress feelings to keep sharp and accept the emotional response that occurs.

Wirth E., Simsek O. and Apaydin S. (2018) stated that emotional management skills mean having a positive mindset and giving employees a sense of ownership in the business so that employees have patience to work, resulting in a positive effect on the work, and when there is a reaction to action or an incident, they will manage emotions with the happiness.

Mckenzie J., Olson R., Patulny R., Bellocchi A. and Mills K. (1979) defined emotional management skills as having a good ideal can lead to self-management in the workplace to the point of being normal, and to adjusting one's own and others' emotions to suit the society, environment.

Ercengiz M., Yildiz B., Savci M. and Griffiths M. (2020) defined emotional management skills as expressing basic emotions in a simple and understandable way, communicating clearly verbally, recognizing emotions that arise, expressing one's own emotions naturally, dealing with bodily responses, dealing with current emotions and managing emotions through anger.

Akin A. (2011) defined emotional management skills as verbally expressing emotions in order to communicate clearly, recognize and accept emotions, express one's own emotions, control, and respond with a body clearly, deal with the emotions that arise at that moment. and manage anger.

Based on the definitions mentioned in this study, the researchers defined emotion management skills as the ability to express emotions, including the ability to cope with problems and the emotional response of a person, which expresses the emotions, speech, actions and acceptance of the safety driving behavior of public bus drivers in various fields and can assess decision-making, promote effective emotional management skills.

3.2.1 Components of emotional management skills towards safe driving behaviors of public transportation drivers.

According to Cecen's concept (2006), 3 components of emotional management skills towards safe driving behaviors of public transportation drivers include:

(1) emotion encoding and decoding meaning that public transportation drivers are able to notice behaviors, thoughts, words, actions, including body language and emotions of passenger in an understandable way and interpret the meaning correctly, i.e. 1) the ability to perceive emotional expressions of others and make it clear, 2) having appropriate emotional expressions.

(2) emotional understanding meaning that public transportation drivers are able to understand the nature of human emotions and are able to control their emotions and others' emotion in an efficient manner, i.e. 1) know and understand causes and effects of emotional expressions, 2) be able to respond to others' emotional expressions in an appropriate manner, 3) be able to think positively towards individual and situations that arise.

(3) emotion regulation meaning that public transportation drivers are able to control and manage emotions and behaviors that are arising including emotions and behaviors that already arose, both positive and negative, in a stable manner, leading to the development of positive behaviors, i.e. 1) the ability to control emotional expressions and emotional experiences, 2) be able to tolerate affecting stimuli that generate negative emotions and behaviors, 3) possess emotional stability, and 4) maintain appropriate behaviors in public places.

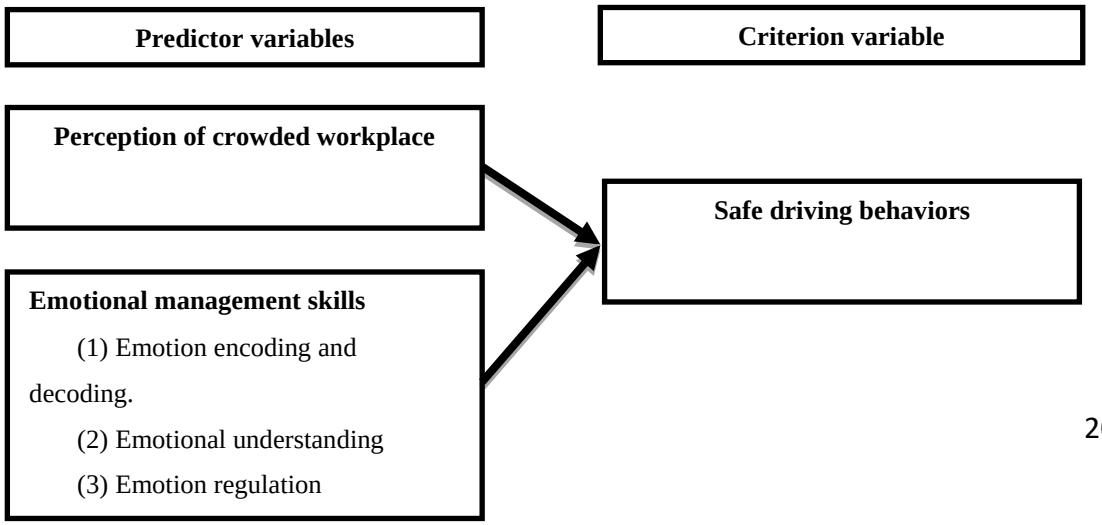
4. Research hypotheses

4.1 Hypothesis 1 – perception of crowded workplace is related to safe driving behaviors of public transportation drivers.

4.2 Hypothesis 2 – emotional management skills are related to safe driving behaviors of public transportation drivers.

4.3 Hypothesis 3 – emotional management skills and perception of crowded workplace, at least one aspect, can collaboratively predict safe driving behaviors of public transportation drivers**.**

5. Research conceptual framework:



The researcher studied and explored the relationship between perception of crowded workplace and safe driving behaviors of public transportation drivers, and the relationship between emotional management skills and safe driving behaviors of public transportation drivers consisting of 4 predictor variables, namely, 1) perception of crowded workplace, 2) emotional management skills regarding emotion encoding and decoding, 3) emotional understanding, 4) emotion regulation, and one criterion variable, i.e. safe driving behaviors.

5. Research methodology

5.1 This study was conducted on the basis of correlation research design on perception of crowded workplace and emotional management skills that predict safe driving behaviors of public transportation drivers with the following significant procedures: Determining population and sample, creating and developing an instrument for data collection, collecting data and analyzing data by using statistics.

5.2 Population in the study was 1,600 public transportation drivers that the researcher inquired from 2 places; state enterprise and private sector (data as at 1 February 2022).

5.3 The sample in the study was public transportation drivers with reference to a stratified random sampling method according to the population and proportion of each company. Yamane formula (1973) was used to calculate an appropriate sample size. The sample consisted of 310 persons. To prevent participant withdrawal from the study, additional 10% participants were required. Therefore, the sample consisted of 341 persons selected by a probability sampling method. Stratified random sampling was used for dividing into 2 organizations before random sampling separately was conducted.

5.4 Research instrument

The research proposal involving human subjects was approved by Naresuan University Regional Research Ethics Committee; Research project COA No.0018/2022, project number 0024/2022.

A questionnaire was used as the research instrument that the researcher collected data by adhering to relevant concepts, literature review, and theories. Questions were raised to be consistent with definitions explored. The questionnaire was divided into 4 parts.

Part 1 – questions about individual characteristics of respondents in the form of check list questions, 4 items. Respondents are asked to choose one option from a list to answer honestly. The options include gender, age, education level, and work experience.

Part 2 – questions about safe driving behaviors, 24 items. The questions come in the form of messages that allow respondents to consider a degree they meet their thoughts, feelings, or behaviors. Content of the questions aimed to measure safe driving behaviors involving good attitude towards driving, self-perception of driving behaviors, good human relationship and courtesy, service attentiveness, self-regulation on driving behaviors, and following standard of driving behaviors. Rating scale was used for measurement. Respondents were required to choose any attribute being true to themselves, i.e. very true, true, neutral, somewhat untrue, very untrue for the scores 5,4,3,2 and 1, respectively. Index of Item – objective Congruence: IOC was used to evaluate the items of the questionnaire. The items having IOC equal to or greater than 0.50 were chosen

(Boontham, 2008). The questions had IOC ranging from 0.66 to 1.00, and 23 items were chosen to be included in the original questionnaire.

Part 3 – questions about perception of crowded workplace, 16 items, in the form of messages that allow respondents to consider a degree they meet their thought, feelings, or behaviors. Content of the questions aimed to measure perception of crowded workplace involving a crowd of people gathering in public transport vehicles, invasion of privacy in crowded conditions while driving, loud noise caused by passengers at the same time disturbs concentration while driving, a crowd of passengers in public transport vehicles causing poor ventilation and bad smell can disturb driving, and in-vehicle crowding causing discouragement and physical symptoms. Rating scale was used for measurement. Respondents were required to choose any attribute being true to themselves, i.e. very true, true, neutral, somewhat untrue, very untrue for the scores 5,4,3,2 and 1, respectively. Index of Item – objective Congruence: IOC was used to evaluate the items of the questionnaire. The items having IOC equal to or greater than 0.50 were chosen (Boontham, 2008). The questions had IOC ranging from 0.67 to 1.00, and 15 items were chosen to be included in the original questionnaire.

Part 4 – questions about emotional management skills, 24 items, in the form of messages. Respondents were required to consider a degree they meet their thoughts, feelings, or behaviors. Content of the questions aimed to measure emotional management skills divided into 3 aspects according to the components of emotional managing skills, namely, emotion encoding and decoding (the ability to perceive emotional expressions of others and make it clear, having appropriate emotional expressions), emotional understanding (know and understand causes and effects of emotional expressions, be able to respond to others' emotional expressions in an appropriate manner, be able to think positively towards individual and situations that arise), and emotion regulation (the ability to control emotional expressions and emotional experiences, be able to tolerate affecting stimuli that generate negative emotions and behaviors, possess emotional stability, and maintain appropriate behaviors in public places). Rating scale was used for measurement. Respondents were required to choose any attribute being true to themselves, i.e. very true, true, neutral, somewhat untrue, very untrue for the scores 5,4,3,2 and 1, respectively. Index of Item – objective Congruence: IOC was used to evaluate the items of the questionnaire. The items having IOC equal to or greater than 0.50 were chosen (Boontham, 2008). The questions had IOC ranging from 0.66 to 1.00, and 23 items were chosen to be included in the original questionnaire.

The questionnaire was improved content validity and pretested (Try out) with 40 employees having similar characteristics to the research sample. The results obtained were used to analyze the quality of the questionnaire for improvement, and used to calculate discrimination power using correlation coefficient between each item and total quantity of items of the questionnaire in each part (Corrected Item Total Correlation). Any item having discrimination power less than 0.2 should be excluded (Buntita, 2011). Cronbach's Alpha Coefficient (Cronbach, 1990) was used to measure reliability. The questionnaire was analyzed by each aspect of the variables. Some items were excluded though their discrimination power was higher than the criteria to ensure the questionnaire for each aspect has reliability greater than 0.7 (Nunnally, 1978). It can be said that the questionnaire is highly reliable. Reliability test and correlation coefficient of the original questionnaire are shown in Table 5-1.

Table 5-1 Discrimination power and reliability of the questionnaire:

Questionnaire	Discrimination	Reliability

	power	
Safe driving behaviors	.398 - .669	.924
Perception of crowded workplace	.782 - 834	.969
Emotional management skills:	.367 - .650	.929
1) emotion encoding and encoding	.362 - .548	.757
2) emotional understanding	.546 - .608	.859
3) emotion regulation	.533 - .607	.833
Total	**.362 - .834**	**.929**

5.5 Statistics for hypothesis testing

Statistics used for data analysis were frequency, percentage, mean, and standard deviation to describe personal information of the sample and levels of variables.

Pearson Product Moment Correlation Coefficient was used to test Hypothesis 1 – perception of crowded workplace is related to safe driving behaviors of public transportation drivers. Hypothesis 2 – emotional management skills are related to safe driving behaviors of public transportation drivers.

Stepwise Multiple Regression Analysis was used to test Hypothesis 3 – emotional management skills and perception of crowded workplace, at least one aspect, can collaboratively predict safe driving behaviors of public transportation drivers.

6. Research results

The researcher collected the questionnaire given to 381 research participants; 181 persons form state enterprise and 200 persons from private sector as seen in Table 6-1.

Table 6-1: Number of research participants (person).

Name of organization	Number of employees (person)	Number of research participants calculated (person)	Number of additional 10% of research participants (person)	Number of research participants
State Enterprise	650	126	139	181
Private Sector	950	184	202	200
Total	1,600	310	341	381

6.1 Personal characteristics of the sample

6.1.1 Gender - 307 men (80.58%) and 74 women (19.42%).

6.1.2 Age – 163 persons (42.78%) aged 35 – 44 years, 98 persons (25.72%) aged 25 – 34 years, 88 persons (23.10%) aged 45-55 years, 23 persons (6.04%) aged below 25 years, and 9 persons (2.36%) aged above 55 years.

6.1.3 Levels of education – 118 persons (30.97%) finished education with a higher vocational certificate, 108 persons (28.35%) graduated with a bachelor's degree, 102 persons (26.77%) finished education with junior high school education, 53 persons (13.91%) finished secondary education.

6.1.4 Work experience – 147 persons (38.58%) had 2-5 years work experience, 137 persons (35.96%) had 6-9 years work experience, 58 persons (15.22%) had more than 10 years work experience, and 39 persons (10.24%) had below 2 years work experience.

6.2 Levels of safe driving behaviors, perception of crowded workplace, emotional management skills, and safe driving behaviors of public transportation drivers.

According to the study, overall safe driving behaviors were at the highest level ($\overline{x}$ = 4.28, S.D. = 0.42).

The sample had overall perception of crowded workplace at a high level ($\overline{x}$ = 3.94, S.D. = 0.79).

The sample had overall emotional management skills at the highest level ($\overline{x}$ = 4.23, SD. = .42) . Consideration of each aspect found that emotion encoding and decoding had a higher mean than other aspects, at the highest level ($\overline{x}$ = 4.27, SD. =0.45), followed by emotional understanding, at the highest level ($\overline{x}$ = 4.22, SD. = 0.46). Emotion regulation had a lower mean score than other aspect, at the highest level **(**$\overline{x}$ = 4.22, SD. = 0.45).

6.3 The relationship between perception of crowded workplace & emotional management skills and safe driving behaviors of public transportation drivers.

Table 6-2: The relationship between perception of crowded workplace and safe driving behaviors of public transportation drivers.

Variables	r	p
Perception of crowded workplace	-.01	.84

According to the study, overall perception of crowded workplace was negatively related to safe driving behaviors of public transportation drivers, r = -0.01. Based on the analysis result, hypothesis 1 is not accepted.

Table 6-3: The relationship between emotional management kills and safe driving behaviors of public transportation drivers.

Variables	r	p
Emotion encoding and decoding	.16**	.00
Emotional understanding	.16**	.00
Emotion regulation	.21**	.00
Overall emotional management skills	.67**	.00

** with the statistical significance level of 0.01.

According to the study, emotional management skills were related to safe driving behaviors of public transportation drivers at a high level (r = .67) accounting for 44.89% with the statistical significance level of 0.01. Based on the analysis result, hypothesis 2 is accepted. Consideration of each aspect found that emotion encoding and decoding, emotional understanding, and emotion regulation were positively related to safe driving behaviors of public transportation drivers, r =0.16,0.16 and 0.21 with the statistical significance level of 0.01, respectively.

6.4 Prediction analysis results Safe driving behaviors of public transportation drivers based on perception of crowded workplace and emotional management skills.

Prediction analysis of safe driving behaviors of public transportation drivers consisted of 1 criterion variable and 4 predictor variables, i.e. 1) perception of crowded workplace, 2) emotional management skills regarding emotion encoding and decoding, 3) emotional understanding, 4) emotion regulation, was performed using stepwise multiple regression analysis.

Table 6-4: Stepwise multiple regression analysis to select perception of crowded workplace and emotional management skills that can predict safe driving behaviors or public transportation drivers.

Predictor variable	**R**	**R^2**	**Adj R^2**	**SE_{est}**	**F**	**p**
Constant value - Emotional understanding	.638	.407	.406	6.910	260.49**	.01
Constant value - Emotional understanding - Emotion regulation	.666	.443	.441	6.705	150.60**	.01
Predictor variable	**R**	**R^2**	**Adj R^2**	**SE_{est}**	**F**	**p**
Constant value - Emotional understanding - Emotion regulation - Perception of crowded workplace.	.678	.460	.456	6.613	107.11**	.01
Constant value - Emotional understanding - Emotion regulation - Perception of crowded workplace - Emotion encoding and decoding.	.687	.472	.466	6.548	84.02**	.01

** with the statistical significance level of 0.01.

From Table 6-4, it was found that there were 4 variables having predictive power, i.e. emotional management variable regarding emotional understanding and emotion regulation, and perception of crowded workplace variables. Emotional management variable regarding emotional understanding was the first predictor variable, correlation coefficient with safe driving behaviors was 0.638, being able to predict safe driving behaviors of public transportation drivers by 40.70% with the statistical significance level of 0.01, and prediction error was 6.91.

When emotional management skills variable regarding emotion regulation was added, correlation coefficient with safe driving behavior was .66, being able to predict safe driving behaviors of public transportation drivers by 44.30% with the statistical significance level of 0.01, and prediction error was 6.71. Predictive power increased by 3.60% from using the first predictor alone.

When perception of crowded workplace variable was added, correlation coefficient with safe driving behaviors was 0.67, being able to predict safe driving behaviors or public transportation drivers by 46.00% with the statistical significance level of 0.01, and prediction error was 6.61. Predictive power increased by 5.30% from using the first predictor alone and increased by 1.70% from using 2 predictors.

When emotional management variable regarding emotion encoding and decoding, correlation coefficient with safe driving behaviors was 0.68, being able to predict safe driving behaviors of public transportation drivers by 47.20% with the statistical significance level of 0.01, prediction error was 6.55. Predictive power increased by 6.50% from using the first predictor alone and increased by 1.20% from using 3 predictors.

Table 6-5: Stepwise multiple regression analysis to find a prediction equation model of safe driving behaviors of public transportation drivers.

Predictor variable	B	SE b	β	t	p
Constant value - Emotional understanding	38.56 1.35	3.21 .08	- .63	12.01 16.14	.00 .00
Predictor variable	B	SE b	β	t	p
Constant value - Emotional understanding - Emotion regulation	33.22 .75 .84	3.29 .147 .16	- .35 .34	10.07 5.09 4.95	.00 .00 .00

Constant value	37.04	3.43	-	10.77	.00
- Emotional understanding	.75	.14	.35	5.22	.00
- Emotion regulation	.89	.16	.36	5.30	.00
- Perception of crowded workplace	-.09	.02	-.13	-3.41	.00
Constant value	33.17	3.65	-	9.07	.00
- Emotional understanding	.55	.16	.26	3.47	.00
- Emotion regulation	.79	.16	.32	4.70	.00
- Perception of crowded workplace	-.09	.02	-.12	-3.15	.00
- Emotion encoding and decoding	.55	.19	.16	2.90	.00

** with the statistical significance level of 0.01.

From Table 6-5, a prediction equation of safe driving behaviors of public transportation drivers can be created as follow:

Safe driving behaviors = 33.17 + .55 (emotional understanding) + .80 (emotion regulation) - .09 (perception of crowded workplace) + .55 (emotion encoding and decoding).

From the equation, it can be described that if emotional understanding score of public transportation drivers increases 1 point while other variables are controlled, safe driving behaviors score of public transportation drivers shall increase 0.56 points. If emotion regulation score of public transportation drivers increases 1 point while other variables are controlled, safe driving behaviors score of public transportation drivers shall increase 0.80 points. If perception of crowded workplace score of public transportation drivers increases 1 point while other variables are controlled, safe driving behaviors score of public transportation drivers shall increase -0.09 point, and if emotion encoding and decoding score of public transportation drivers increases 1 point while other variables are controlled, safe driving behaviors score of public transportation drivers shall increase 0.55 points.

When raw score is transformed into standard score (Z-Score), the prediction equation in the form of standard score is as follow:

Safe driving behaviors =0.26 (emotional understanding) + 0.32 (emotion regulation) -0.12 (perception of crowded workplace) +0.16 (emotion encoding and decoding).

According to statistical analysis results, it can be concluded that hypothesis 3 is accepted, emotional management and perception of crowded workplace, at least one aspect, can mutually predict safe driving behaviors of public transportation drivers.

7. Discussion

According to the study, it was found that perception of crowded workplace was related to safe driving behaviors at the lowest level (r = -.01) ; hypothesis 1 is not accepted. The researcher viewed that public transportation drivers felt about the number of people surrounding that makes them unable to control the environment. There were too many stimuli and the environment limited their behaviors until they could not perform behaviors to achieve their goal. A method to manage other aspects was used instead as it does not always depend on a great number of people, consistent with the concept of Fleishman L. and Gubman Y. (2015) that perception of crowded environment is a result of confronting among visitors in a certain place. Such confrontation is a medium on the basis of the diversity of cultures and demographic characteristics of both parties in each time of confrontation. What discovered shows that the similarity of visitors in terms of educational background and ethnic tends to reduce perception of crowding. Meanwhile, population similarity between two parties confronting (basically in terms of age) gives rise to more sensitivity among people.

Knowles (1979) found that density is a physical property associated with limitation of space. It is about the number of persons per area unit but does not include emotional responses. Density is a necessary condition but not important to crowding. That means high density does not need to mean crowding.

According to the study, it was found that emotional management skills were associated with safe driving behaviors at a high level with the statistical significance level of 0.01 (r = .21); hypothesis 2 is accepted. In the researcher's opinion, public transportation drivers had ability in emotional management in terms of emotional expression, how to cope with problems to respond to emotions of those persons. As soon as public transportation drivers understand their emotions and emotions of those persons, they are able to control problems that may arise, consistent with the concept of Erden S. (2017) that emotional management skills are learning monitoring, and controlling the process of managing negative emotions and managing emotions in an efficient manner to maintain good emotional health and mental health. Terzi B. (2022) found that emotional management skills of nurses are significantly related to emotional management skills and levels of happiness as their work affects emotional management skills. When working hours increase, their emotional management skills shall decrease.

8. Suggestion

8.1 Suggestions for research result application.

8.1.1 According to the research results, overall perception of crowded workplace has the lowest level of relationship. Therefore, the organizations should regularly give importance to perception of crowded workplace as it can affect employees to have health problems or anxiety at work. The organizations should provide healthcare services and knowledge to employees regularly.

8.1.2 According to the research results, overall emotional management skills of public transportation drivers are at a high level. Consideration of each aspect found emotion regulation has a correlation value at a low level. As a consequence, the organizations should train their employees to be capable of emotion regulation on a regular basis by creating different training courses to develop several aspects, i.e.

1) emotional quotient course to enable them to perceive their emotions and emotions of others so that they will be able to manage and express their emotions appropriately in each situation.

2) personality development course to enable them to analyze themelves when expressing responses to service users or people surrounding them, and to ensure impressive services given to service users.

3) creating positive attitude course – public transportation drivers must have positive attitude and preparedness to show their roles as givers and takers appropriately.

4) creating good human relationship course to create human relationship for living together in workplace and when confronting external environment to blend harmoniously with the society.

5) interpersonal communication course for communicating with personnel in organization and outside organization so as to create communication patterns for employees. The more communication they have with each other, the better understanding they have, being able to reduce conflicts in organization and outside organization.

8.2.1 This research limited to self-assessment of public transportation drivers in Bangkok and in some BMTA bus operation zones only. Therefore, future study should conduct in every BMTA bus operation zone and in other provinces having a large number of population; such study shall show diversity and differences while study results will be applied to developing personnel in organization comprehensively, bringing about more efficient work performance and preventing various problems in an excellent way.

8.2.2 In this research study, the participants are public bus drivers in Bangkok. To ensure study results shall give response to the whole organization, an in-depth study should be conducted in several levels of types of public transportation as different levels provide different duties and working styles. In-depth information shall give specific study results and be able to evaluate results of each level of types of public transportation efficiently and right to the organizational goals.

8.2.3 This research was a quantitative study for being developed further. The researcher viewed that an interview should be used by raising questions and analyzing data from answers or an experiment should be performed to see differences before and after. Training courses should be provided to promote safe driving behaviors on the basis of perception of crowded workplace and emotional management skills in different aspects. In this regard, drivers shall receive knowledge, understanding, how to use when facing various situations in the future, and how to use in everyday life in an appropriate manner.

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