

AN APPLICATION OF THE MAHAJANAKA STORY TO THE WORK  
STRESS REDUCTION OF BANK EMPLOYEES IN BANGKOK

PASAPORN SANGDHATI

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IN FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF DOCTOR OF PHILOSOPHY  
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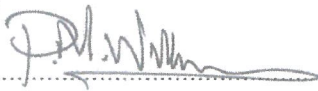
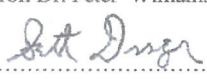
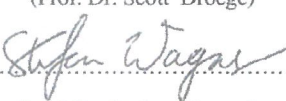
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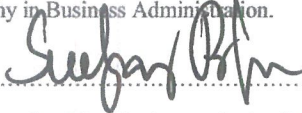
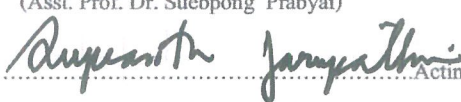
คุษฎีนิพนธ์เสนอต่อมหาวิทยาลัยรามคำแหง  
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Dissertation Title                      An Application of The Mahajanaka Story to the Work Stress Reduction of  
Bank Employees in Bangkok  
Student's Name                              Miss Pasaporn Sangdhati  
Field of Study                                Business Administration (English Program)  
Advisory Committee



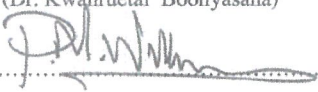
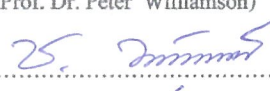

.....Chairperson  
(Prof. Dr. Peter Williamson)  
.....Member  
(Prof. Dr. Scott Droege)  
.....Member  
(Prof. Dr. Stefan Wagner)

---

Ramkhamhaeng University approved this dissertation in fulfillment of the requirements for the degree  
of Doctor of Philosophy in Business Administration.

.....Dean of Graduate School  
(Asst. Prof. Dr. Suebpong Prabyai)  
.....Acting Director of the Institute  
(Dr. Suprasith Jarupathirun)                      of International Studies

Examination Committee

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.....Member  
(Prof. Dr. Peter Williamson)  
.....Member  
(Assoc. Prof. Chadaporn Teekauttamakorn)  
.....Member  
(Dr. Suprasith Jarupathirun)

## ABSTRACT

Dissertation Title	An Application of The Mahajanaka Story to the Work Stress Reduction of Bank Employees in Bangkok
Student's Name	Miss Pasaporn Sangdhati
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| 1. Prof. Dr. Peter Williamson | Chairperson |
| 2. Prof. Dr. Scott Droege     |             |
| 3. Prof. Dr. Stefan Wagner    |             |

The aim of this study is to explore how to reduce the work stress of bank employees in Bangkok through the use of The Mahajanaka Story: The Virtue King (1996).

The Mahajanaka Story is a Theravāda Buddhist tale which relates an account of the final lives of the Historical Buddha as a Bodhisattva. The translation used in this research investigation was prepared by His Majesty King Bhumibol Adulyadej, King Rama IX and serves as a folkloric expression of the King's philosophy of the sufficiency economy.

The researcher's study concerns a Thai domestic bank which had identified a serious problem with workplace stress in the organization and was

exploring pilot interventions so as to address workplace stress and its effects. Accordingly, the researcher adopted a primary intervention strategy geared to the self-study of The Mahajanaka Story as a philosophical tool designed to improve cognitive coping and problem-solving skills.

The 10-week intervention engaged 100 bank employees, 50 in the experimental group and 50 in the control group. A pre-test was given in order to evaluate stress levels subsumed under four categories—*viz.*, role conflict, role ambiguity, role overload, and role characteristics—in addition to the effects of stress on physical and mental well-being. The intervention included a one-hour presentation of the animated film version of The Mahajanaka Story, discussions of how to use the text as a tool for mindful reflection leading to the reduction of stress, and the provision of a copy of the book to each participant from the experimental group. Participants were given ten weeks to read The Mahajanaka Story and implement its effects. A post-test was then administered.

Analysis showed that during the pre-intervention period, there were no differences between the two groups. However, in the post-intervention period, the group that had The Mahajanaka Story manifested significantly lowered perceptions of stress and exhibited fewer physical and mental symptoms. The implications of this research inquiry therefore suggest that The Mahajanaka Story can be used as an effective tool of primary intervention for individual stress interventions vis-à-vis bank employees in the Kingdom of Thailand.

## บทคัดย่อ

ชื่อเรื่องคุณิพนธ์      การประยุกต์ใช้พระราชนิพนธ์เรื่อง พระมหาชนก เพื่อการลด  
ความเครียดจากการทำงานของพนักงานธนาคารในกรุงเทพ  
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สาขาวิชา              บริหารธุรกิจ (หลักสูตรภาษาอังกฤษ)  
ปีการศึกษา              2561  
คณะกรรมการที่ปรึกษา

1. ศาสตราจารย์ ดร. ปีเตอร์ วิลเลียมสัน                      ประธานกรรมการ
2. ศาสตราจารย์ ดร. สกอตต์ โดริจ
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วัตถุประสงค์หลักของการวิจัยในครั้งนี้คือ การศึกษาเกี่ยวกับการประยุกต์ใช้  
พระราชนิพนธ์เรื่อง พระมหาชนก เพื่อการลดความเครียดจากการทำงานของพนักงาน  
ธนาคาร พระราชนิพนธ์เรื่อง พระมหาชนกเป็นเรื่องราวของชาติสุดท้ายของพระโพธิสัตว์  
ในนิภายเถรวาท ในการวิจัยครั้งนี้ได้ใช้พระมหาชนกฉบับที่พระบาทสมเด็จพระ  
พระปรมินทรมหาภูมิพลอดุลยเดชทรงแปลโดยทรงดัดแปลงเนื้อเรื่องให้เหมาะสมกับ  
สังคมปัจจุบันและปรัชญาแบบเศรษฐกิจพอเพียง การศึกษานี้เก็บข้อมูลจากพนักงานของ  
ธนาคารในประเทศไทยแห่งหนึ่งซึ่งมีปัญหาความเครียดจากการทำงานมาก ในการวิจัยนี้  
ได้ใช้วิธีทดสอบโดยให้กลุ่มทดลองได้ศึกษาพระราชนิพนธ์ เรื่อง พระมหาชนก  
เพื่อพัฒนาทักษะการเผชิญหน้ากับความเครียดจากการทำงานด้วยตนเอง โดยใช้เวลา  
10 สัปดาห์ ในการวิจัยกับพนักงานธนาคารจำนวน 100 คน โดยแบ่งเป็นกลุ่มทดลอง  
50 คน และกลุ่มควบคุม 50 คน ทั้งนี้ มีการตอบแบบสอบถามก่อนทำการทดลองเพื่อ  
ประเมินระดับของความเครียดใน 4 ประเภท (ความขัดแย้งในบทบาท ความกำกวมใน  
บทบาท ภาระที่หนักในบทบาท ลักษณะในบทบาทและผลกระทบต่อร่างกายและจิตใจ)

การทดลองจะประกอบไปด้วยการให้ชมภาพยนตร์เรื่อง พระมหาชนก และสนทนาเกี่ยวกับการใช้มหาชนกเพื่อลดความเครียดจากการทำงาน หลังจากนั้นกลุ่มทดลองจะได้รับพระราชานิพนธ์เรื่อง พระมหาชนกไปศึกษาอีกคนละ 1 ฉบับ หลังจาก 10 สัปดาห์ได้ให้ตอบแบบสอบถามเพื่อศึกษาผลของระดับความเครียดอีกครั้ง ทั้งนี้ มีการวิเคราะห์ก่อนการทดลองแล้วว่า 2 กลุ่มไม่ได้มีความแตกต่างกัน อย่างไรก็ตามผลจากการวิจัยพบว่า กลุ่มที่ได้ศึกษาพระราชานิพนธ์เรื่อง พระมหาชนกมีระดับความเครียดและอาการเครียดทางจิตใจและร่างกายที่ลดลง ซึ่งสรุปได้ว่า พระราชานิพนธ์เรื่อง พระมหาชนกสามารถใช้เป็นเครื่องมือเพื่อช่วยบรรเทาระดับความเครียดจากการทำงานของธนาคารในประเทศไทยได้

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Pasaporn Sangdhati



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# **CHAPTER 1**

## **INTRODUCTION**

### **Research Background**

Workplace stress can be defined as “the change in one’s physical or mental state in response to workplaces that poses an appraised challenge or threat to the employee” (Colligan & Higgins, 2005, p. 89). Workplace stress may also be defined as “lay representations”, which are common-sense explanations of workplace stress and its effects (Kinman & Jones, 2005). Workplace stress results from unexpected or uncontrollable factors in the work environment, whether these factors are positive or negative (Bickford, 2005; Carr, Kelley, Keaton, & Albrecht, 2011; Michie, 2002). Stress is a normal physical response to unexpected situations, either positive or negative, and can have adaptive effects like sharpening reaction times or improving cognitive responses in the short term (Bickford, 2005).

It is believed that once workplace stress has been sustained or become chronic, it will have negative physical and mental effects (Carr et al., 2011). Effects of stress can include physical, cognitive (mental), emotional, and behavioral effects (Bickford, 2005; Carr et al., 2011; Michie, 2002). Some of the most common effects include depression and anxiety, mood and irritability problems, physical (somatic) symptoms like headache, stomach ache, physical pain and trouble sleeping, and behavioral effects like withdrawal or avoidance



behaviors (Bickford, 2005; Carr et al., 2011; Michie, 2002). Job stress, in addition, can also directly or indirectly have an impact on organizational outcomes like job satisfaction, organizational commitment, intent to turnover, and job performance (Cekmeclioglu & Günsel, 2011; Fried, Shirom, Gilboa, & Cooper, 2008).

Workplace stress is a global problem. Global survey company conducted a study of individuals from 22 countries in 2015 to identify what the biggest sources of stress are. The study found several workplace stressors that were among the top 15 sources of stress including amount of work, the people working with (GFK, 2017). Other stressors, such as money, lack of time, and problems managing, the demands of home and other caregiving responsibilities, are also related to the working environment (GFK, 2017). Gallup's (2018) Global Emotions survey, which surveyed 154,000 people in 145 countries, confirmed that stress is a frequent experience around the world. In fact, 37% of the participants in the study claimed that they experienced a high level of stress, which was one of the highest levels that had ever been recorded (Gallup, 2018).

Studies from Thailand have also discovered that employees in many Thai organizations also experienced a high level of workplace stress although stress factors vary (Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Nuttapol Yuwanich, Helene Sandmark, & Sharareh Akhavan, 2016; Orawan Kaewboonchoo, Boonrord Yingyuad, Tassanee Rawiworrakul, & Adchara Jinayon, 2014; Peerayuth Charoensukmongkol, 2013; Ungsinun Intarakamhang, 2009; Yiengprugsawan, Strazdins, Lim, Kelly, Seubsman, &

Sleigh, 2013) Thus, the problem of workplace stress is both common and damaging globally.

In the banking industry, workplace stress tends to be very high (Azad, 2014; Kaur & Sharma, 2016; Oke & Dawson, 2008; Shukla & Sinha, 2013). A large amount of this stress results from the nature of banking work and its demands such as complex policies and procedures as well as ethical stresses (Azad, 2014; Kaur & Sharma, 2016). Furthermore, role conflict, role ambiguity, including role overload have a significant effect on the employee. Employees in the banking industry face long working hours and heavy loads of responsibilities and duties, low compensation and poor balance of rewards, poor resources, and low levels of autonomy, which makes the job more stressful. These job stressors have negative effects on the employee's mental and physical well-being, job performance, and job satisfaction (Shukla & Sinha, 2013).

As stress in the workplace has become a growing problem of employees in many organizations all over the world, a number of organizations are currently seeking a way to help their workers cope with stress. Theoretically, several approaches have been developed to for stress management; however, no research on the use of the story of Mahajanaka, a pre-incarnation of the Buddha, has been conducted. The key concept the story of Mahajanaka is about the ultimate perseverance with no desire for reward of Mahajanaka, which finally makes him ascend the throne and bring the city of Mithila wealth and prosperity. Premised on the story's concept, this research aims to examine whether the application of the Mahajanaka's story can

support immunity or capacity to resist for employee stress in the banking industry of Thailand.

### **Statement of the Research Problem**

Workplace stress has been a growing problem in many organizations, including in the banking sector. Extensive research has shown that many employees in the banking industry are likely to suffer from workplace stress. It is reported that a number of bank employees are suffering from stress owing to different antecedents of stress. Employee stress can unavoidably affect the performance of their organization, the quality of their work and performance, employee absenteeism as well as turnover since stress can trigger both physical and mental problems. The purpose of the research is to identify whether the story of Mahajanaka can be used to build resilience to work stress and to build up their immunity against stress in the workplace of Thai workers in the banking industry. Based on the findings of the study, it is discovered that providing that employees suffering from stress read a story that is relevant to their organizational goal, the story can be used as a primary intervention which helps alleviate the level of stress.

### **Research Aims and Objectives**

The aim of this study is to study if the story of Mahajanaka can be used as a tool to build up employee immunity against stress in the workplace as

well as to build resilience to work stress of Thai employees who work in the banking industry. The objectives of the study are as follows:

1. To measure the level of work stress of bank employees in Bangkok from intrinsic job itself and role stressors before and after reading the story of Mahajanaka;
2. To investigate the working ideas behind the story of Mahajanaka and apply the ideas as a work stress coping mechanism.

The research question of the study is as follows:

Does the story of Mahajanaka affect stress perceptions as well as mental and physical well-being of Thai banking employees in Bangkok?

### **Research Hypotheses**

*Ho1:* There is no significant difference in job stress levels between different demographic groups (age, gender, years of work experience, work position).

*Ho2:* There is no significant difference in the level of job stress between group of Mahajanaka users (experimental group) and Mahajanaka non-users (control group).

### **Scope of the Research**

The scope of the research is to focus on the stress of bank employees in Bangkok and to find out whether the story of Mahajanaka can be used as a

primary intervention tool to support immunity to their workplace stress. As employee stress can lead to a number of adverse effects on employees' job performance, which ultimately has an impact on organizational productivity, many organizations are attempting to find a simple yet effective method to assist their workers cope with stress.

This research was conducted at the individual employee level. The researcher ensured that the all participants had never heard or known anything about the story of Mahajanaka before this intervention. The study is longitudinal, with data being collected in two time periods, separated by 10 weeks in August 7, 2018 to October 18, 2018, during which an organizational intervention was implemented. The research was conducted in a leading domestic bank in Thailand. The respondents of the study were 100 employees working for the bank at all levels. The participants were divided into control and experimental groups. The study used a pre-test/post-test strategy, with data being collected in Week 1 and Week 10 of the intervention. From Weeks 1 to 10, the intervention (including a workshop and self-guided study) was made. The intervention was designed as a primary intervention and open to all employees, regardless of stress levels. The intervention used the story of Mahajanaka as a self-guided text for mindfulness and philosophical contemplation to encourage the development of cognitive and proactive coping strategies and application of these strategies to work.

There are several limitations of the research. These limitations include both cultural and institutional contexts, as the intervention was designed specifically for this bank and its organizational needs and environment. Thus,

the intervention may not be successful in other organizations. The study mainly focuses on personal mental and physical well-being rather than corporate productivity, since these outcomes are more relevant to an individual employee and their experience at work. Although the intervention was specifically designed for the bank, the findings still provide new insights into the use of the story of Mahajanaka as an intervention tool.

### **Research Contribution**

This research found that the story of Mahajanaka can be applied as an effective tool for reducing perceived stress in the workplace of bank employees for many reasons. First of all, once the story of Mahajanaka on Youtube was shown to the participants, and the working main idea of the story concerning the perseverance, determination, and positive thinking of Mahajanaka was given as a guide note to the participants, it was found that the level of stress of the participants was reduced. This means that the story of Mahajanaka can be used to encourage the employees to be determined to overcome their obstacles.

Moreover, employees who read or watched the story can learn to persevere with their tasks until they succeed or achieve their goals. In addition to this, the story also teaches people to have positive thinking and be conscious. People who have read or watched the story of Mahajanaka can be inspired to have positive mental attitude, which is seen as the process of though creation which turn their energy into reality. Further to this, according

to the research on self-efficacy, individuals who believe in their capability tend to better cope with stress and changes compared to those who do not. This means that the story of Mahajanaka can help promote the reader's self-efficacy, perseverance as well as their resilience. These personal qualities, if one possesses, will help alleviate their stress in the workplace, contributing to a better performance of the worker. All in all, the use of Mahajanaka story will be beneficial for both organizations and individual employees as the story will not only as a self-guided text for mindfulness and philosophical contemplation to encourage the development of cognitive and proactive coping strategies and application of these strategies to work in an organization, but will also increase the productivity of employees, which contributes to higher productivity of the organization.

### **Definition of Terms**

***Coping.*** Individual cognitive, emotional, and behavioral strategies to manage the response to stress and uncertainty that exceeds the individual's resources (Boyd, Lewin, & Sager, 2009). There are multiple coping strategies recognized, which either remove sources of stress or mitigate the effects of stress on the individual's well-being.

***Intervention.*** An organizational tool designed to reduce job stress in the organization by teaching individual coping techniques, ameliorating the effects of stress, and/or changing organizational conditions to reduce or eliminate stressors (Tetrick & Winslow, 2015).

***Role ambiguity.*** Job stressors resulting from uncertainty about what the role entails, including unclear responsibilities and expectations, supervision and lines of authority, policies and procedures, and tasks and goals (Michie, 2002; Schmidt, Roesler, Kusserow, & Rau, 2014; Sonnentag & Frieese, 2003).

***Role characteristics.*** Intrinsic characteristics of the role which can create stress, such as dangerous, complex, or physically demanding tasks, tasks with high responsibility and dependence, or conditions such as autonomy and interest (Michie, 2002; Schmidt et al., 2014; Sonnentag & Frieese, 2003).

***Role conflict.*** Job stressors resulting from conflicting demands from different aspects of one's role, including work-home conflict, ethical conflicts, supervisory conflicts, and conflicts between different policies or policies and practice (Michie, 2002; Schmidt et al., 2014; Sonnentag & Frieese, 2003).

***Role overload.*** Job stressors resulting from mismatch between role demands and resources, such as long working hours, too much work, and too few resources (Michie, 2002; Schmidt et al., 2014; Sonnentag & Frieese, 2003).

***Stress.*** A psychological and physical state resulting from unpredictable or uncontrollable demands and pressures that the individual does not have the resources to manage (Koolhaas, Bartolomucci, Buwalda, de Boer, Flügge, Korte, Fuchs et al., 2011; Michie, 2002) Stress serves as an adaptive response when individuals face unexpected challenges, but when stress is chronic or extreme it is maladaptive (Bickford, 2005; Carr et al., 2011).



***Stressor.*** A condition or occurrence that causes a stress response (Sonnentag & Frese, 2003).

***Stress response.*** A physical, emotional, behavioral or cognitive response to a stress stimulus (Sonnentag & Frese, 2003). Stress responses affect individual physical and mental well-being and job satisfaction and outcomes (Sonnentag & Frese, 2003).

***Workplace stress.*** Work stress developed from employees cannot cope with stressors which come from work and impact to psychological, behavior or physical (Colligan & Higgins, 2005, p. 89).

***The story of Mahajanaka.*** A philosophical narrative derived from the Mahanipata jākata scripture of Theravada Buddhism, detailing the story of Prince Mahajanaka (the Lost Prince) (Appleton, 2010). The tale's translation by His Majesty King Bhumibol Adulyadej is recognized as a seminal work detailing the King's philosophy of the sufficiency economy, and has been translated and represented in an animated film (Supatra Kosaiyakanont, 2014; Teetima Potchanakaew, 2018).

## **CHAPTER 2**

### **LITERATURE REVIEW**

The goal of this chapter is to set out the theoretical and empirical evidence the study was based on reviewing the existing literature according to the research topic and objectives. This literature review was conducted using a traditional approach, with studies selected for inclusion based on relevance, or seminal contribution to the field rather than attempting an exhaustive or systematic review of the very extensive body of academic literature on stress and coping. The chapter begins with empirical review, theatrical review, an overview on the concept of stress including its origins, definition, and key models of stress. The discussion then turns to stress in the workplace beginning with a discussion of sources and effects of workplace stress and then turning specifically to stress in the banking workplace and workplace stress in Thailand. This discussion is based on a comprehensive review of the empirical literature on workplace stress. Individual factors in workplace stress, including demographic and work position or role factors, are also discussed. Next the issue of coping with stress is addressed including development of individual characteristics like resiliency and the role of individual interventions. The Story of Mahajanaka is then discussed as a potential coping tool. The chapter closes with conceptual framework.

## **Empirical Review**

The use of the story of Mahajanaka to help bank employees cope with workplace stress has resulted in a number of empirical studies. The reviews give a picture of stress in the workplace, in particular of bank employees. Moreover, empirical evidentiary base including effects and interactions of workplace stress, sources of stress in the workplace, factors that have an influence on the stress as well as workplace stress management are also provided. The findings of these studies show that stress can be triggered by many stressors and the way people react to stress can be different depending on individual factors such as gender, seniority and age. Workplace stress, furthermore, is now a critical problem in many organizations around the world. To cope with stress in the workplace, both organizational and individual tools can be used. The empirical evidence in these studies shows that it is important for organizations to assist their workers to reduce workplace stress as this can not only improve both mental and physical well-being of the employees but also increase the productivity of the organizations as well.

## **Theoretical Review**

There are many theories that explain the cause of stress:

### ***Life Event Theory***

In 1967, Thomas Holmes and Richard Rahe started to keep patient records about significant events in their lives which can cause stress. Once examining the findings, they confirmed that important incidents in life can cause stress and illness to people. Based on these findings, they developed the Social Readjustment Rating Scale (SRRS) or the Holmes and Rahe Stress Scale, which is the table of life situation units with some score. They used this table to calculate the total score in the past year of that person. Once calculated, the score shows the level of illness problems caused by stress. (Kanner, Coyne, Schaefer, & Lazarus, 2011) However, today, many scholars argue that even though some people do not face this kind of hard situation in their lives, they still suffer from stress.

### ***Psychological Hardiness Theory***

In 1979, proposed the Psychological Hardiness Theory. The theory is about personality characteristics that make someone be able to resist more stress than others. The Hardiness consists of the commitment, control and challenge disposition, Kobasa as cited in Maddi (2004). The first commitment component was explained as interest and curiosity to know about the environment, society and activities. The second component is known as a

control component, which was defined as a belief in their own effort that can bring good outcomes to believers. The final component is called a challenge component. This component is defined as a belief that a change is always better than standstill. Moreover, it is claimed that these three components combination can work together and turn stress from strong threats into a good chance.

### ***Social Support Theory***

Social support can be defined as the actuality and perception which a person is cared for. It is the emotional and physical support that is provided to people by their family, colleagues, friends, and others. Social support makes people realize that they are part of a society.

According to the study of Cohen and Wills (1985), there are different ways to categorize social support. Generally, social support has four major functions which can be described as follows:

1. Emotional support is when empathy, love, concern, intimacy, caring, trust and acceptance are offered. Emotional support is in short warmth which is given by different social support sources. Through social support, if the individual knows that they are valued, the support can be defined as appraisal support or esteem support.

2. Tangible support is the support when material products or services or financial assistance is given to someone. Also known as instrumental support, tangible support is a concrete way which people help others.

3. Informational support is the support of guidance, advice, or valuable information that can help an individual solve a problem.

4. Companion support provides individuals with a sense of belonging. In shared social activities, Companion presence is considered companion support. Cohen (1992) cited that a person can be protected from stressful event influence; however, only when the needs match the functions of support, stress buffering takes place.

### ***Self-Efficacy Theory***

Self-Efficacy Theory by Bandura is the theory that believes in self-efficacy. People who believe that they have their own potential ability are likely to cope with stress better. People with personal efficacy, when under stress, will initiate coping behavior and make an effort to cope with changes. In short, those who have self-efficacy are those who have confidence and are likely to achieve their goals and positive results (Bandura, 1994). Many studies discover that a person who has self-efficacy can bear stressor better than those who does not have. Therefore, the working idea of the story Mahajanaka may encourage immunity or capacity to resist for employee stress because the story can help boost self-efficacy of a person.

### ***Stress Coping Theory***

Lazarus and Folkman state that stress coping have two approaches: problem-focused and emotion-focused coping. Problem-focused coping means that people who are under stress take action to solve the problem or

confront the stressor. Problem-focused is a powerful stress coping strategy. Different from the problem-focused method, emotion-focused coping is the method used by people who want to avoid facing stress or a problem. This can, however, lead to more stress and illness in the future. (Soderstrom, Dolbier, Leiferman & Steinhardt, 2000).

The working idea of the story of Mahajanaka can be used as a strategy to cope with stress as it enables the reader to solve their problem. Therefore, those who read or watch the story are likely to be encouraged to confront the problem and find a way to tackle with the problem instead of avoiding it.

### ***Relationship between Stress and Individual Health Problems***

Many theories suggest that there is a relationship between stress and individuals' health problems. For example, Dr. Hans Selye, who is the first scholar to find out the stress phenomenon and give an explanation about the body's non-specific response, which is also known as the general adaptation syndrome (GAS), proposed that there are three predictable stages that an individual reacts to stressors, which are the alarm stage, resistance stage, and exhaustion stage. Selye believed that when people are stressed out, hormones are produced to respond to the stress. However, if the stressful situation continues for too long and the body cannot cope with it, this will cause an illness.

Apart from the work of Selye, Bryla's study also showed the relationship between stress and cancer. In her study, Bryla addressed that breast cancer can be triggered by stress. Bryla explained that the majority of

females with breast cancer have suffered from depression and emotional stress as well as avoidance personality. Likewise, the research of Leidy indicated that chronic stress can lead to chronic illness like lung disease.

## **The Concept of Stress**

### ***History of the Concept of Stress***

The concept of stress has evolved significantly over the past 100 years. One of the earliest models of stress was defined in the Cannon-Selye model of the physical stress response (Hobföll, 1989). Over time, a wide variety of stress models emerged, including event-perception models, transactional and homeostasis (imbalance) models, and conservation of resource models (Hobföll, 1989). Another important insight was the idea of allostasis, which argued that there was no single ideal set point (as in homeostasis), but that instead the set point for various physiological responses could change continuously in response to external stimuli or systemic changes (Goldstein & Kopin, 2007). These physiological insights allowed for the observation of stress responses in biological systems and determination of how they changed attitudes and perceptions. Another key idea was the idea that stress was caused by inconsistencies between expected and actual conditions; this idea is critical because it offers the opportunity for stress to be an adaptive response (Goldstein & Kopin, 2007). Recently, it has been recognized that even seemingly positive stimuli can provoke a stress response, which can be as problematic as a response to negative stimuli (Koolhaas et al., 2011). Thus, the



notion of stress as it is used today is much more complex than the original Cannon-Selye model of a fixed physiological response to environmental changes.

### ***Definitions and Models of Stress***

There are multiple definitions of stress in the modern literature, none of which has been adopted very widely. One of the more widely adopted definitions is “the psychological and physical state that results when the resources of the individual are not sufficient to cope with the demands and pressures of the situation (Michie, 2002, p. 67).” However, one group of authors has argued that the term ‘stress’ should only be applied when the environmental change or situation demands more than the organism can manage in terms of adaptive response (Koolhaas et al., 2011). Thus, stress occurs under conditions of unpredictability and/or uncontrollability, rather than any time there is a change in the environment (Koolhaas et al., 2011). There is a plethora of other definitions of stress that apply to workplace stress or general stress, not all of which overlap (Sonnentag & Frese, 2003). Thus, there is no single accepted definition of stress. There are also lay definitions of stress which do not fully coincide with the organizational definitions (a point discussed in more detail below) (Kinman & Jones, 2005). This research uses a synthetic definition of stress from Michie’s (2002) and Koolhaas et al.’s (2011) definition, considering that stress is a psychological and physical state resulting from unpredictable or uncontrollable demands and pressures that the individual does not have the resources to manage. This definition was

selected because of the need to acknowledge the adaptability of the individual to stress and the individuality of stress responses.

There are multiple models of stress that explain how stressors are perceived and why these are different between individuals, most of which take an approach from organizational systems theory in which stress is a response to a specific environmental stimulus (Bickford, 2005; Sonnentag & Frese, 2003). For example, the person-environment fit theory argues that the relationship of the person and the environment determines how much stress is perceived from environmental demands. The occupational stress framework argues that occupational stress arises both from environmental stress sources and individual perceptions, environmental supports like social supports, and responses. The demand-control-support model conceptualizes stress as emerging from the worker's perceptions of job demands and how much control they have over achieving these goals. Workers with low demands and high control experience the least stress, while those with high demands and low control experience the most stress.

Of these models, Bickford (2005) notes that the best empirical support is for the demand-control-support model. Another model is the job demands-resources model, which argues that job characteristics interact with basic psychological needs to create responses such as stress (burnout) or vigor (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). The cybernetic theory of organizational stress argues that stress is part of the organizational system, and that it creates a negative feedback loop in response to environmental stimuli (Edwards, 1992). Edwards (1992) pointed out that these characteristics

were inherent and assumed in many organizational stress theories, even though they were not explicitly spelled out. This is an accurate critique, but the cybernetic model of stress is very prescriptive in this author's opinion and the additional rigor is not required for the practical aims of this study.

More recent models have included the social identity model, which argues that an individual's social identity and self-appraisal and their relationship to others determines whether a potential stressor is perceived as stressful (Haslam & van Dick, 2011). However, this model has not had as much uptake as the other models. This research relies on the person-environment fit model, which argues that stress results from a perceived inconsistency between the demands of the environment (the organization, job and role) and the individual's resources (Bickford, 2005). This model addresses the main stressors in the workplace that are relevant to this study, as discussed below.

### ***Stress as a Normal and Abnormal Response***

One of the serious questions that must be asked about stress is whether it is a normal response or an abnormal response. The literature suggests that there is the possibility for it to be both, with environmental conditions and stimulus determining which is the case. Stress is a normal reaction to everyday life occurrences and is common for individuals to experience (Bickford, 2005). The physiological state of stress is not necessarily negative in the short-term, since acute stress can increase focus and alertness to deal with an immediate problem or situation (Carr et al., 2011). In other words,

stress constitutes an adaptive response to an unexpected environmental condition (Goldstein & Kopin, 2007). However, when stress becomes chronic, or continues in the long term without resolution, it can have negative effects including increased cortisol levels, which have a significant negative effect on the physical and mental function of the individual (Carr et al., 2011). Therefore, chronic stress is an issue that needs to be addressed and if possible resolved.

Furthermore, very high acute stress levels can have significant negative effects on working memory and memory retrieval (Oei, Everaerd, Elzinga, Van Well, & Bermong, 2006). This effect occurs because of the effect of stress on the prefrontal cortex and hippocampus, which are involved in memory storage and retrieval (Oei et al., 2006). Thus, while some level of stress is considered normal, very high levels of acute stress or extended chronic stress can have negative effects on overall function, making stress a maladaptive response in this situation.

### **Stress in the Workplace**

A source of stress can be called a stressor (Sonnetag & Frese, 2003). There are many different sources of stress at work related to different factors such as job, the organization, and the individual's own position (for example career position and interpersonal relationships), which interact with the individual's personality traits, life stage and external issues like family and

work-life balance which can create stressful situations (Bickford, 2005; Carr et al., 2011; Michie, 2002).

A common model of job stress includes task-related stressors, physical stressors, social stressors, career-related stressors, traumatic events and change, and role-related stressors (Sonnentag & Frese, 2003). An important insight is that these stressors may not necessarily seem negative from an outside perspective; for example, a common stressor in hospitality services was the expectation of always-on friendliness and cheerfulness (Zhao & Ghiselli, 2016).

The four categories of factors investigated here include role conflict, role ambiguity, role overload, and job role characteristics. These are defined and examples given in Table 1. Previous meta-analyses have addressed the role of these factors in the creation of stress response. An early meta-analysis found that role ambiguity and role conflict had significant effects on perception of stress (Jackson & Schuler, 1985). These authors also identified several of the factors that contributed to the perception of role ambiguity and role conflict. Another meta-analysis investigated role ambiguity and role conflict and their relationship to depression (a common cognitive or mental stress response) (Schmidt et al., 2014). These authors analyzed 33 studies, totaling about 50,000 samples in total. They found a moderate, positive effect of role conflict ( $r = .318$ ) and role ambiguity ( $r = .279$ ) on depression (Schmidt et al., 2014).

### ***Sources of Workplace Stress***

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**Table 1**

*Summary of Workplace Stressors Investigated in the Current Study*

Stressor Category	Brief Definition	Examples of Conflict
Role conflict	Conflicts in the responsibilities or other characteristics in the role	<ul style="list-style-type: none"> <li>Conflict between work and home</li> <li>Conflicting policies and procedures</li> <li>Conflicting orders from superiors or too many superiors</li> <li>Ethical conflicts</li> <li>Conflicts in work practices between groups</li> <li>Conflict between policies and what is actually done</li> </ul>
Role ambiguity	Uncertainty in what a role entail	<ul style="list-style-type: none"> <li>Unclear responsibilities</li> <li>Unclear expectations</li> <li>Unclear supervision or authority</li> <li>Unclear policies and procedures</li> <li>Unclear job descriptions</li> <li>Unclear tasks and goals</li> <li>Unclear relationships</li> </ul>
Role overload	Inability to manage workload given existing resources	<ul style="list-style-type: none"> <li>Too much work</li> <li>Too few resources (e.g. time or skills)</li> <li>Trouble prioritizing</li> <li>Demands too high</li> <li>Lack of time for self-development</li> </ul>

**Table 1** (continued)

Stressor Category	Brief Definition	Examples of Conflict
Role characteristics	Intrinsic parts of the job that can create stress	Complex or highly process-driven tasks High responsibility High risk High potential for complaint High variety Low variety or low interest Physical demands or danger Autonomy and decision-making Hours and work time Isolation

*Note:* (Bickford, 2005; Carr et al., 2011; Colligan & Higgins, 2005; Jackson & Schuler, 1985; Michie, 2002; Schmidt et al., 2014; Sonnentag & Frese, 2003)

There is evidence for each of these four categories (Table 2), with many studies addressing two or more categories of workplace stressors. To illustrate, role conflict is one of the most commonly studied factors reviewed (Ahsan, Abdullah, Fie, & Alam, 2009; Azad, 2014; Bacharach, Bamberger, & Conley, 1990; Beh & Loo, 2012; Bischoff, DeTienne, & Quick, 1999; Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Kaur & Sharma, 2016; Khamisa, Oldenburg, Peltzer, & Ilic, 2015; Knudsen, Ducharme, & Roman, 2007; Oke & Dawson, 2008; Orawan Kaewboonchoo et al., 2014; Ram, Khoso, Shah, Chandio, & Shaikih, 2011; Snow, Swan, Raghavan, Connell, & Klein, 2003; Soltani, Hajatpour, Khorram, & Nejati, 2013; Yongkang, Weixi, Yalin, Yipeng, & Liu, 2014). Role ambiguity is also routinely studied



although not as frequently as role conflict (Ahsan et al., 2009; Bacharach et al., 1990; Bischoff et al., 1999; Kaur & Sharma, 2016; Khamisa et al., 2015; Knudsen et al., 2007; Nuttapol Yuwanich et al., 2016; Oke & Dawson, 2008; Ram et al., 2011; Snow et al., 2003; Soltani et al., 2013; Yongkang et al., 2014). Typically, role ambiguity is also studied at the same time as role conflict, with both types of workplace stress being indicated as significant.

As regards role overload, role overload is studied somewhat less, but has been found to be a significant stressor in most studies where it has been included (Ahsan et al., 2009; Aoki & Keiwkarnka, 2011; Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Khamisa et al., 2015; Nuttapol Yuwanich et al., 2016; O'Neill & Davis, 2011; Orawan Kaewboonchoo et al., 2014; Shultz, Wang, & Olson, 2010; Yongkang et al., 2014). Finally, most studies include specific job role characteristics that affect job stress, like performance pressure, ethics, boredom, poor rewards, lack of autonomy, career development, social relationships, and other factors.

Some studies have featured a significant number of these individual factors in their workplace stressor models (Ahsan et al., 2009; Azad, 2014; Bacharach et al., 1990; Beh & Loo, 2012; Kaur & Sharma, 2016; Khamisa et al., 2015; Lambert & Paoline, 2008; Mark & Smith, 2011; Nuttapol Yuwanich et al., 2016; O'Neill & Davis, 2011; Orawan Kaewboonchoo et al., 2014; Snow et al., 2003; Yiengprugsawan et al., 2013; Zhao & Ghiselli, 2016). Therefore, it can be stated that all four categories of workplace stressors have been found to be significant factors in job stress in the studies

reviewed here. Only one of the studies reviewed did not provide a specific definition of how they defined job stress (Shukla & Sinha, 2013).

### ***Workplace Stress: Effects and Interactions***

Effects of stress are often called stress reactions or strains (Sonnentag & Frese, 2003). There are several different categories of stress effects, including emotional, behavioral, cognitive, and physical effects (Michie, 2002). Emotional effects can include anxiety and depression and mood changes like irritability, while behavioral effects can include withdrawal behavior or aggression. Physical symptoms can include nausea or stomach ache and headaches, difficulty sleeping, frequent illness, or other physical signs, while cognitive symptoms can include concentration difficulties and difficulties solving problems, along with poor attitudes and anxiety (Bickford, 2005; Carr et al., 2011; Michie, 2002). Physical needs like sleep can also be disrupted (Knudsen et al., 2007).

Not all types of stress have the same level of effects. For example, one study analyzed data from the Eurobarometer Survey on Working Conditions, which included an estimated 16,000 workers (Shultz et al., 2010). This study found that individuals suffering from role overload had a significantly higher rate of all measured health conditions than those suffering from role underload (a situation where underutilization of time and resources leads to stress from job uncertainty or boredom) (Shultz et al., 2010). A comprehensive meta-analysis of older studies showed that there were different outcomes for different types of stress; for example, while role ambiguity and role overload

contributed to feelings of depersonalization, role conflict did not (Örtqvist & Wincent, 2006). Thus, there is some potential that there could be inconsistent effects of different types of role stress on employee outcomes.

In the long run, stress can have broader negative effects, like burnout (or emotional withdrawal from work) and job dissatisfaction (Rössler, 2012). Chronic stress is associated with long-term health problems, including heart problems, obesity, and mental health issues, and can contribute to early mortality (Spielberger & Reheiser, 2005). Stress reactions can also have negative effects outside work, including spillover effects on the individual's everyday life and relationships (Sonnentag & Frese, 2003). Furthermore, stress has what one author called a snowball effect, where a feedback cycle develops: simply, more stressed workers feel the effects of stress more, which increases their stress level even further (Bickford, 2005).

Stress can also have negative effects on job performance. For example, one meta-analysis showed that workplace stress directly affected job performance, as well as having an indirect effect through job satisfaction and turnover intentions (Fried et al., 2008). A second study also found negative effects of role stress on job performance overall (Cekmeclioglu & Günsel, 2011). These authors also found that there were negative effects of role ambiguity (although not role conflict) on creativity (Cekmeclioglu & Günsel, 2011). Other negative effects on job performance can include feelings of depersonalization and emotional exhaustion, tension, negative effects on job satisfaction and organizational commitment, lowered sense of personal

accomplishment, and intention, according to a comprehensive meta-analysis of studies on the effects of job stress (Örtqvist & Wincent, 2006).

There are also several factors that mitigate the effects of workplace stress. One of these factors is perceived control over the workplace environment, for example job autonomy or decision power (Spector, 2002). Employees who perceive they have more control over their workplace still perceive stress, but it tends to have lower effects on negative emotions and strain on the employee (Spector, 2002). This is often characterized as autonomy, although it may not extend to full decision-making power over the individual's area of responsibility (Cekmeclioglu & Günsel, 2011). Other factors that mitigate the effects of workplace stress include available resources and social support from one's peers and supervisors (Bickford, 2005; Cobb, 1976; Sonnentag & Frese, 2003). Social supports have a mitigating effect on the employee because they make the employee feel supported and provide additional emotional resources.

Most of the studies reviewed for this research concern organizationally relevant outcomes, rather than personal health or well-being outcomes. One of the most commonly identified outcomes of stress was job satisfaction (Ahsan et al., 2009; Khamisa et al., 2015; Lambert & Paoline, 2008; Ram et al., 2011). Another was intent to stay in the job (or employee turnover) (Orawan Kaewboonchoo et al., 2014; Shukla & Sinha, 2013), which was sometimes modelled as organizational commitment (Lambert & Paoline, 2008). Other authors investigated well-being effects, like fatigue and burnout (Bischoff et al., 1999; Khamisa et al., 2015; Nuttapol Yuwanich et al., 2016), sleep

problems (Knudsen et al., 2007; Nuttapol Yuwanich et al., 2016) or mental health concerns like depression and anxiety (Mark & Smith, 2011; Nuttapol Yuwanich et al., 2016; Snow et al., 2003; Yiengprugsawan et al., 2013). Only Shultz et al. (2010) investigated a comprehensive set of physical and mental well-being outcomes, but their study investigated only the effects of role overload and underload.

Many of the studies reviewed only measured job stress yet did no effects were evaluated at all. Instead, they assumed that the cumulative effects of different workplace stressors contributed to stress without considering symptomatic outcomes. This means that there is a significant gap in the research addressing the effects of stress in terms of individual physical and mental well-being effects. This could result in an institutional bias in research, which led to many organizations characterizing stress in terms of personal origins and impact on the organization, rather than considering the opposite of organizational origins and individual impacts (Kinman & Jones, 2005).

### ***Stress in the Banking Workplace***

While studies on workplace stress have predominantly focused on health professionals, there have been a few studies that have addressed stress specifically from the perspective of banking employees. One study investigated stress in bank employees in Bhopal, India (Azad, 2014). This study showed that bank employees had high levels of overall stress, which was caused by factors like role conflict, role overload (long working hours and too many duties), lack of rewards and autonomy, and imbalances between

their efforts and rewards. Furthermore, employees perceived little supervisor support. High levels of psychological and physical symptoms, including depression, heart problems and other physical issues, were also reported (Azad, 2014).

These findings were echoed by a second study on bank employees in India, which also identified a high rate of role conflict and role ambiguity along with a lack of autonomy and the increasing demands of technology as factors in workplace stress (Kaur & Sharma, 2016). Conflicts between multinational parent companies and home cultures can also introduce job stress in the banking industry (Oke & Dawson, 2008). These authors showed that different cultural assumptions regarding job roles introduced role conflict and role ambiguity, which exacerbated work stress. A further study has shown that job stress is one of the significant factors in employee turnover in Indian banks, although the study did not break down specific causes of stress (Shukla & Sinha, 2013).

In summary, the banking workplace can be characterized as a high-stress environment, with a high level of role conflict and role ambiguity along with individual stress factors. This results in high reporting rates of psychological and physical stress symptoms.

### ***Workplace Stress in Thailand***

There have been many studies that addressed stress and coping in Thailand generally, according to a meta-analysis and research synthesis (Ungsinun Intarakamhang, 2009). This author reviewed 490 studies conducted

in Thailand. The authors found that biosocial and personal factors, psychological factors, social factors, and interventions had the highest effects on stress and coping (Ungsinun Intarakamhang, 2009). This research reviews several studies that have been conducted recently in Thailand, most of which involved nurses or other medical professionals who have stressful jobs (Aoki & Keiwkarnka, 2011; Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Nuttapol Yuwanich et al., 2016; Orawan Kaewboonchoo et al., 2014; Yiengprugsawan et al., 2013).

The results of these studies were not surprising in terms of the job stressors identified or their effects. For example, nurses were routinely affected by role overload caused by too much work and too few resources, and characteristics of their job roles like emotional involvement, violence at work and dealing with patients and families (Aoki & Keiwkarnka, 2011; Nuttapol Yuwanich et al., 2016; Orawan Kaewboonchoo et al., 2014). In contrast, job role characteristics affected the work stress of immigrant employees and those in physically hazardous jobs (Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Yiengprugsawan et al., 2013). Mental, physical and emotional effects were reported in all these studies.

Therefore, it appears that workplace stress is similar in Thailand to other countries. Overall, however, the evidence on workplace stress and coping in Thailand and Asia generally is underdeveloped compared to Western research (Kawakami & Tsutsumi, 2010). Thus, some of the perceived differences may just be due to lack of sufficient research into the question

(Kawakami & Tsutsumi, 2010). Thus, this research can contribute to the literature by investigating successful stress interventions in Thailand.

### ***Measuring Workplace Stress***

There have been various measures designed for workplace stress, such as the perceived occupational stress scale (Smith, 2000), the Karasek job contents questionnaire (Pitchaya Phakthongsuk & Nualta Apkupakul, 2008), and the job content questionnaire (Sembajwe, Wahrendorf, Siegrist, Sitta, Zins, Goldberg et al., 2012). However, few of these measures have been adapted widely. Instead, most of the studies reviewed used a relatively simple and descriptive model for measuring stress. Furthermore, only one of these instruments (the Karasek job contents questionnaire) has been adapted specifically for Thailand. Although this did show adequate reliability (Pitchaya Phakthongsuk & Nualta Apkupakul, 2008), it is a much broader instrument than needed for the current study. Furthermore, most instruments that have been developed were developed for a specific organization or initiative, and they are not always widely available for use even if they have been tested (Tabanelli, Depolo, Cooke, Sarchielli, Banfiglioli, Mattioli et al., 2008). Thus, as there was no single instrument that could be used to measure stress effectively, the decision was made to adapt items from the literature review but not to apply a single instrument.



### ***Summary of Empirical Studies on Stress in the Workplace***

Table 2 summarizes the empirical studies on workplace stress that were discussed above. These studies provide the basis for the theoretical framework, which is discussed at the end of the chapter. However, there are also other considerations, such as demographics, which are discussed in the following section.

**Table 2**

#### ***Summary of Empirical Studies of Workplace Stress***

Authors	Population	Findings
Ahsan et al., (2009)	Malaysian academics	Authors found that role conflict, relationships, workload (role overload), home-work conflicts, role ambiguity, and performance pressure affected job stress, which in turn affected job satisfaction.
Aoki and Keiwkarnka (2011)	Thai nurses	Job stress was generally high, with role overload (heavy or unmanageable workloads) being one of the major factors in stress.
Azad (2014)	Indian bank employees	Bank employees exhibited high levels of conflict from job role characteristics, role conflict, lack of autonomy and work-reward imbalance.

**Table 2** (continued)

Authors	Population	Findings
Bacharach et al. (1990)	American nurses and engineers	Authors found that role conflict and role overload both affected perceived stress in the organization. Factors including bureaucratic job structuring, person-job integration, participation, social integration and organizational career development affected role conflict and role overload.
Beh and Loo (2014)	Malaysian nurses	Role conflict and interpersonal conflict were identified as regular stressors. Social supports from family, colleagues and superiors had a moderating effect.
Bischoff et al. (1999)	Customer contact employees	Role ambiguity and role overload were affected by ethics stress. These stress factors affected fatigue and burnout.
Chonticha Kaewanuchit and Yothin Sawangdee (2016)	Thai immigrant employees	Authors found that job stress was affected by working conditions, workload, and job security.
Orawan Kaewboonchoo et al. (2014)	Thai nurses	Job stress included role overload (too much work) and job characteristics (psychological demands, decision autonomy and social support). Job stress levels affected intent to stay at the job.

**Table 2** (continued)

Authors	Population	Findings
Kaur and Sharma (2016)	Indian bank employees	Factors including individual stressors, role conflict, role overload and lack of autonomy, rewards and support along with poor working conditions were identified.
Khamisa et al. (2015)	South African nurses	Work-related stress was significantly, negatively related to burnout and job satisfaction. Stressors included staff issues and management (role conflicts), inadequate equipment and stock problems as well as problems meeting budget and deadline demands (role overload).
Knudsen et al. (2007)	American workers	Role overload and role conflict were significantly associated with sleep problems.
Lambert and Paoline (2008)	American correctional workers	Job characteristics including instrumental communication, input into decision-making and promotional opportunities had negative effects on job stress. Characteristics including dangerousness and role strain had positive effects on job stress. Job stress had negative effects on job satisfaction and organizational commitment.
Mark and Smith (2011)	English nurses	Job demands, social support, skill discretion and decision authority affected depression and anxiety.
Oke and Dawson (2008)	Nigerian bank employees	Role ambiguity and role conflict resulting from cultural differences introduced significant employee stress.

**Table 2** (continued)

Authors	Population	Findings
O'Neill and Davis (2011)	Hotel employees	Interpersonal stress and role overload were the strongest factors in job stress. Hotel guest conflicts and work arguments and tensions occurred less commonly.
Ram et al. (2011)	Pakistani manufacturing workers	Role conflict and role ambiguity were positively associated with job stress. Job stress was negatively associated with job satisfaction.
Shukla and Sinha (2013)	Indian bank employees	Job stress was one of the significant factors in employee turnover.
Shultz et al. (2010)	European workers	Role overload contributed significantly to 16 measured health conditions, with respondents indicating significant role overload showing the highest levels of these health conditions. Role underload was also a risk factor for the investigated health conditions, although at a lower level than role overload. Respondents with matched role expectations and resources had the lowest level of health conditions.
Snow et al. (2003)	American secretarial employees	Role stress (including work-family role conflict and employee role conflict, ambiguity, and role characteristics) affected psychological symptoms (depression, anxiety and somatic complaints). Active coping mechanisms had a negative effect on psychological symptoms, but avoidance coping exacerbated psychological symptoms.

**Table 2** (continued)

Authors	Population	Findings
Soltani et al. (2013)	Iranian workers	Role conflict and role ambiguity affected job stress directly, with role ambiguity having a negative effect and role conflict having a positive effect. Work-family conflict also had a direct negative effect on job stress.
Yiengprugsawan et al. (2013)	Thai workers in physically hazardous jobs	Physical hazard in jobs contributed to job stress (a job role characteristic), and that physical hazard and stress had long-term negative effects on mental health.
Yongkang et al. (2014)	Chinese middle- level cadres	Role conflict, role ambiguity, and role overload were significant factors in job stress, and also interacted with each other.
Nuttapol Yuwanich et al. (2016)	Thai emergency nurses	Interviews revealed role overload (heavy workload) and role ambiguity (relationships with staff and patients), along with job characteristics like emergency department violence and lack of opportunity to improve skills and low income, contributed to stress. Stress had physical and mental effects as well as effects on care provision, job satisfaction and family relationships.

**Table 2** (continued)

Authors	Population	Findings
Zhao and Ghiselli (2016)	Hospitality workers	Job characteristics were significant stressors. Specifically, the demand for friendliness (emotional labor) under all circumstances was one of the most stressful aspects.

### **Individual Factors Influencing Workplace Stress**

Although job roles and work characteristics may have the most influence on workplace stress, there are also individual characteristics that could play a role. The four key factors identified through the literature review include age, gender, work position and years or work or seniority.

#### ***Age***

Several previous studies have identified age as a potential factor in the stress levels faced by individual workers, most predicting that older workers will experience more stress in the workplace. For example, one author noted that older workers may face declines in physical and cognitive capabilities, which can make it more difficult for them to manage workplace demands (Hansson, Robson, & Limas, 2001). This can make older workers more susceptible to physical and psychological effects of stress (Hansson et al., 2001). Another author pointed out that older workers may be more prone to what they term ‘techno-stress’, or stress related to the demands of technology (e.g. having to learn new tools or communicate in different ways) (Tams,

2017). This may have a significantly higher effect on older workers than on younger workers, who are accustomed to the demands of technology (Tams, 2017).

Other authors have discussed the effects of age in generational terms. A study of Generation Y retail employees suggests that they more actively shape their jobs than older workers, and therefore may experience workplace stress differently (Kim, Knight, & Crutsinger, 2009). Another study investigated generational differences in psychological traits, finding that younger workers have higher self-esteem, depression, narcissism and anxiety, but show less concern for social approval and higher external locus of control (Twenge & Campbell, 2008). Thus, there is evidence for age and generational differences that could influence workplace stress.

### ***Gender***

Gender has also been widely studied as a potential factor in workplace stress. In many workplaces, women are subject to conditions that do not affect men, such as individual and institutional sexism and discrimination (Bond, Punnett, Pyle, Cazeca, & Cooperman, 2004; Page, LeMontagne, Louie, Ostry, Shaw, & Shoveller, 2013). For example, women may face problems including difficulty in career progress and stereotyping, which may affect women more as they become more senior and move into managerial positions (Gyllensten & Palmer, 2005). Women also carry disproportionate responsibility for the home and family, which can increase workplace stress resulting from

challenges in work-life balance (Burke, 2002). At work, they may have multiple roles, including informal ‘caring’ roles (Gyllensten & Palmer, 2005).

Women may also face more interpersonal stress at work, such as conflict with coworkers (Mazzola, Schonfeld, & Spector, 2011). Gender can also interact with other demographic and professional factors, exacerbating their effects (Juster, Moskowitz, Lavoie, & D’Antono, 2013). It is not certain that gender does affect workplace stress, as historically studies have had conflicting findings on this point (Gyllensten & Palmer, 2005). However, there is a strong body of evidence that it may have such an effect. A cross-cultural study of managers from the United Kingdom, United States, Taiwan and South Africa showed that these effects were mostly stable between countries, indicating that this is a cross-cultural issue (Miller, Greyling, Cooper, Sparks, & Spector, 2000). Thus, it is likely that this would occur in a Thai population.

### ***Work Position***

Although this issue is not studied as frequently as demographics, there is some evidence that an individual’s work position can also influence their stress levels. Different occupations in general have different stress factors; for example, positions with more responsibility may be viewed as more stressful (Mazzola et al., 2011; Page et al., 2013). For example, occupations like teachers, healthcare workers, police and emergency response, and customer service staff members may report more stress than other occupations (Johnson, Gooper, Cartwright, Donald, Taylor, & Millet, 2006). These effects



come from inherent job characteristics (for example routinely dealing with emergencies), role conflict and role overload differences, and differences in public treatment of workers (Johnson et al., 2006).

A study in English community pharmacies showed that there are also differences in workplace stress between positions within the organization (Jacobs, Hassell, Ashcroft, Johnson, & O'Connor, 2014). Pharmacy managers, who had more responsibility than other positions, were more likely to report high levels of stress than the rest of the employees in the study (Jacobs et al., 2014). A study in hotels showed that managers had more stressful events than hourly workers (O'Neill & Davis, 2011). A study of managers in Indian multinational corporations also pointed to differences in stress in different positions (Sinha & Subramanian, 2012). This study showed that managers faced different levels of stress and had different resources to deal with stress. For example, low-level managers had much higher resource inadequacy but less role stagnation than upper managers (Sinha & Subramanian, 2012). Thus, there is evidence that employee with more responsibility, such as managers, or whose roles are conflicting or otherwise inherently stressful, are likely to experience more stress than others.

### ***Years of Work (Seniority)***

The final characteristic is years of work in the position (or seniority). This is one of the least investigated role characteristics, but a few studies have addressed it. One literature review highlighted the differences in sources of stress between different levels of seniority (Mazzola et al., 2011). As they

noted, the studies they addressed had found that junior employees tended to have different stressors than senior employees. Junior employees tended to be more stressed by personal factors such as work-life balance, while administrative and technical issues tended to be more stressful for senior employees. Other studies reviewed here have indicated that younger employees may suffer from more role ambiguity, relating to their relatively low level of knowledge about their role and lack of experience in role.

In contrast, It was found that older employees may take on more roles, leading to a higher level of role conflict resulting from seniority and the growth of these positions. The issue of seniority has also been addressed obliquely by Sinha and Subramanian (2012), who investigated managers at three organizational levels. Their research also showed that high-level managers (who can be assumed to be more senior) had different stressors than low-level managers (Sinha & Subramanian, 2012). Thus, even though this area is less strong than others, there is still evidence that seniority affects stress.

### **Managing Workplace Stress: Personal and Organizational Tools**

Tools for managing workplace stress are typically discussed in the literature at two levels: personal coping strategies and organizational interventions.

### ***Personal Coping***

Coping refers to the person's ability to manage their responses to stress and uncertainty. Boyd et al. (2009) defined the coping strategy as "cognitive and behavioral efforts to manage specific stressors that are assessed as taxing or exceeding the resources of an individual, and are perceived as potentially leading to negative responses." There are several different coping strategies or styles that can be identified. Boyd et al. (2009) identified cognitive coping styles, or problem-solving strategies, and emotional or escape styles, which are used to mitigate emotional harm. While cognitive strategies are used to manage problems that are perceived as solvable, emotional or escape styles are used for those that are not (Boyd et al., 2009).

Other authors identify more coping styles. For example, the Ways of Coping Inventory (WCI) identifies six coping styles, including self-confident, optimistic, social support seeking, yielding, and helpless (Golbasi, Kelleci, & Dogan, 2008). Another style of coping is proactive coping, in which the individual anticipates problems and attempts to resolve them before they occur (Greenglass, 2005). A further coping strategy is what some authors have termed avoidant coping or withdrawal, which involves avoiding the situation, pretending it has not occurred, or doing nothing (Lemaire & Wallace, 2010). Although it is likely that coping strategies are dependent on the individual's personality traits and previous experience (Greenglass, 2005), association between coping strategies and individual characteristics has not been well-studied.

Use of personal coping strategies has been widely associated with effective management of stress and positive workplace outcomes. For example, effective coping can build resources like resilience (ability to manage stress) and agility (ability to effectively work under stress) (Pipe, Buchda, Launder, Hudak, Hulvey, Karns et al., 2011). A study of Chinese workers has shown that high levels of resiliency and knowledge and use of effective coping strategies was associated with job satisfaction, life satisfaction, and work-life balance (Siu, Hui, Phillips, Lin, Wong, & Shi, 2009). It was also negatively associated with physical and mental effects of stress (Siu et al., 2009). Another study of Chinese workers showed that coping strategies (control coping and support coping) had moderating effects on the relationship between job stress and outcomes like job satisfaction and physical and mental well-being (Siu, Spector, Cooper, Lu, & Yu, 2002). Proactive coping has been shown to increase perceived fair treatment in the workplace and reduce anger and depression (Greenglass, 2005). Thus, if used effectively, coping strategies can mitigate the effects of job stress on mental and physical well-being and on job-related outcomes.

However, not all coping strategies work equally well (Lemaire & Wallace, 2010). Lemaire and Wallace (2010), who investigated physicians' coping strategies, showed that while taking a time-out and strategies deployed out of work reduced emotional exhaustion, choosing to go on as if nothing happened, focus on what to do next, or keeping stress to oneself increased emotional exhaustion. Golbasi et al. (2008), who investigated coping strategies in nurses, had similar findings. Their study showed that while self-

confident and optimistic coping strategies positively affected job satisfaction, helpless coping strategies had a negative effect. A further study showed that while positive and problem-solving coping styles improved job satisfaction, avoidant coping had a negative effect (Welbourne, Eggerth, Hartley, Andrew, & Sanchez, 2007). Thus, choice of a poor coping strategy can exacerbate the effects of a stressor rather than reduce it. Another author also found that social support active coping strategies moderated the effect of job stressors on physical and mental well-being, while avoidance coping exacerbated these symptoms (Snow et al., 2003). Furthermore, individuals do not necessarily have good coping strategies on their own, and may use negative coping strategies as stop-gaps without more information about stress and coping (Pipe et al., 2011). This raises the question of how organizations can help their employees cope effectively with stress. The most common response to this question is implementation of an organizational intervention for stress management.

### ***Organizational Intervention***

An organizational intervention is an organizational strategy used to help reduce stress and/or help employees manage stress (Tetrick & Winslow, 2015). Tetrick and Winslow (2015) identify three different levels of intervention. The primary intervention, which is directed to all employees, is “proactive and prevention oriented (Tetrick & Winslow, 2015). The secondary intervention, which focuses on employees that are known to be at risk, is intended to either eliminate stressors or teach specific coping skills. Finally,

the tertiary intervention is a recovery intervention, aimed at employees who have been exposed to stressors to help them recover (Tetrick & Winslow, 2015). Common approaches they identified included mindfulness interventions (which deploy mindfulness, meditation or other spiritual tools); recovery interventions (which teach tools to overcome stress effects); and multimodal interventions (which use multiple intervention streams) (Tetrick & Winslow, 2015).

Several reviews and meta-analyses have identified how organizational interventions are used. These reviews are preferred to individual studies because they allow for comparison between methods, while individual studies typically describe only a single method or context (Brousseau & Parker, 2009). Tetrick and Winslow (2015) noted that traditional stress management programs have typically been secondary or tertiary in design, but more recently, stress management has been incorporated into primary workplace well-being studies. This finding is problematic because it has been known for some time that primary intervention strategies are the most effective at reducing stress perceptions and moderating the effects of job stressors on individual and organizational outcomes (Godfrey, Bonds, Kraus, Wiener, & Toth, 1990). A more recent meta-analysis also showed the importance of primary health-promotion programs, which had a significant (though relatively small) effect on anxiety and depression, two of the most common cognitive effects of stress (Martin, Sanderson, & Cocker, 2009). However, these programs did not have a significant effect on aggregate health scores (Martin et al., 2009). Similarly, a quantitative meta-analysis showed that

multimodal and cognitive-behavioral programs were most effective, but relaxation interventions were most frequently used (van der Klink, Blonk, Schene, & van Dijk, 2001).

A review of 99 studies showed that organizational, mid to high level interventions, which include all members of the organization are most effective at reducing stress symptoms and improving organizational outcomes (Lamontagne, Keegel, Louis, Ostry, & Landsbergis, 2007). However, these authors also found that low-level, individual approaches, which only affect individual outcomes, were most common (Lamontagne et al., 2007). Another meta-analysis confirmed that organizational-level interventions, although often the most effective, are relatively unusual (Richardson & Rothstein, 2008). Instead, relaxation and individual stress management interventions are most commonly used. Cognitive-behavioral interventions, although relatively rarely used, were shown to be the most effective for individual outcomes (Richardson & Rothstein, 2008). A review of Australian interventions generally confirmed these findings (Caulfield, Chang, Dollard, & Elshaug, 2004), as did a review of programs used in the United Kingdom (Giga, Cooper, & Faragher, 2003). In summary, meta-analyses have shown that there are clearly approaches that do work better than others, including primary, cognitive-behavioral or multi-modal, and organizational programs. However, it appears that secondary or tertiary, relaxation-focused, and individual programs are more frequently used.

Individual studies also provide evidence for effective organizational intervention. One such study focused on a year-long, intensive program that

taught coping skills through a combination of face-to-face small-group interventions (Rahe, Taylor, Tolles, Newhall, Veach, & Bryson, 2002). This study showed that both groups had improved health outcomes and reduced healthcare utilization; thus, it is possible to implement interventions in different ways. Another interesting intervention added stress management tools to a biomechanical intervention designed to reduce work-related upper extremity symptoms in office workers (Feuerstein, Nicholas, Huang, Dimberg, Ali, & Rogers, 2004). However, this was not fully successful, showing that there were no differences in the group that received the stress management component and those that did not. Thus, while stress management is important for some outcomes, it does not necessarily have an increased preventative effect for risks like upper extremity pain (Feuerstein et al., 2004).

Other studies have pointed to the critical role of managers to ensure intervention effectiveness. One study in the public sector showed that effective support from managers, including communication, social support, and problem-solving support, was required to implement the lessons learned during the intervention and to enact organizational changes that supported the new stress management paradigm (Walinga & Rowe, 2013). Managers are also tasked with identifying and eliminating risks in the environment, which may be particularly important for secondary interventions (Wichert, 2002). Another study also highlighted the critical role of managers in the stress intervention (Nytrø, Saksvik, Mikkelsen, Bohle, & Quinlan, 2000). These authors found that managerial support was required for effective definition of



roles and responsibilities, creation of a social climate that supported stress, and encouraged participation in the stress management activity (Nytrø et al., 2000). Without these supports, it was very difficult for the organization to effectively implement an intervention strategy. Overall, while individual studies can provide some information about how well individual interventions worked, it is true that they are not as informative as the meta-analyses discussed above.

A few of these individual studies have focused specifically on Thailand. One such study investigated the potential for traditional Thai massage as a stress reduction tool (Bennett, Bennett, Chatchawan, Janjaiwit, Pantumethakul, Kunhasura et al., 2016). According to Tetrick and Winslow's (2015) classification, this would be a tertiary ameliorative intervention, designed to reduce the effects of stressors that have already affected individuals. However, the authors did not find a significant reduction in stress markers (cortisol levels and heart rate) in the group that received massage compared to the control group (Bennett et al., 2016). Another author investigated mindfulness meditation as an intervention strategy (Peerayuth Charoensukmongkol, 2013). The author's original report indicated that mindfulness meditation appeared to increase the use of problem-oriented or cognitive coping and less emotion-focused coping, indirectly improving job satisfaction (Peerayuth Charoensukmongkol, 2013). A follow-up report highlighted improved emotional intelligence and reduced stress perceptions (Peerayuth Charoensukmongkol, 2014). Thus, while there is some evidence

for stress interventions in Thai organizations, these are mainly secondary or tertiary interventions and not primary interventions.

There is relatively little information available about why an organizational intervention for stress might fail, but one author has taken up this question (Biron, Gatrell, & Cooper, 2010). These authors found that the planned program was only partially implemented, largely due to poor stakeholder ownership and poor commitment. They also found flaws in the program design, including lack of expertise and lack of stability in the implementation team, which negatively affected the program outcomes (Biron et al., 2010). A meta-analysis of organizational interventions showed that not all strategies were equally effective (Bhui, Dinos, Stansfeld, & White, 2012). For example, while physical activity-oriented strategies reduced absenteeism, it had limited effects on other outcomes (Bhui et al., 2012).

Other problems with design can include mixing elements of different programs or adapting ‘off-the-shelf’ programs that do not account for organizational context (Sidle, 2008). Thus, while a successfully implemented intervention can be effective, there is also the possibility of failure if it is not carefully designed. Another problem that can influence the effectiveness of organizational intervention is organizational discourses surrounding stress and the individual’s ability to manage stress (Harkness, Long, Bermbach, Patterson, Jordan, & Kahn, 2005). These authors investigated female secretarial employees. They found that “talking about stress provides a socially acceptable way of expressing discomfort and regaining a sense of importance that is lost through feeling undervalued and underappreciated in

the organization (Harkness et al., 2005, p. 121),” but at the same time admitting that one struggles to deal with stress is not accepted, since it is a sign of weakness. Thus, there are complex reasons why organizational stress interventions can fail, ranging from poor design and support to unspoken assumptions and discourses surrounding stress and its resolution.

### **The Cultural Specificity of Stress and Coping**

One concern with adapting the interventions reviewed here is that they were mainly used in Western organizations, and as discussed below may not be effective in a Thai organization. Much workplace stress research has been conducted in Western countries (United States and Europe). This does raise the question of whether stress and coping models are cross-culturally consistent or whether there are cultural variations that could influence the effectiveness of coping mechanisms or interventions. There has been some research on this question. One such study showed that Italian nurses perceived their workplace stress as higher than Dutch nurses, which was attributable to higher job demands and less social support and job discretion (Pisanti, van der Doef, Maes, Lazarri, & Bertini, 2011).

While the differences found by Pisanti et al. (2011) were due to substantive differences in working conditions, a study in the construction industry also showed that there were substantive differences in perception of task stressors and other workplace stressors based on culture (Wong, Teo, & Cheung, 2010). For example, individuals from high uncertainty avoidance

cultures may perceive higher levels of role ambiguity as more stressful than those from low uncertainty avoidance cultures (Wong et al., 2010). Role stresses also have been reported to vary widely between cultures, likely because of differences in work assumptions and organizational structures (Peterson, Smith, Akande, Ayestaran, Bochner, Callen et al., 1995).

Furthermore, people in different countries may have different lay explanations for stress and ideas about what effects stress has on their work practices (Idris, Dollard, & Winefield, 2010). However, not all studies identified a difference; for example, a study of Canadian multicultural workers found similar levels of job stress in native and non-native workers (Pasca & Wagner, 2012). Thus, even if the experience of stress is universal, its perception may not be.

The question of exactly how culture affects stress and well-being at work has been the subject of only scattered research, and this is an area that calls for further development in the academic literature (Burke, 2010). A few studies have addressed coping and organizational intervention in Thailand, mainly from a spiritual perspective (Thai massage and mindfulness meditation) (Bennett et al., 2016; Peerayuth Charoensukmongkol, 2013; Peerayuth Charoensukmongkol, 2014). However, these studies have not provided a lot of detailed information about the effectiveness of interventions in Thailand. By addressing workplace stress and coping in Thailand, therefore, this study contributes to understanding of questions like whether workplace stress is culturally contextual.

## **The Story of Mahajanaka as a Workplace Stress Intervention**

This research used the Story of Mahajanaka as a tool for developing resiliency and coping strategies as the basis of the workplace intervention. Although this has not been attempted previously as far as the researcher could determine, the story and its underlying meaning were identified as consistent with other texts used in organizational interventions for workplace stress.

The Story of Mahajanaka is one of the tales contained within the Mahanipata jākata, or the Ten Great Birth Stories of the Buddha (Appleton, 2010). The Mahanipata jākata represents the most popular of the jākata tales, which tell the stories of the final acts of the Bodhisattva. The Mahanipata jākata, which derive from Theravada Buddhism, have particular importance in Thai Buddhism, and are often depicted in Thai temples and religious artwork (Appleton, 2010). In this story, Prince Mahajanaka sails for Suvarnabhumi to retake his father's kingdom. The ship encounters a storm and sinks, leaving Prince Mahajanaka afloat in the sea. However, Mahajanaka remains calm and eats as much as he can to prepare for a long and uncertain journey. After a week afloat in the sea, the ocean goddess Manimekhala recognizes the floating prince and rescues him.

The Story of Mahajanaka has religious importance, but it also has high cultural importance. The seminal translation of the work was prepared by His Majesty King Bhumibol Adulyadej, and was released in 1996 (Supatra Kosaiyakanont, 2014). This translation extends the original story and applies

the King's modern-day sufficiency economics philosophy of perseverance and resilience to the traditional story. The King's translation also uses a simple choice of words and uses non-verbal communication in the form of text illustrations to communicate about the meaning of the text (Supatra Kosaiyakanont, 2014). Thus, the Story of Mahajanaka text used in this intervention is more complex than the relatively short and straightforward retelling of the tale of Mahajanaka as offered in traditional Theravada scripture. The text has also been transformed into an animated film, which communicates about the values of perseverance as well as environmental conservation and ancestral wisdom inherent in the text (Teetima Potchanakaew, 2018).

The Story of Mahajanaka has been recognized as one of the influences in ecological and conservation ethics in Thailand (Vivian & Chatelier, 2015). Thus, it is known that it has had society-wide impact. This study investigates how individuals can use the Story of Mahajanaka to learn resilience and coping strategies. Within the study, the Story of Mahajanaka is used as a primary intervention strategy, aimed at all employees and designed to teach coping skills in case of risk exposure (Tetrick & Winslow, 2015). This approach was chosen because primary intervention strategies are known to be most effective at proactively reducing stress and its effects (Godfrey et al., 1990).

## **Conceptual Framework**

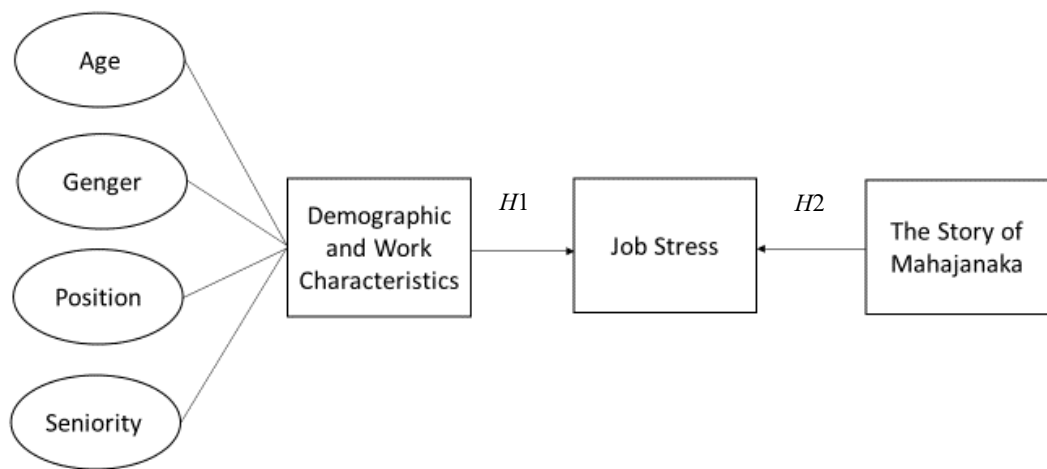
The conceptual framework of the paper (see figure 1) is mainly concerned with the effect of individual differences in the experience of stress and the effect of the Story of Mahajanaka on the experience of stress. The conceptual framework proposes two hypotheses.

The first hypothesis relates to the effect of demographic and work characteristics on the experience of job stress. As the studies reviewed in Individual Factors Influencing Workplace Stress Section explained, workers at different ages or of different genders, and who hold different positions and levels of seniority, are subject to different stressors and may perceive these stressors differently. Therefore, the experience of stress for workers in these different demographic and work categories is likely to be different, including both perceptions of stress and the effects of stress such as physical and mental effects.

The second hypothesis relates to the Story of Mahajanaka and its potential use as an organizational intervention to develop coping skills and resilience. It is anticipated that prior to the introduction of the Story of Mahajanaka during the planned intervention, workers in the organization will experience the same level of stress and same symptoms of stress regardless of whether they are assigned to the control group or the experimental group. This testing is stated as follows: There are no significant differences in job stress levels between the control group and experimental group before introducing Mahajanaka story.

Based on the literature on organizational interventions, it is also anticipated that the individuals assigned to the experimental group, who receive the planned intervention, will experience relieve stress levels and stress symptoms compared to those that did not take part in the intervention. (The experimental design and the planned intervention is discussed in the next chapter.) This hypothesis is based on the literature on stress and coping, which is presented above. It is stated as:

There is a significant difference in the levels of job stress between groups of Mahajanaka users (experimental group) and Mahajanaka non-users (control group).



**Figure 1** Conceptual framework of the paper.



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

This chapter explains the research methodology selected for the study. The research methodology is the set of both broad principles and specific techniques chosen for the primary research, which are selected in response to the research questions and issues addressed (Weathington, Cunningham, & Pittenger, 2010). This research uses a quasi-experimental strategy, with quantitative analysis including pre-test/post-test comparisons and between-groups comparisons for a control group and experimental group. The chapter begins by explaining the research strategy and methods used. It then addresses the target population and sampling procedures. This is followed by description of the experimental process and explanation of how the research instruments were designed and used. The data analysis technique was then described. The chapter concludes with a summary of the ethical issues and limitations of the study.

#### **Research Method**

This research deploys a quantitative method, based on post-positivist philosophy and a deductive research approach. Quantitative research can be described as “a means for testing objective theories by examining the relationship between variables. These variables can be measured, typically on

instruments so that numbered data can be analyzed using statistical procedures (Creswell & Creswell, 2017).” The choice of quantitative research rather than qualitative research was made because the objectives of the research are to investigate the effect of the Mahajanaka as a stress coping tool in a wide population. Thus, qualitative research, which investigates specific experiences, would not be as effective.

Quantitative research is typically undertaken with a positivist or post-positivist philosophical perspective, which argues that reality, is concrete and objective and can be measured using standard instruments (Grix, 2018). This research uses post-positivism, which acknowledges that reality is concrete and can be discovered using standard techniques (the positivist positions on ontology and epistemology), but softens the position that research is value-neutral and that the researcher’s position does not matter (its axiology) (Grix, 2018). The post-positivist viewpoint is more consistent with the needs of the current research because the study *is* concerned with human perceptions and values, and therefore must take these issues into account.

Finally, the study uses a deductive approach. In this approach, the researcher establishes a theoretical framework based in existing knowledge and then applies the theoretical framework to new observations to see if it matches (Trochim, Donnelly, & Arora, 2016). The deductive approach was selected because the goal was to take the first step in investigating the Mahajanaka as a coping tool under existing theories of stress and coping, rather than to develop new theories without considering whether existing theory was sufficient.

## **Research Design**

There are a limited number of research designs that are commonly used in quantitative research, which can be divided into surveys and experiments (Creswell & Creswell, 2017). While ordinarily surveys are easier to undertake in organizational research and other social settings (Jones, 2014), in this research a quasi-experimental design was applied.

Full experimental designs are difficult to perform in social situations, because of the complexity of social environment and uncontrolled external conditions (Creswell & Creswell, 2017). However, a quasi-experimental design, in which some aspects of the participants' experience is controlled, is possible in social and organizational research (Thyer, 2012). For example, a quasi-experimental research design may compare pre-test and post-test responses between experimental groups (where the experimental intervention is offered) and control groups (where the intervention is not offered), but not attempt to control for external factors such as group makeup or contact with external environmental factors (Thyer, 2012). The quasi-experimental approach does not deliver results that are quite as reliable as a full experiment, but is a strong compromise for social research situations where the use of a full experiment is not possible (Trochim et al., 2016).

A quasi-experimental design was selected because it is superior to survey research for understanding how specific factors influence stress and other concerns. As the research aims to learn about people and societies, a full experimental design, which is suitable for scientific research, was not used.

Instead, the researcher used a quasi-experimental design, which is more frequently applied in social sciences.

For example, in this research, the researcher examined the effect of a specific coping strategy (use of the Mahajanaka) as a tool for managing stress in the workplace. Because this is not a tool most people have encountered for stress management previously, it would not be sufficient to simply use a survey. Furthermore, using a pre-test/post-test comparison without a control group would not allow for the researcher to determine whether changes had occurred other than the use of the Mahajanaka. Thus, the quasi-experimental design was the best choice for this study.

Moreover, a time-series methodology, which is seen as a type of quasi-experimental design, was selected for the research since data were to be collected in two time points. In the first period, the participants from both groups were asked to complete the questionnaires before the intervention. In the second period, 10 weeks later, the participants from both groups were asked to complete the same questionnaires. The answers from both time periods were then compared to see the difference.

In order to make a comparison between those who read or watched the story of Mahajanaka and those who did not, a before/after reflexive design was applied. The researcher had interviewed all of the participants to ensure that they had not known anything about Mahajanaka story before the experiment. Apart from this, during the 10-weeks experiment, any participants who underwent a change in their responsibilities or position were asked to inform the researcher.

To ensure that the participants in the experimental group had an access to the story, The researcher download the story of Mahajanok which was free on Youtube and let them watch together. After finished watching, the key concept which can be applied in the workplace of the story was explained to the participants. The participants were also asked to take notes on the guiding principles that can be applied to their job. Moreover, a book of Mahajanaka, which was not a cartoon version, was given to each of them and ask for self-study.

The participants were divided into control and experimental groups. The study used a pre-test/post-test strategy, with data being collected in Week 1 and Week 10 of the intervention. From Weeks 1 to 10, the intervention (including a workshop and self-guided study) was made. Moreover, this research is single group time design which collect and compare the data from the same group at difference point of time. The next importance design for this research is single subject design which the same questionnaire both before and after intervention. That can be increase more accurate to this research.

## **Target Population and Sampling Procedure**

### ***Research Site and Target Population***

The research was conducted in a single organization. This bank is a large Thai domestic bank, which has about 29,000 employees. The bank has an existing stress and coping program which employees can enroll in

voluntarily to learn about managing work stress. For the purposes of this study, all of this bank's employees were considered as potential participants.

### ***Sampling and Group Assignment***

G\*Power 3 was used to determine a priori sample size for the research. G\*Power is a power analysis tool that is used to compute sample sizes and statistical power of completed tests (Buchner, Erdfelder, Faul, & Lang, 2018). Parameters included medium effects size for  $t$  test and ANOVA on 0.50 and 0.25-0.28, confidence interval ( $\pm 5\%$ ) and confidence level (95%). Slightly different minimum total sample sizes were found for the two key tests identified, including independent  $t$  test for difference in means between two groups ( $n = 100$ ) and one-way ANOVA for means comparison between three, four and five groups ( $n = 99, 100, 100$  respectively). To ensure that the sample size was adequate for the study, a total sample size of  $n = 100$  respondents was selected.

**Table 3***Sampling and Group Assignment*

	<i>t</i> test	ANOVA		
Number of Groups	2	3	4	5
Effect size <i>d</i>	0.50	0.25	0.27	0.28
$\alpha$ err prob	0.05	0.05	0.05	0.05
Power (1- $\beta$ err prob)	0.70	0.80	0.80	0.80
Total sample size	100	99	100	100

The sample was selected using simple random sampling from the employee database at this bank. Simple random sampling was chosen to ensure that the sample would be representative (Trochim et al., 2016), and demographic information was collected to ensure that the sample was balanced. Respondents were solicited via email through the company's email system. A screening question was used to make sure that respondents had not read the Mahajanaka previously. Following the initial recruitment, a second random selection was made and the second group was solicited. Groups classify depend on time controlled of participates. This process continued until there were 100 responses. The researcher also concerned about demographic remark the resemblance between two groups.

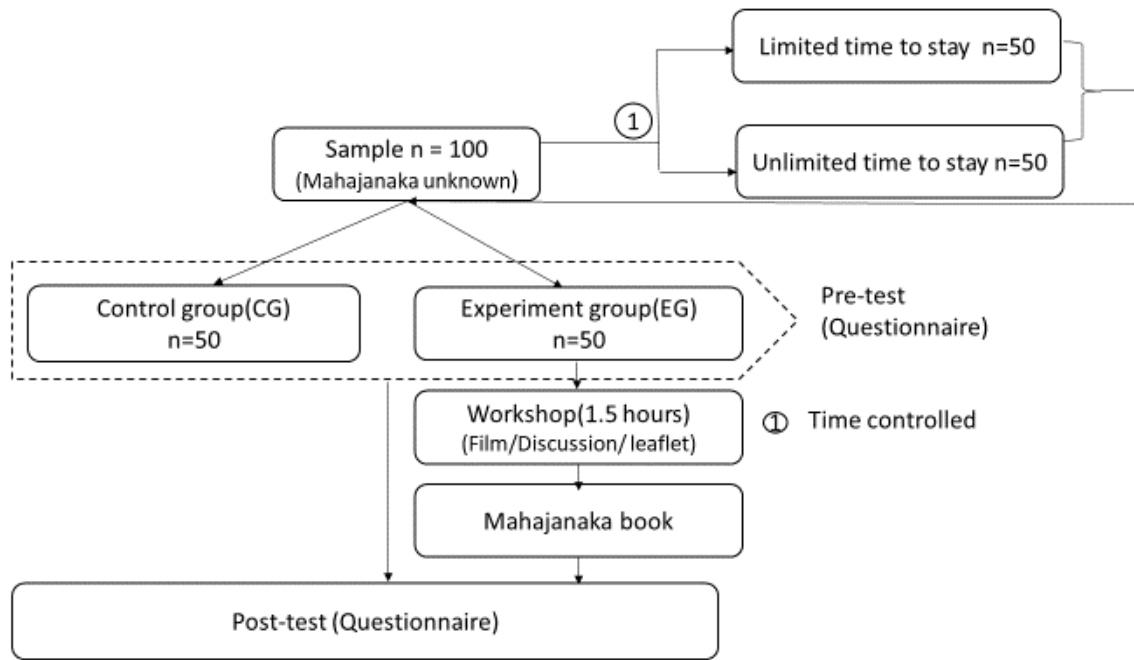
Following sample selection, respondents were randomly assigned to the Experimental Group (EG) or the Control Group (CG), with each group consisting of 50 members. EG members were subjected to the experimental intervention (below), while CG members followed the standard stress and coping training.

## **Experimental Process**

The experimental process used a pre-test/post-test design, to compare outcomes not just between groups, but also between members of the same group. This was intended to ensure that the experimental intervention not only improved stress management, but improved it more than the control group. Figure 2 shows the experimental process.

The experiment was conducted over a period of 10 weeks. In Week 1, a questionnaire-based survey (which is attached in the Appendix and described in detail in the next section) was used to collect data on stress and its effects, as well as demographic information, from all participants in the CG and EG groups prior to the implementation of the experimental intervention. The intervention for the EG began with a 1.5 hour workshop (conducted in two groups) that addressed how to use the Mahajanaka as a stress management tool. Participants in the EG were then given the book, a principle of working ideas from the Mahajanaka Story leaflet and asked to work on their own for a period of 10 weeks. The participants in the CG had access to the standard this bank resources on stress and coping, including online tools and information guides, but were not involved in the workshop or in self-study of the Mahajanaka. In Week 10, the questionnaire-based survey was repeated, with the same information collected as previously. (Demographic information was not collected a second time as the respondents had previously provided the information).





Remarks : Both groups are designed to do the questionnaire

**Figure 2** The experimental process.

## Research Instruments

### *Experimental Intervention*

The experimental intervention was offered to the EG ( $n = 50$ ). The first stage of the intervention consisted of a workshop, which lasted approximately 1.5 hours. These workshops were offered in two stages in the first week of training, with each participant assigned to a random workshop. The first hour of the workshop was a Mahajanaka film, which introduced the story and its context. In the remaining half hour, the researcher summarized the film and discussed how to apply the principles to work-life balance and stress issues. A copy of the Mahajanaka book and leaflet (the principles of working ideas

behind the Mahajanaka Story) was provided to each of the participants and they were asked to read and study the book and apply lessons over the next ten weeks.

### ***Questionnaire***

The questionnaire was distributed to all EG and CG members prior to the workshop intervention (Week 1) and at the close of the study (Week 10). The questionnaire was developed using the literature review as a guideline, but was not adapted from a single questionnaire. Instead, the questions were developed based on the specific characteristics of the organization, to ensure that it was relevant to the work experience of the respondents (Saris & Gallhofer, 2014).

The first part of the questionnaire collected general information using unidimensional categorical items. The second part of the questionnaire collected attitude and perceptual information using 5-point Likert scales. Likert scales were selected because they are the most useful tool for measuring attitudes, which cannot be measured precisely (Saris & Gallhofer, 2014). Seven items each were used to measure level of stress from role conflict, role ambiguity, role overload, and job characteristics. Nine items were used to measure symptoms from all work-related stressors.

### ***Validity and Reliability Testing***

The questionnaire was evaluated for validity using face validity testing with the researcher's supervisor. This approach was chosen because the

sample was too small to use more intensive approaches such as principal component analysis, which may be used for development and testing of instruments that require high rigor, such as psychological testing instruments (Cross, 2016).

Coefficient alpha was used to test internal reliability of the Likert items. Alpha is a generalization of the KR-20 test for internal consistency of Likert items, applying to scales with three or more items rather than only two items (Cho, 2016). In general, alpha coefficients of 0.7 to 0.8 can be considered acceptable, while 0.8 to 0.9 is considered good and 0.9 is considered excellent (DeVellis, 2012). The alpha test was conducted in SPSS, using the first 20 questionnaires (10 from each group) collected. Results are shown in Table 4. As this shows, all the multi-item Likert scales reached the level of at least .711, indicating that all scales have at least an acceptable level of internal reliability. Therefore, all the scales were accepted as specified.

**Table 4**

*Summary of Coefficient Alpha results*

Variable	Cronbach Alpha
Level of Job Stress from Role Conflict (7 items)	.740
Level of Job Stress from Role Ambiguity (7 items)	.768
Level of Job Stress from Role Overload (7items)	.866
Level of Job Stress from Job Characteristic (7 items)	.948
Symptoms from All Work-Related Stressors (9 items)	.711

## Data Analysis

Data analysis was conducted in SPSS, which was selected because of its reliability and flexibility in terms of the tests it can perform (Pallant, 2016). The first stage of analysis was descriptive analysis for both the pre-test and post-test outcomes. For the demographic information, frequency distributions were prepared, which demonstrate the distribution of characteristics in the population (Warne, 2018). For the Likert items, means and standard deviations were calculated, which demonstrate the central tendency and distribution around the mean of the responses in the sample (Warne, 2018). While other approaches for Likert items can be used (Saris & Gallhofer, 2014), in this case mean and standard deviation were appropriate because of the intended inferential analysis approach.

Inferential analysis was conducted to test the hypotheses. Inferential tests were selected based on the type of data and the intended information to be derived from the test. Table 5 summarizes the hypotheses that were tested and the choice of measures. The main inferential techniques used include one-way ANOVA and independent samples *t* tests.

The independent samples *t*-test compares mean differences between two different (independent) groups, to determine whether the mean difference is statistically significant (Warne, 2018). This approach was used for  $H1_2$  (gender differences in job stress), Testing (differences in pre-test stress) and  $H2$  (differences in post-test stress). One-way ANOVA is a generalization of the independent *t* test for difference in means, which tests for significant mean

differences between three or more groups (Warne, 2018). This test was used for  $H1_1$  (age differences in job stress),  $H1_3$  (work position differences in job stress), and  $H1_4$  (tenure differences in job stress). For all inferential tests conducted, significant mean differences were accepted at a standard level of  $p < .05$  (Warne, 2018).

**Table 5**

*Data Analysis Tools and Strategies*

Hypotheses	Analysis tools
$H1$ : There is a significant difference in job stress levels between different demographic group (age, gender, years of work experience, work position)	
$H1_1$ : There is a significant difference in job stress levels among age groups.	One way ANOVA
$H1_2$ : There is a significant difference in job stress levels between male and female employees	Independent sample $t$ test
$H1_3$ : There is a significant difference in job stress levels among work positions.	One way ANOVA
$H1_4$ : There is a significant difference in job stress levels between different years of work experience.	One way ANOVA
$H2$ : There are a significant difference in the levels of job stress between group of Mahajanaka users and Mahajanaka non-users	Independent sample $t$ test

### **Work Stress Prior to Introduction of Mahajanaka**

It is important was concerned with work stress levels in the EG and CG groups prior to the Mahajanaka intervention. This research needs to compare between control group and experimental group after the intervention, therefore, it must be no significant differences in job stress levels between control group and experimental group before introducing Mahajanaka story.

A series of five independent  $t$  tests for difference in means was conducted between the two groups. Each of these is examined at a significance level of  $p < .05$ . These  $t$  tests showed that there were no significant mean differences in the pre-intervention period between the CG and EG groups in any of the work-related stress sources or in work-related stress symptoms.

#### ***Pre-intervention Stress Levels from Role Conflict***

The first  $t$  test addressed pre-intervention stress levels resulting from role conflict, which tested that: There is no significant difference in job stress levels from role conflict between control group and experimental group before introducing Mahajanaka story.

$t$  test results are used to determine whether this is significant. The Levene's test ( $F = 2.350, p = .128$ ) indicate equal variance between the groups. However, the  $t$  test ( $t = 1.773, p = .079$ ) does not indicate a significant difference between the means. Therefore, there is no significant difference in

job stress levels from role conflict between control group and experimental group before introducing Mahajanaka story.

**Table 6**

*Independent t test for Difference in Means: Stress Levels from Role Conflict (pre-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
Role Conflict	4.59	.253	4.44	.536	2.35	.128	1.773	.079

***Pre-intervention Stress Levels from Role Ambiguity***

Pre-intervention stress levels from role ambiguity was tested using the following testing: There is no significant difference in job stress levels from role ambiguity between control group and experimental group before introducing Mahajanaka story.

From the Levene's test indicated equal variances ( $F = 1.594, p = .210$ ). Furthermore, the *t* test did not show a significant difference in means between groups ( $t = 1.898, p = .061$ ). Therefore, there is no significant difference in job stress levels from role ambiguity between control group and experimental group before introducing.

**Table 7**

*Independent t test for Difference in Means: Stress Levels from Role Ambiguity (pre-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
Role								
Ambiguity	4.47	.202	4.38	.247	1.594	.210	1.898	.061

### ***Pre-intervention Stress Levels from Role Overload***

Pre-intervention stress levels from role overload were evaluated using the following testing: There is no significant difference in job stress levels from role overload between control group and experimental group before introducing Mahajanaka story.

From table 8, the Levene's test ( $F = .340, p = .561$ ) indicated that equal variances could be assumed. The *t* test did not indicate that this was a significant mean difference ( $t = 1.735, p = .086$ ). Therefore, there is no significant difference in job stress levels from role overload between control group and experimental group before introducing Mahajanaka story.



**Table 8**

*Independent t test for Difference in Means: Stress Levels from Role Overload (pre-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
Role								
Overload	4.48	.211	4.40	.233	0.34	0.561	1.735	.086

### ***Pre-intervention Stress Levels from Job Characteristics***

Pre-intervention stress levels from job characteristics were assessed using the following testing: There is no significant difference in job stress levels from role characteristic between control group and experimental group before introducing Mahajanaka story.

From the Levene's test indicated equal variances ( $F = 2.570, p = .112$ ). The *t* test outcome ( $t = 1.560, p = .122$ ) did not indicate a significant mean difference. Therefore, there is no significant difference in job stress levels from role characteristic between control group and experimental group before introducing Mahajanaka story.

**Table 9***Independent t test for Difference in Means: Stress Levels from Job**Characteristics (pre-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
Job								
Characteristic	4.62	.230	4.53	.297	2.57	0.112	1.560	.122

***Pre-intervention Work-related Stress Symptoms***

The final testing investigated the difference in symptoms from sources of work-related stress, investigating the following relationship: There is no significant difference in symptoms from all work-related stressors between control group and experimental group before introducing Mahajanaka story.

From the Levene's test ( $F = .270, p = .605$ ). The *t* test results ( $t = 1.091, p = .278$ ) did not indicate a significant mean difference between these two groups. Therefore, There is no significant difference in symptoms from all work-related stressors between control group and experimental group before introducing Mahajanaka story. In summary, there was no indication of significant mean differences between the EG and CG groups on workplace stress experiences or symptoms prior to the intervention.

**Table 10**

*Independent t test for Difference in Means: Work-related Stress Symptoms (pre-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
All Work								
Related								
Stressors	4.63	.290	4.55	.413	0.27	0.605	1.091	.278

### **Ethical Issues**

The main ethical issues in this research included consent and confidentiality. Fully informed consent is required for any research that involves humans, to make sure that the participants fully understand what they are providing and why the study is being conducted (Oliver, 2010). To ensure that the respondents were informed, the researcher included a detailed description of the reasons for the research and how it was being conducted, along with contact information, in the pre-test questionnaire consent process.

Confidentiality was also important because of the organizational context of the study, which could lead to harm if the responses were not kept confidential or if data were accidentally disclosed (Oliver, 2010). Although this research did not touch directly on work performance, its disclosure could potentially be harmful. The research could not be completely anonymous

because of the need for random sampling and the requirement to compare the pre-test and post-test responses. However, unnecessary personally identifying information was not collected from respondents at any time. For example, detailed information about date of birth was not collected. Personal names and other data also were not associated with responses. Instead, respondents were issued a participant number to quote in the questionnaire, which helped to associate the pre-test and post-test results. The researcher did collect names of respondents for validation purposes, but this information is not associated with questionnaire results and will not be released. Identifying data and other raw data will be destroyed on completion and acceptance of the study.

### **Summary**

This chapter has explained the research design and methods selected for the study. The research design was an organizational, quantitative quasi-experimental design. 100 respondents were selected from this bank's staff and using their time controlled to assigned to either a control group (who had access to only standard corporate resources on stress management) or to the experimental group (which had an intervention consisting of a stress management workshop and self-study focused on the Mahajanaka). Results were evaluated using a pre-test/post-test strategy, which allowed the researcher to identify differences in stress based on the experimental intervention. Comparisons between demographic and work groups and between the experimental and control groups also allowed the researcher to

determine the effects of the intervention. The results of this process are presented in the next chapter.

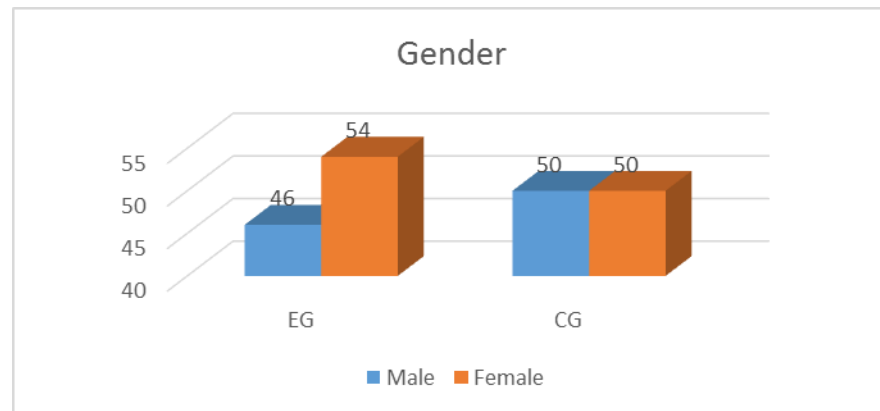
## **CHAPTER 4**

### **RESULTS**

The primary research consisted of a quasi-experimental design, incorporating an organizational intervention for stress management (the Mahajanaka) for one half of the research participants (the experimental group) and only access to existing corporate tools for the other half (the control group). This chapter presents the findings that were derived from analysis of the pre- and post- intervention surveys. The chapter begins with an overview of the participant profile, which discusses the demographic and workplace characteristics of the respondents. In the next chapter, an overview of the descriptive statistics for each group during the pre- and post- intervention periods is provided. This includes the mean and standard deviation for each of the Likert variables. The third section of the chapter presents and interprets the inferential tests that were used to investigate the hypotheses and accepts or rejects each of these hypotheses based on the test outcomes and significance.

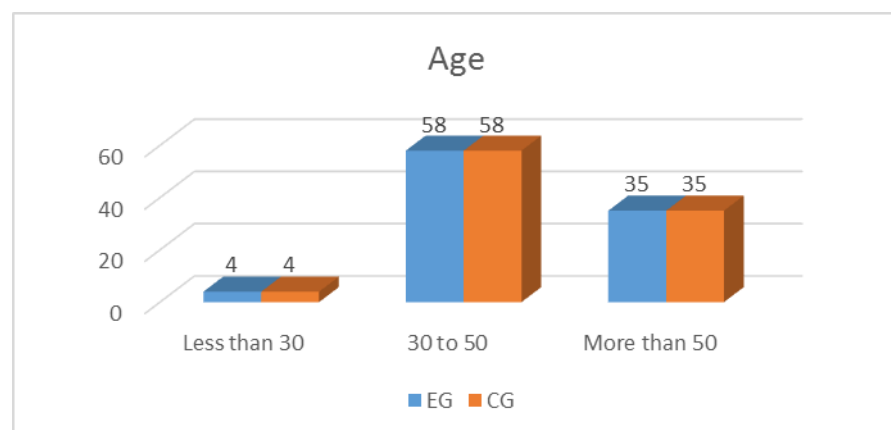
#### **Participant Profile**

Participant demographic and workplace characteristics (Table 5) were collected both to check that the sample included members of different groups (though it is not, nor is it designed to be, representative) and because the tests of Hypothesis 1 (parts 1 through 4) were based on these characteristics.



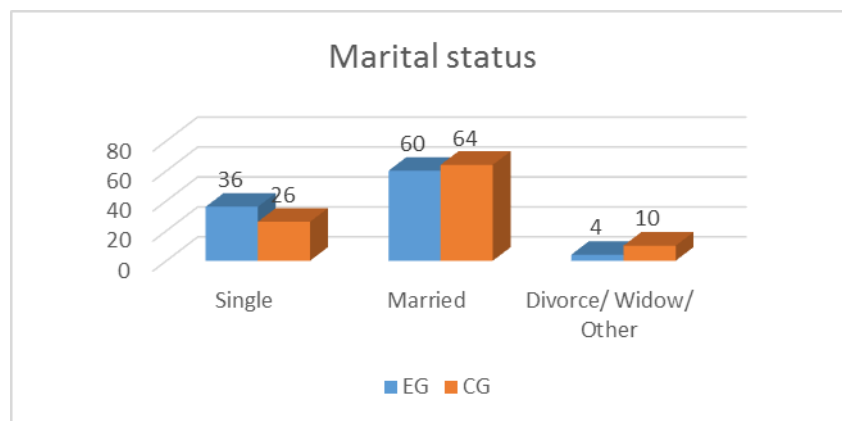
**Figure 3** Respondent's gender (%).

**Gender.** There were 23 male participants and 27 female participants in the EG. In the CG, there were 25 male participants and 25 female participants. Thus, the distribution of participants by gender is approximately equal in both groups and there are similar numbers of male and female participants overall.



**Figure 4** Respondent's age (%).

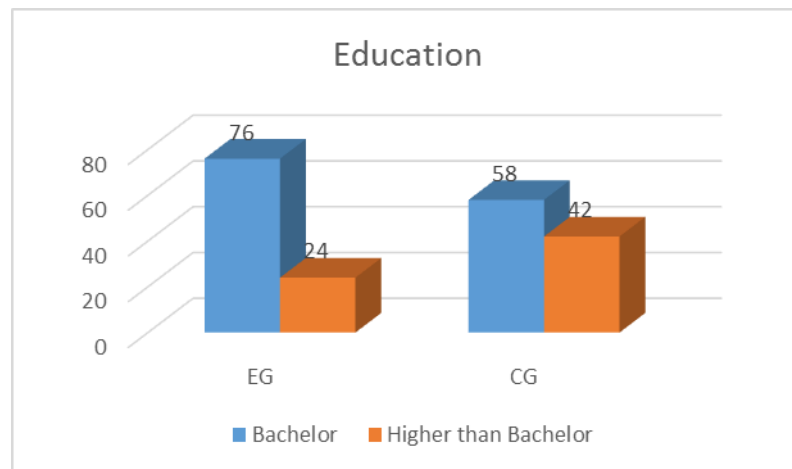
**Age.** The smallest age group for both groups was under 30 years (2 members per group), followed by more than 50 years (19 participants each group) and 30 to 50 years (29 participants each group). While it is not known whether this accurately represents the age distribution of this bank employees, the sectioning of the groups was effective.



**Figure 5** Respondent's marital status (%).

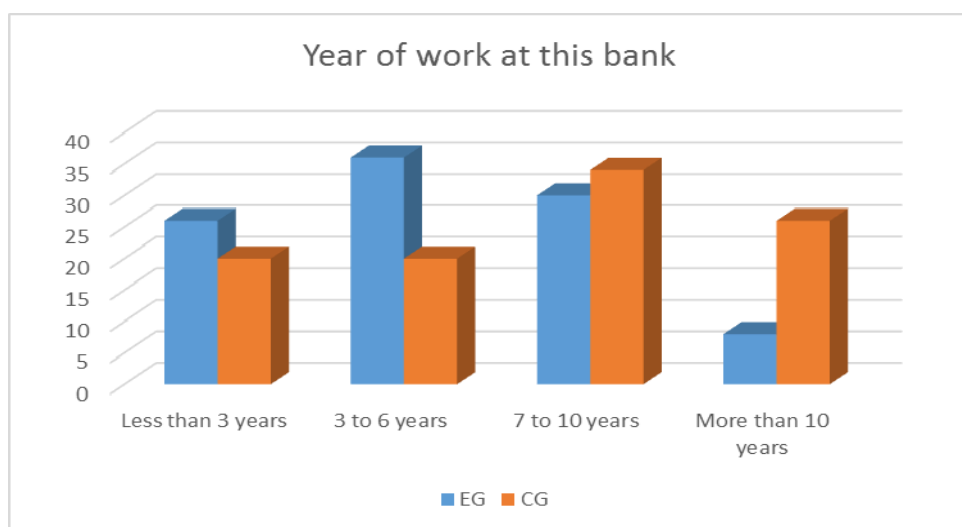
**Marital status.** Marital status was somewhat different between groups. The EG included 18 single people, 30 married people, and 2 people that were divorced or widowed. The CG included 13 single people, 32 married people, and five people that were divorced or widowed.





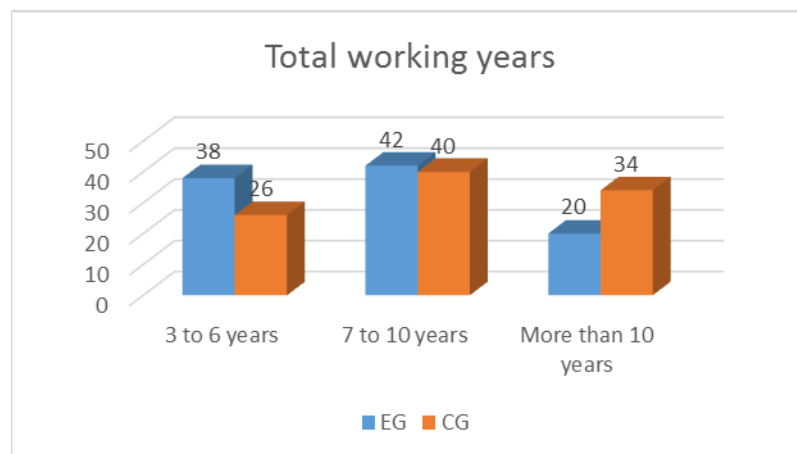
**Figure 6** Respondent's education (%).

**Education.** The educational level of the CG and EG was also somewhat different. The EG included 38 people with a Bachelor's degree and 12 people with higher than a Bachelor's degree. The CG included 29 people with a Bachelor's degree and 21 people with higher than a Bachelor's degree.



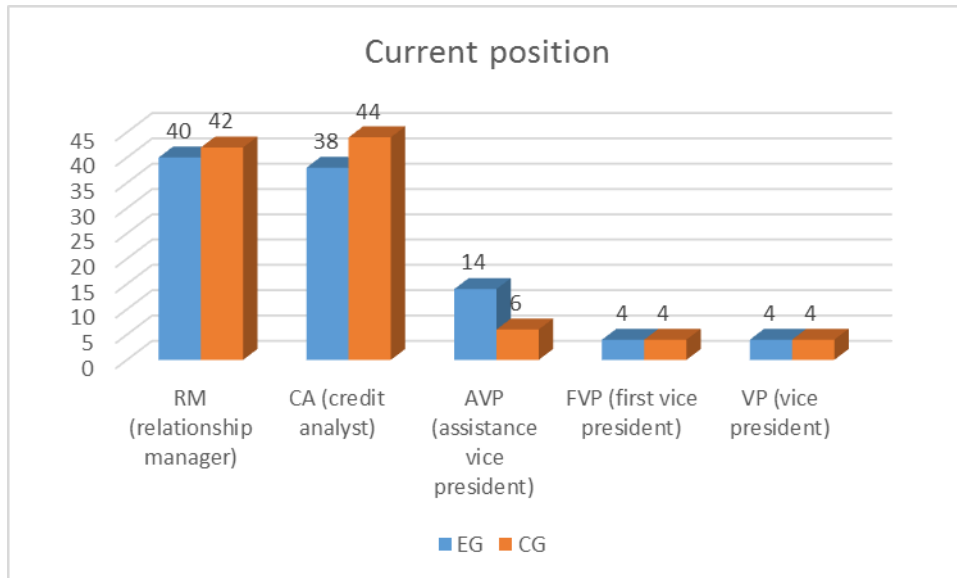
**Figure 7** Respondent's organizational tenure (%).

**Organizational tenure.** There were some differences in the organizational tenure. The EG included 13 people who had worked at the bank less than three years, 18 who had worked there three to six years, 15 who had worked there seven to 10 years, and four who had worked there more than 10 years. The CG included 10 people who had worked at the bank less than three years, 10 people who had worked there three to six years, 17 people who had worked there seven to 10 years, and 13 people who had worked there more than 10 years.



**Figure 8** Respondent's total work experience (%).

**Total work experience.** The EG included 19 people with three to six years of total work experience, 21 with seven to 10 years of total work experience, and 10 with more than 10 years of total work experience. The CG included 13 people with three to six years of total work experience, 20 with seven to 10 years of total work experience, and 17 with more than 10 years of total work experience.



**Figure 9** Respondent's work position (%).

**Work position.** The EG was made up mainly of relationship managers ( $n = 20$ ) and credit analysts ( $n = 19$ ), along with assistant vice presidents ( $n = 7$ ), first vice presidents ( $n = 2$ ), and vice presidents ( $n = 2$ ). The CG included similar distributions, including relationship managers ( $n = 21$ ) and credit analysts ( $n = 22$ ), along with assistant vice presidents ( $n = 3$ ), first vice presidents ( $n = 2$ ), and vice presidents ( $n = 2$ ). This shows that there were employees included from across the organizational structure.

In summary, the gender and age distribution and work position of the EG and CG groups was similar. However, the CG group was slightly more highly educated on average, and had longer organizational tenure and work experience. Although these two groups are not completely equivalent, their demographic equivalence is strong. Furthermore, members of all the groups of

concern are included in the survey. Therefore, the analysis can continue as planned.

**Table 11**

*Summary of Participant Demographic and Workplace Characteristics*

	EG		CG	
	<i>n</i>	%	<i>n</i>	%
Gender				
Male	23	46	25	50
Female	27	54	25	50
Age				
Less than 30	2	4	2	4
30 to 50	29	58	29	58
More than 50	19	35	19	35
Marital Status				
Single	18	36	13	26
Married	30	60	32	64
Divorce/ Widow/ Other	2	4	5	10
Education				
Bachelor	38	76	29	58
Higher than Bachelor	12	24	21	42
Year of work at this bank				
Less than 3 years	13	26	10	20
3 to 6 years	18	36	10	20
7 to 10 years	15	30	17	34
More than 10 years	4	8	13	26
Total working years				
3 to 6 years	19	38	13	26
7 to 10 years	21	42	20	40
More than 10 years	10	20	17	34

**Table 11** (continued)

	EG		CG	
	<i>n</i>	%	<i>n</i>	%
Current position				
RM (relationship manager)	20	40	21	42
CA (credit analyst)	19	38	22	44
AVP (assistance vice president)	7	14	3	6
FVP (first vice president)	2	4	2	4
VP (vice president)	2	4	2	4

### Job Stress

There were four sources of job stress identified in the literature, including job stress from role conflict, job stress from role ambiguity, job stress from role overload, and job stress from role characteristics. Furthermore, symptoms from job-related stress were also investigated.

Means and standard deviations for the pre-test (before) and post-test (after) period are reported for each of these variables. The means can be understood in context by comparing them to the original rating scale that was used in the questionnaire. This rating scale included the following points of agreement:

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Therefore, mean responses can be compared to these original points to understand the general trend in the responses.

Additionally, *t* tests are used to determine whether the before and after means have changed significantly for each group. The *t* tests are reported at the end of each of these sections.

### ***Job Stress from Role Conflict***

Job stress from role conflict included causes of stress including work-life balance, conflicts between professional ethics and supervisory demands, and conflicting demands from different bosses or working groups. Job stress from role conflict was measured using a series of seven items. Table 6 presents the before and after means and standard deviations for the EG group, while Table 7 presents the same data for the CG group.

In the pre-test period, average mean stress levels for the EG ( $M = 4.59$ ,  $SD = .253$ ) and CG ( $M = 4.44$ ,  $SD = .536$ ) were similar. The overall pattern of responses was also similar. For example, the most stressful experience was “I feel under pressure to do things against my professional ethics...” (EG:  $M = 4.84$ ,  $SD = .370$ ; CG:  $M = 4.76$ ,  $SD = .476$ ). Thus, for both groups, being pressured against their professional ethics was the most stressful role conflict-related stressor that they experienced in the pre-intervention period. The response groups also shared a least-stressful role conflict factor in the pre-response period, which was “Because of my work demands I have no time for my family” (EG:  $M = 3.96$ ,  $SD = .947$ ; CG:  $M = 3.68$ ,  $SD = 1.077$ ). Overall, the stress levels reported from the various factors was similar for each of the

individual item, although the exact means varied slightly between the groups. Thus, the pre-test period showed that the EG and CG groups had a similar level of reported stress from role conflict. Furthermore, with means above 4.0, the reported rate of stress is also very high.

In the post-test period, the mean reported job role stress fell for the EG group ( $M = 3.97$ ,  $SD = .490$ ) but remained about the same for the CG group ( $M = 4.53$ ,  $SD = .429$ ). Overall, however, the relative reported stressfulness of each of the role conflict sources remained the same. “I feel under pressure to do things against my professional ethics...” remained the most commonly reported stressor in both groups (EG:  $M = 4.74$ ,  $SD = .443$ ; CG:  $M = 4.94$ ,  $SD = .240$ ). In fact, this item fell only slightly for the EG group, especially compared to the much higher drops for the other factors, and increased for the CG group. Therefore, this remained among the most stressful responses identified. “Because of my work demands I have no time for my family” remained the least stressful item for both groups (EG:  $M = 3.60$ ,  $SD = 1.050$ ; CG:  $M = 3.74$ ,  $SD = .899$ ). However, this item reflects the fall in means that the EG group experienced, while the CG group did not. Overall, the stress levels for the CG remained high in the post-intervention period, but they fell sharply in the post-intervention period for the EG.

Furthermore, the paired  $t$  test results also indicated a significant mean difference of job role conflict in before and after period of EG group ( $p < .05$ ). There was a significant mean reduction for the EG group after period. However, the result is difference from the CG group, which many items found it is no difference in before and after period ( $p > .05$ ). But the mean statistics

for stress from job role conflict shows that there are some stressors that are present for both groups in the pre-intervention and post-intervention periods ( $p < .05$ ).

**Table 12**

*Descriptive Statistics: Job Stress from Role Conflict (EG)*

Role Conflict	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel high stress when conflict occurs within my roles such as your boss orders to increase your works but must have no some mistake.	4.68	.513	4.10	.763	5.226	.000
I feel high stress when conflict occurs between roles such as different in expectation and real work.	4.70	.463	4.20	.833	4.214	.000
Because of my work demands I have no time for my family.	3.96	.947	3.60	1.050	3.674	.001
I have too many bosses and make me having strong pressure.	4.62	.567	3.78	.996	5.521	.000
I feel strong stress when I receive incompatible requests from two or more people.	4.74	.487	3.70	.886	7.597	.000
I feel under pressure to do things against my professional ethics such as my boss orders that I must make the fine cash flow of some customer for getting the loan because that customer is high power person.	4.84	.370	4.74	.443	2.333	.024



**Table 12** (continued)

Role Conflict	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I have trouble to work with groups who operate differently.	4.60	.535	3.68	.935	6.334	.000
Average	4.59	.253	3.97	.490	8.147	.000

**Table 13***Descriptive Statistics: Job Stress from Role Conflict (CG)*

Role Conflict	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel high stress when conflict occurs within my roles such as your boss orders to increase your works but must have no some mistake.	4.54	.706	4.40	.833	1.632	.109
I feel high stress when conflict occurs between roles such as different in expectation and real work.	4.56	.760	4.70	.580	1.999	.051
Because of my work demands I have no time for my family.	3.68	1.077	3.74	.899	.489	.627
I have too many bosses and make me having strong pressure.	4.60	.756	4.58	.731	.299	.766
I feel strong stress when I receive incompatible requests from two or more people.	4.60	.670	4.66	.626	.771	.444

**Table 13** (continued)

Role Conflict	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel under pressure to do things against my professional ethics such as my boss orders that I must make the fine cash flow of some customer for getting the loan because that customer is high power person.	4.76	.476	4.94	.240	2.909	.005
I have trouble to work with groups who operate differently.	4.36	.921	4.66	.688	3.280	.002
Average	4.44	.536	4.53	.429	1.901	.063

### ***Job Stress from Role Ambiguity***

Job stress from role ambiguity was measured using seven items. These items addressed sources of stress like uncertainty surrounding job descriptions, work duties, and lines of authorities, missing or incompatible policies and guidelines, and uncertainty about performance expectations. The descriptive statistics for these items are shown in Table 14 for the EG group and Table 15 for the CG group.

In the pre-intervention period, average job stress from role ambiguity was similar for the EG group ( $M = 4.47$ ,  $SD = .202$ ) and the CG group ( $M = 4.39$ ,  $SD = .247$ ). As with job stress from role conflict, the pattern of relatively more and less stressful job role ambiguity factors was similar between the two groups. The highest stress level was reported for both groups

for the item “I feel stress when I do not know if my work will be acceptable to my boss” (EG:  $M = 4.92$ ,  $SD = .274$ ; CG:  $M = 4.78$ ,  $SD = .465$ ). In contrast, the lowest stress level was reported for the item “I do not know what the goal of my task is” (EG:  $M = 3.26$ ,  $SD = .527$ ; CG:  $M = 3.12$ ,  $SD = .594$ ).

Therefore, in both groups during the pre-intervention period, the most reported stress was uncertainty about job performance and the least reported stress was goal uncertainty. However, absolute stress levels were high for both groups in this period.

In the post-intervention period, reported stress from role ambiguity fell for the EG group ( $M = 3.92$ ,  $SD = .348$ ), but climbed slightly for the CG group ( $M = 4.50$ ,  $SD = .224$ ). “I feel stress when I do not know if my work will be acceptable to my boss” remained the most stressful experience for CG, but fell sharply in stress levels for EG, making it the least stressful experience (EG:  $M = 2.88$ ,  $SD = .746$ ; CG:  $M = 4.86$ ,  $SD = .406$ ). The previously least stressful experience for both groups, which was “I do not know what the goal of my task is”, was similarly stressful for the EG group, but became slightly more stressful for the CG group (EG:  $M = 3.24$ ,  $SD = .555$ ; CG:  $M = 3.30$ ,  $SD = .678$ ). In the post-intervention period, the most stressful role ambiguity factor was tied between “I am not clear of the job description of my position” ( $M = 4.42$ ,  $SD = .672$ ) and “I feel high stress when I work under incompatible policies and guidelines...” ( $M = 4.42$ ,  $SD = .673$ ). These two factors had been among the higher stress conditions in the pre-intervention period as well.

In summary, during the pre-intervention period, the EG and CG groups had similar stress levels and stress factors. However, in the post-intervention

period it is noticeable that the EG group became much less stressed. The paired  $t$  test results also indicated a significant mean difference of job role ambiguity in before and after period of EG group ( $p < .05$ ), excepted “I do not know what the goal of my task is” has no difference before and after periods ( $p > .05$ ). In case of CG group, it found it is no difference in before and after period ( $p > .05$ ). But the mean statistics for stress from job role conflict shows the increasing of stress level after the post-intervention periods ( $p < .05$ ).

**Table 14**

*Descriptive Statistics: Job Stress from Role Ambiguity (EG)*

Role Ambiguity	Before		After		$t$	$p$
	$\bar{X}$	$SD$	$\bar{X}$	$SD$		
I am not clear of the job description of my position.	4.64	.485	4.42	.673	2.526	.015
I feel high stress when I work under incompatible policies and guidelines such as bank policy is high increase new loan customer but loan interest rate in higher than other banks.	4.68	.513	4.42	.673	3.256	.002
I do not know what the goal of my task is.	3.26	.527	3.24	.555	1.000	.322
I do not know my works' line of authority.	4.56	.501	4.18	.774	4.030	.000
I feel stressed when I lack the policies and guidelines to help me.	4.64	.485	4.04	.880	4.818	.000
I am uncertain as to how my job is linked to others	4.58	.499	4.26	.664	3.311	.002

**Table 14** (continued)

Role Ambiguity	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel strong stress when I do not know if my work will be acceptable to my boss.	4.92	.274	2.88	.746	16.398	.000
Average	4.47	.202	3.92	.348	13.094	.000

**Table 15***Descriptive Statistics: Job Stress from Role Ambiguity (CG)*

Role Ambiguity	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I am not clear of the job description of my position.	4.46	.706	4.56	.675	1.698	.096
I feel high stress when I work under incompatible policies and guidelines such as bank policy is high increase new loan customer but loan interest rate in higher that other banks.	4.50	.707	4.56	.705	1.353	.182
I do not know what the goal of my task is.	3.12	.594	3.30	.678	2.436	.019
I do not know my works' line of authority.	4.62	.602	4.74	.487	1.950	.057
I feel stressed when I lack the policies and guidelines to help me.	4.68	.587	4.74	.565	1.353	.182
I am uncertain as to how my job is linked to others	4.52	.647	4.74	.527	3.718	.001

**Table 15** (continued)

Role Ambiguity	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel strong stress when I do not know if my work will be acceptable to my boss.	4.78	.465	4.86	.405	1.159	.252
Average	4.39	.247	4.50	.224	4.342	.000

### ***Job Stress from Role Overload***

Job stress from role overload was measured using a set of seven items. These items addressed sources of stress like lack of time and resources to complete work, excess demands or performance standards, and inability to effectively prioritize tasks. Means and standard deviations for the EG group are reported in Table 16, while Table 17 reports the results from the CG group.

In the pre-intervention period, the average job stress from role overload was similar for the EG group ( $M = 4.48$ ,  $SD = .211$ ) and the CG group ( $M = 4.40$ ,  $SD = .233$ ). As with other sources of job related stress discussed above, the issues that were perceived as stressful were also similar. For example, the highest mean stress level was reported for “I feel the performance standards on my job are too high” for both groups, and the means for this item were very similar (EG:  $M = 4.80$ ,  $SD = .452$ ; CG:  $M = 4.82$ ,  $SD = .233$ ). Similarly, respondents were least likely to feel that “my workload does not give me time to develop myself” (EG:  $M = 3.14$ ,  $SD = .452$ ; CG:  $M = 2.94$ ,  $SD = .740$ ). Overall stress levels from role overload in

the pre-intervention period were reported to be relatively high, as were other sources of stress discussed above and below. Thus, in the pre-intervention period, both groups were stressed from role overload, with especially high pressure coming from high performance standards.

In the post-intervention period, the average job stress from role overload dropped substantially for the EG group ( $M = 4.05$ ,  $SD = .340$ ), but rose very slightly for the CG group ( $M = 4.53$ ,  $SD = .231$ ). In both groups, respondents remained least concerned that “My workload does not give me time to develop myself” (EG:  $M = 2.98$ ,  $SD = .622$ ; CG:  $M = 3.22$ ,  $SD = .887$ ). However, while this mean item fell in the EG group, it rose somewhat in the CG group. There was also a change in the highest mean job stressor from role overload. For both groups “I feel the performance standards of my job are too high” was no longer the highest-ranking item, although it was still relatively high in importance for both groups. Instead, the EG group had the highest mean for “I have too much work to do everything well” ( $M = 4.34$ ,  $SD = .593$ ), while the CG group had the highest mean for “I feel there is a lack of resources needed to fulfil my commitments, or perceive that a task cannot be completed in the given time” ( $M = 4.82$ ,  $SD = .438$ ). Thus, in the post-intervention period, the concerns of the EG and CG groups diverged, as well as the change in means.

In summary, the pre-intervention period was very similar for the EG and CG groups in terms of job stress from role overload. In the post-intervention period, reported stress levels fell substantially for the EG group, but rose slightly in the CG group. The paired  $t$  test results also indicated a

significant mean difference of role overload in before and after period of EG group ( $p < .05$ ). In case of CG group, it found it is a difference in before and after period ( $p > .05$ ), as the stress level is increased significantly. Therefore, the respondents considered most and least stressful diverged. This implies that the intervention may have influenced perceptions of stress and how individuals manage these stress factors.

**Table 16**

*Descriptive Statistics: Job Stress from Role Overload (EG)*

Role Overload	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel there is a lack of resources needed to fulfill my commitments, or perceive that a task cannot be completed in the given time	4.44	.611	4.20	.606	3.934	.000
I cannot prioritize my work and deal with my tasks perfectly.	4.68	.513	4.08	.804	5.422	.000
I never seem to have enough time to get everything done.	4.72	.497	4.22	.815	4.481	.000
The management often demands more than I can handle.	4.70	.505	4.24	.797	4.809	.000
My workload does not give me time to develop myself.	3.14	.452	2.98	.622	3.055	.004
I feel the performance standards on my job are too high	4.86	.351	4.32	.683	5.409	.000
I have too much work to do everything well.	4.80	.452	4.34	.593	5.996	.000
Average	4.48	.211	4.05	.340	9.579	.000



**Table 17***Descriptive Statistics: Job Stress from Role Overload (CG)*

Role Overload	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel there is a lack of resources needed to fulfill my commitments, or perceive that a task cannot be completed in the given time	4.48	.580	4.82	.438	3.492	.001
I cannot prioritize my work and deal with my tasks perfectly.	4.62	.490	4.76	.431	1.999	.051
I never seem to have enough time to get everything done.	4.62	.530	4.72	.497	1.400	.168
The management often demands more than I can handle.	4.62	.530	4.74	.487	1.520	.135
My workload does not give me time to develop myself.	2.94	.740	3.22	.887	2.447	.018
I feel the performance standards on my job are too high	4.82	.388	4.78	.465	0.531	.598
I have too much work to do everything well.	4.70	.505	4.70	.505	0.000	1.000
Average	4.40	.233	4.53	.231	3.581	.001

***Job Stress from Job Characteristics***

Job stress from job role characteristics, the fourth scale of job stressors, was measured using seven Likert items. These items addressed job stressors like highly complex or process-driven tasks, job complaints, responsibility, high task variety, high levels of job effects, and boredom (not being able to

work on interesting projects). Results for the EG group are shown in Table 12, while results for the CG group are shown in Table 13.

In the pre-intervention period, average job stress was similar for the EG group ( $M = 4.62$ ,  $SD = .230$ ) and the CG group ( $M = 4.53$ ,  $SD = .297$ ). Job stress from job characteristics was also very high on average, as this was the highest mean reported during the pre-intervention period for both groups. Unlike other items, there was a slight difference in the relative means for these items in the pre-intervention period. For the EG group, the highest reported stress was “I feel strong stress when there are many people who can complain about my job performance” ( $M = 4.90$ ,  $SD = .364$ ). In comparison, the highest reported stress for the CG group was “I feel high pressure when my works require a lot of responsibility” ( $M = 4.80$ ,  $SD = .495$ ). This difference may be due to the slight difference in job roles between the two groups, as the CG group had slightly more high-ranking and long-serving employees than the EG group did. For both groups, there was the lowest stress level reported for “I feel high stress when there is a lot of variety on my job...” (EG:  $M = 3.94$ ,  $SD = 1.242$ ; CG:  $M = 3.36$ ,  $SD = 1.064$ ). Thus, in the pre-intervention period, both EG and CG groups reported very high job stress from job role characteristics, although the specific factors that were stressful varied.

In the post-intervention period, job stress from job role characteristics fell for the EG group, although it remained the most stressful category of job stressors ( $M = 4.11$ ,  $SD = .270$ ). However, stress from job role characteristics remained essentially the same in the CG group ( $M = 4.53$ ,  $SD = .334$ ). Thus,

while for the EG group job role characteristics were only moderately stressful, they remained highly stressful for the CG group. The importance of specific stressors also changed. For the EG group, “I feel strong stress when there are many people who can complain about my job performance” fell from the most stressful item in the pre-intervention period to the least stressful item in the post-intervention period ( $M = 2.96$ ,  $SD = .968$ ). The most stressful items for the EG group in the post-intervention period became “I feel strong stress when my task has a high degree of process” ( $M = 4.52$ ,  $SD = .614$ ) and “While performing my job I do not get the opportunity to work on many interesting projects” ( $M = 4.52$ ,  $SD = .580$ ). The CG group also reported that “I feel strong stress when my task has a high degree of process” was the most stressful job role characteristic ( $M = 4.72$ ,  $SD = .607$ ).

In summary, both the EG and CG groups had shifting perceptions of the stress levels of specific factors. The CG group had the same stress level about job role characteristics in the post-intervention period. It found it is no difference in before and after period ( $p > .05$ ), except some items that found the increasing of stress level. In contrast, the EG group had a substantial drop in stress levels. The paired  $t$  test results also indicated a significant mean difference of job role characteristics in before and after period of EG group ( $p < .05$ ).

**Table 18***Descriptive Statistics: Job Stress from Job Role Characteristics (EG)*

Job Characteristic	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel strong stress when my task is highly complex.	4.74	.565	4.44	.611	4.200	.000
I feel strong stress when my task is a high degree of process.	4.70	.580	4.52	.614	2.272	.028
I feel strong stress when there are many people who can complain about my job performance.	4.90	.364	2.96	.968	13.213	.000
I feel high pressure when my works require a lot of responsibility.	4.76	.517	4.44	.611	4.106	.000
I feel high stress when there is a lot of variety on my job such as collect data presentation meeting using computer, keep accounts.	3.94	1.252	3.54	.706	2.694	.010
I feel high stress when my job may affect a lot of other people by how well my work is performed.	4.58	.673	4.34	.798	1.731	.090
While performing my job I do not get the opportunity to work on many interesting projects.	4.70	.544	4.52	.580	1.843	.071
Average	4.62	.230	4.11	.270	14.185	.000

**Table 19***Descriptive Statistics: Job Stress from Job Role Characteristics (CG)*

Job Characteristic	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I feel strong stress when my task is highly complex.	4.66	.626	4.52	.677	1.549	.128
I feel strong stress when my task is a high degree of process.	4.72	.607	4.72	.607	0.000	1.000
I feel strong stress when there are many people who can complain about my job performance.	4.74	.565	4.60	.700	1.851	.070
I feel high pressure when my works require a lot of responsibility.	4.80	.495	4.68	.587	1.950	.057
I feel high stress when there is a lot of variety on my job such as collect data presentation meeting using computer, keep accounts.	3.36	1.064	3.96	.925	3.550	.001
I feel high stress when my job may affect a lot of other people by how well my work is performed.	4.74	.565	4.70	.580	0.629	.533
While performing my job I do not get the opportunity to work on many interesting projects.	4.72	.573	4.52	.707	2.646	.011
Average	4.53	.297	4.53	.334	0.167	.868

***Work-Related Stress Symptoms***

The final scale included work-related stress symptoms. This scale of nine items measured physical symptoms like trouble sleeping, loss of appetite, stomach aches, headaches and dizziness, as well as psychological symptoms

like tiredness and detachment from work. The EG group responses are shown in Table 14, while the CG group responses are shown in Table 20.

In the pre-intervention period, both groups showed a high and similar level of work-related stress symptoms (EG:  $M = 4.63$ ,  $SD = .290$ ; CG:  $M = 4.55$ ,  $SD = .413$ ). In both groups, the most frequently reported symptom of stress was stomach ache (EG:  $M = 4.86$ ,  $SD = .351$ ; CG:  $M = 4.80$ ,  $SD = .452$ ). The least reported symptom for the EG group was Friday/Monday blues ( $M = 4.48$ ,  $SD = .647$ ), while trouble sleeping was the last reported symptom for the CG group ( $M = 4.34$ ,  $SD = .848$ ). Almost every other item reported in both groups was at  $M = 4.50$  or above. This indicates that there was a wide experience of physical symptoms of stress in both of the groups.

In the post-intervention period, experience of stress-related symptoms fell in the EG group, although it could still be considered relatively high ( $M = 4.12$ ,  $SD = .372$ ). In the CG group, mean reported stress-related symptoms was actually higher than it had been in the pre-intervention period ( $M = 4.65$ ,  $SD = .332$ ). The most frequently reported item for the CG group remained stomach aches ( $M = 4.82$ ,  $SD = .438$ ), which occurred in the group at the same frequency as they had in the pre-intervention period. Similarly, the least reported symptoms, including trouble sleeping ( $M = 4.50$ ,  $SD = .735$ ) and Friday/Monday blues ( $M = 4.50$ ,  $SD = .580$ ) were similar in the post-intervention period for the CG group. Overall, it appeared that the CG group did not have much change in their stress symptoms in the intervening period. However, in the EG group, there were some significant changes. The most reported symptom was now headaches ( $M = 4.22$ ,  $SD = .545$ ), although these

were reported less frequently in the post-intervention period than in the pre-intervention period. In contrast, the least-reported symptom was now trouble sleeping ( $M = 3.96$ ,  $SD = .570$ ), which had been the second least reported symptom.

In summary, the post-intervention period saw a reduction in stress-related symptoms for the EG group. It found it is a significant difference in stress-related symptoms before and after period ( $p > .05$ ). But not for the CG group, which the result of paired  $t$  test shows no difference in before and after period ( $p > .05$ ). The specific order of symptoms did change slightly, although the mean scores for individual symptoms was close together in both groups and in both periods. Perhaps most importantly, the rate of stress-related symptoms reported in the EG group was still moderately high, even though it had reduced. This suggests that the intervention reduced but did not eliminate stress-related symptoms for the intervention group, which is discussed in Chapter 5.

**Table 20***Descriptive Statistics: Work-related Stress Symptoms from All Sources (EG)*

All Work Related Stressors	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I have trouble sleeping at night.	4.50	.678	3.96	.570	5.915	.000
I have loss of appetite.	4.62	.667	4.04	.669	7.137	.000
I have an upset stomach or stomach ache.	4.86	.351	4.18	.523	8.192	.000
My muscles felt tight and tense.	4.72	.536	4.18	.560	7.039	.000
I was bothered by a headache.	4.68	.551	4.22	.545	6.461	.000
I have spells of dizziness.	4.68	.587	4.12	.689	6.861	.000
I think Thank God it's Friday or I have the Monday blues.	4.48	.647	4.08	.634	4.667	.000
I am always very tired when coming home from work.	4.58	.642	4.08	.601	5.754	.000
I do not look forward to going to work.	4.54	.646	4.18	.629	4.846	.000
Average	4.63	.290	4.12	.372	9.261	.000



**Table 21***Descriptive Statistics: Work-related Stress Symptoms from All Sources (CG)*

All Work Related Stressors	Before		After		<i>t</i>	<i>p</i>
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
I have trouble sleeping at night.	4.34	.848	4.50	.735	2.221	.031
I have loss of appetite.	4.50	.763	4.66	.593	2.221	.031
I have an upset stomach or stomach ache.	4.80	.452	4.82	.438	1.000	.322
My muscles felt tight and tense.	4.54	.676	4.74	.487	2.646	.011
I was bothered by a headache.	4.64	.631	4.76	.517	2.201	.032
I have spells of dizziness.	4.64	.693	4.72	.573	1.429	.159
I think Thank God it's Friday or I have the Monday blues.	4.50	.580	4.50	.580	-	-
I am always very tired when coming home from work.	4.52	.762	4.62	.635	1.941	.058
I do not look forward to going to work.	4.48	.762	4.56	.577	1.661	.103
Average	4.55	.413	4.65	.332	3.455	.001

***Comparison of Group Means Before and After Intervention***

The *t* tests were used to investigate the difference between the group means between the pre-intervention and post-intervention surveys (Table 22). This analysis showed that in all four job stress sources and in symptoms from all job-related stressors, there were significant mean differences for the EG group. Referring to the descriptive statistics discussed above, these were all reductions in the mean scale scores, indicating that overall perception of job stress had fallen. In the CG group, there was no significant difference in

several dimensions, including job stress from role conflict, job stress from job role characteristics, and symptoms from all job-related stressors. There were two significant mean differences in job stress from role ambiguity and role overload. The descriptive statistics above showed that these scale averages climbed slightly in the post-intervention period compared to the pre-intervention period. Therefore, it can be stated that the EG group (which received the intervention) had a reduction in mean job stress and symptoms, but the CG group (which did not receive the intervention) had job stress and symptoms that were the same or slightly higher. In the next section of this chapter, the hypothesis tests are used to evaluate whether there were significant differences between these groups.

**Table 22**

*Mean Comparisons Pre-intervention and Post-intervention for Each Group*

Dimension	EG Group			CG Group		
	<i>t</i>	<i>df</i>	<i>p</i>	<i>t</i>	<i>df</i>	<i>p</i>
Job stress from role conflict	7.950	98	<.001	.928	98	.356
Job stress from role ambiguity	9.665	98	<.001	2.333	98	.022
Job stress from role overload	7.599	98	<.001	2.802	98	.006
Job stress from job role characteristics	10.168	98	<.001	.000	98	1.000
Symptoms from all job-related stressors	7.646	98	<.001	1.334	98	.185

## Hypothesis Results

There were two hypotheses that were tested in this study. This included stress in different demographic and occupational groups (Hypothesis 1) and post-intervention work stress (Hypothesis 2) The results of the hypothesis tests are discussed in detail below, and summarized.

### *Stress in Different Demographic and Occupational Groups (Hypothesis 1)*

Hypothesis 1 was concerned with differences in job stress levels between different demographic groups. These differences were tested based on the pre-testing questionnaires, using a combination of one-way ANOVA and independent  $t$  test for difference in means depending on the number of groups. All values are tested at  $p < .05$ .

#### 1. Stress in different age groups ( $H1_1$ )

The first part of Hypothesis 1 investigated stress in different age groups, stating that:

$H01_1$ : There is no significant difference in job stress levels among age groups.

$Ha1_1$ : There is a significant difference in job stress levels among age groups.

This hypothesis was tested using one-way ANOVA. The ANOVA test (Table 23) shows that there are no significant differences between groups for stress from role conflict ( $F(2, 97) = .031, p = .969$ ), stress from role overload ( $F = 2.264, p = .109$ ), or stress from job characteristics ( $F(2, 97)$

= .237,  $p = .790$ ). However, there are significant differences in stress from role ambiguity ( $F(2, 97) = 4.130, p = .019$ ) and symptoms from all work-related stressors ( $F(2, 97) = 4.409, p = .015$ ).

LSD post hoc comparison was used to identify significant mean differences ( $p < .05$ ) (Table 24). As anticipated from the mean differences, stress from role ambiguity was significantly higher by .29 points in the under 30 years age group than the 30 to 50 years age group. There was also significantly higher mean differences observed between the less than 30 and more than 50 years age group for stress from role overload, with stress from role overload .24 points higher for the younger group than the older group. Finally, for symptoms from all work-related stressors, the less than 30 years age group had a mean of .42 significant higher than those in the 50 + age group, while those in the 30 to 50 years age group had a mean of .17 significant higher than the 50 + age group.

In summary, there are the mean differences between different age groups, although not in all stressors. The youngest age group is significantly more likely to suffer from stress from role ambiguity and role overload than older respondents, and the oldest age group is least likely to suffer symptoms of stress. Therefore, null  $H1_1$  was rejected, even though not all sources of stress were different between age groups.

**Table 23***One-way ANOVA: Job Stress in Different Age Groups*

	Less than 30 years <i>n</i> = 4		30 to 50 years <i>n</i> = 58		More than 50 years <i>n</i> = 38		Total <i>n</i> = 100		<i>F</i>	Sig.
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>		
Role Conflict	4.54	.214	4.52	.388	4.50	.493	4.52	.423	.031	.969
Role Ambiguity	4.68	.180	4.38	.229	4.46	.214	4.43	.229	4.130	.019
Role Overload	4.64	.143	4.45	.203	4.40	.253	4.44	.225	2.264	.109
Job Characteristic	4.54	.357	4.59	.220	4.56	.325	4.58	.267	.237	.790
All Work Related Stressors	4.89	.222	4.65	.291	4.47	.422	4.59	.357	4.409	.015

**Table 24***Post-hoc Comparisons: Job Stress in Different Age Groups*

		Mean	Mean difference		
			Less than	30 to 50	More than
			30 years	years	50 years
Role Conflict	Less than 30 years	4.54		0.01	0.03
	30 to 50 years	4.52			0.02
	More than 50 years	4.50			
Role Ambiguity	Less than 30 years	4.68		0.29*	0.22
	30 to 50 years	4.38			0.08
	More than 50 years	4.46			
Role Overload	Less than 30 years	4.64		0.19	0.24*
	30 to 50 years	4.45			0.05
	More than 50 years	4.40			
Job Characteristic	Less than 30 years	4.54		0.06	0.02
	30 to 50 years	4.59			0.03
	More than 50 years	4.56			
All Work Related Stressors	Less than 30 years	4.89		0.24	0.42*
	30 to 50 years	4.65			0.17*
	More than 50 years	4.47			

\*The mean difference is significant at the .05 level

## 2. Stress in different gender groups ( $H1_2$ )

Hypothesis 1<sub>2</sub> was concerned with stress between gender groups, stating that:

$H01_2$ : There is no significant difference in job stress levels between male and female employees.

$Ha1_2$ : There is a significant difference in job stress levels between male and female employees.

This hypothesis was tested using an independent samples  $t$  test. The independent samples  $t$  test results are shown in Table 25. The Levene's test for equality of variance was used to determine whether equal variances could be assumed ( $p > .05$ ).

For stress from role conflict ( $F = 1.632, p = .204$ ) equal variances could be assumed. The  $t$  test results ( $t = 1.581, p = .117$ ) did not indicate a significant mean difference in stress from role conflict between male and female respondents.

For stress from role ambiguity ( $F = .790, p = .376$ ), equal variances could be assumed. Once again, the  $t$  test results ( $t = .869, p = .387$ ) did not indicate a significant mean difference between gender groups for this scale.

For stress from role overload ( $F = 4.323, p = .040$ ), equal variances could not be assumed. The  $t$  test results ( $t = -1.953, p = .054$ ) indicated that although the results approached significance, the difference between male and female responses was still not significant.

For stress from job characteristics ( $F = 1.044, p = .309$ ) equal variances could be assumed. The  $t$  test results ( $t = -1.666, p = .099$ ) did not support a significant gender difference in this category.

Finally, for symptoms of all work-related stressors ( $F = .290, p = .591$ ) equal variances could be assumed. However, the  $t$  test ( $t = -.427, p = .670$ ) did not indicate a significant mean difference between male and female responses.

In summary, there was no indication that there were significant mean differences between male and female respondents either in experience of

stress from different sources or in symptoms of work-related stressors.

Therefore, null  $H1_2$  was failed to reject.

**Table 25**

*Independent t test for Difference in Means: Job Stress in Different Gender Groups*

	EG group		CG group		Levene's Test		<i>t</i> test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
Role Conflict	4.59	.264	4.45	.524	1.632	.204	1.581	.117
Role								
Ambiguity	4.45	.242	4.41	.216	.790	.376	.869	.387
Role								
Overload	4.39	.264	4.48	.172	4.323	.040	1.953	.054
Job								
Characteristic	4.53	.232	4.62	.292	1.044	.309	1.666	.099
All Work								
Related								
Stressors	4.57	.420	4.60	.291	.290	.591	.427	.670
All Work								
Related								
Stressors	4.57	.420	4.60	.291	.290	.591	.427	.670

### 3. Stress in different work positions ( $H1_3$ )

Hypothesis 1<sub>3</sub> investigated stress in different work positions, stating that:



$H_{01_3}$ : There is no significant difference in job stress levels among work positions.

$H_{a1_3}$ : There is a significant difference in job stress levels among work positions.

This hypothesis was tested using one-way ANOVA. The ANOVA tests are shown in Table 26. This shows that mean differences are not significant for stress from role conflict ( $F(4, 95) = .102, p = .981$ ), stress from role ambiguity ( $F = .468, p = .759$ ), stress from role overload ( $F(4, 95) = 1.957, p = .107$ ), stress from job characteristics ( $F(4, 95) = .350, p = .843$ ), or symptoms from all work-related stress ( $F(4, 95) = .485, p = .747$ ).

The ANOVA results reveal null  $H_{1_3}$  was rejected. Since there is no evidence that stress from work sources or symptoms from work-related stress are significantly different between groups based on their job roles. Instead, stress and symptoms of stress are similarly high between all occupational roles in the organization.

**Table 26***One-way ANOVA: Job Stress in Different Work Positions*

	RM		CA		AVP		FVP		VP		Total		F	p
	n = 41		n = 41		n = 10		n = 4		n = 4		n = 100			
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD		
Role Conflict	4.53	.418	4.53	.477	4.47	.375	4.46	.244	4.43	.202	4.52	.423	.102	.981
Role Ambiguity	4.42	.244	4.41	.211	4.49	.245	4.54	.338	4.43	.117	4.43	.229	.468	.759
Role Overload	4.42	.266	4.48	.185	4.49	.138	4.18	.214	4.39	.180	4.44	.225	1.957	.107
Job Characteristic	4.57	.255	4.55	.317	4.64	.168	4.64	.082	4.64	.184	4.58	.267	.350	.843
All Work Related														
Stressors	4.55	.441	4.65	.293	4.56	.301	4.50	.294	4.64	.140	4.59	.357	.485	.747

**Table 27***Post-hoc Comparisons: Job Stress in Different Work Positions*

		Mean	Mean difference				
			RM	CA	AVP	FVP	VP
Role Conflict	RM	4.53		0.00	0.06	0.07	0.10
	CA	4.53			0.06	0.07	0.10
	AVP	4.47				0.01	0.04
	FVP	4.46					0.04
	VP	4.43					
Role Ambiguity	RM	4.42		0.01	-0.07	-0.12	-0.01
	CA	4.41			-0.08	-0.13	-0.02
	AVP	4.49				-0.05	0.06
	FVP	4.54					0.11
	VP	4.43					
Role Overload	RM	4.42		0.06	0.07	0.24	0.03
	CA	4.48			0.01	0.30*	0.08
	AVP	4.49				0.31*	0.09
	FVP	4.18					0.21
	VP	4.39					

**Table 27** (continued)

		Mean	Mean difference				
			RM	CA	AVP	FVP	VP
Job Characteristic	RM	4.57		0.01	0.07	0.07	0.07
	CA	4.55			0.09	0.09	0.09
	AVP	4.64				0.00	0.00
	FVP	4.64					0.00
	VP	4.64					
All Work Related							
Stressors	RM	4.55		0.10	0.01	0.05	0.09
	CA	4.65			0.09	0.14	0.01
	AVP	4.56				0.06	0.08
	FVP	4.50					0.14
	VP	4.64					

\*The mean difference is significant at the .05 level.

#### 4. Stress in different tenure groups ( $H1_4$ )

Hypothesis  $H1_4$  was concerned with stress between different tenure groups. This hypothesis stated that:

$H01_4$ : There is no significant difference in job stress levels between different years of work experience.

$Ha1_4$ : There is a significant difference in job stress levels between different years of work experience.

This hypothesis was tested using one-way ANOVA. Table 28 show that there were no significant mean differences in stress from role conflict ( $F(3, 96) = 2.182, p = .095$ ), stress from role ambiguity ( $F(3, 96) = .170, p = .916$ ), stress from role overload ( $F(3, 96) = 1.217, p = .308$ ), stress from

job characteristics ( $F(3, 96) = 2.179, p = .096$ ) or symptoms from all work-related stressors ( $F(3, 96) = 1.318, p = .273$ ).

Given these results, null  $H1_4$  was failed to reject. There is no difference in stress levels from different sources or in stress-related symptoms based on tenure at the company.

**Table 28**

*One-way ANOVA: Job Stress in Different Tenure Groups*

	Less than 3 years $n = 23$		3 to 6 years $n = 28$		7 to 10 years $n = 32$		More than 10 years $n = 17$		Total $n = 100$		$F$	$p$
	$\bar{X}$	$SD$	$\bar{X}$	$SD$	$\bar{X}$	$SD$	$\bar{X}$	$SD$	$\bar{X}$	$SD$		
Role Conflict	4.57	.253	4.52	.557	4.60	.240	4.29	.561	4.52	.423	2.182	.095
Role Ambiguity	4.44	.251	4.42	.216	4.44	.249	4.40	.193	4.43	.229	.170	.916
Role Overload	4.37	.275	4.43	.225	4.46	.176	4.50	.227	4.44	.225	1.217	.308
Job Characteristic	4.47	.274	4.63	.218	4.63	.254	4.53	.326	4.58	.267	2.179	.096
All Work Related Stressors	4.64	.302	4.52	.508	4.56	.266	4.71	.242	4.59	.357	1.318	.273

**Table 29***Post-hoc Comparisons: Job Stress in Different Tenure Groups*

		Mean	Mean difference			
			Less than 3 years	3 to 6 years	7 to 10 years	More than 10 years
Role Conflict	Less than 3 years	4.57		0.05	0.04	0.27*
	3 to 6 years	4.52			0.09	0.22
	7 to 10 years	4.60				0.31*
	More than 10 years	4.29				
Role Ambiguity	Less than 3 years	4.44		0.02	0.00	0.05
	3 to 6 years	4.42			0.02	0.02
	7 to 10 years	4.44				0.04
	More than 10 years	4.40				
Role Overload	Less than 3 years	4.37		0.06	0.08	0.13
	3 to 6 years	4.43			0.02	0.07
	7 to 10 years	4.46				0.05
	More than 10 years	4.50				
Job Characteristic	Less than 3 years	4.47		0.16*	0.16*	0.06
	3 to 6 years	4.63			0.00	0.10
	7 to 10 years	4.63				0.10
	More than 10 years	4.53				
All Work Related Stressors	Less than 3 years	4.64		0.12	0.08	0.07
	3 to 6 years	4.52			0.04	0.20
	7 to 10 years	4.56				0.16
	More than 10 years	4.71				

\*The mean difference is significant at the .05 level.

### ***Work Stress Following Introduction of Mahajanaka (Hypothesis 2)***

Hypothesis 2 was concerned with the effect of the *Mahajanaka* intervention on the EG group. It stated that:

*H2*: There are significant differences in the levels of job stress between group of Mahajanaka users (the EG group) and Mahajanaka non-users (the CG group).

Hypothesis 2 was tested using a series of independent *t* tests for difference in means, which are presented individually below. Each *t* test was evaluated at  $p < .05$  for acceptance. The results showed that the EG group had significantly lower stress levels from all sources and symptoms from all work-related stress than did the CG group following the intervention. therefore, null *H2* was failed to reject.

#### **1. Post-intervention stress levels from role conflict (*H2<sub>1</sub>*)**

Differences in post-intervention stress from role conflict between groups was tested using the following hypothesis:

*H2<sub>1</sub>*: There is a significant difference in the levels of job stress from role conflict between group of Mahajanaka users and Mahajanaka non-users.

According to the Levene's test ( $F = .237, p = .627$ ) indicated equal variances in the groups for the *t* test (Table 30). The *t* test results ( $t = 6.023, p < .001$ ) indicate a significant mean difference, with an average of .55 points between the EG and CG groups. Therefore, null *H2<sub>1</sub>* was rejected, since the EG group (which did receive the Mahajanaka text) had a significantly lower mean stress from role compared to the CG group.

**Table 30**

*Independent t test for Difference in Means: Stress Levels from Role Conflict (post-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
After Role								
Conflict	3.97	.490	4.53	.429	.237	.627	6.023	.000

## 2. Post-intervention stress levels from role ambiguity ( $H2_2$ )

The between-groups difference in post-intervention stress levels from role ambiguity was tested using the following hypothesis:

$H2_2$ : There is a significant difference in the levels of job stress from role ambiguity between group of Mahajanaka users and Mahajanaka non-users.

According to the Levene's test ( $F = 7.790, p = .006$ ) indicates that there is unequal variance in this case). The  $t$  test ( $t = 9.915, p < .001$ ) shows that there is a significant difference between these two groups, with the EG having a mean difference of .58 points compared to the CG group. Therefore, null  $H2_2$  was rejected, since the EG group (which received the Mahajanaka intervention) did have a significantly lower mean stress from role ambiguity than the CG group.

**Table 31**

*Independent t test for Difference in Means: Stress Levels from Role Ambiguity (post-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
After Role								
Ambiguity	3.92	.348	4.50	.224	7.79	.006	9.915	.000

### 3. Post-intervention stress levels from role overload ( $H2_3$ )

Differences between the EG and CG groups in post-intervention stress from role overload were tested using the following hypothesis:

$H2_3$ : There is a significant difference in the levels of job stress from role overload between group of Mahajanaka users and Mahajanaka non-users.

From the Levene's test ( $F = 2.781, p = .099$ ) indicate that there were equal variances between the group (Table 32). The *t* test ( $t = 8.260, p < .001$ ) confirms that the mean difference of .48 points between the EG and CG groups was statistically significant. Therefore, null  $H2_3$  was rejected, since the EG group (which received the Mahajanaka intervention) had significantly lower stress from role overload than the CG group.



**Table 32**

*Independent t test for Difference in Means: Stress Levels from Role Overload (post-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
After Role								
Overload	4.05	.340	4.53	.231	2.781	.099	8.260	.000

#### 4. Post-intervention stress levels from job characteristics ( $H2_4$ )

Between-groups differences in post-intervention stress from job characteristics was tested using the following hypothesis:

$H2_4$ : There is a significant difference in the levels of job stress from role characteristic between group of Mahajanaka users and Mahajanaka non-users.

According to the Levene's test ( $F = 2.642, p = .107$ ) did indicate equal variances. The  $t$  test results ( $t = 6.909, p < .001$ ) also indicated a significant mean difference, with the EG group having a mean .42 points lower score than the CG group here. Therefore, null  $H2_4$  was rejected, since the EG group (which did receive the *Mahajanaka* intervention) did show lower stress levels from job role characteristics than the CG group.

**Table 33**

*Independent t test for Difference in Means: Stress Levels from Job*

*Characteristics (post-intervention)*

	EG group		CG group		Levene's Test		t test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
After Job								
Characteristic	4.11	.270	4.53	.334	2.642	0.107	6.909	.000

#### 5. Post-intervention work-related stress symptoms ( $H2_5$ )

The final sub-hypothesis of  $H2$  investigated differences in symptoms from work-related stressors between groups. It was stated as follows:

$H2_5$ : There is a significant difference in the symptoms from all work-related stressors between group of Mahajanaka users and Mahajanaka non-users.

This hypothesis, as the others in this group, was tested using independent  $t$  tests. From the Levene's test ( $F = 4.372, p = .039$ ), it indicated that equal variances could not be assumed. The  $t$  test outcome confirmed that there was a significant mean difference between the two groups ( $t = 7.625, p < .001$ ). The results also showed that there was a .54 point difference between the two groups. Therefore, null  $H2_5$  was rejected, since the EG group (which received the Mahajanaka intervention) had a significantly lower mean than the CG group.

This final sub-hypothesis test allows for the conclusion that the Mahajanaka intervention lowered the mean stress level and symptom level significantly for the experimental group as compared to the control group.

**Table 34**

*Independent t test for Difference in Means: Work-related Stress Symptoms (post-intervention)*

	EG group		CG group		Levene's Test		<i>t</i> test for	
	<i>n</i> = 50		<i>n</i> = 50		for Equality of		Equality of Means	
					Variances			
	$\bar{X}$	<i>SD</i>	$\bar{X}$	<i>SD</i>	<i>F</i>	<i>p</i>	<i>t</i>	<i>p</i>
After All								
Work Related								
Stressors	4.12	.372	4.65	.332	4.372	0.039	7.625	.000

### ***Summary of Hypothesis Outcomes***

Table 35 summarizes the hypothesis testing outcomes. These outcomes are examined in detail in the next chapter.

**Table 35***Summary of Hypotheses Testing Outcomes*

Hypotheses	Statements	Results
$H1_1$	There is a significant difference in job stress levels among age groups.	Yes
$H1_2$	There is a significant difference in job stress levels between male and female employees.	No
$H1_3$	There is a significant difference in job stress levels among work positions.	No
$H1_4$	There is a significant difference in job stress levels between different years of work experience.	No
	There is a significant difference in the levels of job stress between groups of Mahajanaka users (experimental group) and Mahajanaka non-users (control group).	Yes

**Summary**

This chapter has presented the descriptive statistics and hypothesis tests that were used to evaluate the pre-test/post-test surveys that surrounded the Mahajanaka intervention. The results showed that in the pre-test period, stress levels and symptoms of stress were generally very high within both the control and experimental groups, and that these levels were similar between the two groups. The results also showed that although there were some minor

differences in stress from some sources between respondents of different age groups, they were consistent across other demographic and workplace groups. Therefore, prior to the intervention, it can be stated that all of the respondents experienced a high level of workplace stress and symptoms related to work stress, regardless of whether they were assigned to the control or experimental groups. The findings also showed that the experimental group that received the Mahajanaka intervention reported significantly lower stress levels from all four workplace stressors, as well as significantly lower symptoms from work-related stress, compared to the control group, which did receive the intervention. These findings demonstrate that the use of the Mahajanaka as a stress reduction tool in the workplace was effective at lowering stress experiences and symptoms for the experimental group. In the next chapter, the implications of these findings are discussed using the literature review which was outlined in Chapter 2. The next chapter also presents a conclusion and reflection on the limitations of the study and its implications for practice and academic research.

## **CHAPTER 5**

### **DISCUSSION, CONCLUSION, AND RECOMMENDATIONS**

In the previous chapter, the analysis of data collected prior to and following the Mahajanaka intervention was presented. This analysis showed that while the two groups were similar prior to the study, the group that read the Story of Mahajanaka reported significantly lower stress levels and mental and physical well-being symptoms compared to the control group. The goal of this chapter is to contextualize and interpret these findings and draw conclusions from the findings.

The chapter begins with a comprehensive discussion of the findings, including the descriptive and inferential findings. This discussion compares the findings to the literature review, focusing on new knowledge (particularly regarding the utility of the Story of Mahajanaka) and the importance of these findings for wider organizational and academic contexts. The discussion is used to support conclusions of the research, which address how the objectives of the study were achieved. This conclusion provides a final conclusion to the research questions. The implications for academic research and practice are discussed next. The final sections of the chapter address the limitations to the application of the research and the recommendations for future research that can be identified from the findings of this study.

## **Discussion**

The key findings of the study accordance with scope of study in conceptual frame work can be summarized as follows. First, employees at this bank reported high levels of stress from all factors and high levels of both mental and physical symptoms. The group that went through the intervention using the Story of Mahajanaka as the guiding philosophy reported reduced (though still absolutely high) levels of stress and reduced symptom levels compared to the control group, who remained essentially unchanged throughout the course of the 10-week intervention period. Therefore, it can be stated that the intervention was successful at reducing perceived stress and symptoms in the intervention group, who received benefits that were not available to the control group. The findings also support the use of the Story of Mahajanaka as a culturally relevant philosophical text for Thai organizations and employees.

The goal of this section is to discuss the findings in comparison to the literature review, evaluating expected and novel findings, new contributions, and other issues that have emerged from this synthesis. There are eight key areas of discussion. These include the outcomes of the intervention and consistency with the existing literature; the effectiveness of the workplace stressor and symptom model used in this research; the importance of intervention design and implementation in the outcomes; the consistency of the findings with previous literature on workplace stress in specific contexts such as the banking sector, Thailand, and cross-cultural contexts; and

consistency of findings on individual characteristics such as demographics and job roles. These eight areas each reflect on a different aspect of the study findings and their relevance in the literature.

### ***Evidence of Stress in the bank and Outcomes of the Intervention***

The present study found that the employees in both groups in the study had high levels of stress from workplace stressors including role conflict, role ambiguity, role overload, and role characteristics. This was consistent with previously reviewed studies, which showed that all four of these factors could be sources of stress (Ahsan et al., 2009; Aoki & Keiwkarnka, 2011; Azad, 2014; Bacharach et al., 1990; Beh & Loo, 2012; Bischoff et al., 1999; Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Kaur & Sharma, 2016; Khamisa et al., 2015; Knudsen et al., 2007; Lambert & Paoline, 2008; Mark & Smith, 2011; Nuttapol Yuwanich et al., 2016; O'Neill & Davis, 2011; Oke & Dawson, 2008; Orawan Kaewboonchoo et al., 2014; Ram et al., 2011; Shultz et al., 2010; Snow et al., 2003; Soltani et al., 2013; Yiengprugsawan et al., 2013; Yongkang et al., 2014; Zhao & Ghiselli, 2016).

In keeping with the majority of these studies, the current findings did not support that workers experienced stress from only one of the factors, but instead found that all four workplace stress categories had a high effect on the individual. Thus, in terms of the sources of stress, this study was consistent with the expected findings from previous research, which identified many of the same stressors in other organizational contexts.



One of the areas where this study was somewhat different from previous studies was that it focused mainly on personal well-being of organization members, including physical and mental well-being. Many previous studies have had this focus, in keeping with the known effects of stress on the personal well-being of those that experience it, which is a significant part of the practical literature on stress in the workplace (Bickford, 2005; Bischoff et al., 1999; Carr et al., 2011; Knudsen et al., 2007; Mark & Smith, 2011; Michie, 2002; Nuttapol Yuwanich et al., 2016; Örtqvist & Wincent, 2006; Rössler, 2012; Shultz et al., 2010; Snow et al., 2003; Sonnentag & Frese, 2003; Spielberger & Reheiser, 2005; Yiengprugsawan et al., 2013).

However, this focus on the individual is not universal. Rather than the effect on the individual's well-being, many previous studies have chosen to focus on organizational outcomes like organizational commitment, intent to turnover, job satisfaction or job performance (Ahsan et al., 2009; Orawan Kaewboonchoo et al., 2014; Shukla & Sinha, 2013; Khamisa et al., 2015; Lambert & Paoline, 2008; Ram et al., 2011). Furthermore, it was unusual for a full inventory of mental and physical effects to be investigated, with only one study including multiple such effects (Shultz et al., 2010).

Although organizational outcomes are certainly relevant, the reason for focusing on individual well-being outcomes in this research is because the study was being implemented as part of the organization's primary health and well-being intervention schedule. Thus, it was more appropriate for this research to evaluate personal outcomes including mental and physical health,

rather than the organizational outcomes that are so often the concern of such studies.

Finally, this research showed that the Story of Mahajanaka was a successful choice for the study intervention. The Story of Mahajanaka has been recognized as a philosophical allegory or folktale representing the King's seminal philosophy of the sufficiency economy (Supatra Kosaiyakanont, 2014; Teetima Potchanakaew, 2018). The underlying tale has special significance for Thailand, where it is one of the most important of the Mahanipata jākata (Appleton, 2010). It has also come to play an important role in the formation of sustainability and environmental ethics (Vivian & Chatelier, 2015). As a result, it was anticipated that this would be an effective philosophical tool for the study, which is why it was selected. However, because it had not been tried previously, this was not certain. Thus, the demonstration that the Story of Mahajanaka is an effective stress management tool is a significant contribution to the literature, both specifically in relation to this tool and as a more general indication of what kinds of tools may be useful for stress management intervention. This point is addressed in more detail below.

### ***Efficacy of the Stress and Symptom Model***

This research used a stress and symptom model which classed workplace stressors in four scales (role conflict, role ambiguity, role overload, and role characteristics), along with a general symptom scale that included both mental and physical well-being effects. This approach was chosen based

on a general model available within the literature, which identified these factors (Bickford, 2005; Carr et al., 2011; Colligan & Higgins, 2005; Jackson & Schuler, 1985; Michie, 2002; Schmidt et al., 2014; Sonnentag & Frese, 2003). However, it was not based on a single existing instrument. This approach was chosen because while there are multiple measures and models of workplace stress and workplace stress effects (Pitchaya Phakthongsuk & Nualta Apkupakul, 2008; Sembajwe et al., 2012; Smith, 2000), most of the measures that could be found did not address the specifics of the banking sector or a wide range of stressors. There are also other problems with these measures, including lack of cultural relevance (since only one study addressed stress in Thailand) (Pitchaya Phakthongsuk & Nualta Apkupakul, 2008) and a lack of focus on specific stressors. This problem has been observed in other reviews, which have found that there are few widely applicable instruments for workplace stress and no instruments that have been widely adopted (Tabanelli et al., 2008).

The main purpose of this study was not development of a theoretical model and instrument, but the effectiveness of the stress and symptom model developed from existing practice models in this study does provide a potential basis for theoretical expansion. While additional work would be required, the instrument used in this study could serve as the basis for a general workplace stress instrument. This could serve as the basis for future investigation of stress interventions for Thai organizations and as a general model of workplace stress and outcomes.

### ***Importance of Intervention Design and Implementation***

One of the key insights from the literature is that intervention design and implementation has a significant effect on the outcomes of the intervention (Biron et al., 2010; Sidle, 2008). A surprisingly small number of studies have addressed what causes success or failure of a stress management intervention, with only Biron et al. (2010) being identified as providing this information. This makes it important to reflect on the factors that created success or failure of an intervention. In the researcher's opinion, the three key success factors for this study included management support, primary intervention design, and choice of intervention strategy.

This intervention was undertaken, essentially, because of a high level of concern by senior managers of this bank about the stress levels observed in the organization. As a result, the intervention received substantial resources from the organization to ensure that it was successful, and it was considered for future implementation. This support created conditions for success. As both Biron et al. (2010) and Sidle (2008) pointed out, top management and stakeholder support is essential for effective implementation.

The choice of a primary intervention strategy was also a critical factor. Primary interventions, which are proactive and aimed at teaching coping and stress management strategies to all employees, are paradoxically both acknowledged to be most successful and implemented least frequently in organizations (Godfrey et al., 1990; Martin et al., 2009; Tetrick & Winslow, 2015). In this research, a primary intervention was clearly justified because of high overall stress levels and negative effects within the organization. These

findings also support the role of primary interventions in other organizations, to reduce the effect of stress on workers proactively.

Finally, the choice of the Story of Mahajanaka was a factor in the success of the program. Because guidance on philosophical and spiritual texts for stress interventions is so poor, the choice of the Story of Mahajanaka was not supported by strong academic evidence. However, the study results showed that it was in fact highly successful at reducing perceived stress and stress effects in the employees that received the intervention. This finding supports the practical implementation of other interventions at this bank and elsewhere using the Story of Mahajanaka as a philosophical or meditational tool to teach resilience and coping.

### ***Contribution of Findings to Understanding Stress and Interventions in the Banking Sector***

Most of the literature reviewed in this study was conducted in medical organizations and used doctors, nurses and other medical professionals as the population of the study. However, a few studies did focus on banking professionals, particularly in India and Nigeria (Azad, 2014; Kaur & Sharma, 2016; Oke & Dawson, 2008; Shukla & Sinha, 2013). The findings of this study are generally consistent with the findings of these previous studies. In particular, this study showed very high levels of workplace stress, often stemming from factors like role conflict and role ambiguity as well as ethical conflicts in the organization. This is entirely consistent with these previous studies, which have also demonstrated extremely high stress levels.

This research did not follow through from job stress to employee performance outcomes, as Shukla and Sinha (2013) did, but it does offer some additional information about workplace stress in the banking industry. First, the study supports the idea that workplace stress in the banking sector has significant and severe physical and mental well-being effects on those that suffer from it. While this finding was expected from the bulk of the literature, since there are differences in observed effects in different work contexts the confirmation of the finding is useful. This study also represents the first study that could be found that addressed the role of interventions in the banking workplace. Evidence from Azad (2014) and Kaur and Sharma (2016) suggests that, at least in the Indian banking industry, there has been little effort to make organizations less stressful for workers or provide coping tools for these workers. The findings of this study confirmed that primary interventions for workplace stress are an effective tool for the banking industry. This finding could be applied directly in other banking organizations to reduce the effect of organizational stress on employees and improve employee well-being and performance.

### ***Contribution of Findings to Understanding Stress and Intervention in Thai Organizations***

Although the literature on stress and interventions in Thai organizations is somewhat limited, there were several studies found that addressed workplace stress in Thai firms (Aoki & Keiwbarnka, 2011; Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Nuttapol Yuwanich et al., 2016

Orawan Kaewboonchoo et al., 2014; Ungsinun Intarakamhang, 2009; Yiengprugsawan et al., 2013). The findings were consistent with what was expected given these studies. For example, the findings were consistent with Aoki and Keiwkarnka's (2011) findings that role conflict and role overload had a significant effect on employees in the organization, and that job characteristics had a significant effect as found in other studies (Chonticha Kaewanuchit & Yothin Sawangdee, 2016; Yiengprugsawan et al., 2013).

This research also confirms the mental and physical effects found in previous studies. Where this study truly contributes to the literature is on development of appropriate interventions for Thai organizations. A few other studies have taken up this topic (Bennett et al., 2016; Peerayuth Charoensukmongkol, 2013; Peerayuth Charoensukmongkol, 2014). However, Bennett et al. (2016), who studied traditional Thai massage as a stress intervention, did not observe a stress reduction from this factor. This may be because their study used a tertiary intervention, providing an ameliorative measure for individuals that were already highly stressed. Tertiary interventions are known to be relatively unsuccessful compared to primary interventions as used here (Tetrick & Winslow, 2015). Peerayuth Charoensukmongkol (2013, 2014) did identify a successful tool for organizational intervention in her study of mindfulness meditation.

This research has built on this finding by identifying a specific philosophical text that can be used for this purpose in organizations. It has also demonstrated that use of intervention tools in Thai organizations can be

highly successful. Thus, this study provides value for practical applications of organizational tools for stress interventions in Thailand.

***Contribution of Findings to Understanding Stress and Intervention in Cross-cultural Context***

This research confirmed the general model of role stress and mental and physical well-being that was identified in the literature. This finding was predicted from previous studies, which have shown that workplace stress is broadly consistent across different cultures, with similar factors causing stress and similar physical and mental effects observed in different cultures (Miller et al., 2000). However, what is less clear from the literature is whether organizational treatment of stress such as interventions are likely to be consistent. The literature does suggest that there are differences in stress perceptions and the stressfulness of specific factors between cultures, which may be due to differences in organizational assumptions and interactions (Peterson et al., 1995; Pisanti et al., 2011). For example, in Pisanti et al.'s (2011) study, there were significant differences in the perception of stressors from nurses working in different organizational conditions in Italy and the Netherlands. Wong et al. (2010) also found differences in perception of stress between workers from different cultures. The effect of culture on stress and intervention effectiveness is one area where there has only been scattered research historically, with most evidence coming from American and European organizations (Burke, 2010).



This research has demonstrated that there is value in implementing organizational interventions that are specific to the national culture and designed to meet philosophical expectations and underlying assumptions about stress, as well as different lay perceptions of stress and factors in stress (Idris et al., 2010).

Thus, this study has shown that it is appropriate to adapt interventions for specific organizations and cultures. This finding can be applied in other contexts as well. For example, it is likely that the philosophical texts selected for critical reflection in similar interventions could be adapted even further, such as selection of texts relevant to specific groups of workers.

### ***Consistency of Findings with Previous Demographic Literature***

One of the areas where the findings of this study are not consistent with the academic literature on workplace stress is the effect of demographic factors. There were some small, but significant, differences in role ambiguity and role characteristics, with younger workers having a slightly higher stress level in these categories than older workers. This was inconsistent with the expected findings, which typically found that older workers experienced more stress in the workplace because of factors like declining physical and cognitive function, difficulty dealing with change, and the increasing demands of technology (Hansson et al., 2001; Tams, 2017). Furthermore, younger workers were expected to have higher depression and anxiety (Twenge & Campbell, 2008). In practice, however, these differences did not exist.

There were also no significant effects observed in the study based on gender, with male and female respondents having approximately the same mean levels of stress and the same reported symptoms. This is contrary to the existing literature, which generally has found that women have more workplace stress than men (Bond et al., 2004; Burke, 2002; Gyllenstein & Palmer, 2005; Juster et al., 2013; Mazzola et al., 2011; Page et al., 2013). These previous studies have shown that there are various reasons for differential workplace stress by gender, including role conflict caused by disproportionate non-work responsibilities and unofficial work roles, gender discrimination and stereotyping, institutional sexism, and so on, all of which can have both direct effects and indirect effects through other stressors. It is not certain why gender did not show an effect here, but it is notable that one of the cultural differences between Thailand and European and North American countries is a lower masculinity value (MAS) in Hofstede, Hofstede, and Minkov (2010) cultural dimensions model. Within the context of this model, this indicates less gender discrimination and difference, which could reduce the disproportionate stress levels female workers are exposed to in other countries (Hofstede et al., 2010). This was not directly tested in the current research, but it could be an opportunity for additional cross-cultural research on workplace stress.

### ***Consistency of Findings with Previous Literature on Job Roles and Seniority***

As with the demographic tests, the findings of this study were somewhat inconsistent with the existing literature when testing stress related to job roles and seniority. There was no significant difference found between employees holding different organizational roles. This is inconsistent with previous studies, which have typically shown that there are differences in stress levels of different occupations (Jacobs et al., 2014; Johnson et al., 2006; Mazzola et al., 2011; O'Neill & Davis, 2011; Page et al., 2013; Sinha & Subramanian, 2012). While it may seem that this is because roles in a bank were not one of the high-stress occupations such as police or healthcare workers (Johnson et al., 2006), relatively low-stress workplaces like hospitality firms and community pharmacies have also shown position-based differences in stress levels because of differences in job characteristics (Jacobs et al., 2014; O'Neill & Davis, 2011). It is possible that this finding resulted because the analysis was not sufficiently fine-grained enough to find role-based differences in stress and outcomes. However, it is not certain that these differences would be observed otherwise.

There also was no significant difference found between employees at different seniority levels. This is inconsistent with previous studies, which have widely found that employees with different seniority levels may have different stress levels (Mazzola et al., 2011; Sinha & Subramanian, 2012). However, these studies have had somewhat inconsistent findings. For example, Mazzola et al. (2011) found that there were some differences in

what was perceived as stressful by older and younger workers, with younger workers being more concerned with role ambiguity and work-life balance and older employees more concerned with issues like administrative and technical duties which cause role conflict and role overload. In contrast, Sinha and Subramanian (2012) showed that senior roles were overall more stressful than junior roles. It is notable that these studies are relatively uncommon, and therefore this may not be a question that has been fully answered. Thus, the role of seniority in the experience of stress and coping strategies is an area where additional research could be beneficial.

## **Conclusion**

This research investigated the potential of the Story of Mahajanaka as a tool for organizational intervention for stress management in a Thai organization. The bank's employees have reported a high level of stress, which has resulted in a similarly high rate of physical and mental symptoms of impaired well-being. The objectives of the study were as follows:

1. To measure the level of work stress of bank employees in Bangkok from intrinsic job itself and role stressors before and after reading the Story of Mahajanaka;
2. To investigate the working ideas behind the Story of Mahajanaka and apply the ideas as a work stress coping mechanism.

All objectives were accomplished through the intervention strategy, which took place over a period of 10 weeks. Prior to the intervention, a total

of 100 employees were randomly selected from all levels of a Thai domestic bank. These participants were randomly divided into two groups, which were relatively similar in demographic and work characteristics.

The intervention began with a pre-test survey of workplace stress and physical and mental symptoms. Workplace stress was measured in four categories, including role conflict, role ambiguity, role overload, and role characteristics. Both the experimental and control groups reported significant, high levels of workplace stress and symptoms. These measures were all similar between groups during the pre-test, ensuring that the experimental and control groups started at the same baseline (Testing). To achieve Objective, the pre-test surveys were also analyzed based on demographic and work characteristics, including gender, age, position, and work experience (seniority) (H1). There was a small difference between age groups, with younger participants reporting some higher stress levels than older participants, but other characteristics had no significant differences. Thus, in the pre-test period, the respondents were all broadly similar to each other in terms of workplace stress and symptoms.

The intervention was a primary intervention, intended to teach resilience and coping strategies to the participants as a proactive measure, regardless of the level of stress encountered by the participants. The intervention, which was offered to the experimental group ( $n = 50$ ) began with a workshop that included the animated film version of the Story of Mahajanaka and a discussion on how the story could be used to support immunity to their work stress. Participants were then given a copy of the

Story of Mahajanaka and asked to work on their own over the next ten weeks to read and reflect on the story and its implications.

In the final week of the intervention, all participants in both groups conducted a post-test survey (completing Objective 1). The results showed that those in the control group were still experiencing very high levels of workplace stress and physical and mental symptoms of stress. Those in the intervention group, in contrast, still had experience of workplace stress, but this was significantly lowered compared to the pre-test period. Furthermore, a means comparison showed that in the post-intervention period, the intervention group reported a significantly lower level of all workplace stressors and symptoms.

In conclusion, this research has shown that the Story of Mahajanaka is a philosophical tool that provides a positive benefit for employee coping strategies and stress perceptions in an organizational intervention. The findings are highly relevant for this bank, but also have implications for practical application and for academic research, which are discussed below.

## **Research Implications**

### ***Practical Implications***

This research aims to provide a practical application for employees to build up immunity against stress in the workplace. Thus, the most important recommendations that can be identified from the findings and the literature are those that apply as interventions in organizations.

The first implication of this study is that the use of the story of Mahajanaka can be a useful philosophical tool for organizational interventions in Thailand, and therefore could be used in other organizations to promote well-being of their employees. The tool was shown to be effective in relieve perceived stress from workplace stressors, with particularly strong effects shown in areas like stress surrounding uncertainty about supervisor expectations and physical symptoms like trouble sleeping, headaches and stomach aches, and muscle pain or tightness.

According to the findings, other Thai organizations could use the story of Mahajanaka as a self-help tool for employees to improve their stress resilience and coping skills. In addition to this, the story can help provide a protective effect for employees who suffer from stress. Although the story of Mahajanaka may not be a useful text in other cultural contexts, the findings can be used in other culturally appropriate philosophy texts, which can be identified based on a specific culture. Therefore, these findings support the recommendation for the use of philosophical texts in general, and the Story of Mahajanaka specifically, in stress interventions.

Secondly, the story of Mahajanaka can be used as primary interventions at the organizational level. The primary intervention, which was used here, is a proactive intervention designed to provide coping strategies and protection from stress for all employees, regardless of whether they are in particularly stressful positions or are known to have suffered from stress. The primary intervention is an intervention that is broader and more comprehensive than secondary and tertiary interventions. Moreover, primary

interventions are believed to be more effective than more targeted interventions (Tetrick & Winslow, 2015). According to the findings of the study, the strategy of primary intervention may be particularly helpful in working environments like the banking industry, where employees at all levels are likely to suffer from high level of stress. Thus, organizations should integrate primary interventions for stress management into their health and well-being programmes, which will definitely produce an overall positive effect on the organization.

Additionally, the key principles of the story are implicitly beneficial to organizations. As discussed earlier, the story of Mahajanaka's main theme is perseverance. This means that the reader who reads the story is encouraged to practice perseverance, which is a good quality that helps them overcome difficulties and tackle stress including stress in the workplace. If an individual is able to cope with stress, this means that risks of many problems can be reduced. For example, provided employees are able to support stress immunity. They are likely to less suffer from mental and health problems.

Moreover, organizations should not ignore the effects of workplace stress on their employee's health and well-being. As discovered in the study, bank employees tend to experience a very high level of stress from almost all types of potential job stressors, causing them to suffer from both physical and mental symptoms related to stress. Organizations can be changed to relieve (though not entirely eliminate) the effects of stress and employees can be encouraged to learn coping strategies and use resources like social supports to mitigate the effects of the stressors that cannot be eliminated. For any



organization that cares about its employees, it should be immediately obvious that this type of program is needed to protect those employees. Thus, every organization should evaluate the stress levels of its employees and take the required steps to reduce these stress levels.

Also, organizations that encourage their workers to learn about the story of Mahakjanaka are likely to face fewer problems about their employees. To illustrate, if employees are encouraged to read the story and are able to grasp the working idea behind the story, they are then likely to be satisfied with their jobs. A number of studies have shown that a company with employees with great job satisfaction will have fewer problems about employees such as employee absenteeism and turnover. This means that once the concept of the story is adopted and promoted, employees in organizations are likely to be satisfied with their jobs more, which will finally leads to greater success of the organizations.

### ***Academic Implications***

This research also has some academic implications which stem from the novel knowledge that has emerged from the research. The main novel finding is that the story of Mahajanaka serves as a useful philosophical text for organizational interventions in Thai organizations. Even Though the findings are straightforward, they also have deeper implications for academic research, because there are potentially even more diverse tools that can be used to support organizational stress interventions. To date, there has been little research into understanding exactly what kinds of philosophical or

mindfulness tools can be effective in stress management. The findings could also be applied to other relevant texts although they have not been implemented in other organizational contexts. Also, the findings could be used as a tool for learning resilience and coping strategies. The existing body of research into stress management and organizational interventions has mainly focused on Western countries, leaving a gap in the knowledge of how workplace stress can be effectively managed in non-Western contexts.

Thus, this research supports the development of an academic body of literature that offers a more global and diverse perspective on workplace stress and how stress in the workplace can be alleviated. It also supports organizational interventions in Thailand, which has identified only a small number of effective interventions (mainly mindfulness) that can be used for the organizations. The findings could be used in further research on organizational stress interventions, including meta-analyses and practical research into development of new intervention strategies.

### **Research Limitations**

Because this research was predominantly intended for practical application in a specific organizational context (this bank), there are some significant limitations to how far the findings may be applied. The intervention was designed for the specific organizational context and cultural context of this bank and was directed in part by organizational stakeholders and resources. The intervention was also developed in consideration of the

needs of participants, including the relatively high level of education and knowledge in the bank's employee base. Therefore, it is possible that the same intervention would not work in the same way in other contexts, although other Thai and Southeast Asian organizations may find the Story of Mahajanaka a useful intervention tool as well. Thus, the exact findings of this study would not be replicated in other organizations or study contexts.

This limitation is common for stress interventions, as individual, customized approaches are effective where generic 'off the shelf' programs are not (Sidle, 2008). Thus, while this is a limitation, it does not reduce the utility of the findings. Instead, the general approach of identifying a philosophical text that is meaningful to the organization's members and which provides a tool for cognitive and emotional coping could be applied to other organizations.

### **Recommendations for Future Research**

This research is base on behavioral study used as aspects to apply. However, there are several limitations of the research due to the period of time, cost of research, specific environment be limited. Including both cultural and institutional contexts, as the intervention be designed specifically for this bank and its organizational needs and environment. Difference place of intervention could be set for example, chose the other banks in Thailand or other business section. As this present research involved only 50 participants per one group. Future research could involve more participants for

comparative results. Any influence from the King's authorship on the book might have had on its uptake and credibility. Future research could try to use the Mahajanaka Story for intervention with foreigner employees in Thailand.

**Appendix**  
**Questionnaire**

Thank you for agreeing to participate in the research I am conducting concerning stress among bank employees at your Bank. It has being done as part of my doctoral studies at the Institute of International Studies, Ramkhamhaeng University.

I should stress there are no right or wrong answers to the questions and it is your own personal feelings we are interested in. All answers will be totally anonymous and no individual will be identified. Results will only be expressed as percentages.

This research, using an identical questionnaire, will be repeated, now and in about 10 weeks time, to see if there have been any changes in the degree of stress you are feeling in your job role. If your job role has changed during this period please let me know.

If you have any questions regarding the questionnaire or the research in general please contact me on 092-484-6378

Thank you for your time and participation.

Pasaporn Sangdhati

Part 1: Firstly a few details about yourself Please answer the following questions by  $\surd$  checking with one appropriate answer on the given spaces or fill the answer in the blanks.

1. Gender

☐ Male

☐ Female

2. Age

☐ Under 30 years old

☐ Between 30-50 years old

☐ Over 50 years old

3. Marital status

☐ Single

☐ Married

☐ Others

4. Education Level (level of final attainment)

☐ Lower than Bachelor degree level

☐ Bachelor degree level

☐ Higher than Bachelor degree level

5. Years of working with this bank

☐ Less than 3 years

☐ Between 3-5.9 years

☐ Between 6-9.9 years

☐ More than 10 years

6. Total number of years work experience (including your time at this Bank)

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7. Your present position

---

8. Department

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Part 2: This part is a series of statements other people have made concerning the level of stress they feel in their day to day job. Based on your degree of agreement or disagreement with the statement can you tick the appropriate box, 1 being strongly disagree and 5 being strongly agree with the statement? Please ✓ check only one level of your agreement or disagreement for each of the following statement.

### 1. Level of Job Stress from Role Conflict

No	List	Strongly Disagree 1	2	3	4	Strongly Agree 5
1.	I feel high stress when conflict occurs within my roles such as my boss orders to increase my works but must have no some mistake.					
2.	I feel high stress when conflict occurs between roles such as different in expectation and real work.					
3.	Because of my work demands I have no time for my family.					
4.	I have bosses more than one person and make me having strong pressure.					
5.	I feel strong stress when I receive incompatible requests from two or more people.					
6.	I feel under pressure to do things against my professional ethics such as my boss orders that I must make the fine cash flow of some customer for getting the loan because that customer is high power person.					
7.	I have trouble to work with groups who operate differently.					

## 2. Level of Job Stress from Role Ambiguity

No	List	Strongly Disagree 1	2	3	4	Strongly Agree 5
1.	I am not clear of the job objectives and goals of my position.					
2.	I feel high stress when I work under incompatible policies and guidelines such as bank policy is high increase new loan customer but loan interest rate in higher that other banks.					
3.	I do not know what the goal of my task is.					
4.	I do not know my works' line of authority.					
5.	I feel stressed when I lack the policies and guidelines to help me.					
6.	I am uncertain as to how my job is linked to others					
7.	I feel strong stress when I wonder about my boss's opinion in my job.					

### 3. Level of Job Stress from Role Overload

No	List	Strongly Disagree 1	2	3	4	Strongly Agree 5
1.	I feel there is a lack of resources needed to fulfill my commitments, or perceive that a task cannot be completed in the given time					
2.	I cannot prioritize my work and deal with my tasks perfectly.					
3.	I never seem to have enough time to get everything done.					
4.	The management often demands more than I can handle.					
5.	My workload does not give me time to develop myself.					
6.	I feel the performance standards on my job are too high					
7.	I have too much work to do everything well.					

## 4. Level of Job Stress from Job Characteristic

No	List	Strongly Disagree 1	2	3	4	Strongly Agree 5
1.	I feel strong stress when my task is highly complex.					
2.	I feel strong stress when my task is a high degree of process.					
3.	I feel strong stress when there are many people who can complain about my job performance.					
4.	I feel high pressure when my works require a lot of responsibility.					
5.	I feel high stress when there is a lot of variety on my job such as collect data presentation meeting using computer, keep accounts.					
6.	I feel high stress when my job may affect a lot of other people by how well my work is performed.					
7.	While performing my job I do not get the opportunity to work on many interesting projects.					

### 5. Symptoms from All Work Related Stressors

No	List	Strongly Disagree 1	2	3	4	Strongly Agree 5
1.	I have problem with sleeping at night.					
2.	I have loss of appetite.					
3.	I have an upset stomach or stomach ache.					
4.	My muscles felt tight and tense.					
5.	I was bothered by a headache.					
6.	I have spells of dizziness.					
7.	I think Thank God it's Friday or I have the Monday blues.					
8.	I am always very tired when coming home from work.					
9.	I do not always look forward to going to work.					

You have now finished the questionnaire

Many thanks,

Pasaporn Sangdhati

### แบบสอบถาม

ขอขอบคุณท่านที่ได้กรุณาเข้าร่วมในการตอบแบบสอบถามเพื่อวัตถุประสงค์  
วิจัยเกี่ยวกับความเครียดจากการทำงานของพนักงานธนาคารซึ่งเป็นส่วนหนึ่งของการทำ  
วิจัยของนักศึกษาระดับปริญญาโทบัณฑิตสาขาบริหารธุรกิจของสถาบันนานาชาติ  
ภาคภาษาอังกฤษ มหาวิทยาลัยรามคำแหง

แบบสอบถามนี้จะถามเกี่ยวกับความรู้สึกรู้สึกของท่านและจะไม่มีคำตอบที่ถูกหรือ  
ผิด ทั้งนี้ข้อมูลทั้งหมดของท่านจะถูกเก็บเป็นความลับและไม่ระบุเป็นรายบุคคลและใช้  
เฉพาะเพื่อการศึกษาวิเคราะห์เชิงสถิติในภาพรวมเท่านั้น โดยจะใช้เพื่อวัตถุประสงค์ใน  
การศึกษาเท่านั้น

การวิจัยนี้เป็นลักษณะแบบสอบถามซึ่งอีกประมาณ 10 สัปดาห์จะกลับมาถาม  
ข้อมูลจากท่านอีกครั้ง เพื่อตรวจสอบความแตกต่างของระดับการรับรู้ความเครียดจาก  
การทำงานในตำแหน่งงานของท่าน ดังนั้นหากท่านมีการเปลี่ยนแปลงตำแหน่งงานของ  
ท่านในช่วงเวลาดังกล่าว โปรดแจ้งให้ข้าพเจ้าทราบ ทั้งนี้ถ้าท่านมีปัญหาเกี่ยวกับ  
คำถามในแบบสอบถามนี้ กรุณาติดต่อข้าพเจ้าที่เบอร์ 092-484-6378

ขอบคุณสำหรับการสละเวลาและเข้าร่วมในการวิจัยครั้งนี้ของท่าน  
ภาสพร แสงระวี

ส่วนที่ 1: ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดทำเครื่องหมาย ✓ ลงในช่องว่างที่ตรงกับท่านเพียงคำตอบเดียวหรือเติมคำในช่องว่าง

1. เพศ

☐ 1. ชาย

☐ 2. หญิง

2. อายุ

☐ 1. น้อยกว่า 30 ปี

☐ 2. 30-50 ปี

☐ 3. มากกว่า 50 ปี

3. สถานะภาพ

☐ 1. โสด

☐ 2. แต่งงาน

☐ 3. หย่า/ม้าย/อื่นๆ

4. การศึกษา

☐ 1. ต่ำกว่าปริญญาตรี

☐ 2. ปริญญาตรี

☐ 3. สูงกว่าปริญญาตรี

5. จำนวนปีที่ท่านทำงานที่ธนาคารแห่งนี้

☐ 1. น้อยกว่า 3 ปี

☐ 2. 3-6ปี

☐ 3. 6-10ปี

☐ 4. มากกว่า 10 ปี

6. จำนวนปีของประสบการณ์การทำงานของคุณทั้งหมด รวมทั้งที่ธนาคารแห่งนี้ด้วย

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7. ชื่อตำแหน่งงานในปัจจุบันของคุณ

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8. ชื่อฝ่ายงานของคุณ

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ส่วนที่ 2 ข้อมูลเกี่ยวกับระดับความรู้สึกเครียดจากการทำงานในแต่ละวัน ทั้งนี้โปรดทำเครื่องหมาย ✓ ลงในช่องว่างที่ตรงกับระดับความรู้สึกของท่านเพียงคำตอบเดียว โดยแต่ละช่องว่างเป็นระดับความรู้สึกของท่านจาก 1 = ไม่เห็นด้วยมากที่สุด ไปจนถึง 5 = เห็นด้วยมากที่สุด

### 1. ระดับความเครียดจากบทบาทที่ขัดแย้งกัน

ข้อ	คำถาม	ไม่เห็น ด้วยอย่าง มาก 1	ไม่เห็น ด้วย 2	กลาง ๆ 3	เห็นด้วย 4	เห็นด้วย อย่าง มาก 5
1.	ฉันรู้สึกเครียดมากเมื่อถูกสั่งให้ทำงานที่มีความขัดแย้งในตัวเองเช่นเมื่อหัวหน้ากำหนดให้เพิ่มจำนวนผลงานขึ้นเท่าตัวต่อวัน แต่กำหนดไม่给我มีความผิดพลาดแม้แต่เรื่องเล็กน้อยในการทำงานเลย					
2.	ฉันรู้สึกเครียดมากเมื่อมีความขัดแย้งเกิดขึ้นระหว่างบทบาทหน้าที่ในการทำงานของฉันจริงกับความคาดหวังจากการทำงานของฉัน เช่น ฉันคาดหวังที่จะได้ทำงานที่ทำทายความสามารถและเพิ่มความรู้ทักษะต่าง ๆ แต่กลับต้องทำงานที่ซ้ำ ๆ เดิมไม่เพิ่มความรู้ทักษะใด					
3.	ฉันทำงานมากจนรู้สึกที่ไม่มีเวลาให้ครอบครัวเพียงพอ					
4.	ฉันรู้สึกถูกกดดันมากเมื่อฉันมีหัวหน้าหรือผู้สั่งงานจำนวนหลายคนเกินไป					
5.	ฉันรู้สึกเครียดมากเมื่อฉันได้รับการขอจากบุคคลอื่นตั้งแต่ 2 คนขึ้นไปให้ทำงานบางอย่างที่ขัดแย้งกันเอง เช่นหัวหน้าสั่งให้เริ่มโครงการใหม่ในทันที แต่ผู้บริหารระดับสูงยืนยันว่าต้องเลื่อนออกไปก่อน					

ข้อ	คำถาม	ไม่เห็น ด้วยอย่าง มาก 1	ไม่เห็น ด้วย 2	กลาง ๆ 3	เห็นด้วย 4	เห็นด้วย อย่าง มาก 5
6.	ฉันรู้สึกถูกกดดันเมื่อต้องทำบางสิ่งที่ยึดแย้งกับ จรรยาบรรณในวิชาชีพเช่นถูกสั่งให้ต้องแต่ง ข้อมูลของลูกค้าให้ดีขึ้นกว่าความเป็นจริงมาก เพื่อให้ลูกค้าได้สินเชื่อไปเพราะลูกค้าเป็นผู้มี อิทธิพล					
7.	ฉันรู้สึกเครียดเมื่อต้องทำงานกับกลุ่มคนที่มียุติ ปฏิบัติงานที่แตกต่างกันมาก					

## 2. ระดับความเครียดจากบทบาทหน้าที่ ๆ ทำ

ข้อ	คำถาม	ไม่เห็น ด้วยอย่าง มาก 1	ไม่เห็น ด้วย 2	กลาง ๆ 3	เห็น ด้วย 4	เห็น ด้วย อย่าง มาก 5
1.	ฉันไม่ค่อยเข้าใจว่าตำแหน่งงานของฉันมีขอบเขต หน้าที่ งาน และความรับผิดชอบที่แท้จริงอย่างไร					
2.	ฉันรู้สึกเครียดมากเมื่อฉันต้องทำงานภายใต้ นโยบายและแนวทางการปฏิบัติงานที่ไม่ สอดคล้องกันเช่นนโยบายให้เพิ่มเป้าการหา สินเชื่อจำนวนมากแต่กำหนดอัตราดอกเบี้ยเงินกู้ ที่สูงกว่าธนาคารอื่น ๆ มาก					
3.	ฉันไม่รู้ว่าเป้าหมายของงานของฉันคืออะไร					
4.	ฉันไม่แน่ใจว่าฉันมีขอบเขตอำนาจการตัดสินใจ ในงานของฉันเท่าไร					
5.	ฉันรู้สึกเครียดเมื่อฉันขาดนโยบายและแนว ทางการปฏิบัติที่จะช่วยเหลือในงานของฉัน					
6.	ฉันไม่แน่ใจว่างานของฉันมีความสัมพันธ์กับงาน ของคนอื่นอย่างไร					

ข้อ	คำถาม	ไม่เห็น ด้วยอย่าง มาก 1	ไม่เห็น ด้วย 2	กลาง ๆ 3	เห็นด้วย 4	เห็นด้วย อย่าง มาก 5
7.	ฉันรู้สึกเครียดมากเมื่อไม่แน่ใจว่าหัวหน้าจะ ยอมรับในงานของฉันหรือไม่					

### 3. ระดับความเครียดจากบทบาทหน้าที่ ๆ หนัก Level of Job Stress from Role Overload

ข้อ	คำถาม	ไม่เห็น ด้วยอย่าง มาก 1	ไม่เห็น ด้วย 2	กลาง ๆ 3	เห็นด้วย 4	เห็นด้วย อย่างมาก 5
1.	ฉันรู้สึกขาดสิ่งที่จำเป็นต่อการทำงานให้ สำเร็จหรือรู้สึกทำงานไม่สามารถทำให้ สำเร็จได้ในเวลาที่กำหนด					
2.	ฉันไม่สามารถที่จะจัดสรรงานและทำงาน เหล่านั้นได้สำเร็จอย่างสมบูรณ์ที่สุด					
3.	ฉันรู้สึกไม่มีเวลาพอที่จะทำงานทุกอย่างได้ หมด					
4.	ฝ่ายบริหารมักต้องการให้ฉันทำงาน มากกว่าที่ฉันสามารถจัดการได้					
5.	งานของฉันยุ่งมากจนไม่มีเวลาพัฒนา ตนเอง					
6.	ฉันรู้สึกว่างานของฉันมีเกณฑ์วัดและ การประเมินผลงานที่สูงเกินไป					
7.	ฉันมีงานมากเกินไปที่จะทำทุกอย่างดี					

## 4. ระดับความเครียดจากลักษณะงาน

ข้อ	คำถาม	ไม่เห็น ด้วยอย่าง มาก 1	ไม่เห็น ด้วย 2	กลาง ๆ 3	เห็นด้วย 4	เห็นด้วย อย่างมาก 5
1.	ฉันรู้สึกเครียดมากเมื่องานของฉันซับซ้อนมาก					
2.	ฉันรู้สึกเครียดมากเมื่อมีกระบวนการในการทำงานหรือขั้นตอนที่ยุ่งยากมาก					
3.	ฉันรู้สึกเครียดมากเมื่อมีบุคคลอื่นจำนวนมากสามารถเข้ามาวิจารณ์หรือร้องเรียนเกี่ยวกับการปฏิบัติงานของฉันได้					
4.	ฉันรู้สึกถูกกดดันมากเมื่องานของฉันต้องรับผิดชอบมาก					
5.	ฉันรู้สึกเครียดมากเมื่อมีความหลากหลายอยู่ในงานของฉันเช่นต้องรวบรวมข้อมูลจำนวนมาก ต้องนำเสนอต่อที่ประชุม ต้องพบลูกค้านอกสถานที่ ต้องลงข้อมูลในคอมพิวเตอร์ ต้องทำบัญชี ฯลฯ					
6.	ฉันรู้สึกเครียดมากเมื่อการปฏิบัติงานของฉันสามารถมีผลกระทบกับบุคคลอื่นจำนวนมาก					
7.	ในระหว่างปฏิบัติงานฉันไม่มีโอกาสที่จะได้ทำโครงการหรืองานที่น่าสนใจหลายโครงการนัก					

### 5. ผลกระทบจากปัจจัยที่ก่อให้เกิดความเครียด

ข้อ	คำถาม	ไม่เห็น ด้วยอย่าง มาก 1	ไม่เห็น ด้วย 2	กลาง ๆ 3	เห็นด้วย 4	เห็นด้วย อย่างมาก 5
1.	ฉันมีปัญหาเรื่องการนอนหลับ					
2.	ฉันมีความรู้สึกเบื่ออาหาร					
3.	ฉันมีอาการเกี่ยวกับเรื่องกระเพาะอาหาร					
4.	กล้ามเนื้อของฉันรู้สึกตึงและปวด					
5.	ฉันถูกรบกวนด้วยอาการปวดหัว					
6.	ฉันมีอาการเวียนศีรษะ มึนงง					
7.	ฉันคิดว่าชอบคุณพระเจ้าที่วันนี้เป็นวันศุกร์ หรือฉันรู้สึกเบื่อหรือไม่ค่อยมีความสุขเมื่อ ใกล้ถึงวันจันทร์					
8.	ฉันรู้สึกเหนื่อยมากเมื่อกลับจากที่ทำงาน					
9.	ฉันไม่ได้ตั้งตารอวันที่จะต้องไปทำงาน					

## REFERENCES

- Ahsan, N., Abdullah, Z., Fie, D. Y., & Alam, S. S. (2009). A study of job stress on job satisfaction among university staff in Malaysia: Empirical study. *European Journal of Social Sciences*, 8(1), 121-131.
- Aoki, M., & Keiwkarnka, B. (2011). Job stress among nurses in public hospitals in Ratchaburi province, Thailand. *Journal of Public Health and Development*, 9(1), 19-27.
- Appleton, N. (2010). *Jāṭaka stories in Theravada Buddhism: Narrating the Bodhisatta path*. New York: Routledge.
- Azad, T. (2014). Managing stress among banking sector employees in Bhopal. *International Journal of Multidisciplinary Research in Social and Management Sciences*, 2(2), 44-48.
- Bacharach, S. B., Bamberger, P., & Conley, S. C. (1990). Work processes, role conflict, and role overload: The case of nurses and engineers in the public sector. *Work and Occupations*, 17(2), 199-228.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press.
- Beh, L., & Loo, L. (2012). Job stress and coping mechanisms among nursing staff in public health services. *International Journal of Academic Research in Business and Social Sciences*, 2(7), 131-176.

- Bennett, S., Bennett, M. J., Chatchawan, U., Janjaiwit, P., Pantumethakul, R., Kunhasura, S. et al. (2016). Acute effects of traditional Thai massage on cortisol levels, arterial blood pressure, and stress perception in academic stress condition: A single blind randomised controlled trial. *Journal of Bodywork and Movement Therapies*, 20(2), 286-292.
- Bhui, K. S., Dinos, S., Stansfeld, S. A., & White, D. (2012). A synthesis of the evidence for managing stress at work: A review of the reviews reporting on anxiety, depression, and absenteeism. *Journal of Environmental and Public Health*, 1(1), 1-21.
- Bickford, M. (2005). *Stress in the workplace: A general overview of the causes, the effects, and the solutions*. Mental Health, CA: Association Newfoundland and Labrador Division.
- Biron, C., Gatrell, C., & Cooper, C. L. (2010). Autopsy of a failure: Evaluating process and contextual issues in an organizational-level work stress intervention. *International Journal of Stress Management*, 17(2), 135-158.
- Bischoff, S. J., DeTienne, K. B., & Quick, B. (1999). Effects of ethics stress on employee burnout and fatigue: An empirical investigation. *Journal of Health and Human Services Administration*, 21(4), 512-532.
- Bond, M. A., Punnett, L., Pyle, J. L., Cazeca, D., & Cooperman, M. (2004). Gendered work conditions, health, and work outcomes. *Journal of Occupational Health Psychology*, 9(1), 28-45.

- Boyd, N. G., Lewin, J. E., & Sager, J. K. (2009). A model of stress and coping and their influence on individual and organizational outcomes. *Journal of Vocational Behavior*, 75(1), 197-211.
- Brousseau, L. M., & Parker, D. L. (2009). Interventions: Advancing the state of the art. *Public Health Reports*, 124(1), 1-19.
- Buchner, A., Erdfelder, E., Faul, F., & Lang, A. G. (2018). *G\*Power*. Retrieved September 11, 2017, from <http://www.gpower.hhu.de/>
- Burke, R. J. (2002). Work stress and women's health: Occupational status effects. *Journal of Business Ethics*, 37(1), 91-102.
- Burke, R. J. (2010). Workplace stress and well-being across cultures. *Cross Cultural Management: An International Journal*, 17(1), 5-9.
- Carr, J., Kelley, B., Keaton, R., & Albrecht, C. (2011). Getting to grips with stress in the workplace: Strategies for promoting a healthier, more productive environment. *Human Resource Management International Digest*, 19(4), 32-38.
- Caulfield, N., Chang, D., Dollard, M. F., & Elshaug, C. (2004). A review of occupational stress interventions in Australia. *International Journal of Stress Management*, 11(2), 149-166.
- Cekmeclioglu, H. G., & Günsel, A. (2011). Promoting creativity among employees of mature industries: The effects of autonomy and role stress on creative behaviors and job performance. *Procedia Social and Behavioral Sciences*, 24(1), 889-895.



- Cho, E. (2016). Making reliability reliable: A systematic approach to reliability coefficients. *Organizational Research Methods*, 19(4), 651-682.
- Chonticha Kaewanuchit, & Yothin Sawangdee. (2016). A path model of job stress using Thai job content questionnaire (Thai-JCQ) among Thai immigrant employees at the Central Region of Thailand. *Iran Journal of Public Health*, 45(8), 1020-1028.
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300-314.
- Cohen, S. (1992). Stress, social support, and disorder. *The Meaning and Measurement of Social Support*, 109(1), 124-137.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310-341.
- Colligan, T. W., & Higgins, E. M. (2005). Workplace stress: Etiology and consequences. *Journal of Workplace Behavioral Health*, 21(2), 89-97.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative and mixed methods approaches* (5th ed.). Los Angeles, CA: Sage.
- Cross, R. (2016). *Principal component analysis handbook*. New York: Clanrye International.
- DeVellis, R. F. (2012). *Scale development: Theory and applications*. Los Angeles, CA: Sage.
- Edwards, J. R. (1992). A cybernetic theory of stress, coping, and well-being in organizations. *Academy of Management Review*, 17(2), 238-274.

- Feuerstein, M., Nicholas, R. A., Huang, G. D., Dimberg, L., Ali, D., & Rogers, H. (2004). Job stress management and ergonomic intervention for work-related upper extremity symptoms. *Applied Ergonomics*, 35(1), 565-574.
- Fried, Y., Shirom, A., Gilboa, S., & Cooper, C. L. (2008). The mediating effects of job satisfaction and propensity to leave on role stress-job performance relationships: Combining meta-analysis and structural equation modeling. *International Journal of Stress Management*, 15(4), 305-328.
- Gallup. (2018). *Gallup 2018 global emotions report*. Retrieved September 11, 2017, from <https://www.gallup.com/analytics/241961/gallup-global-emotions-report-2018.aspx>
- GfK. (2017). *Major causes of stress: Global GfK Study*. Retrieved September 11, 2017, from <http://insights.gfk.com/thank-you-page-global-studies-major-causes-of-stress>
- Giga, S. I., Cooper, G. L., & Faragher, B. (2003). The development of a framework for a comprehensive approach to stress management interventions at work. *International Journal of Stress Management*, 10(4), 280-296.
- Godfrey, K. J., Bonds, A. S., Kraus, M. E., Wiener, M. R., & Toth, C. S. (1990). Freedom from stress: A meta-analytic view of treatment and intervention programs. *Applied HRM Research*, 1(2), 67-80.

- Golbasi, Z., Kelleci, M., & Dogan, S. (2008). Relationships between coping strategies, individual characteristics, and job satisfaction in a sample of hospital nurses: Cross-sectional questionnaire survey. *International Journal of Nursing Studies*, 45(1), 1800-1806.
- Goldstein, D. S., & Kopin, I. J. (2007). Evolution of concepts of stress. *Stress*, 10(2), 109-120.
- Greenglass, E. R. (2005). Proactive coping, resources, and burnout: Implications for occupational stress. In A. G. Antoniou & C. L. Cooper (Eds.), *Research companion to organizational health psychology* (pp. 503-515). Northampton, MA: Edward Elgar.
- Grix, J. (2018). *The foundations of research* (3rd ed.). New York: Palgrave Macmillan.
- Gyllensten, K., & Palmer, S. (2005). The role of gender in workplace stress: A critical literature review. *Health Education Journal*, 64(3), 271-288.
- Hansson, R. O., Robson, S. M., & Limas, M. J. (2001). Stress and coping among older workers. *Work*, 17(1), 247-256.
- Harkness, A. M., Long, B. C., Bermbach, N., Patterson, K., Jordan, S., & Kahn, H. (2005). Talking about work stress: Discourse analysis and implications for stress interventions. *Work and Stress*, 19(2), 121-136.
- Haslam, S. A., & van Dick, R. (2011). A social identity approach to workplace stress. In D. De Cremer, R. van Dick, & J. K. Murnighan (Eds.), *Social psychology and organizations* (pp. 25-40). New York: Routledge.

- Hobföll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524.
- Hofstede, G., Hofstede, G. H., & Minkov, M. (2010). *Culture and organizations: Software of the mind* (3rd ed.). New York: McGraw-Hill.
- Idris, M. A., Dollard, M. F., & Winefield, A. H. (2010). Lay theory explanations of occupational stress: The Malaysian context. *Cross Cultural Management: An International Journal*, 16(2), 136-153.
- Jackson, S. E., & Schuler, R. S. (1985). A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. *Organizational Behavior and Human Decision Processes*, 36(1), 16-78.
- Jacobs, S., Hassell, K., Ashcroft, D., Johnson, S., & O'Connor, E. (2014). Workplace stress in community pharmacies in England: Associations with individual, organizational, and job characteristics. *Journal of Health Services Research and Policy*, 19(1), 27-33.
- Johnson, S., Gooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2006). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20(2), 178-187.
- Jones, M. (2014). *Researching organizations: The practice of organizational fieldwork*. Los Angeles, CA: Sage.

- Juster, R., Moskowitz, D. S., Lavoie, J., & D'Antono, B. (2013). Sex-specific interaction effects of age, occupational status, and workplace stress on psychological symptoms and allostatic load among healthy Montreal workers. *Stress, 16*(6), 616-629.
- Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine, 4*(1), 1-39.
- Kaur, R. P., & Sharma, P. G. (2016). Stress management in the banking sector. *Imperial Journal of Interdisciplinary REsearch, 2*(3), 113-117.
- Kawakami, N., & Tsutsumi, A. (2010). Job stress and mental health among workers in Asia and the world. *Journal of Occupational Health, 52*(1), 1-3.
- Khamisa, N., Oldenburg, B., Peltzer, K., & Ilic, D. (2015). Work related stress, burnout, job satisfaction, and general health of nurses. *International Journal of Environmental Research and Public Health, 12*(1), 652-666.
- Kim, H., Knight, D. K., & Crutsinger, C. (2009). Generation Y employees' retail work experience: The mediating effect of job characteristics. *Journal of Business Research, 62*(2), 548-556.
- Kinman, G., & Jones, F. (2005). Lay representations of workplace stress: What do people really mean when they say they are stressed? *Work and Stress, 19*(2), 101-120.

- Knudsen, H. K., Ducharme, L. J., & Roman, P. M. (2007). Job stress and poor sleep quality: Data from an American sample of full-time workers. *Social Science and Medicine*, 64(1), 199-207.
- Koolhaas, J. M., Bartolomucci, A., Buwalda, B., de Boer, S. F., Flügge, G., Korte, S. M. et al. (2011). Stress revisited: A critical evaluation of the stress concept. *Neuroscience and Biobehavioral Reviews*, 35(1), 1291-1301.
- Lambert, E. G., & Paoline, E. A. (2008). The influence of individual, job and organizational characteristics on correctional job stress, job satisfaction, and organizational commitment. *Criminal Justice Review*, 33(4), 541-564.
- Lamontagne, A. D., Keegel, T., Louis, A. M., Ostry, A., & Landsbergis, P. A. (2007). A systematic review of the job-stress intervention evaluation literature, 1990-2005. *International Journal of Occupational and Environmental Health*, 13(3), 268-280.
- Lemaire, J. B., & Wallace, J. E. (2010). Not all coping strategies are created equal: A mixed methods study exploring physicians' self reported coping strategies. *BMC Health Services REsearch*, 10(1), 101-109.
- Maddi, S. R. (2004). Hardiness: An operationalization of existential courage. *Journal of Humanistic Psychology*, 44(3), 279-298.
- Mark, G., & Smith, A. P. (2011). Occupational stress, job characteristics, coping, and the mental health of nurses. *British Journal of Health Psychology*, 17(3), 505-521.

- Martin, A., Sanderson, K., & Cocker, F. (2009). Meta-analysis of the effects of health promotion intervention in the workplace on depression and anxiety symptoms. *Scandinavian Journal of Work, Environment, and Health*, 1(1), 7-18.
- Mazzola, J. J., Schonfeld, I. S., & Spector, P. E. (2011). What qualitative research has taught us about occupational stress. *Stress and Health*, 27(1), 93-110.
- Michie, S. (2002). Causes and management of stress at work. *Occupational and Environmental Medicine*, 59(1), 67-72.
- Miller, K., Greyling, M., Cooper, C., Lu, L., Sparks, K., & Spector, P. E. (2000). Occupational stress and gender: A cross-cultural study. *Stress Medicine*, 16(1), 271-278.
- Nuttapol Yuwanich, Helene Sandmark, & Sharareh Akhavan. (2016). Emergency department nurses' experiences of occupational stress: A qualitative study from a public hospital in Bangkok, Thailand. *Work*, 53(1), 885-897.
- Nytrø, R., Saksvik, P. Ø., Mikkelsen, A., Bohle, P., & Quinlan, M. (2000). An appraisal of key factors in the implementation of occupational stress interventions. *Work and Stress*, 14(3), 213-225.
- O'Neill, J. W., & Davis, K. (2011). Work stress and well-being in the hotel industry. *International Journal of Hospitality Management*, 30(2), 385-390.

- Oei, N. Y., Everaerd, W., Elzinga, M. B., Van Well, S., & Bermong, B. (2006). Psychosocial stress impairs working memory at high loads: An association with cortisol levels and memory retrieval. *Stress*, 9(3), 133-141.
- Oke, A., & Dawson, P. (2008). *Contextualizing workplace stress: The experience of bank employees in Nigeria*. Auckland, New Zealand: University of Wollongong.
- Oliver, P. (2010). *The student's guide to research ethics*. London: McGraw-Hill Open University Press.
- Orawan Kaewboonchoo, Boonrord Yingyuad, Tassanee Rawiworrakul, & Adchara Jinayon. (2014). Job stress and intent to stay at work among registered female nurses working in Thai hospitals. *Journal of Occupational Health*, 56(1), 93-99.
- Örtqvist, D., & Wincent, J. (2006). Prominent consequences of role stress: A meta-analytic review. *International Journal of Stress Management*, 13(4), 399-422.
- Page, K. M., LeMontagne, A. D., Louie, A. M., Ostry, A. S., Shaw, A., & Shoveller, J. A. (2013). Stakeholder perceptions of job stress in an industrialized country: Implications for policy and practice. *Journal of Public Health Policy*, 34(3), 447-461.
- Pallant, J. (2016). *SPSS survival manual* (6th ed.). New York: Allen and Unwin.



- Pasca, R., & Wagner, S. L. (2012). Occupational stress, mental health, and satisfaction in the Canadian multicultural workplace. *Social Indicators Research, 109*(3), 377-393.
- Peerayuth Charoensukmongkol. (2013). The contributions of mindfulness meditation on burnout, coping strategy, and job satisfaction: Evidence from Thailand. *Journal of Management and Organization, 19*(5), 544-558.
- Peerayuth Charoensukmongkol. (2014). Benefits of mindfulness meditation on emotional intelligence, general self-efficacy, and perceived stress: Evidence from Thailand. *Journal of Spirituality in Mental Health, 16*(3), 171-182.
- Peterson, M. F., Smith, P. B., Akande, A., Ayestaran, S., Bochner, S., Callen, V. et al. (1995). Role conflict, ambiguity, and overload: A 21-nation study. *Academy of Management Journal, 38*(2), 429-452.
- Pipe, T. B., Buchda, V. L., Launder, S., Hudak, B., Hulvey, L., Karns, K. E. et al. (2011). Building personal and professional resources of resilience and agility in the healthcare workplace. *Stress and Health, 28*(1), 11-22.
- Pisanti, R., van der Doef, M., Maes, S., Lazarri, D., & Bertini, M. (2011). Job characteristics, organizational conditions, and distress/well-being among Italian and Dutch nurses: A cross-national comparison. *International Journal of Nursing Studies, 48*(1), 829-837.

- Pitchaya Phakthongsuk, & Nualta Apkupakul. (2008). Psychometric properties of the Thai version of the 22-item and 45-item Karasek job content questionnaire. *International Journal of Occupational Medicine and Environmental Health*, 21(4), 331-344.
- Rahe, R. H., Taylor, C. B., Tolles, R. L., Newhall, L. M., Veach, T. L., & Bryson, S. (2002). A novel stress and coping workplace program reduces illness and healthcare utilization. *Psychosomatic Medicine*, 64(1), 278-286.
- Ram, N., Khoso, I., Shah, A. A., Chandio, F. R., & Shaikih, F. M. (2011). Role conflict and role ambiguity as factors in work stress among managers: A case study of manufacturing sector in Pakistan. *Asian Social Science*, 7(2), 113-118.
- Richardson, K. M., & Rothstein, H. R. (2008). Effects of occupational stress management intervention programs: A meta-analysis. *Journal of Occupational Health Psychology*, 13(1), 69-93.
- Rössler, W. (2012). Stress, burnout, and job dissatisfaction in mental health workers. *European Archives of Psychiatry and Clinical Neuroscience*, 262(2), S65-S69.
- Saris, W. E., & Gallhofer, I. N. (2014). *Design, evaluation, and analysis of questionnaires for survey research* (2nd ed.). Hoboken, NJ: John Wiley and Sons.

- Schmidt, S., Roesler, U., Kusserow, T., & Rau, R. (2014). Uncertainty in the workplace: Examining role ambiguity and role conflict, and their link to depression-a meta-analysis. *European Journal of Work and Organizational Psychology, 23*(1), 91-106.
- Sembajwe, G., Wahrendorf, M., Siegrist, J., Sitta, R., Zins, M., Goldberg, M. et al. (2012). Effects of job strain on fatigue: Cross-sectional and prospective views of the job content questionnaire and effort-reward imbalance in the GAZEL cohort. *Occupational and Environmental Medicine, 69*(6), 377-384.
- Shukla, S., & Sinha, A. (2013). Employee turnover in banking sector: Empirical evidence. *IOSR Journal of Humanities and Social Science, 11*(5), 57-61.
- Shultz, K. S., Wang, M., & Olson, D. A. (2010). Role overload and underload in relation to occupational stress and health. *Stress and Health, 26*(1), 99-111.
- Sidle, S. D. (2008). Workplace stress management interventions: What works best? *Academy of Management Perspectives, 22*(3), 111-112.
- Sinha, V., & Subramanian, K. S. (2012). Organizational role stress across three managerial levels: A comparative survey. *Global Business and ORganizational Excellence, 31*(5), 70-77.
- Siu, O. L., Hui, C. H., Phillips, D. R., Lin, L., Wong, T. W., & Shi, K. (2009). Study of resiliency among Chinese health care workers: Capacity to cope with workplace stress. *Journal of Research in Personality, 43*(5), 770-775.

- Siu, O., Spector, P. E., Cooper, C. L., Lu, L., & Yu, S. (2002). Managerial stress in greater China: The direct and moderator effects of coping strategies and work locus of control. *Applied Psychology: An International Review*, 51(4), 608-632.
- Smith, A. (2000). The scale of perceived occupational stress. *Occupational Medicine*, 50(5), 294-298.
- Snow, D. L., Swan, S. C., Raghavan, C., Connell, C. M., & Klein, I. (2003). The relationship of work stressors, coping, and social support to psychological symptoms among female secretarial employees. *Work and Stress*, 17(3), 241-263.
- Soderstrom, M., Dolbier, C., Leiferman, J., & Steinhardt, M. (2000). The relationship of hardiness, coping strategies, and perceived stress to symptoms of illness. *Journal of Behavioral Medicine*, 23(3), 311-328.
- Soltani, I., Hajatpour, S., Khorram, J., & Nejati, M. J. (2013). Investigating the effect of role conflict and role ambiguity on employees' job stress: Articulating the role of work-family conflict. *Management Science Letters*, 3(1), 1927-1936.
- Sonnentag, S., & Frese, M. (2003). Stress in organizations. In W. C. Borman, D. R. Ilgen & J. Klimowksi (Eds.), *Comprehensive handbook of psychology* (Vol. 12, pp. 453-491). Hoboken, NJ: John Wiley and Sons.
- Spector, P. E. (2002). Employee control and occupational stress. *Current Directions in Psychological Science*, 11(4), 133-135.

- Spielberger, C. D., & Reheiser, E. C. (2005). Occupational stress and health. In A. G. Antoniou & C. L. Cooper (Eds.), *Research companion to organizational health psychology* (pp. 441-454). Northampton, MA: Edward Elgar.
- Supatra Kosaiyakanont. (2014). Language an culture in Mahajanaka Story written by King Bhumibhol. *Cultural Heritage Newsletter Rajamangala University of Technology*, 9(14), 8-12.
- Tabanelli, M. C., Depolo, M., Cooke, R. M., Sarchielli, G., Banfiglioli, R., Mattioli, S. et al. (2008). Available instruments for measurement of psychosocial factors in the work environment. *International Arch Occupational Environmental Health*, 82(1), 1-12.
- Tams, S. (2017). A refined examination of worker age and stress: Explaining how and why older workers are especially techno-stressed in the interruption age. *Lecture Notes in Information Systems and Organisation*, 16(1), 55-79.
- Teetima Potchanakaew. (2018). Values of folktales and Mahajanakas values and function as advocacy of the King's philosophy. *Journal of Humanities and Social Sciences Surin Rajabhat University*, 20(1), 345-359.
- Tetrick, L. E., & Winslow, C. J. (2015). Workplace stress management interventions and health promotion. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(15), 1-21.
- Thyer, B. A. (2012). *Quasi-experimental research designs*. New York: Oxford University Press.

- Trochim, W. M., Donnelly, J. P., & Arora, K. (2016). *Research methods: The essential knowledge base*. Boston: Cengage.
- Twenge, J. M., & Campbell, S. M. (2008). Generational differences in psychological traits and their impact on the workplace. *Journal of Managerial Psychology*, 23(8), 862-877.
- Ungsinun Intarakamhang. (2009). Research synthesis concerning stress and coping of Thai people. *The Journal of Behavioral Science*, 4(1), 36-48.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work and Stress*, 22(3), 277-294.
- van der Klink, J. J., Blonk, R. W., Schene, A. H., & van Dijk, F. J. (2001). The benefits of interventions for work-related stress. *American Journal of Public Health*, 91(2), 270-276.
- Vivian, G., & Chatelier, G. (2015). The ecological implications of the Story of Mahajanaka. In R. Meinhold (Ed.), *Environmental values emerging from cultures and religions of the ASEAN region* (pp. 123-130). Bangkok: Assumption University.
- Walinga, J., & Rowe, W. (2013). Transforming stress in complex work environments: Exploring the capabilities of middle managers in the public sector. *International Journal of Workplace Health Management*, 6(1), 66-68.
- Warne, R. T. (2018). *Statistics for the social sciences*. New York: Cambridge University Press.

- Weathington, B. L., Cunningham, C. J., & Pittenger, D. J. (2010). *Research methods for the behavioral and social sciences*. Hoboken, NJ: John Wiley and Sons.
- Welbourne, J. L., Eggerth, D., Hartley, T. A., Andrew, M. E., & Sanchez, F. (2007). Coping strategies in the workplace: Relationships with attributional style and job satisfaction. *Journal of Vocational Behavior*, 70, 312-325.
- Wichert, I. (2002). Stress intervention: What can managers do? In B. Burchell, D. Ladipo, & F. Wilkinson (Eds.), *Job insecurity and work intensification* (pp. 154-171). New York: Routledge.
- Wong, J., Teo, M., & Cheung, Y. K. (2010). Cultural determinants of stress in the construction industry. *Proceedings of 2010 International Conference On Construction & Real Estate Management*,. Brisbane, Australia.
- Yiengprugsawan, V., Strazdins, L., Lim, L., Kelly, M., Seubsman, S., & Sleight, A. C. (2013). Physically and psychologically hazardous jobs and mental health in thailand. *Health Promotion International*, 30(3), 531-541.
- Yongkang, Z., Weixi, Z., Yalin, H., Yipeng, X., & Liu, T. (2014). The relationship among role conflict, role ambiguity, role overload, and job stress of Chinese middle-level cadres. *Chinese Studies*, 3(1), 8-11.

Zhao, X., & Ghiselli, R. (2016). Why do you feel stressed in a 'smile factory'? Hospitality job characteristics influence work-family conflict and job stress. *International Journal of Contemporary Hospitality Management*, 28(2), 305-326.



## VITAE

Name	Miss Pasaporn Sangdhati
Date of Birth	January 13, 1970
Place of Birth	Bangkok
Previous Studies	Rajini School  1991 Bachelor of Political Science: Human Resource Management, Chulalongkorn University, Thailand.  1993 Advance in English Certificate, Western Australia University, Perth, Western Australia  1996 Master of Business Administration, Emporia State University, Kansas, USA.  2002 E-Commerce Certificate, Chulalongkorn University  2005 Mini Master of Financial Restructuring, NIDA  2010 Banking and Trouble Debt Restructuring Certificate, Chulalongkorn University  2011 Basic Knowledge of Export Certificate, Department of Export Promotion
Present Position	Assistant Manager, Thai Asset Management Corporation