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RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)
Volume 3, Number 2, July – December 2016

Editor's Note

The theme for this issue of the *Rangsit Journal of Social Sciences and Humanities* (RJSH) is 'ASEAN Creative Cultures'. We are so pleased that many of the articles in this volume depict ASEAN through its creativity and richness of culture.

The previous issue (#1, 2016) focused on the importance of innovation in other areas of a social venture. The discussion is about the area of what makes people special, different from others. The word "Creativity" is an aspect that people need to possess, as the consequence of mastering it make human being able to generate new inventions that later may benefit the world. Alas, not everyone has that kind of prowess.

This current issue embraces the diversification of the Association of Southeast Asian Nations (ASEAN) and the creative cultures the latter beholds. Although ASEAN covers a land area of approximately 4.4 million square kilometres and about 3% of the total land area of the earth, there are still so many things to be explored here. The differences as well as similarities are well preserved and being studied by various people from all around the world.

"To provide equal opportunities for total human development." This remark is one of the visions of ASEAN. This is where Jeanette Martin plays the lullaby in her writing to unfold the innate creative intelligence in the student through the unique experience of pure consciousness. Her writing revolves around the Maharishi teaching of such Consciousness-based education. She reckons that this kind of education offers an evidence-based approach to providing opportunities for total human development through education in ASEAN countries and around the world.

You will then catch up with an article by Jomdet Trimek that seems contemporary with the current situation, and it may excite the readers to read much further about it. The article describes the Bangkok's dwellers level of confidence about the installation of closed-circuit television (CCTV) in the Bangkok Metropolitan areas. The author tries to unravel the question whether the "Bangkokians" have the confidence about the installation of CCTV, whether that the number of CCTV set up are sufficient as well as if the presence of that CCTV will be helpful to prevent crime within the vicinity. This proves to be a vital measure taken by the author as it is of utmost important to ensure that Bangkok, as the capital city of Thailand, is a safe place to reside by people, regardless local or expatriates.

Moving towards such a nation that improves the welfare as well as the comfort of the people, the article written by Suppakorn Poonyarith, Thamavit Terdudomthan, and Sasiphattra Siriwato analyses the implementation of Electronic Monitoring (EM) as an alternative measure to cater the problem of overcrowding prisons. According to them, this method could optimize incarceration sentenced on some offenders. This approach also shall reduce government budgets and provide doors for offenders to self-rehab and return happily afterwards spend life with family and societies.

Diverting our attention to another part of the world, Africa, Kwadwo Adusei-Asante and Daniel Doh, studied about National Health Insurance in a district in Ghana. They were looking for the dynamics of healthcare utilisation in free health insurance contexts and associated unintended impacts. They found out that the theory that free health insurance policies do induce people health seeking behaviours, as well as unearthing issues that result when publics do not match local infrastructural and human resource capacities.

Looking to one of our nearest neighbours, an article written by Adzhamsyah Abdul Hamid and Roshayani Arshad try to discuss the transfer pricing practices among public listed companies (PLCs) in Malaysia. Transfer pricing is one part of management accounting area where it is an intra-firm transaction, which involves the pricing determination of what being sold and purchased by those related companies. The transfer pricing practices may amount to tax evasion as the article analyse the presence of tax haven subsidiaries to be a possible special vehicle to help companies evade tax.

Next, articles about “Financial Characteristics of Thai Listed Companies – Corporate Governance (CG) Ranking Base” written by the trio of Kanitsorn Terdpaopong, Nimnual Visedsun, and Pham Van Hung investigate the determinant characteristics of the Thai Listed Companies (TLC) that were ranked accordingly to their CG performance, based on the CG Ranking Base of TLC 2014. They utilise eight (8) CG determinants, and group them into two (2) categories which are high and low rank.

Therefore, there you go, an array of articles that do not only portray the variety of things in ASEAN, this journal also offer a different perspective of life to readers. When people read about the Consciousness-Based teaching, it is not going to excite a few individuals from one part of the world, yet it is fascinating enough to attract the worldwide fanatics. When talking about CCTVs in Bangkok, people will also query about how is it the implementation of CCTVs in their capital cities such as Jakarta, Kuala Lumpur, and Hanoi. The talk continues as when the reading continues regarding the implementation of EM, whether that this kind of approach has also reached the neighbouring country. Moreover, just imagine how it is the handling of healthcare insurance in Ghana. Then the penultimate article, that discuss the taxation matters in Malaysia. We all know that taxation issues are a matter of the public interest itself, and it is a crucial issue that should be dealt with due care and diligence. Last but not least, the corporate governance aspects, as it becomes a commanding presence to protect nations from possible misappropriation and unscrupulous acts done by various parties.

Dear readers: if you, too, find these articles interesting, as well as informative, please don't hesitate to share them with your colleagues and friends.

After all, that is why journals such as RJSH exist: to connect consumers of knowledge (learners) with producers of knowledge (researchers). As the editorial team, we see this as our job: sharing new knowledge, including alternative ways of perceiving the complex issues that all of our societies face on a day-to-day basis.

We welcome your comments – and, of course, your manuscripts. Links to our manuscript submission site can be found at RJSH Online Submission and Review System: <http://rjsh.rsu.ac.th>. We look forward to hearing from you.

Sincerely,



Anek Laothamatas
Editor-in-chief

RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)

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Unfolding Total Human Potential through Consciousness-Based EducationSM A Review of Principles, Practice and Research

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Abstract

To provide equal opportunities for total human development is part of the vision of ASEAN. Traditionally, the field of education has had responsibility for achieving this goal. Few educational institutions around the world would claim success. This article reviews the principles, practice and research of an innovative educational approach—Consciousness-BasedSM education—that gives central importance to developing the consciousness of the student as a means to foster total human development. Consciousness-Based education includes the Transcendental Meditation® technique, which has increasingly been used by educational institutions over the past five decades as a method that serves to unfold the innate creative intelligence in the student through the unique experience of pure consciousness. Research on this approach is reviewed from the perspective of brain functioning and developmental psychology. This perspective indicates that coherent brain functioning, advanced self-actualization, ego development, and improved academic performance are associated with the practice of the Transcendental Meditation technique. It is suggested that Consciousness-Based education offers an evidence-based approach to providing opportunities for total human development through education in ASEAN countries and around the world.

Keywords: ASEAN, Consciousness-Based education, coherent brain functioning, pure consciousness, developmental psychology, total human development

1. Introduction

The vision of ASEAN 2020, pledged by ASEAN heads of state in 1997 includes a vibrant society with equal opportunity for total human development and focus on the welfare and dignity of the human person and community:

‘We see vibrant and open ASEAN societies consistent with their respective national identities, where all people enjoy equitable access to opportunities for total human development regardless of gender, race, religion, language, or social and cultural background . . . We envision our nations being governed with the consent and greater participation of the people with its focus on the welfare and dignity of the human person and the good of the community.’

(ASEAN, 1997)

In most eras and cultures, it has been considered the responsibility of education to culture total human development for the good of the individual and society. Grant and Jones (2011) noted, however, that there is widespread dissatisfaction with education in most countries, in terms of disengagement of students and failure of educational outcomes. Of most concern is the waste of the greatest resource of the nation, the human capital, as evidenced by the comparatively low levels recorded by the majority of adults on many scales of cognitive, moral, and ego development. They posed the question, “What can society accomplish if its human resources remain languishing in the schools?” (p.91). The challenge of education is to equip the next generation to flourish in today’s interconnected and fast-changing world. It has been recognized that the best way to do this is “to give them full command over their own powers” (Grant & Jones, 2011, p.124). While educators are always focused on how to increase students’ capabilities and performance, what has been missing is a systematic means to wake up the creative intelligence of the student from within, to allow them access to their full powers, through unfolding the full range of consciousness.

This article seeks to answer the question of how education can be optimized to unlock total human development in the student and realize the goal of ASEAN and all people. With attention on the Transcendental Meditation technique as one successful tool in the holistic educational approaches, the study

explores the principles, practice, and research of Consciousness-Based education in accelerating progress towards total human development. Two research perspectives are of particular interest in this regard—from the fields of neuroscience and developmental psychology. The first focuses on improvement in brain functioning. The second focuses on growth towards self-actualization and ego development.

The article begins with some background into the role and shortcomings of education in fostering total human development. The current contribution of the field of neuroscience is examined, which reveals how experience changes the brain and the importance of holistic brain functioning. Models from developmental psychology suggest the existence of higher stages of human development, which raises the question of why so few people achieve full development. An explanation is given of the Transcendental Meditation technique and the research on its holistic benefits through the unique experience of pure consciousness. This is followed by a discussion exploring the effects of the Transcendental Meditation technique on brain functioning and stages of human development and suggesting how Consciousness-Based education can contribute to fulfilling the goal of accelerating total human development. In conclusion, avenues for future research are suggested.

2. The Role of Education in Total Human Development

In their comprehensive review of educational theory and practice, Grant, and Jones (2011) maintained that all educational theories are based on certain fundamental concepts, which, in turn, lead to applicable educational practices. The completeness and adequacy of the concepts determine the adequacy of the educational outcomes. They contended that “all educational systems derive from an understanding of these three basic conceptions: (1) the nature of the individual (knower); (2) the nature of learning and development (process of knowing); and (3) the nature of knowledge (the known)” (p.100). Pearson (2011) has noted that over the past few decades, education has been evolving from an instructional perspective (focus on a teacher imparting information, or the known) to a learning perspective (focus on a student learning or the process of knowing). One emerging approach—Consciousness-Based education—encompasses both the instructional and learning perspectives, while adding a focus on the enlivenment of the knower from within, by enabling development of the student’s full range of consciousness (Maharishi, 1994).

The quality of students’ consciousness is central to their educational experience. Research has indicated that 75% of academic achievement is determined by cognitive and affective factors, and only 25% by the quality of instruction (Bloom, 1976). The skills of memory, alertness, intelligence, field independence and abstract reasoning (Anderson, Spiro & Montague, 1977), self-esteem and emotional stability (Eriksen, 1974) correlated positively with school performance. Consciousness-Based education theory recognizes the significance of these cognitive and affective skills to enhance receptivity and performance (Dillbeck, 2011) and extends the focus of education to include the experience of the full range of consciousness, which includes the most settled and holistic state of consciousness, pure consciousness (Maharishi, 1994).

Like many educators, Dewey (1916/1966) defined an educational experience as one that promotes growth or development. Consciousness-Based education theory considers the experience of pure consciousness as a mechanism for holistic growth and total development. Pure consciousness is understood to be a field of intelligence and creativity, and therefore experiencing it enlivens intelligence and creativity and at the same time, the experience stabilizes growth to higher states of consciousness. Consciousness-Based education thus sheds new light on educational goals—the full growth of the individual is defined as attainment of higher states of consciousness (Maharishi, 1994, p.113).

The question can then be raised: how does the experience of pure consciousness promote holistic human development and what have been the results of incorporating this experience into schools through Consciousness-Based education? This article examines two broad approaches to the question from the fields of neuroscience and developmental psychology—the effect of different experiences on the brain and the stages and endpoints of human development. Research on the Transcendental Meditation technique and the effects of the experience of pure consciousness on the brain, on full human development, and on educational outcomes through Consciousness-Based education are reviewed.

2.1 Experience Changes the Brain

All experience is filtered through the brain. Travis and Brown (2010) explained that both the structure and functioning of the brain change (cortical plasticity) due to natural maturation and the effects of experience. The experience becomes primary after childhood and throughout adult life. Therefore the nature and quality of one's experience during school and college years matters because the resulting changes in the brain's structure and function influence cognitive, affective, academic, ego and self-development.

Travis et al. (2009) review of research indicated that the prefrontal area of the brain is of special importance for a student because it mediates higher order activities of problem-solving, planning and decision-making. When one is overtired or under intense physical or mental stress the brain overrides the prefrontal cortex, which can lead to shortsighted, impulsive decisions, anger and fear. By contrast, when the prefrontal cortex is activated, wiser, calmer, more ethical and balanced thought and behavior ensue. Maximal integration of the prefrontal area of the brain with other areas of the brain is, therefore, advisable as the student matures.

Dillbeck and Dillbeck (2015) noted, however, the failure of education to promote the experience of integrated brain functioning and therefore attain full human development in students. Research shows that specific mental activities traditionally emphasized in education (for example, reading and studying), activate specific areas in the brain, leading to specialized skills but not to the integration of the whole brain. As evidence that education has failed to foster higher brain functioning, which is associated with higher cognitive development, they note that development of the important cognitive skills of fluid intelligence and field independence generally stalls at around the age of 17. They contend that restricted brain functioning leads to restricted awareness and conclude, "Restricted awareness leads to problems, mistakes, and the inability to evaluate the environment and act in a way that consistently favours progress and happiness" (p.18).

2.2 Stages of Human Development

The field of developmental psychology explores the stages and farther reaches of human potential. Alexander, Rainforth, and Gelderloos (1991) noted that, while many theories describe the nature and limits of human development, it is well accepted that few people attain the most mature levels.

a) Self-actualization

Lack of subjects has precluded testing and advancement of many developmental theories, other than Maslow's (1976) theory of self-actualization. Maslow described a high-level need of every human being to live at their fullest potentiality and proposed certain characteristics of the "self-actualizing individual," including creativity, growth orientation, acceptance of self and others, a sense of wonder, and a concern with higher order values of truth and justice. Maslow (1968, 1976) considered that temporary peak experiences, or moments of high elevation and transcendence of self, were, in part, responsible for and a result of growth of self-actualization and that people moved toward more psychological integration and a more perfect identity or sense of real self as a result of these peak experiences. Research has indicated that leaders and high performers report more frequent peak experiences than controls (Thornton, Privette, & Bunderick, 1999; Harung & Travis, 2012).

Alexander et al. (1991) suggested two reasons why adults do not advance to higher self-actualization stages. One was that the current educational system has largely focused on abstract thinking skills rather than finer levels of feeling, intuition, and ego. In other words, the full range of consciousness is not regularly enlivened in standard education. Secondly, that stress creates an agitated nervous system that blocks access to a more subtle and sensitive feeling and intuition levels. It follows then that if education incorporated a program for a student to regularly alleviate stress and experience the full range of consciousness, including peak experiences, advancement to higher self-actualization stages would be possible.

b) Ego development

Another well-established psychological model of human development is Loevinger's stages of ego development. Each stage reflects how one makes sense of one's world and oneself and includes one's impulse control, character development, cognitive complexity, and interpersonal style. Pre-conventional

and conventional stages develop from childhood into adulthood, reflecting growth from impulsive and self-protective to self-aware and conscientious. The stage reached at the age of 17-20 years or by the end of formal education is usually set for life (Loevinger et al., 1985; Redmore & Loevinger, 1979). Research had not found any way to advance ego development beyond the conventional stages (White, 1985; Cohn, 1998).

Nevertheless the lively inner orientation and ability to think and act independently of the surrounding social system, characteristic of the post-conventional stage, predicted a better ability to adapt and learn in a progressive and changing modern world (Kegan, 1994; Torbert, 1991; Heaton & Harung, 2001). Growth to the higher post-conventional stages of ego development has been characterized as changing perspective from narrow to inclusive: from short term to long term; from win-lose to win-win; from reactive to proactive and preventive; and from extrinsic to intrinsic motivation (Harung, Travis, Blank & Heaton, 2009).

Cook-Greuter (1990) noticed that on conceptual and empirical grounds, the highest post-conventional stages of development (autonomous and integrated) had been linked to Maslow's self-actualization. By extensive research of over 3000 protocols with widely varied populations, she found that less than 1% of adults were considered to function at these more mature levels, a finding in keeping with Maslow's. In contrast, 80% function at conventional stages. In summary, while developmental psychology theories postulate higher stages of human development, characterized by a more independent, proactive, and mature orientation to life, very few people reach these stages or even progress beyond adolescence.

2.3 A Science of Consciousness

According to the theory of Consciousness-Based education, there is a particular experience that optimizes brain functioning and accelerates self-actualization in the direction of full human development. This is the experience of pure consciousness (Maharishi, 1994). Research indicates that the experience has unique psychological and physiological markers—electroencephalograph (EEG) or brainwave coherence, reduced breath and heart rate and changes in blood chemistry—suggesting a “wakeful hypo-metabolic” state or “restful alertness” proposed as a fourth major state of consciousness, different from waking, sleeping, and dreaming (Wallace, 1970, 1986).

Extending one's range of conscious experience has long been understood as fundamental in rising to full human development. As the sixth century BC Chinese philosopher, Lao Tzu identified, “The key to growth is the introduction of higher dimensions of consciousness into our awareness” (Maharishi University of Management, 2015). Fortunately the Vedic tradition of India has preserved the ancient knowledge and practical techniques to unfold the full capacity of consciousness and, for the last fifty years, Maharishi Mahesh Yogi (1963, 1967), widely recognized as the greatest Vedic scholar and teacher of our time, has revived this knowledge throughout the world as technology of consciousness, Maharishi Technology of ConsciousnessSM. In Maharishi's hierarchical model, consciousness is a comprehensive term that covers the whole range of subjective experience from the most expressed level, the senses, progressing through the more subtle levels of mind, intellect, feeling, intuition and ego, with the most settled level, beyond the thinking process, being pure consciousness (Maharishi 1963, 1967). Maharishi (1976) here clarifies the power of consciousness,

Consciousness is the light by which man looks out onto the world to experience objects. When that same light is turned in upon itself, the resulting self-knowledge enlightens all thought and action. Consciousness then knows itself as unbounded, free, the source of all creation. The experiencer is no longer overshadowed by what he experiences. Consciousness ceases to be the servant of thoughts and percepts and becomes their governor. (p.123).

a) Pure consciousness

Pure consciousness is here understood as self-referral, the experience of consciousness knowing itself, as described above, “when that same light is turned in upon itself.” The result is “Consciousness then knows itself as unbounded, free....”

Maharishi has described pure consciousness as pure awareness, the Self, one's innermost being, and a field of unlimited creative intelligence. His science of consciousness holds that by regularly opening one's awareness to its foundation in pure consciousness, one's innate creative intelligence is enlivened and

one ultimately realizes and lives one's full human potential, described by Maharishi as higher states of consciousness or enlightenment. Pearson's (2013) research indicates that while experiences of pure consciousness and higher states of consciousness are natural, universally available, and not culturally specific, such experiences may remain fleeting when not accompanied by technique.

b) The transcendental meditation technique

Maharishi formulated the Transcendental Meditation technique to enable anyone to cultivate the regular experience of pure consciousness and systematically unfold higher states of consciousness. Maharishi (1973/2011) explained the physiological mechanics of the Transcendental Meditation technique,

What obstructs this pure awareness from remaining stationary on the level of one's consciousness is stress and strain. The practice of the Transcendental Meditation technique, by lowering the metabolic rate, produces deep rest for the physical system and thereby naturally releases deep-rooted stresses and thereby eliminates the cause which inhibits the full value of consciousness. The mind functions from its full potential. (p.34-35).

The Transcendental Meditation technique is described as effortless, is practiced sitting with eyes closed for twenty minutes twice a day and is different from other forms of meditation, such as focused attention or open monitoring, in aim, process, experience and brain activity (Travis and Shear, 2010). More than six million people, of all ages, cultures and religions have learned the technique, which is taught worldwide through a standard course.

2.4 Evidence-Based Development of Consciousness

The Transcendental Meditation technique is considered the most extensively validated program of personal development as the subject of over 600 research studies, conducted in 250 research institutes and universities in 30 countries, and published in more than 150 scientific and scholarly journals (Pearson, 2011). Research has indicated a wide array of holistic benefits—physiological, psychological, and behavioural. Physiological benefits included more adaptive response to stress (Orme-Johnson, 1973), and reduced hypertension, reduced health care costs (Barnes et al., 2005; Schneider et al. 2005; Herron, 2005). Grant and Jones (2011) summarized other benefits relevant to education including increased self-concept, increased self-actualization, increased energy and dynamism, improved mind-body coordination, increased organizational ability, improved health, reduced depression, reduced neuroticism, reduced aggression and dominance and increased tolerance. Eppley, Abrams & Shear's (1989) meta-analysis of 146 studies reported almost twice the effect sizes in the reduction of anxiety for the Transcendental Meditation technique compared to other traditional meditation and clinical relaxation practices. Other studies have shown substance abuse recovery and prevention of crime and antisocial behaviour (Hawkins, 2003; Jones, Clayborne, Grant & Rutherford, 2003).

How can the value of the Transcendental Meditation technique be understood from the perspectives of brain functioning and developmental psychology?

2.5 Global Brain Coherence

The finding that experience changes the brain is clearly of great relevance to students' development. Consciousness-Based education theory proposes that along with enlivenment of specific areas of the brain through a focus on specific subjects; student benefits from enlivenment of the whole brain through the experience of pure consciousness (Maharishi, 2004). EEG global coherence, or structural and functional integration across the whole brain, has been found during the practice of the Transcendental Meditation technique (Travis & Wallace, 1999; Travis, Arenander & DuBois, 2004). EEG coherence has been correlated with many of the desired outcomes of education, including increased verbal creativity and IQ, better moral reasoning, efficiency in learning new concepts, decreased neuroticism, increased neurological efficiency and higher academic achievement (Dillbeck, Orme-Johnson & Wallace 1981; Orme-Johnson & Haynes, 1981). Coherent brain functioning has also been associated with improvement of performance and success in one's profession. Research by Harung and Travis (2012) found that Olympic athletes, classical musicians, and top-level managers showed superior brain integration (defined by EEG

coherence and alpha brainwave power) compared to controls. Research also suggested brain integration is predictive of success in management (Robertson & Smith, 2001; Rooke & Torbert, 2005). In summary, the coherence of brain functioning, developed through the Transcendental Meditation technique, is associated with cognitive growth, more effective learning, balanced behaviour, leadership and superior performance.

Other research on changes in brain activity during the Transcendental Meditation technique included increased blood flow to the brain (Jevning, Anand, Beidebach, & Fernando, 1996) and correlation of the experience of pure consciousness with alpha and theta EEG coherence in the frontal and central brain (Farrow & Hebert, 1982; Orme-Johnson & Haynes, 1981; Travis & Wallace, 1999). EEG coherence took place in the first minute of the practice of the Transcendental Meditation technique (Travis & Wallace, 1999) and was consistent for both those who recently started the practice and those practicing for several years. These findings suggested that the transcending process was effortless, natural and easily learned. It was also found that long-term meditators maintained the EEG coherence during a task with eyes open, whereas the short-term meditators did not (Travis, 1991; Travis & Arenander, 2006). This is in keeping with the theory that stabilization of pure consciousness occurs over time, based on new neuro-physiological connections. It follows that the regular and unique experience of global EEG coherence gained during the Transcendental Meditation technique would change the brain's structure and function in a coherent way and be reflected in more mature thinking and behaviour.

2.6 Self-Actualization

The holistic benefits of the experience of pure consciousness through the Transcendental Meditation technique have also been seen in the growth of self-actualization. A meta-analysis (Alexander et al., 1991) of 42 independent studies indicated that the Transcendental Meditation technique is increased self-actualization, as measured by the Personal Orientation Inventory (POI), by approximately three times as much as procedures of concentration, contemplation or other techniques. Larger effect sizes were found for those practicing Transcendental Meditation technique for a longer time. The POI test has been well validated with high scorers on self-actualization also scoring better than low self-actualized on a wide range of mental health, cognitive, perceptual and physical variables (Knapp, 1990, p. 144). The factors on which the Transcendental Meditation group scored higher in the self-actualization test suggest the development of a person who is "open to his own feelings, who is capable of engaging in warm interpersonal relationships.... Has a positive view of self and humanity, who is able to integrate dichotomies, ...who appreciates life from a broad and integrated perspective ...maintains a stable internal frame of reference...whose self-responds adaptively to both internal and external challenges" (Alexander et al., 1991, p. 37). These findings are consistent with the theory of the science of consciousness that the regular experience of pure consciousness leads to natural expression of human potential.

2.7 Stages of Ego Development

Research has also indicated that the Transcendental Meditation technique can accelerate an individual through Loevinger's more advanced levels of ego development. One ten-year study (Chandler, 1990) found that 38% of Consciousness-Based Education alumni, who practiced the Transcendental Meditation technique, attained the high post-conventional "autonomous" and "integrated" stages of ego development post-test, up from 9% at pretest. The proportion was nearly four times higher than the highest percentage found in any of the other 30 published studies and almost forty times higher than those achieving post-conventional development in the general population. Brown's (2008) research on ego development with an undergraduate population of 140 Consciousness-Based Education students found nearly 30% at post-conventional levels of ego development by their senior year, indicative of an unusually high degree of maturity in a group of young people. Mean ego development also increased in this student group.

A study on maximum-security prison inmates (Alexander, 1982; Alexander, Walton, & Goodman, 2003) found that those practicing the Transcendental Meditation technique showed growth from the concrete "conformist" level to abstract reasoning "self-aware" stage, and the more advanced Transcendental Meditation practitioners increased from "self-aware" to "conscientious" stage. This rate of progress to a new stage, in just one year, is rare past adolescence.

The post-conventional stage of ego development is characterized by personal autonomy and recognition that one's values and ideals are derived from the inside, not outside, oneself. Chandler et al. (2005) suggested that practice of the Transcendental Meditation technique might have accelerated ego development by stabilizing the experience of the intrinsic nature of the self, the "I." They proposed that the familiarity with the inner essence of one's consciousness might shift one's frame of reference to a more inwardly focused one.

In summary, the research in the fields of brain functioning and human development support the theory that Consciousness-Based education is an approach that hastens a student's holistic growth, beyond what was accepted as the normal limits and towards the higher range of expression of human potential.

3. Consciousness-Based Education Applied

How has the Transcendental Meditation technique been incorporated into education in order to promote full human development? Dillbeck and Dillbeck (2011) noted that the Consciousness-Based education approach had been field-tested over the last 40 years, in more than 50 countries, in over 300 educational institutions, with over 200,000 students. It has been applied in educational settings in two main ways. In some schools, the practice of the Transcendental Meditation technique is added to the beginning and end of the school day for students and teachers, with no further alteration to the daily schedule or curriculum. This is the Quiet TimeSM program. In the second approach, schools and colleges integrate both the theory and practice of development of consciousness into the schedule and curriculum, combining excellence in traditional disciplines with the practice of the Transcendental Meditation technique. The oldest examples of the latter, more comprehensive approach are the Maharishi University of Management (formerly Maharishi International University) and Maharishi School of the Age of Enlightenment (MSAE) in Fairfield, Iowa, United States of America, founded in the early 1970s.

Research on students of Consciousness-Based education suggests improvements occur in many aspects of a student's life, including cognitive, affective, social and academic. Dillbeck and Dillbeck (2011) noted that Maharishi School students scored significantly higher on creativity and cognitive development than controls. Many of the classes rated in the top 5% and top 1% nationally in Iowa Tests of Basic Skills (ITBS) and Iowa Tests of Educational Development (ITED) and students increased significantly over the course of one year on these basic skills tests (Nidich & Nidich, 1986; Nidich, Nidich, & Rainforth, 1986). Students at Consciousness-Based education schools regularly excelled at national and state competitions in many fields, including science, drama, speech, music, and sport (Dillbeck and Dillbeck, 2015).

Research on Maharishi University of Management college students indicated higher scores on self-actualization (Orme-Johnson & Duck, 1976), moral reasoning (Nidich, 1976) and psychological stability (Brown, 1976/1977). Longitudinal studies over four years showed continued improvement in the mental abilities that usually stop growing in late childhood including: increased fluid intelligence and the ability to reason in novel situations (Aron, Orme-Johnson, & Brubaker, 1981; Dillbeck, Assimakis, Raimondi, Orme-Johnson & Rowe, 1986), field independence (Dillbeck et al., 1986), social maturity and psychological health compared to controls (Aron et al., 1981). A study over several years showed a significant increase in IQ in students from Maharishi University of Management compared to those from a nearby university (Cranson et al, 1991) and integrated growth beyond the normal college population on measures of autonomy, integration, spirituality, creativity and well-being (Gelderloos, 1987; Jones, 1989).

Research on the Quiet Time program in the public school system indicated a positive change in school absenteeism, suspensions, and decrease in negative behaviours, such as anger (Barnes, Bauza, & Treiber, 2001, 2003); significantly improved scores in English and mathematics classes (Nidich et al, 2011); a significant increase in students' graduation and college acceptance rates and decrease in dropout rates (Colbert and Nidich, 2013); reduced substance-abuse alcohol, illegal drugs, cigarettes and prescribed drugs—and reduced anti-social behaviour (reviewed by Alexander, Heaton & Chandler, 1994; Jones et al., 2003); and increased resilience in college students when facing the stress of final exam time (Travis et al., 2009, Nidich et al. 2009). A randomized longitudinal study on 362 Taiwanese secondary students found increases in multiple measures of intelligence, especially the traits that require integration of many factors affecting cognitive processing—creativity, field independence and practical intelligence (So & Orme-Johnson, 2001). The authors noted that considering intelligence is not very malleable (Loehlin, Horn, &

Willerman, 1997; Rowe, 1997), the increase in this study after only 6-12 months of Transcendental Meditation practice is notable.

4. Relevance of Consciousness-Based Education in ASEAN

The Consciousness-Based education model, an evidence-based means to attain the vision of ASEAN to offer opportunities for total human development for all, is not new to the ASEAN region. In 1993 the Consciousness-Based University, Maharishi Vedic University (MVU), with 550 students was established in collaboration with the Ministry of Education, Youth and Sport (MoEYS) and ministers of the government of Cambodia. This initiative was in response to the urgent need to educate the youth and rebuild the country in a self-sufficient and sustainable way and reconnect Cambodian culture with its roots in Vedic knowledge (Fergusson and Bonshek, 2013). Many of the students were orphans, had lived for many years in refugee camps, and suffered post-traumatic stress. Three empirical studies were published on the effect of the MVU approach to education, which showed the significant influence of the Transcendental Meditation technique on increased intelligence, learning ability, attention span, physical health, mental stability, self-esteem, problem-solving abilities and decreased trait anxiety, compared to control groups from other Cambodian institutions of higher education.

At Dhammajarinee Witthaya, a girl's boarding school near Ratchaburi, Thailand, over 600 at-risk girls live and study under the guidance of Buddhist nuns. For the last seven years, the director, Mae Chee Aunampai Passakchai, has offered the Transcendental Meditation technique to all incoming students in grades 4-12. During the academic year of 2015-2016, all 367 students in grades 4-12 and 13 faculties participate in the twice-daily Transcendental Meditation practice together in a group. The principal and faculty reported on the transformation in the students' happiness and emotional stability. Suspension rates dropped from 30% to 5% over the seven-year period, and academic achievements have improved. (Oaas, T., Supaneedis, A. (2015). Also in Thailand, the Department of Science of Creative Intelligence for Management of Rajapark Institute, Bangkok, comprehensively incorporating Consciousness-Based Education in theory and practice, offers both BA and MA international degree programs.

5. Conclusion and Directions for Future Research

In summary, the hope for education to unfold the total human development of students is supported by research on Consciousness-based education in the fields of neuroscience and developmental psychology. The research indicates that, through the use of the simple, systematic, and unique program to experience pure consciousness, the Transcendental Meditation technique, students can accelerate their own cognitive, affective and academic progress. Students grow into more ethical, intelligent, creative, confident, and forward-thinking human beings in the direction of self-actualization on a foundation of coherent brain functioning.

Wider application and research of the Consciousness-Based approach is suggested through the introduction of pilot programs, particularly at secondary and tertiary levels in ASEAN education. Further research on the effectiveness of the Transcendental Meditation technique in maximizing holistic development in students, as measured by the coherence of brain functioning, stages of ego development, and self-actualization is encouraged. Collaboration is suggested with a new research institute, Maharishi Vedic Research Institute, which has representation from prominent leaders in the ASEAN region. This institute's mission is to facilitate research and implementation of Consciousness-Based solutions in education, business, and government.

In conclusion, Maharishi (1963) described his vision of the value of Consciousness-Based education in the world:

This system of Transcendental Meditation, which is an easy approach to mental development and the unfoldment of all latent potentialities, and a direct way to fathom the spiritual values of inner life and glorify material values by the light of the inner Self, is a simple and a direct technique of education from within. The system is there, it has been evolved, it has been tried, and it has proved its value in every part of the world. Now it is left to the wise men responsible for the field of education to put this in the curriculum of the students in the colleges and universities so that a new humanity may be born—free from shortcomings, free from ignorance about the inner values of life, and more developed in their fuller personalities. (p. 209)

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Bangkokians' confidence in Bangkok Metropolitan Administration (BMA)'s CCTV

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Abstract

This quantitative research aims to (1) survey Bangkok Metropolitan residents about their confidence in the CCTV installation for crime prevention policy in the Bangkok Metropolitan area, (2) analyze confidence levels of Bangkok Metropolitan residents on the policy of CCTV installation for crime prevention in the Bangkok Metropolitan area, and (3) determine the cause of problems and offer guidance to solve problems created by the policy. The main research tool used in this research was a questionnaire created to survey Bangkok Metropolitan residents; the data was gathered by collecting details from the district office such as name and household registration from selected Bangkok Metropolitan districts. T-test, F-test, means, and standard deviation (S.D.) were calculated, and the level of significance for the data analysis was .05. The results of this research are as follows.

Overall, the level of confidence of the Bangkok Metropolitan residents had on the policy of CCTV installation for crime prevention in Bangkok Metropolitan area was at moderate level, but each item had 4 low confidence ratings, low confidence in the ability of the system to archive the CCTV footage, low confidence on whether the amount of CCTV cameras installed in each area was sufficient, low confidence in whether the amount of personnel was sufficient enough to support the monitoring of criminal activities, and low confidence in the ability of the relevant personnel and police officials to work together in each district.

Regarding the analysis of the confidence levels of Bangkok Metropolitan residents on the policy of CCTV installation for crime prevention in the Bangkok Metropolitan area, the results show that personal factors such as age, educational level, career, salary and length of residency in the Bangkok Metropolitan area affected the confidence of Bangkok Metropolitan residents on the policy of CCTV installation for crime prevention in the Bangkok Metropolitan area. The statistical difference was .05.

Regarding suggestions to improve the CCTV system, the results show that a system should be created to archive all of the CCTV video footage, there should be sufficient CCTV cameras installed in each district, there should be enough personnel to monitor the cameras, a control room to monitor all 50 Bangkok Metropolitan districts should be built, police officials need the training to monitor crime more effectively, and police officials should work more closely with Bangkok Metropolitan personnel to monitor criminal activities.

Keywords: *Bangkok, Bangkok Metropolitan Administration (BMA), CCTV, crime*

1. Introduction

CCTV (Closed Circuit Television) is one of the several options countries can use for the purpose of crime prevention. However, there are still questions on the operation of such technology depending on the circumstances of each country. In Thailand, CCTV cameras have long been installed in many places such as banks, shops, convenience stores. However, their usage was concentrated in the private sector area only. The policy to implement surveillance cameras to control crime in the city by the state government occurred with recent policies of Mr. Sukhumbhand Paribatra, the Bangkok Governor. The policy was to install 20,000 cameras across Bangkok before the end of 2012. In 2014, Mr. Wasan Meewong, Advisor of the Governor of Bangkok, said that "At the moment, Bangkok has CCTVs in various points, with the number of the camera being 47,000. 20,000 cameras were installed before the end of 2012, and another 27,000 were installed this year" (Dailynews, 2013). As mentioned, CCTVs were implemented to control crime and increase the level of security in Bangkok. There are doubts, however, in the implementation of such technology to deal with the crimes in Bangkok especially, in terms of confidence on the Bangkok Metropolitan Administration's (BMA) CCTV. In 2011, there was a situation that affected the confidence of the people of Bangkok in CCTV when Bangkokians found that CCTV cameras installed by the BMA in several points actually had no cameras in the CCTV housing. At the same time, they found that there were too many dummy or fake cameras installed in many areas (Matichon Online, 2011). Suspicions raised in

this issue has culminated the research question: What is the level of public confidence in the policy on the implementation of CCTV system for controlling crime in Bangkok?

2. Literature & Theory

2.1 Security System and Roles of CCTV Cameras

Security means protection of persons and the society from any danger. Security also includes the control of the safety of people in the society, including the prevention of danger outside the society (Dalby, 2003). As for security models in each society, the implementation methods on the safety aspects of the society were different. Zedner (2003) said that security method of each society came from the culture, politics, economy, and social condition which would lead to different security guidelines or plans. Zedner said that every society had two main objectives of security as follows: (1) to enable people in the society to peacefully live without external threats; (2) To make people in the society have no anxiety about the insecurity of life and property. This indicated that different security duties in these two objectives brought about the establishment of two main security organizations consisting of police officers and military officers in each state.

2.1.1 Changes in security system

“External threat”. In the past, the conflict between the countries would be widely expressed to the public. The threat of each country was militarily done by using a military weapon to attack the opposite side. When the war ended, the external conflict was also expressed in the model of terrorism. Terrorism is currently a major factor of external threat in several countries. Security guidelines or policy in each country also changed. Protection of the country could not be done by positioning forces around the country because terrorists could infiltrate that country and cause violent action without the government’s notice. Existing security guidelines against the threat of terrorism increasingly challenge security capabilities of each country. The government was unable to know clearly where and how enemies came because enemies could infiltrate the country at any point. The government had to, therefore, find ways to protect people from any harm to make sure that its people would not be threatened by terrorism (Krahman, 2005).

“Internal threat” is the crime committed in the society by people in the society or people from other societies who lived in that society (Zedner, 2003). In the past, most crimes were street crimes. Various offences such as assault, murder, rape, stealing, robbing were not complicated and did not require high technology to operate. A person or a few individuals might just simply commit the crime. Criminals were not highly educated. In the present time, criminal *modus operandi* is more complicated. Criminals gathered in the group as organized crime, with international crime network or transnational crime also present. A new model of the offence occurred. Development of technology, especially computer, resulted in a lot of new models of crime. Criminals might be educated or have social opportunities enabling them to commit an economic crime or committed white collar crime. As for model and characteristic of internal threats or crime in the past, those current threats may not stem from an offence of people living in the country but boundless crime such as committing crime online or transnational crime. Those threats might be instigated by organized crime with its network staying outside the country.

It was found that models of internal and external threats defined by Zedner (2003) also changed and were complicated. At present, it may be said that we cannot separate internal threats from external threats. Therefore, the current security system has to be developed to keep up with the changing characteristics of threats. As for the model of security at present, every agency and every organization have to cooperate in preventing various threats to make people in that country live peacefully. As for changes of the society, crime, and security system, technological development has been significant to various changes from the past to the present. There were technological advantages and disadvantages. When criminals learnt and illegally used technology, people with duties to control crime should develop their knowledge and use the new technology to fight against crime to appropriately control crime and make people in the society live peacefully.

2.1.2 Roles of CCTV cameras in security

Use of CCTV cameras is the crime-controlling method recognized in several countries around the world. However, the use of CCTV cameras stemmed from the expression of fear of threats outside and inside the society, which affected the loss of privacy in public places of the people in that society (Schuilenburg, 2008). Many technologies are currently used for preventing crime. For example, there was a use of offender database system for the compiling history of offenders, offence models, warrant of arrest, or various information of offenders, to allow for convenient searching and examination of offence for each person. New technology was used for developing forensic science system. For example, more modern fingerprint examination system could quickly compare hidden fingerprint collected in the scene of action and the fingerprint from database. DNA examination system could examine physical evidence derived from crime scene and DNA of suspects. As for use of technology mentioned in this article, the researcher focused on roles of CCTV cameras because use of CCTV cameras to control crime played an important role and was used as the main measure to prevent crime in several countries around the world. CCTV camera was a category of modern technology used for inspecting and observing movement and behaviour of people in the community. The purpose of using CCTV cameras was as follows:

“CCTV cameras aimed to study the normal and abnormal action of people in the society for managing or determining policy on prevention and suppression of crime and other policies in the society.”

(Surette, 2006)

CCTV cameras initially used during the 2nd World War in 1942 aimed to observe missile firing of Germany. As for the role of CCTV cameras in the justice process, CCTV cameras were used for watching the behaviour of prisoners in jails for preventing escape (Norris & Armstrong, 1999). Use of technology to develop security caused a rapid change in the 60s. New York, the United States of America was the first city using the mentioned technology to control crime, with the installation of CCTV cameras in the economic zone in 1968. The United Kingdom used CCTV cameras to carry out security in banks and shops. The first city using this system was Norfolk (Staff, 2007). After that, several developed countries widely used CCTV cameras. The policy of using CCTV cameras to control crime was initiated in Bournemouth, England, a coastal resort town, where there were a lot of domestic and foreign tourists frequently causing chaos at night. CCTV cameras were, therefore, used as the policy to manage people and control the crime which often occurred after tourists left various service centers at night (Norris & Armstrong, 1999). CCTV cameras were used for inspecting and controlling crime in several places. During the mentioned period, CCTV cameras were increasingly used in public areas replacing the number of human resources and increasing the standard of keeping peace and safety in the community.

In the United Kingdom, there was an event affecting change of security system. On 24th April 1993, there was an explosion at Bishop Gate, an important financial business zone in London. This incident brought even more roles of CCTV cameras and stricter security measures. After that, “Ring of Steel Measure” was used by the government resulting in London being the most controlled city in the world (Fussey, 2007). Later, CCTV cameras received interest and rapidly increased in numbers after the terrorism in New York on 11th September 2001 or “911 incident” when terrorists seized and crashed the airplane into the World Trade Center Building in New York and Pentagon Building in Washington D.C. This terrorist attack affected fear of terrorism and fear of crime around the world, leading to the stricter security system. At present, the growth of CCTV cameras in the United Kingdom continuously increases. In 2013, 5.9 million CCTV cameras were used for controlling crime (The Telegraph, 2013).

In Thailand, CCTV cameras were mostly used by the private sector. The first state agency using CCTV cameras in the security system was the Bank of Thailand, followed by Expressway Authority of Thailand, Donmuang Airport, BTS Sky Train, Central Traffic Police Division, and Bangkok Metropolitan Administration. The Central Traffic Police Division had first installed 16 CCTV cameras on the roads in 1993. Later, Police Department (Royal Thai Police in the present time) transferred the job of installation to Bangkok Metropolitan Administration due to lack of budget on maintenance. As Bangkok Metropolitan Administration had more budget on investment, it had to organize CCTV cameras installation system. In

1996, 44 CCTV cameras were additionally installed. The main purpose of using CCTV cameras during the mentioned period was to solve traffic problems in Bangkok (Trimek, 2010).

Initially aimed at solving traffic problems in Bangkok, the main purpose of CCTVs nowadays is to prevent and suppress crime. In the middle of 2006, Bangkok Police Station, in cooperation with Kasetsart University, organized Safety Zone Project by initially providing more security in Kasetsart University, Bangkok Campus to reduce the fear of students and staff and decrease crime rate by improving the security of places where crime might occur. CCTV cameras system was used for solving the criminal problem (Prachachart-Thurakij, 2006). After that, Metropolitan Police Bureau in cooperation with True Internet Co., Ltd and Law Enforcement Technology Solution Co., Ltd organized Safety Zone Project in 88 Police Stations throughout Bangkok by focusing on educational institutes, community, workplace, and public areas as the safety zones. CCTV cameras were installed in 120 zones around Bangkok. The government and the private sector cooperated in implementing the mentioned project by installing CCTV cameras for controlling crime in Bangkok (True Internet, 2006). However, as Metropolitan Police Bureau did not have the budget for maintenance, it assigned Bangkok Metropolitan Administration to be responsible for some cameras.

On 31st December 2006, there were approximately eight explosions in various places of Bangkok including Victory Monument, Khlong Toei, Saphan Khwai, Khae Rai Intersection, Sukhumvit Road, and Major Ratchayothin, killing three people and injuring 38 (BBC, 2007). This made Bangkok Governor saw the importance of stricter security and use of CCTV cameras. BMA was determined to pursue the policy of installing CCTV cameras to increase the security of people in Bangkok. The mentioned policy began the implementation in 2007 under the project "Safety Bangkok". In 2012, there was a policy to install 20,000 CCTV cameras by mainly installing at the intersection, harmful alleys, community, and various important places in Bangkok (Trimek, 2010).

CCTV cameras were used for watching crime, decreasing the deployment of some police officers, and increasing the reliance on technology. CCTV cameras were able to threaten and suppress offence of criminals and help arrest offenders. According to the information above, CCTV cameras played an important role in the past era. However, trust and acceptance of the mentioned technology were different in each context of the society.

2.1.3 Confidence in CCTV cameras

Confidence involved the feeling resulting from the experience receiving from persons or organizations in various aspects such as honesty, justice, management capability, social responsibility. It might also be positive expectation on persons or organizations. Confidence or reliability was an important factor which affected working. The confidence of related agencies or people in working with state agencies affected management in the sense that if related agencies or people did not trust state agencies, this would have a negative impact on cooperation, coordination, co-working, reliability. Creation of confidence to related agencies and people was an important factor, considerably affecting the work of state agencies.

As for confidence in the installation of CCTV cameras for controlling crime, the government had to consider various issues before the installation of CCTV cameras, which would affect policy efficiency and effectiveness and people's confidence in the mentioned policy. The government had to consider the following issues (Clancey, 2009):

- a) Camera design. The government should consider where and how many fixed cameras or Pan/Tilt/Zoom cameras were installed. Moreover, the government should consider where day cameras or night cameras should be used.
- b) CCTV cameras should be installed in places which could record pictures at the wide range to enable people to use fewer CCTV cameras for installation.
- c) CCTV cameras should be pointed in the suitable direction, and other lights had to least impact the recording of images.
- d) There should be equipment installed for preventing CCTV cameras from being damaged. CCTV cameras should be able to endure heat and cold.

- e) The government should think of the number of CCTV cameras in each area, which would affect CCTV cameras operational efficiency.
- f) The government should choose between wireless or wired installation and how the connection should be done to prevent CCTV cameras from being destroyed by offenders and nature.
- g) The government should think of maintenance, cleaning, and frequency of examining as well as controlling CCTV cameras efficiency.
- h) The government should think of the noticeboards informing people about CCTV cameras operation. The government should think of the number of noticeboards and places where CCTV cameras should be installed.
- i) The government should determine regulations for installation of CCTV cameras in every installation point.
- j) The government should improve the places where CCTV cameras were installed such as cutting trees, collecting electric wires and telephone wires, and removing the noticeboards which might conceal CCTV cameras visibility.
- k) The government should improve physical characteristics and install electricity while installing CCTV cameras.
- l) The government should think of staff controlling and examining CCTV cameras efficiency. The government should determine criteria for testing CCTV cameras efficiency.
- m) Officers and staff controlling and examining CCTV cameras should be well trained. The government should think of training organizers, training period, and training frequency.
- n) The government should think of construction, number, and place of the control room. It should think of suitable size of the control room, places where the control rooms were situated, people who could enter the control room, which monitor should be used, what size of monitor should be used, how many monitors should be used, proportion of officers and monitors, communicative system, and relation between police officers and the control room.
- o) The government should consider the suitable capacity of data storage.
- p) The government should consider that how many frames CCTV cameras could capture images per second.
- q) The government should consider which system should be used for storing data.
- r) The government should think of the period of storing data, which had to correlate with the capacity of data storage.
- s) The government should consider that how police officers and external agencies were able to access the recorded data.
- t) The government should think of executives and staff coordinating work between various agencies for accessing data.

2.1.4 CCTV systems help to prevent crime and help to catch a criminal.

Individual, who commit the offence, at the first place, consider the possibility of being arrested before making decisions to commit a crime. Thus, it brings the matter to the authority to increase the security, inspection, or surveillance to suppress humans' crime behaviour. CCTV camera is the equipment that helps increase surveillance of an area. Besides manpower, CCTV cameras are used for surveillance like the inspection of the patrol system of police officers. When humans see CCTV cameras, they feel that they are observed by other people, affecting their decision to express deviant behaviour or crime behaviour. When humans see CCTV cameras or signs stipulating "CCTV is in operation" or "this area is recorded by CCTV cameras", they may decide not to commit a crime according to Rational Choice Theory (Becker, 1976).

According to Deterrence Theory (Pursley, 1991), after crime occurrence, CCTV cameras express two roles by tracking the offenders to suffer punishment and punishing the offenders, which will affect social deterrence in the form of general deterrence and affect individual deterrence in the form of specific deterrence. As for tracking the offenders to bring them to punishment, images of CCTV cameras are evidence which can identify the offenders. Investigation officers collect evidence according to Criminal Code Section 131 stipulating that "investigation officers have to collect all types of evidence as much as

possible to know facts and various behaviours on offence, know the offenders, and prove the offenders "offence or innocence". A collection of evidence derived from CCTV cameras indicates behaviour of committing offence and appearance of the offenders which will lead to the approval from the court to issue a warrant of arrest against the offenders.

After the offenders were arrested, CCTV cameras will be used as evidence. According to the Code of Criminal Procedure Section 226, material evidence, documentary evidence, or witness which are likely to prove defendants' offence or innocence will be the evidence but the mentioned evidence must not stem from motivation, promise, threat, deceit, or other illegal action. Images of CCTV cameras are both material evidence and documentary evidence. If investigation officers send the evidence in the form of still images as a document supporting investigation reports, these images will be documentary evidence. If investigation officers send footage, this evidence will be material evidence according to the Code of Criminal Procedure Section 226 (Natipodhi, 2010 cited in Trimek, 2010). The court will weigh the mentioned evidence to ensure that the offenders commit an offence, and the defendants commit that offence according to the Code of Criminal Procedure Section 227.

According to the abovementioned information, images of CCTV cameras are able to track the offenders to bring about punishment and prove the offenders' offence and innocence, which will affect social and individual deterrence according to Deterrence Theory. Apart from the impacts of deterrence as mentioned above, a positive impact of roles of CCTV cameras after crime occurrence is a reduction in the level of fear of crime of individuals and the society.

2.2 Criminological Theory on CCTV Cameras

Criminological Theory mainly explains the occurrence of crime and criminals by mentioning causes of people committing crime both from individual and social perspective. Moreover, it mentions guidelines of solving the crime problems on the use of the law, justice process, and the society. As criminological science is interdisciplinary, many theories are continuously invented in several perspectives. However, the researcher would like to mention Criminological Theory on CCTV cameras. Details were as follows:

2.2.1 Routine activity theory

Routine Activity Theory uses the philosophy of Deterrence Theory and Rational Choice Theory as the initial concept. The main principle of Routine Activity Theory is that crime stems from three elements consisting of criminals to commit the offence, suitable victims, and places suitable for committing the offence. The main hypothesis of Routine Activity Theory is that increasing rate of victimization depends on three complete elements. Having developed this theory, Cohen & Felson (1979) defined that routine activity is individuals' any frequent action such as leaving the house to work without anybody staying at the house, wearing expensive ornaments when going outside at night. Moreover, routine activity means characteristics of individuals who may easily become crime victims such as being female, young, or old because the founder's hypothesis stipulated that crime occurrence stems from frequent actions of crime victims.

This theory mentions the impacts of victimization on individuals, community, and society. The impacts on individuals consist of physical condition, property, and social and mental problems. As for social and mental problems, crime victims fear and their feelings on other people change. These crime victims may express these changing behaviours for several months or several years. As for the impacts on community and society, victimization positively and negatively impacts the community and society. As for positive impacts, victimization in the society makes the society aware of danger against the society, bringing about more carefulness and crime prevention of people in the society. Moreover, it brought scientific and technological development and the creation of art and worked for social change. As for negative impact, victimization in the society makes other people in the society fear crime, affecting their behaviour and lifestyle. This made the society responsible for solving the problems, with the budget for crime prevention and suppression having to be increased accordingly.

According to Routine Activity Theory, crime stems from three elements: (1) offender with skill and capability to commit the offence, (2) targets/victims being unable to protect themselves, and (3)

deserted place suitable for crime occurrence. These three elements cause a higher rate of crime occurrence and victimization. The rate of crime occurrence and rate of victimization will decrease if there are (a) handlers to suppress criminals' behaviour, (b) managers to suitably organize the place to prevent crime, and (c) victim guardians. As for CCTV cameras pertaining to Routine Activity Theory, it may be said that CCTV cameras are used for reducing the rate of crime occurrence according to the mentioned theory by improving the security of areas with CCTVs (which would be mentioned in details of Crime Prevention through Environmental Design Theory). Moreover, the presence of the CCTVs also acts as a medium to protect crime victims by making criminals decide not to commit a crime.

2.2.2 Crime Prevention through Environmental Design Theory (CPTED)

Environmental adjustment is a method which can prevent criminals from committing offence according to Routine Activity Theory. According to the concept of Crime Prevention through Environmental Design (CPTED), criminologists expressed opinions that criminals will not commit an offence in the safe environment where there is a suitable provision of the electricity system, order, and security system (Jeffery, 1977).

Jeffery (1977) developed CPTED theory with the basic principle of criminals' crime-committing characteristics and the crime scene. Physical environment stimulates the offenders to commit a crime, making the offenders either eager or afraid of committing a crime. For example, the offenders are stimulated to commit an offence if they see the houses situated in the place where there are few people walking or no electricity system. The offenders may steal motorcycles parking in a department store with no efficient access control system. The physical environment of the place is, therefore, an important factor in controlling offenders' behaviour. According to CPTED theory, the offenders may decide not to commit an offence if they find that there is a high chance of being arrested or being easily found. Dwellings, workplace, buildings, shops, public places such as a public park, sidewalk, bus stop should be suitably designed to deter the offenders from committing a crime. This can reduce the chance of committing offence or increase the chance of being inspected.

At present, police organizations in several countries use CPTED theory to prevent crime by providing manuals offering guidelines of organizing buildings or dwellings to be consistent with the theory. Moreover, this theory influences design or planning of some countries. According to this theory, there are certain regulations enacted to prevent crime such as the requirements of the electricity system on the sidewalk or public parking lot, the requirements of access control system of high-rise buildings. This theory widely used in the present. Guidelines for designing the environment to prevent crime could be divided into four models as follows:

- 1) The use of natural surveillance aims to increasingly threaten the offenders by making the offenders think that they can be seen or observed. Places should be suitably designed by providing more sight or surveillance such as the installation of windows to enable people to see a sidewalk or the parking lot, use of transparent walls, and CCTV cameras installation which is strongly related to this theory.
- 2) Natural access control aims to reduce chances of the offenders to access the place or victims by creating the natural access control system or designing the place to enable people to know that the place where they are entering is a personal area such as determining one-way access.
- 3) Natural territorial reinforcement aims to make the offenders feel that they are entering the prohibited area. The place should be suitably designed by clearly dividing the territory between personal area and public area such as building fences to demarcate territory.
- 4) Maintenance aims to support the above three methods by maintaining places and the environment such as maintaining access areas, installing electricity system, repairing houses and buildings, cutting excessive trees.

In Thailand, Dr. Purachai Piumsomboon (a co-researcher with Ray Jeffery in CPTED at Florida State University) did a research to develop Crime Prevention through Environmental Design Theory for usage in Thailand by disseminating the information in the book "Crime Control through Environment: Principle, Theory, and Measure" (Piumsomboon, 1982). The heart of Crime Control through Environment

Theory is not different from the concept of CPTED Theory, stipulating that environmental adjustment and environmental use can reduce chances of committing a crime and bring about the safe environment. Crime Control through Environment Theory and CPTED theory similarly have four principles.

2.2.3 Situational Crime Prevention Theory

Clarke (1997) said that there are two methods of crime prevention: changing the offenders' habits or reducing chances of the offenders to commit the offence. According to the Situational Prevention Theory, crime will decrease by improving the condition causing crime rather than changing the offenders' habit. Clarke presented four principles of reducing crime according to Situational Crime Prevention Theory: increasing perceived effort, increasing perceived risks, reducing anticipated rewards, and removing excuses. After presenting the mentioned principles in 1997, he improved his theory in 2003 by adding the fifth principle of reducing provocations. After this development, the Situational Crime Prevention Theory consists of five following principles:

- 1) Increasing perceived effort aims to stimulate criminals to make the decision not to commit crime because they have to use more effort to do so. Increasing perceived effort can be done by using the physical equipment. For examples, there should be an increase in the level of access prevention by more tightly closing doors and windows. Security system and CCTV cameras should also be installed. The password of data system should be set more complicatedly. Moreover, social regulations should be stricter such as the prohibition of carrying weapons in various places. These things make the criminals use more effort to commit a crime.
- 2) Increasing perceived risks. The offenders are more anxious about the risk of being arrested rather than the consequences of being arrested. Increasing perceived risks of being arrested significantly brings about the decrease in crime occurrence. For example, there should be more provision of natural surveillance by providing more light and suitably organizing the places. There should be more provision of surveillance by installing CCTV cameras or increasing the number of officers who are performing surveillance duties.
- 3) Reducing anticipated rewards focus on reducing benefits of committing a crime. This mainly focuses on victims' behaviours. For examples, victims should carry very few valuables public places. They should not use expensive goods and expensive cars. There should be an approach to destroying the black market or channels of distributing illegal products to deter criminals from receive remuneration from committing the offence.
- 4) Removing excuses. The offenders like to find excuses to commit a crime. The excuse mainly used by the offenders is that they do not know the law. Rules and regulations should be, therefore, disclosed to remove excuses to commit the offence. For example, a contract is clearly made between an employer and an employee to enable the employee to be aware of work regulations. The signs clearly indicating regulations of a particular site should be fixed. No-parking sign or speed limit sign should be fixed. The information on law and legal punishment should be widely disseminated to the public.
- 5) Reducing provocations has the same practice guidelines as reducing anticipated rewards and has the same suggestion on victims' behavioural expression. However, reducing provocations focuses on offence against life and body such as avoiding conflict which may occur in each situation by avoiding quarrels in the pub, avoiding conflicts caused by riot, and avoiding conflicts caused by attending sports competition. As victims can stimulate crime occurrence, they should avoid quarrelling with other people. They should suitably dress or should not go to deserted places to avoid facing sex crime (Cornish & Clarke, 2003).

3. Methods

This research is a quantitative research to the level of public confidence in the policy on the implementation of CCTV system for controlling crime in Bangkok. The researcher used questionnaires to collect the data. The population in this research was 5,686,252 people who live in Bangkok. (Not including non-registered population) (BMA, 2013). The researcher calculated the sample size from Yamane's

criteria at the confidence level of 95.0 (Yamane, 1967). As a result, there were 400 samples. The researcher added 80 samples to prevent 20% errors. Hence, the total samples in this research were 480. Statistical Package for the social sciences (SPSS) was used to process and analyse the data in 2 modes; descriptive statistics i.e. mean, standard deviation and inferential statistics, by using t-test and F-test to test the hypothesis.

4. Results

4.1 The level of public confidence in the policy on the implementation of CCTV system for controlling crime in Bangkok.

The researchers divide an analysis of confidence on the BMA's CCTV cameras into three groups (15 aspects), namely confidence in the efficiency of the camera, confidence in installation areas, and confidence in government authorities (Clancey, 2009). The level of confidence would be interpreted by Likert's rating scale as follows:

- 4:51 to 5:00 is very high
- 3:51 to 4:50 is high
- 2:51 to 3:50 is moderate
- 1:51 to 2:50 is low
- 1:00 to 1:50 is very low

Table 1 A group of confidence in the efficiency of the camera

Confidence in the efficiency of the camera	Mean	S.D.	Interpreted
1. CCTVs installed by the BMA are able to monitor the behavior of the offender.	3.15	1.14	Moderate
2. CCTVs installed by the BMA are able to record the face or license plate number of the offender.	3.04	1.11	Moderate
3. CCTVs installed by the BMA are strong, not easily broken.	2.85	1.01	Moderate
4. CCTVs installed by the BMA are 24/7 recording.	2.70	1.08	Moderate
5. CCTVs installed by the BMA are all useable	2.47	1.05	Low
Total	2.84	0.89	Moderate

Table 1 showed that overall public confidence in the efficiency of the camera in the efficiency of the camera is moderate (mean= 2.84, SD = 0.89). In descending order, the locals believe that CCTVs installed by the BMA are able to monitor the behaviour of the offender at the level of moderate confidence (mean= 3.15, SD = 1.14), followed by the belief that CCTVs installed by the BMA are able to record face or license plate number of the offender also at a moderate confidence level (mean= 3.04, SD = 1.11) and belief that CCTVs installed by the BMA are strong, not easily broken at the moderate level (mean= 2.85, SD = 1.01) Next, the confidence that CCTVs installed by the BMA are 24/7 recording is moderate as well (mean= 2.70, SD = 1.08). Finally, what is worrisome is the assurance that the CCTV cameras installed in Bangkok can be used. Bangkok residents have a low level of confidence in this aspect (mean= 2.47, SD = 1.05), which is an issue that needs to be solved, as will be discussed further.

Table 2 A group of confidence in the installation area

Confidence in the installation area	Mean	S.D.	Interpreted
1. CCTVs installed by the BMA has enough coverage and covers each area.	2.16	0.95	Low
2. CCTVs installed by the BMA were installed in the right position.	2.66	1.00	Moderate
3. CCTVs installed by the BMA bear to the right direction to record.	2.77	0.96	Moderate
4. CCTVs installed by the BMA are not obscured by obstacles such as trees, poles, billboards, etc.	3.26	0.99	Moderate
5. CCTVs installed by the BMA were installed in places where there was a risk of crime.	2.69	1.03	Moderate
Total	2.70	0.57	Moderate

In Table 2 the level of confidence of the installation area as a whole is moderate (mean= 2.70, SD = 0.57) In descending order, Bangkokians belief's that that CCTVs installed by the BMA are not obscured by obstacles such as trees, poles, billboards, etc. is at a moderate confidence level (mean= 3.26, SD = 0.99), followed by the belief that CCTVs installed by the BMA bear to the right direction to record at a moderate confidence level (mean= 2.77, SD = 0.96), followed by the belief that CCTVs installed by the BMA were installed in places there were a risk of crime at a moderate confidence level (mean= 2.69, SD = 1.03), followed by the confidence that CCTVs installed by the BMA were installed in the right position at a moderate level (mean= 2.66. SD = 1.00) Lastly, CCTVs installed by the BMA has enough coverage and covers each area, with confidence at a low level (= 2.16, SD = 0.95), which is another issue to be discussed further.

Table 3 A group of confidence in government authorities

Confidence in government authorities	Mean	S.D.	Interpreted
1. A sufficient number of BMA authorities to monitor the behavior of the offender through the surveillance cameras.	2.45	1.01	Low
2. A timely coordination between BMA authorities and polices when an unusual event occurred in the area of control.	2.47	1.03	Low
3. BMA authorities who monitored the behaviour through surveillance camera were trained appropriately.	2.79	0.97	Moderate
4. BMA authorities who monitored the behaviour through surveillance camera would not use the footage in a way that is inappropriate or in violation of the right of the people.	2.86	1.08	Moderate
5. BMA authorities who monitored the behaviour through surveillance camera would not use the footage to their advantage.	2.90	1.10	Moderate
Total	2.69	0.85	Moderate

In Table 3 the overall confidence of government authorities is moderate (mean= 2.69, SD = 0.85). In descending order, the locals' belief that BMA authorities who monitored the behaviour through surveillance camera would not use footage to their advantage is at a moderate confidence level (mean= 2.90, SD = 1.10), followed by the belief that BMA authorities who monitored the behaviour through surveillance camera would not use footage in a way that is inappropriate or in violation of the right of the people, at a moderate level (mean= 2.86, SD = 1.08), followed by the confidence that BMA authorities who monitored the behaviour through surveillance camera were trained appropriately also at a moderate level (mean= 2.79, SD = 0.97), followed by the confidence that a timely coordination between BMA authorities and polices when an unusual event occurred in the area of control at a low level (mean= 2.47, SD = 1.03), and the confidence that the number of BMA authorities to monitor the behaviour of the offender through the surveillance cameras is sufficient at a low level (mean= 2.45, SD = 1.01) BMA should tackle the last two issues in particular to increase public perception towards their own safety.

4.2 The Difference in the Level of Confidence among People with Different Personal Factors.

Different genders did not significantly cause different confidence in the BMA's CCTV at the level of .05, while different ages significantly caused different confidence in the BMA's CCTV at the level of .05. People aged 30-39 years (Generation Y) significantly had less confidence in the BMA's CCTV than people aged 40 and above at the level of .05. Different educations significantly caused different confidence in the BMA's CCTV at the level of .05. People graduating higher than the bachelor degree had less confidence in the BMA's CCTVs than people whose highest education was primary and junior high school. People graduating with bachelor degree had less confidence in the BMA's CCTVs than people completing primary education. This indicated that highly-educated people had less confidence in the BMA's CCTV than low-educated people. Different occupations significantly caused different confidence in the BMA's CCTVs at the level of .05. Staffs of private companies and business owners or freelancers had less confidence in the BMA's CCTV than unemployed people like house husbands, housewives, and retired people. Different monthly incomes significantly caused different confidence in the BMA's CCTV at the level of .05. Low-income people (less than 25,194 baht/month) (National Statistical Office, 2014) had more confidence in the BMA's CCTV than high-income people. Dwellings in different zones did not significantly cause different confidence in CCTV cameras of Bangkok Metropolitan Administration at the level of .05. Also, different periods of living in Bangkok significantly caused different confidence in CCTV cameras of Bangkok Metropolitan Administration at the level of .05. People living in Bangkok for more than 30 years had more confidence in the BMA's CCTV than people living in Bangkok for less than 30 years.

4.3 Discussion

The first analysis performed is the analysis on the lack of confidence in the usability of BMA's CCTVs. Such issue is due to the impact of suspicions raised in late 2011 when the locals detected that there were no cameras in the CCTV housing in many areas. Besides, the number of fake cameras were installed instead of the actual cameras in many places. The questions from the public and the media affected the confidence of such policies. In response to public outcries, Deputy Governor replied in an interview with the Prachachat-Turakit that:

"The dummy cameras were installed during the previous governor's tenure because BMA's budget was not sufficient. Moreover, it is necessary to install CCTV to control political conflicts. Therefore, BMA had to use fake cameras. There were. However, 500 dummy cameras installed in the inner city of Bangkok at the point of protest areas, such as Dusit district, Satorn district and the area where the congregation spread out. Currently, we had sufficient budget. 10,000 cameras were already installed and the target of 20,000 cameras will be completed soon. This includes the installation of CCTV cameras into the blank CCTV housing."

(Prachachat-Thurakit, 2011)

However, although the issue has been clarified to public notice, public confidence on actual usability of CCTVs installed in the city remains low. Although this survey research was conducted four years after the event, the confidence of the locals on the issue remains low. This shows that throughout the period of 4 years, the BMA has failed to take any action to restore public confidence.

The next discussion is the lack of confidence in a sense that the number and the coverage of CCTV cameras installed by MBA are not sufficient. Although in January 2015 (the time that the researcher conducted a survey), the Governor has confirmed that the BMA has already installed 50,000 cameras, covering all areas of Bangkok, the number of such cameras was very small number compared to the total area of Bangkok (1,569 square kilometers). This means that there is one camera per 31,380 square meters, or one camera per 20 acres, which is not enough to control crime. In comparison with London, the capital which is relatively equal in size to Bangkok (1,572 square kilometers), it was found that the number of surveillance cameras installed to control the crime was up 422,000 (Davis, 2012), eight times the amount installed in Bangkok.

Also in question is the lack of confidence in the BMA authorities and the Metropolitan Police Bureau, especially the lack of confidence in the number of BMA authorities in monitoring the criminal

behavior through CCTV cameras. In this regard, the public does not believe that there would be great coordination between BMA authorities (in the control room) and the police when any unusual event occurred. The issue is in line with the concerns in research conducted by Trimek (2010) who have studied the feasibilities and concerns on implementing the full CCTV system in Bangkok. In that research, Mr. Tripop Khantayaporn (a Chief of Traffic Engineering Office and the prime responsibility in the CCTV system in Bangkok) admitted that "the BMA had not enough manpower to monitor the CCTV camera, with the coordination between the BMA authorities and a local police officer as another hindrance."

5. Conclusion

In terms of public confidence in BMA's CCTV, the research found that Bangkokians' confidence in BMA's CCTV were at a moderate level. However, public confidence was at a low level in the following aspects: (1) the public does not believe that all CCTVs installed by BMA are usable, (2) the public does not believe that the number of CCTVs installed by the BMA is sufficient (3) the public does not believe that BMA has enough staff to keep an eye on the behavior of the offenders through CCTVs, (4) the public does not believe that there would be a great coordination between BMA authorities and Metropolitan Police Bureau when an unusual event occurred. For the research recommendations, BMA does not have to install any fake CCTV camera or dummy camera. Even though in many countries, the use of dummy cameras mingling with real cameras can reduce the operating budget. Such an approach will adversely affect the confidence of locals in Bangkok as mentioned above in the findings. Next, BMA should increase the number of CCTV cameras. With the number of cameras currently at 50,000, this is still not enough. There should be enough personnel to monitor the cameras, a control room to monitor all 50 Bangkok Metropolitan districts should be built. Last but not least, the Metropolitan Police Bureau should cooperate with the BMA authorities promptly when any irregular event is detected by the CCTV cameras.

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The Study of Applying Electronic Monitoring as Alternative Measures to Imprisonment in Solving Prison Overcrowding Problem

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Abstract

This study aims to investigate the ways to drive electronic monitoring (EM) an intermediate punishment, which is the international practice applied with some types of offenders to alternate imprisonment. This is an additional alternative for the justice administration to solve prison overcrowding problem and benefits to the appropriate and constructive rehabilitation. Approximately 17 participants who were administrators of the Ministry of Justice and personnel from the government agencies involved and other 24 participants who were inmates and offenders were interviewed for using EM. This study recommends that applying EM as a model of intermediate punishments as being internationally practiced could optimize imprisonment sentenced on some types of offenders. Using EM should also help to solve prison overcrowding problem and reduces the government budget. It also allows offenders an opportunity of self-rehabilitation and returns to spend life happily with their families and societies.

Keywords: *intermediate punishment, electronic monitoring, prison overcrowding problem, justice administration*

1. Rationale

Crimes in the Thai societies at present are growing each year and mounting the number of inmates nationwide regarding prisoners and inmates awaiting prosecutions. The total number of inmates are more than 329,169 persons (Department of Corrections, 2015) as in Table 1. This leads to prison overcrowding problem and loads the government the mega amount of budget to supervise them including the related managerial cost in the justice administration. Also, most offenders are the working age groups but being jailed in the prison rather than having opportunities to return to societies and attend their careers.

Table 1 Statistics of the inmates nationwide

Year	Males	Females	Total
2010	137,580	22,513	160,093
2011	138,443	22,986	161,429
2012	142,687	24,577	167,264
2013	159,837	27,676	187,513
2014	188,838	31,482	220,320
*2015	281,465	47,704	329,169

Source: Inmates Statistics Nationwide of the Department of Corrections (2015)

The problem of prison overcrowding can be found in many countries, and the way to solve this issue by developed countries is enforcing the intermediate punishment against some offenses to alternate imprisonment. It optimizes the court in sentencing and leads to an appropriate rehabilitation. This is advantageous to the offenders themselves and societies as a whole. It also corresponds with the principles of human rights and the international obligations in the United Nations Standard Minimum Rules for Non-custodial Measures as known as the Tokyo Rules. It aims at non-custody in particular against the defendants awaiting interrogation, preliminary examination, and hearing. It is a relief in custody and detention. By the principle of law, it is afore assumed that all criminally alleged are still innocent until being proved guilty.

Also, the intermediate punishment helps reduce large amount of spending which the government has to pay for the managerial cost related to the justice administration. Significantly, it minimizes the opportunity to learn the criminal behaviors in prisons while promoting the reintegration.

Although the government agencies involved with justice administration have attempted to introduce models recently, methods and concepts of the intermediate punishment measures such as community service, custody of some offenders outside prisons and house arrest or restricted areas by technology control system or specific measures stipulated to introduce non-imprisonment constructively imposed on the offenders; but actions of not yet taken. This study needs to investigate the use of electronic monitoring (EM), which is another model of the intermediate punishments to monitor petty offenders or misdemeanor to alternate imprisonment under a condition or by the court's order. The objective is to investigate the ways to drive using EM in order to lead to constructive practice to solving the prison overcrowding problem.

2. Research Objectives

- 1) To investigate the scope of Thai laws and the international rules related to introducing the intermediate punishment imposed on some offense to alternate imprisonment,
- 2) To investigate the ways to drive using electronic monitoring (EM) a model of the intermediate punishment to monitor some offenses to alternate imprisonment, and
- 3) To recommend a conceptual framework and the policy to introduce the appropriate intermediate punishment imposed on offenders in Thailand in order to solve prison overcrowding problem.

2.1 Scope of the Study

This study is scoped tie investigate the Thai laws and the international rules related as follows:

- 1) Constitution of the Kingdom of Thailand B.E.2550 (2007)
- 2) The Criminal Code of Thailand
- 3) The Criminal Procedure Code of Thailand
- 4) Correction Act B.E.2479 (1936)
- 5) Acton Measures for the Suppression of Offenders in an Offence Relating to Narcotics B.E.2534 (1991)
- 6) The International Covenant on Civil and Political Rights 1966
- 7) The Universal Declaration of Human Rights

The scope of time: the researchers spent 12 months for data collection, documents, related research and in-depth interview with key informants in order to analyze and synthesize recommendations in using EM as a model of the intermediate punishment to monitor offenders in order to alternate imprisonment.

2.2 Research Questions

- 1) Is it appropriate to introduce intermediate punishment imposed on offenders to alternate imprisonment in the Thai societies or not and how?
- 2) What are the advantages of using EM to monitor offenders, the persons involved, the Thai societies and the justice administration?

2.3 Expected Benefits

- 1) To know the scope of Thai laws and the international rules related to introducing the intermediate punishment imposed on some offense to alternate imprisonment,
- 2) To know the ways to drive using EM a model of the intermediate punishment to monitor some offenses to alternate imprisonment, and
- 3) To gain recommendation to design a conceptual framework and the policy to introduce the appropriate intermediate punishment imposed on offenders in Thailand in order to solve prison overcrowding problem.

2.4 Methodology

The data collection in this research was through a qualitative study by exploring information, documents, related research and in-depth interview conducted with 41 key informants. The study was divided into two phases. The first phase was interviewing 17 key informants who were administrators of the Ministry of Justice and personnel from the government agencies involved. The second phase was interviewing 24 key informants who were inmates and offenders.

Department of Corrections approved this data collection conducted with inmates using EM because it was a method complied with the concept of intermediate punishment measure just recently having been experimented in Thailand. The data was analyzed and synthesized to find recommendations in introducing to use EM constructively to solve the prison overcrowding problem.

3. Results

3.1 The Measure of Intermediate Punishment

The method to solving offender in the justice administration in the past has been focused on imprisonment or detention in jails. However, studies revealed that such measures failed in their reasonable rehabilitation while creating prison overcrowding problem and learning criminal behaviors. This serious problem demands urgent solution in compliance with the international punishment standards model.

Imposing intermediate punishment with standards to alternate imprisonment is stipulated. It is then unlikely the punishment by the Criminal Code Section 18, which affects offenders in future. It may authorize the court to impose the measures of intermediate punishment such as community service, intensive supervision, house arrest, boot camp and EM.

Applying the intermediate punishment with each offender should be examined from the records of offense and background. Then, a proper model would be decided. It might need to enact a law to guide the court's decision. In the case of felony, the court may repeal the measure of intermediate punishment. For example, the authority has to report the recent enforcement of intermediate punishment to sentence imprisonment as the court is permissive.

3.2 The offense and Punishment Rate and Related Law Enforcement

a) Offenders subjected to intermediate punishment alternating imprisonment should not be listed in the offense and offense rate or examine just the first-time offenders, but the court has to examine many elements such as types of case, offense records and background and so on. It needs to probe facts to know the circumstances in offending before imposing the proper intermediate punishment on them. It is to deter imprisonment under the Criminal Code Section 18 authorizing the court to demand various intermediate punishments. For examples, they are community service, area limits and using EM for no longer than six months, prohibition to enter restricted areas no longer than six months, demanding to report oneself before the probation officer no longer than five years, demanding to attend addiction medication in the hospital and demanding to abide in the probation plans. Conditions and demands must be subject to the regulation of the Chief Justice approved by the grand assembly of the Supreme Court, and being announced in the Royal Gazette (Narong Jaiharin et. al, 2014).

b) The issue of the law enforcement at present has been amended in the Criminal Procedure Code Amendment Act (No.25). B.E.2550. (2007) Section 89/2 coded treating offenders in various measures of imprisonments without prisons. EM is an optimized method for the court to the demand by the condition of Section 89/2(3).

However, the conditions in Section 89/2 might be examined in the case of the culprits have been imprisoned before for not less than one-third of the sentence or not less than ten years in the case of 30-year term imprisonment or life imprisonment. This is similar to the law of the Georgia State, USA and the British Law in using EM in various step of the justice administration. Meaning, it is during the pre-trial or the temporal discharge, or the primary Sentencing, and the post-prison.

c) A specific law should be enacted in enforcing the intermediate punishment. At present, there is none in Thailand to stipulate the measures of intermediate punishment. It might lead to the problems of different interpretation by various government agencies. It may be depended upon knowledge and understanding of individuals in various agencies of the justice administration. In the past, it has been found that such concept has been broadly reflected upon with the Criminal Code Section 56 and the Criminal Procedural Code Section 89. Therefore, enforcing laws in various agencies in the justice administration is independent, which should be integrated among agencies for appropriate punishment on the basis of laws and research.

3.3 Problems and Limitations Found with Using EM to the Offenders in Thailand

There were four critical problems and limitations, i.e.

a) System and Technology of Control Signal – EM has limitations on the signal in some areas, and it cannot be used nationwide but in some large provinces in each region with the network. Therefore, it needs improvement of its system and signal control while continuously developing efficient monitoring management by using the technological guides from developed countries such as USA, UK and Japan where EM innovation has been far ahead developed.

b) The link to a database of each agency in the justice administration is still problematic and constructively unsolved. In addition, there is no link with the external agencies, which blocks to apply the concept of imposing intermediate punishment.

c) The planning for the procurement budget of the government is late to the technological changes. Agencies should own innovations for working and optimize models to meet various changes to happen. This will benefit the efficiency in solving problems of justice administration, particularly the prison overcrowding problems.

d) The government was negligent to allocate budget for EM recently. It approved just a budget for EM experiment in associated with personnel allocation and insufficient offices. It needs to conduct comparative researches about the cost in the prosecution of offenders in the mainstream justice administration, and EM uses to analyze its annual budget cost losses.

3.4 The Public Sector Policy

The research revealed that the government still did not constructively impose intermediate punishment with offender group and the inmates, but EM has been used with some types of offender. However, there is still problematic with the policy particularly with the term ended of the contract with the EM Service Company and ongoing budget allocation for the following year, promptness of the personnel involved and signal-link with the equipment.

However, on November 6, 2015, the National Legislative Assembly has passed the amendments in the Criminal Procedure Code in the EM part and promulgated to enforce EM in the justice administration so that the alleged would be granted temporal discharge and not overcharge of the bail. The alleged and the defendants would have more temporal discharge and solve prison overcrowding problem. Previously, this law involved six Sections, but the Commission has added Section 7 and Section 8 on charges of EM expenses and the responsible person under Section 7.

Most members of the National Legislative Assembly discussed and observed that Section 7 legalizes for complete three years counted on the Act is enforced and demanding the Cabinet to estimate worthiness and costs of the government in using EM. If the Cabinet agreed to charge the expenses from the temporal discharged offenders, it is necessary to fix the expense rate, criteria, method, and condition in the Royal gazette. However, there must be an exemption for the unaffordable. In addition, some members are still worried about the government has to burden in paying EM for the first three years at 72 Baht /head/day. If there were 20,000 alleged, the budget would have been 552 Bath a year (Public Relation Department, 2015). Some members propose the government to promote and develop the innovation and its personnel in order to reduce the expenses with EM with either tenancy or maintenance or EM reliability or future procurement for domestic uses and exporting to the neighboring countries.

Also, the National Legislative Assembly drives to reform the country on law and justice administration. The Reform Council examines the approaches to use EM with the probation offender to reduce prison overcrowding problem and to provide opportunities for self-reform, which could return the good to societies (integration). It is to prevent crimes and recidivism through considering the probation data and strictly using EM in communities. It helps to pursue their movements such as distance restriction, area restrictions, and speed limit if driving. The over speed drive will be signalled to the custodian, and the probation offender will be warned. Most 3,344 were juveniles and offenders by Narcotics Addict Rehabilitation Act. It was found that the offenders and their families saw that using EM was appropriate and allowing offenders opportunities to prove themselves (The Parliament Broadcasting Radio and TV, 2015).

Department of Probation is directly empowered to install EM with the offenders during the probation period should be able to enforce laws seriously. In the case of the probation transgressors, there should be the specifically responsible personnel because at present the police officers are still responsible for it. Therefore, there must be the clear law to stipulate roles and duties to enhance work efficiency to achieve the aims of punishment. Significantly, the justice personnel, particularly the agencies, are directly responsible for such as Department of Juvenile Observation and Protection, Department of Probation and Department of Corrections. They are required to develop knowledge, understanding the concept of punishment and rehabilitation.

3.5 Impact of Enforcing Intermediate Punishment on Offenders

The results of the research conducted with inmates and the offender groups are evidently different. With interviewing, most inmates similarly informed that they were likely insomnia at first upon entering the jail, difficult to take meal and worried about spending life in the congested jails, worried about their families and so on. Interviewing inmates from the first to the fourth months similarly agreed with enforcing intermediate punishment with the Thai societies. Significant reasons were family concerns and needs of self-improvement, reforms, and fear of recidivism. This included spending life outside jail enabled them to attend their careers and earned income to support their families.

On the contrary, the results of interviewing offenders detained from the first to the fourth month were all offender changed for the better. Pursuance for four months and found that all probation offenders could adjust themselves and their mentality at growing better level because of reforming themselves into a better direction. It was corresponded with interviews conducted with the probation regulators in each area who control self-presence of the offenders. Their interviewed statements were in the same direction with the offenders that most offenders during probation were stressful at first when being installed with EM and insomnia. However, when the time passed, they could adjust and slept better, normally take meals and take care of their own health.

In addition, all offenders similarly informed that they agreed with the measure of intermediate punishment imposed on the Thai societies. The important reasons are they could have the opportunity to foster their families and spent life outside prisons. The researchers pursued offenders during their probation and found that data collections from every interview, all offenders still agreed with the idea. Therefore, applying the intermediate punishment by using EM with the offenders became a useful alternative to punishment for the offenders themselves and their families. Also, it was the rehabilitation for them while they could spend their life in communities and societies coupled with working to earn income to foster their families. It is more useful rather than detention.

3.6 The Concept of Applying Intermediate Punishment with Offenders in Thailand

The punishments of the past in Thailand were focused on bringing offenders to the justice administration and detention. It rapidly rose the statistics of inmates. At present, total inmates are more than 329,169 persons (Department of Corrections, 2015), which is over capacity standards of the prisons to meet. It leads to many problems such as learning criminal behaviors in various forms from other inmates and allow more opportunities to recidivism. Therefore, bringing offender for detention rather than preventing recidivism leads to learning criminal behaviors more. It also allows them to know more criminals in their criminal network. Significantly, the government has to lose more budgets in spending for

the supervision and taking action with inmates during their justice administration. The expense budget in the justice administration seems to be surging each year (Somkiat Tangkitvanich, et. al., 2011).

The intermediate punishment is an alternative measure to imprisonment in the Thai justice administration. In addition, it also supports the concept of community integration ideologies, which is accepted that the cause of offense might come from social circumstances. Therefore, social or people in societies should involve in their rehabilitation. The justice process is a social work process; it should be involved by people to solve the problems of their societies. The justice administration especially in rehabilitation for integration, it is necessary to build bonds between the offenders and their social members in the form of mutual generosity (Hinich, 1996). There is a need to enhance efficiency and conditions but primarily, it needs measures of fairness for societies particularly societies must not sense endangered. For example, In the UK, there is an agency of probation, which is responsible for monitoring recidivism. It emphasizes community involvement to build peace according to the community justice. This comes from decentralization of budget to communities and local organizations to help while the government designs standards and monitors the action taken. The Thai communities are more advantageous to the family members, and communities are better tied, compassionate and generous than the western context.

Hence, it needs priority constructively to adopt the concept of intermediate punishment measures so that Thailand own the practices in compliance with the principle of human rights and the international covenant: the United Nations Standard Minimum Rules for Non-custodial Measures: The Tokyo Rules.

3.7 Advantageous and Disadvantageous of Using EM

3.7.1 Advantageous of using EM

Many countries are using EM in several ways to watch offenders through the EM. The followings are common ways that the EM has been used as:

- a) An alternative to pre-trial detention
- b) An obligation attached to a community sanction
- c) A penalty for breaching other conditions
- d) An alternative to custody (execution modality)
- e) An obligation for temporary release
- f) A condition for pre-release
- g) An obligation after release (Nellis & Rosell, 2011)

More than 30 countries use EM as surveillance control in these several ways to solve the problem of prison overcrowding problem and using EM is advantageous to the offenders themselves because this measure would not affect them in future. It also corresponds with the principles of human rights and the international obligations in the United Nations Standard Minimum Rules for Non-custodial Measures as known as the Tokyo Rules. Also, EM provides increased public safety by utilizing the EM technologies and other supervision strategies. There are many reports show that EM can improve the chances of a successful rehabilitation for offenders by allowing them to remain at home.

Moreover, EM can reduce a significant amount of spending which the government has to pay for the managerial cost related to the justice administration.

3.7.2 Disadvantageous of using EM

The methods and concepts of the intermediate punishment measures such as EM to introduce non-imprisonment constructively imposed on the offenders have not yet taken. The main problems with using EM is the cost to the government and also to the limitations on the EM signal in some areas of Thailand, the link of a database of each agency in the Thai justice administration is still problematic and constructively unsolved. Also, there is no connection with the external agencies, which blocks to apply the concept of using EM.

4. Conclusion

This study aims to investigate the ways to drive EM an intermediate punishment, which is the international practice applied with some types of offenders to alternate imprisonment. This is an additional alternative for the justice administration to solve prison overcrowding problem and benefits to the appropriate and constructive rehabilitation. The researchers conclude and discuss as below.

a) Applying an intermediate punishment is a non-custodial measure according to the Criminal Code of Thailand Section 18. It allows the opportunity for the court to decide in ordering to use more various punishment measures, such as imposing EM with each offender. Practically, it needs to probe facts to know the circumstances of offense such as types of the case, offense records and background of the offenders before appropriately imposing the intermediate punishment with individual offenders. It might need enacting in the law by stipulating guides to consider the case of seriously violating the conditions, and the court might have to withdraw the intermediate punishment. In addition, the family institution and the Thai societies should play more roles in applying this concept for the benefits of the rehabilitation and for preventing recidivism.

b) At present, Thailand does not have any specific enactments of intermediate punishment. It diverts legal interpretation among various agencies in the deliberation of the justice administration. Therefore, the working model should be changed into integration between agencies for proper punishments.

c) The government does not feel the importance of allocating budget for constructively applying the intermediate punishment among the offenders and inmates. However, there is the experimented application of EM imposed with some types of offender only.

d) Informing personnel in the justice administration is necessary in order to have knowledge, understanding the concept of intermediate punishment, attitude shift on intermediate punishment, rehabilitation especially the directly responsible agencies such as Department of Juvenile Observation and Protection, Department of Probation and Department of Corrections and so on.

e) Constructively applying EM with offenders is then a proper alternative to solve the prison overcrowding problem and useful to the efficient rehabilitation. It brings advantages to the offenders themselves and societies as a whole. It also prevents crimes and recidivism while reducing the opportunity to learn criminal behaviors. It allows the opportunity for the offender rehabilitated while enabling them to spend their life within their communities coupled with attending their career to foster their families which is also matched with the international standards.

5. Recommendations from the Study

a) The Ministry of Justice should be the main host in speeding such concept for the constructive result for all agencies in the justice administration to accept and support the integration for better cooperation.

b) Criteria in selecting offenders should be stipulated for the use of EM. They should be evaluated that they will not flee and not commit recidivism or be able to live with the community and so on. By reason, using EM is under the responsibility of the government on expenses. In addition, there should be a program to use EM appropriately with the nature of each offender.

c) In the case of the offenders detained with using EM but violating the conditions, there should be measures for immediate response for its probation efficiency while recording all the reasons of every violation of the conditions. The government should allocate specific agency and sufficient personnel for supervision.

d) The public sector and the agencies involved should impose social sanction coupled with suing EM in rehabilitation to create consciousness and become good persons while enabling them to spend life with other people in the communities and societies.

e) Various agencies in the justice administration and other agencies involved should exchange information, problems, and limitations in using EM to develop the efficient pursuance of rehabilitation, to prevent recidivism and to be the database to develop the integration of their works.

f) Innovations to develop EM of foreign countries should be studies in order to improve the Thai EM for better efficiency.

g) Comparative studies should be conducted between expenses spent on the lawsuit with offenders in the mainstream justice administration and the uses of EM to analyze the expenses in the budget.

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The Two Sides of Free National Health Insurance Policies: Lessons from Daakye District, Ghana

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Abstract

The impact of free health insurance policies on healthcare access and utilisation in developing countries, where poverty is endemic, is well documented. However, previous research on the topic seems to have focused on the generic correlation between health insurance policies and increased patronage of hospital-based treatment where most health insurance schemes operate. We seek to contribute to the topic by showing the dynamics of healthcare utilisation in free health insurance contexts and associated unintended impacts. The study draws on an ethnographic study of Ghana's National Health Insurance Scheme in the Daakye district of the Central Region of Ghana. While the findings confirm the theory that free health insurance policies do induce people's health-seeking behaviours, they also unearth issues that result when public policies do not match local infrastructural and human resource capacities.

Keywords: *Ghana, health insurance, health-seeking behaviour, hospital-based treatment, public policy, policy impact*

1. Introduction

A significant body of literature have documented the correlation between free health insurance policies and healthcare access and utilisation in developing countries. Previous studies have variously highlighted the link between increased patronage of hospital-based treatment, improved health-seeking behaviours and health insurance policies. We draw on a research conducted at Daakye district in the Central Region of Ghana to portray the two sides of Ghana's National Health Insurance Scheme (NHIS). We argue that (1) while the initiative significantly influenced people's willingness to access hospital-based treatment, they did so selectively for specific illnesses; and the (2) increased patronage of the NHIS became its bane as the infrastructure of the local medical facility could not support the influx of patients visiting it. Four parts are presented to establish the context of this text. The first segment explains the research context and the methods, followed with a brief overview of Ghana's National Health Insurance Scheme (NHIS) in the second section. A review of the literature on the relationship between national health insurance schemes and health care utilisation is presented in the third. The final section focuses on the analysis and discussion of the research findings.

2. Research Setting and Methods

Daakye is one of the districts in the Central Region of Ghana and Daakye-krom is its capital town. Over ninety per cent of the local people live in rural settings with one-third residing on 240 islands only accessible by boats. At the time of data collection in 2009, 150,000 people lived in the district; almost 8,000 people lived in the capital. Only ten per cent of the entire road network in the district was tarred (Daakye-krom Development Organisation Annual Reports 2006-2009).¹ Most people in the district identified as Christians, although 30 per cent of the population were officially reported to be Muslims. Being one of the poverty-stricken localities in Ghana at the time, the entire district had only one referral hospital (the Daakye-krom Mission Hospital-DMH²), three clinics and thirteen Community Health Promotion Services (CHPS). Most of the island settlements had no clinics and CHPS. Malaria, hernia, respiratory tract infections (RTI) and typhoid fever were the prevalent diseases in the district.

¹ Name of the organisation has been deidentified.

² Pseudonym.

The ethnographic fieldwork happened over a three-month period in 2009. Several research tools were used to enhance the credibility of the study and also for triangulation purposes (Liamputtong, 2013), namely participant observation, interviews, review of reports and questionnaire. Participant observation was carried out at the Daakyekrom Mission Hospital (DMH); drugstores; traditional medicine and faith healing outlets. The purpose of the participant observation was to gain local knowledge through observing the general conditions and facilities, outpatient activities as well as the patients' treatment procedures (Patton, 2002, Liamputtong, 2013).

Thirty formal and informal interviews were conducted. Formal interviews were conducted with medical professionals at the DMH, drugstore operators, traditional medicine practitioners and faith healers. The interview questions focused on the health situation in the Daakye district before and after the introduction of the NHIS and how the policy had impacted their work and what the future held for them. Apart from the Reda Islands, where a translator was used, most of the interviews were conducted in the Buru language. Key informants such as Directors of two NGOs and the district Directors of the Ghana Health Services (GHS) and the NHIS were also engaged in formal interviews. The rest of the interviews were informal. Individuals on the Reda Islands as well as on the streets, homes and workplaces of Daakyekrom were engaged and asked about why they joined the NHIS as well as how they were using it.

Annual reports of the DMH and two NGOs working in the district were also obtained to establish the context of the study while informing the design of the research instruments. Forty questionnaires targeted at those who were not included in the interviews to attain a larger data sample. The questionnaires were administered at the NHIS Head Office in Daakyekrom, where people were renewing or joining the scheme afresh. The open-ended questionnaires solicited information on when and why they had joined the scheme; the benefits derived so far and if they intended or had ever used drug stores, traditional herbs or faith healing. The data was manually transcribed and thematically coded, after which they were written into chapters in the thesis proper, one of which is discussed in the current paper.

3. Ghana's National Health Insurance Scheme

Access to adequate healthcare as well as affordable medicines remains a challenge in most developing countries, where poverty is rampant. As a result, several low-income countries have implemented health insurance schemes to enable their citizens' access equitable and essential healthcare. Although Ghana is a signatory to the Abuja Declaration, which requires that the country commit a minimum of 15 per cent of its budget to the health sector, the reality has been that before and after the introduction of the NHIS Ghana's government has only managed an average health expenditure of around 12 per cent (Mamaye 2015). Ghana implemented a National Health Insurance Scheme (NHIS) in 2004 to replace the out-of-pocket payment system that existed in health centres (Arhinful, 2003; Agyepong & Adjei, 2008). The passing of a National Health Insurance Act (Act 650) of 2003 led to the establishment of a National Health Insurance Authority (NHIA). The NHIA was created to implement the new NHIS, a universal health insurance programme intended to provide access to basic healthcare services to all residents in Ghana. The Act (650) made provision for the existence of three parallel health insurance schemes, namely the Private commercial scheme, Private mutual scheme, and the district Mutual Health Insurance Schemes (DMHISs). In exception of the district mutual health schemes, which receive direct financing from the Government, the rest are privately owned and managed. While the DMHISs functioned independently of each other based on the initial design, they currently operate under the NHIA. In 2012, Act 650 was reviewed and under the new Act 852, all DMHISs were classified under a common umbrella called the National Health Insurance Scheme (NHIS). Act 852 made it mandatory for every resident in Ghana to belong to the scheme (Blanchet, Fink, & Osei-Akoto, 2012).

On the provisions of Act 852, there are five funding streams for the NHIS. These include 2.5 per cent tax on selected goods and service from the Value Added Tax (VAT) called the National Health Insurance Levy (NHIL). The NHIL is the largest source of finance for the scheme. It contributes about 60 per cent of total finance of the scheme annually (Kusi, Enemark, Hansen, & Asante, 2015). The rest include 2.5 per cent allocation of formal sector workers contribution to the Social Security and National Insurance Trust (SSNIT) per month, profits on National Health Insurance Fund (NHIF) investments and

premium paid by informal sector workers. In addition to these, being a sub-vented institution, there is an annual Government allocation from the consolidated fund to the NHIA.

Membership of Ghana's health insurance scheme is classified into two main broad groupings. These include the exemption group and those who pay a premium. The exemption group includes formal sector employees and self/private employees who contribute to the national social security scheme (SSNIT). Others include children less than 18 years, persons classified as an indigent group, some categories of persons with disabilities without any productive capacity and persons with mental illness. The rest are pensioners on social security scheme and older people above 70 years old. All informal sector workers (18 years to 69 years) who do not belong to any of these groups were classified as premium payers (National Health Insurance Authority, 2013).

Payment of premium is a graduated scheme depending on the socio-economic group an individual belongs. The category of premium to be paid by a person is determined by the DMHIS now known as NHIS district office. The amount of premium ranges between 7.2 Ghana Cedis (GHC) (US\$1.9) to GHC48.0 (US\$12.6). The graduated payment system notwithstanding many districts pegged flat rates for all categories of people and the rates vary from district to district depending on the socio-economic circumstances of the district. Even though the contribution of formal sector employees is directly from the social security contribution each month, they are expected to register and pay a registration fee of GHC4.00. The indigent groups and pregnant women are by law exempted from the payment of registration fees. The NHIS covers about 95 per cent of disease conditions reported in Ghana. However, it excludes very important diseases such as cancers (except breast and cervical cancers), HIV retroviral drugs, dialysis for chronic renal failure, hormone and organ replacement therapy and some non-communicable diseases (National Health Insurance Authority, 2013).

At present, the NHIS remains an important social protection policy in Ghana with a current national subscription level of 10,145,196 subscribers as at 2013 (see Table 1). This figure only represents about 39 per cent of the current population of Ghana (26 million). There are currently issues about none renewal of memberships and limited new subscriptions (National Health Insurance Authority, 2013).³

Table 1 Subscribers of the NHIS of Ghana

Region	New	Renewals	Active Membership	Percent of Total
Ashanti	472,903	1,242,485	1,715,388	17%
Brong Ahafo	405,088	948,752	1,353,840	13%
Central	382,595	484,341	866,936	9%
Eastern	337,097	773,024	1,110,121	11%
Greater Accra	565,281	714,976	1,280,257	13%
Northern	391,728	488,789	880,517	9%
Upper East	166,538	476,740	643,278	6%
Upper West	99,620	322,797	422,417	4%
Volta	326,243	584,326	910,569	9%
Western	297,477	664,396	961,873	9%
Total (National)	3,444,570	6,700,626	10,145,196	

Source: NHIA (2013), Annual Report.

According to NHIA (2013), regarding utilisation of NHIS services, claims payment for outpatient services increased from 580,000 cases in 2005 to 23.9 million in 2012, which represents more than 400 per cent in cases. Similarly, inpatient services increased from 29,000 in 2005 to 1.4million in 2012. Overall claims payment also increased from 7.6 million Ghana Cedis in 2005 to 616 million Ghana Cedis in 2012. The high claim payment is cited as one of the key factors militating against the sustainability of NHIS. This therefore led to the pilot of a new system called the capitation system.

³ We have argued elsewhere that those who have not joined the NHIS may do out of pocket payments at hospitals, rely on drugstores, traditional medicines faith healing (see Adusei-Asante, in press).

The capitation is based on the Ghana Diagnostic Related Groupings (G-DRG) concept. The G-DRGs are standard groups of diseases related clinically and have comparable treatments under similar healthcare resources. This allows for service providers to be paid for patient's treatment according to his or her diagnostic group irrespective of the cost. This is known as the inclusive flat payment. Although this payment mechanism reduces the cost burden for schemes of having to bear huge claims submission by providers, it brings to the fore the issue of unattractive rates which discourage provider participation. In effect, some service providers have opted out of the scheme and compel members to pay at the point of service delivery.

Currently, the NHIA has introduced some interventions to induce some efficiency in service provision. Some of these include the electronic claims processing system, expansion of the number of claims processing centres across the country, the electronic linkage of diagnosis to treatment and introduction of the instant identity card processing system. Despite these recent developments in NHIS, there are known issues of structural and administrative inefficiencies hence the recent move by the Government to review the entire NHIS and overhaul the system to make it more responsive to the need of the time. The Government constituted a National Review Committee in September 2015 with the review currently underway.

3.1 Health Insurance and Healthcare Utilisation

An important feature of health insurance schemes throughout the world is their ability to induce health-seeking behavioural change among people it is intended for. In this respect, it is important to examine how the health insurance policies impact the health-seeking behaviour and health service utilisation. Lichtenberg (2002) found a correlation between health insurance and increased the survival rate of the elderly in the USA by about 13 per cent. Card et al. (2004) evaluated the effects of health insurance coverage on health seeking behaviors and outcomes in the USA. The authors found an apparent impact on self-reported health percentages, with larger gains for groups whose insurance coverage rates increased the most after becoming eligible for Medicare. Hashim et al. (2012) found that many Southeast Asian governments had passed laws to establish national health insurance schemes that allow universal coverage while enhancing healthcare access, and increased financial coverage and affordability for their citizens. Recently, Kondo and Shigeokab (2013) studied the effects of Japan's health insurance coverage on health care utilisation and supply-side responses and found that health care utilisation (about admissions, inpatient days, and outpatient visits to hospitals) increased appreciably.

Meanwhile in Ghana, since the implementation of the NHIS in 2003, several studies have been carried out to ascertain its impact on health service utilisation. In their work on the '*The effect of Ghana's National Health Insurance Scheme on health care utilisation*', Blanchet, Fink, and Osei-Akoto (2012) affirmed that those who enrolled in the scheme were more likely to visit clinics or health facilities to seek formal healthcare, and they were more likely to obtain prescriptions. In effect, this study showed a positive correlation between enrolment in the NHIS and health service utilisation among Ghanaians. In particular, the study found that 76.3 per cent of women with NHIS visited a health facility in the last 12 months preceding the study compared to 50.2 per cent non-NHIS women. Out of these figures, there was 12.7 per cent hospitalisation for women with NHIS and 7.4 per cent hospitalisation for women without NHIS.

Similarly, Sofo and Thompson (2015) in their study on the Fee Free Delivery Policy under the NHIS indicated that both the free delivery policy and the NHIS have significantly impacted the rate of maternal mortality in Ghana. They suggested that their finding is a reflection of how women now seek skilled delivery opportunities by relying on the NHIS. In effect, through the NHIS, pregnant women are now encouraged to seek antenatal care and skilled delivery in accredited healthcare centres (Brugiavini & Pace, 2016; Kotoh, 2013).

In another related study, Gobah and Liang (2011) noted that there is a significant difference between the health-seeking behaviour and healthcare service utilisation between NHIS subscribers and non-subscribers. Their study found that 70.8 per cent of insured than 6.0 per cent of non-insured reported seeking formal care when sick. Some of the healthcare services used by the insured include consultation and treatment (54.7 per cent), medicines/drugs (18.6 per cent), laboratory services (9.8 per cent), delivery (8.8 per cent) and hospitalisation (8.1 per cent). Another significant finding in this study was that about 63

per cent of women insured under the NHIS gave birth in health facilities and were attended by trained health professionals in the last 12 months preceding the study, compared with only 4.7 per cent of women without NHIS. Also, use of post-natal health services was seen to be higher for NHIS members (67.2 per cent & than non-members (7.8 per cent). Similarly, Dzakpasu et al. (2012), found that health facility delivery had increased significantly since the introduction of the NHIS.

In a more recent study, Fenny et al. (2016) affirmed the significant impacts of the NHIS on healthcare utilisation in Ghana. They found that 64 per cent NHIS members more than 50 per cent non-members seek healthcare services. However, they noted that healthcare utilisation was determined by three main factors including insurance (NHIS), education and gender. More educated people used the NHIS to seek healthcare services than non-educated ones. Women were also more likely to use NHIS for health-seeking than men. On the whole, the study concluded that more insured Ghanaians sought care from formal health care service providers. The study further found that geographical location greatly defined healthcare utilisation. They found that 53 per cent of users and 44 per cent of non-users lived in urban areas. In addition, 30 per cent of non-users were more than one hour from the closest district hospital compared to 19 per cent of users.

The impact of NHIS on health-seeking behaviour for the treatment of malaria has also been studied by Fenny *et al.* (2015). The study showed that those who had not enrolled in the NHIS were more likely to choose informal care compared to the NHIS-insured for the treatment of malaria. Also, on malaria care, health insurance and travel time to a health facility were significant determinants of health care demand. The research further acknowledged that participants who were NHIS insured were six times more likely to choose regional/district hospitals; 5 times more likely to choose health centres/clinics and seven times more likely to choose private hospitals/clinics over informal care when compared with the uninsured.

Exclusive impacts of NHIS on health-seeking behaviour alone have further been challenged by Kuuire, Bisung, Rishworth, Dixon, and Luginaah (2015). They found a disparity between the poor and the rich in health-seeking even though both groups are enrolled on the NHIS. In their study, Kuuire et al. (2015) noted that poor and poorest wealth quintiles who are enrolled in the NHIS were less likely to seek treatment in a health facility during their last illness compared with individuals in the richest wealth quintile who are enrolled in the NHIS ($\beta = 0.41$, $p < 0.01$ and $\beta = 0.45$, $p < 0.05$, respectively). This level of distinctions in health service utilisation in spite of NHIS affirms the possibility several other factors that can explain the impact of NHIS on the health-seeking behaviour of Ghanaians. This notwithstanding, there seems to be some level of consistency among researchers about the overwhelming impact of the NHIS on the health-seeking behaviour of Ghanaians.

4. Findings: NHIS' Impact on Hospital-Based Treatments and Associated Issues

As alluded to above, Ghana's NHIS operates in hospitals, which provide biomedical treatments, although there also exists traditional medicines, drugstores and faith healing as healthcare options for some Ghanaians. Hospital-based biomedical treatment (HBT) is arguably the most popular and patronised medical system in Ghana. Currently, HBT outlets include hospitals, clinics, polyclinics and Community-based Health Planning and Services (CHPS) operated by the Government (Ghana Health Services), religious organisations and private practitioners. Although HBT's scientific explanation of diseases was initially at loggerheads with local beliefs on the supernatural causes of illness, Twumasi (1975) argued that it has come to stay evidenced by the remarkable improvement in the health of the people. This notwithstanding and aside from being constitutional endorsed, not all Ghanaians (home and abroad) trust HBT (Kim, 2005, Barimah & Teijlingen, 2008) to cure all sicknesses. Arhinful (2003) connected this attitude to culture, but Tsey (1997) argues that it is because HBT is unable to deal effectively with certain diseases that have psychological dimensions. Twumasi argued that HBT does not take into account psychological aspects of illness in its curative process, which is why some believe that traditional herbalists do better than orthodox medical practitioners in Africa, because of the latter's application of psychotherapies in their therapeutic processes (Senah, 2003; Barimah & Teijlingen, 2008). Against this background, below, we show the impact of the NHIS on the use of HBT.

The NHIS brought about an unprecedented awareness about health facilities in the Daakye district. Even though the hospital/CHPS were not always the first healthcare option for some residents of

Daakyekrom, the DMH in particular, became popular for treating sicknesses under the NHIS for free (see Adusei-Asante & Georgiou, forthcoming). The enhanced awareness of the DMH led to high turnouts at the DMH; early reporting of sicknesses; and an increase in the number of surgical cases. The downside of the NHIS, though, was the pressure it brought on the health staff and facilities, resulting in people refusing to visit the DMH although they had enrolled in the NHIS.

4.1 High Outpatients Day Turnouts

More patients visited the DMH compared to the period before the NHIS. One of the medics confirmed this as:

“We used to beg people to come to the hospital. Before the NHIS was introduced, there were days we recorded ten patients and had the wards virtually empty.”

Before the NHIS was introduced in the Daakye district, most of the local people could not afford the out-of-pocket services offered at the DMH. In 2001, it was reported that 30 patients absconded with their bills unpaid. In 2000, the DMH recorded a total Outpatients day (OPD) attendance of 9,882; 10,490 in 2001 and decreased to 8,869 in 2002 with an average OPD attendance of 28 daily. Bed occupancy rate in 2001 was 33.4 per cent and 38.2 per cent in 2002. The NHIS impacted these figures. The bed occupancy rate in 2006 was 45.12 per cent; 61.23 per cent in 2007 and 69.87 per cent in 2008. DMH was also receiving an average OPD attendance of 150 patients on normal days and 300 on market days (DMH Annual Reports, 2000-2009). Figure 1 and 2 show the steady increase of the OPD attendance at DMH from 2006 to 2008 and the Ghana Medical Service facilities from 2002 to 2008.

Most of the patients who visited the health facilities had enrolled in the NHIS. During our six weeks observation at the DMH, we recorded 78 adult patients who were health insured as against 22 who were not. It was also recorded that in 2008, 98 per cent of inpatients and 87 per cent of outpatients of the DMH were NHIS insured. For the entire district, the GHS facilities recorded out-patient NHIS status as 9.7 per cent in 2004; 33.4 per cent in 2005; 76.2 per cent in 2006; 84.5 per cent in 2007 and 90.5 in 2008.

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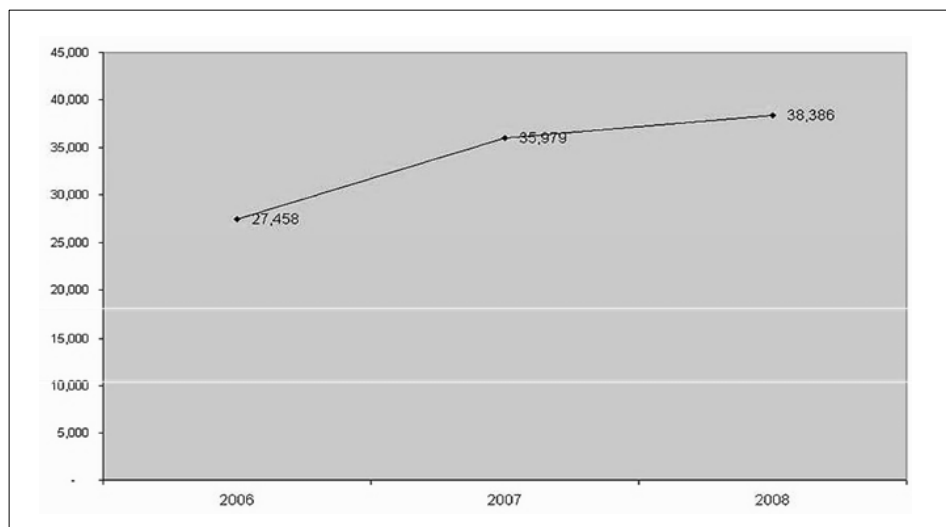


Figure 1 Total OPD attendance Daakyekrom Mission Hospital 2006-2008

Source: DMH Annual Reports 2000-2009

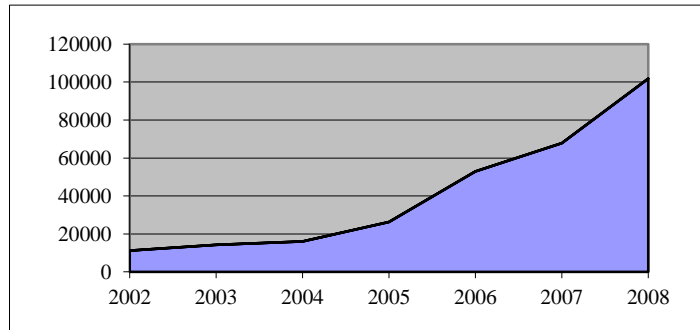


Figure 2 OPD attendance at Ghana Health facilities-Daakye district

Source: GHS Annual Reports, 2000-2009.

4.2 Early Reporting

The NHIS also influenced Daakye district islanders to report early to the HBT facilities. According to the medics, unless in an emergency or exceptional instances, the normal time to report an illness or its symptoms should be within two weeks. In our sample analysis, we observed that most of Islander patients who had enrolled in the NHIS reported early to the DMH. The medics explained that reporting early to the hospital reduced the complication of sicknesses among the health insured and added that complicated cases were common among the non-NHIS insured. We also observed that most patients who came to the DMH were treated for malaria, the topmost prevalent disease in the area. However, we found that most of the malaria cases were uncomplicated. This fact was evidenced in the 2007 and 2008 GHS reports, which indicates that in 2007, 27,350 uncomplicated malaria cases were recorded as against 648 severe and complicated types. In 2008, the uncomplicated types were 51,255 as against 980 complicated types, a finding that corroborates the impact of early reporting of sickness on reducing the complication of illnesses.

4.3 Increase in Surgical Cases

The third impact of the NHIS on HBTs in the Daakye district was an unprecedented increase in surgical cases. This relates particularly to a hernia among men and reproductive complications among women. In the year 2000, 642 major and minor surgical operations were recorded and 667 in 2001. In 2008, it shot up to 943, indicating a significant increase (see the chart below).

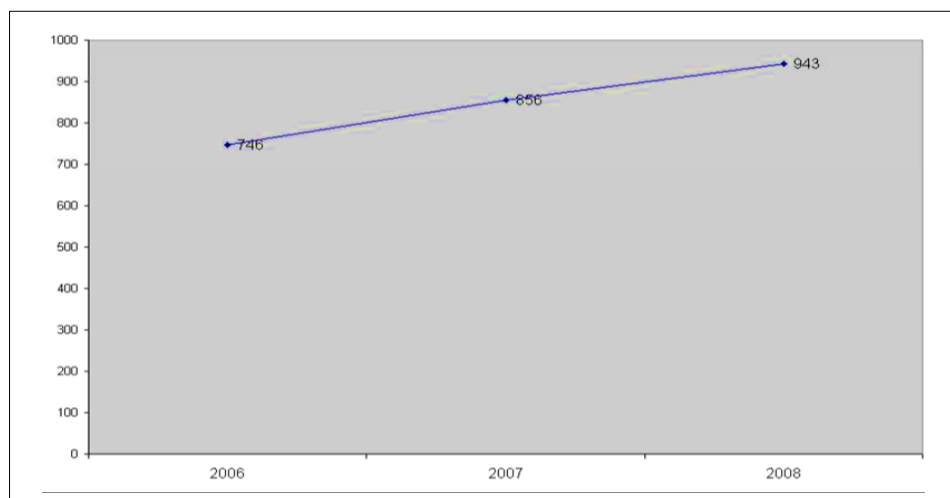


Figure 3 Total surgeries at Daakye district 2006-2008

Source: DMH Annual Reports, 2005-2009.

A gentleman we had an open conversation with, shared a joke, which confirmed the impact of the NHIS on surgeries. He said:

“The NHIS is dealing with all hernias in the Daakye district. Some men used to walk as if they had coals under their feet but walk straight now. Hernias are now scarce and even if you wanted one for rituals, it will be difficult and very expensive.”

The quote above corroborates a fact established in the data that, even though the DMH could handle surgical cases before the NHIS, most patients stayed away because of the costs involved. At the time of fieldwork, hernia surgeries topped all surgical cases in the district, thanks to the NHIS, which removed the ‘cost panic’.

4.4 Increase in Health Facilities

During an interview with the Director of the Ghana Health Services in the Daakye district, she remarked:

“The NHIS had improved healthcare delivery in general and caused more clinics to be built in the Daakye district. Those times, even if you put up clinics, no one would patronise them, because they had to pay. Now it is free, and people come, thus, provides a reason to build more.”

Dr. Atibeh attributed the increasing health facilities in the district from three in 2001 to seventeen in 2008 to the fact that local people were patronising HBTs because of the location of the NHIS, as some are close to their homes.

4.5 Pressure on Health Staff and Facilities

Although the NHIS led to an increased patronage of HBTs, it also came with some negative views. Most people we spoke to about the DMH raised the issue of time wasting. We gathered in the interviews that the hospital’s under-staffed workers were pressured by the high OPD turnouts resulting in patients having to spend more hours at the hospital, and concerns about less quality healthcare. The Manager of the most influential NGO in the district confirmed this in an interview that:

“Yes, the numbers have increased, but the same numbers could kill the NHIS here. Because of the numbers, the system is quite slow, and people complain.”

Two impacts resulting from the pressure on health staff and facilities were found. First, we found that the situation had led some who had the NHIS to desist from visiting the DMH for fear of being maltreated or chided for reporting illnesses deemed to be mild. The vignette below, discussed elsewhere (Adusei-Asante & Georgiou forthcoming), encapsulates this finding:

It is 11:40 am in Daakyekrom. A lady in her late thirties is leaning on the arms of two gentlemen as they enter a drugstore at the Daakyekrom car terminal. She is in pain and has caught the attention of everybody around. The drugstore operator asks what the problem is. The men explain that she has a severe stomachache. ‘Has she been to the hospital?’ the drugstore operator asks. ‘Yes, but even though she has the NHIS, she does not want to be taken there this time,’ one of the men replies. ‘Why?’ the drugstore operator probes. ‘I do not want to be insulted, I have been there severally. Moreover, it is a market day, and the place is too choked, the sick lady manages to retort, writhing in pain.

(Field notes # 004)

The vignette shows that although people may join health insurance schemes, the attitudes of healthcare professional, in this case, emanating from the pressure imposed by the free NHIS, play a key role in people’s decision to visit hospitals for treatment. This was further complicated by the facts that the DMH closed at 16:00 (which most local residents found acceptable) and the DMH not providing dental and genealogical medical services. Interviews with two senior medics at the DMH revealed that the hospital and the district were not attractive to most existing and prospective healthcare officers due to the lack of adequate incentives and the paucity of social amenities. Tellingly, a 2008 Client Satisfaction Survey done by the

Daakye district Development Organisation on the DMH found that the local people were not satisfied with the hospital's staff handling of clients.

Second, healthcare options such drugstores and traditional medicines were found to be popular in Daakye district because of the pressure on the biomedical staff and facilities. Partly emanating from the need to avoid time wasting at the DMH some of the local people resorted to drugstores or traditional medicines. We found drugstores to be the first point of contact for some NHIS holders until the sickness was no longer bearable. Some NHIS holders tended to visit the DMH only in extreme emergency cases, having unsuccessfully used traditional medicines alongside drugstore-prescribed medicines.

5. Conclusion

This paper discussed the dynamics of healthcare utilisation in free health insurance contexts and associated unintended impacts. It was found that Ghana's National Health Insurance Scheme (NHIS) had led to an increased awareness of health facilities in the Daakye district, resulting in high turnouts and early reporting of sicknesses. The high turnouts also gave rise to more surgical cases, a situation that did not use to be the case. On the flipside, however, the study showed that, the high outpatients' day turnouts also exerted pressure on the medics and the limited facilities at the Daakye Mission Hospital, resulting in some local residents who had enrolled in the NHIS to avoid the DMH for fear of being abused for presenting with illnesses deemed to be mild. Such local people resorted to drugstores until the situation became critical.

The key policy implications of this study are twofold. First, there is a need for policymakers to match initiatives with commensurate resources and motivation of key human actors involved in the implementation of the policy. In the case of the Daakye district, the NHIS should have been implemented with establishing an attractive incentive package for healthcare staff, while sustained efforts were made to increase and improve the number of biomedical facilities to accept posting to the locality, given its remoteness and paucity of basic amenities there. This resonates with Kondo and Shigeokab (2013, p.1) suggestion that "countries planning a large expansion in health insurance coverage would need to generate sufficient financial resources to cover the surge in health care expenditures, both in the short and long run." Second, the reality of the popularity of drugstores and traditional medicines in Ghana requires sustained regulation and monitoring of these healthcare options, while public education on their use continues.

6. Acknowledgment

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An Introduction to the Transfer Pricing Practices among Public Listed Companies in Malaysia

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Abstract

Transfer pricing comprises of one part of the management accounting aspects. Recently, it has become one of the main issues in the Malaysian tax perspectives. The pioneer legal case of alleged transfer pricing manipulation that shocked the Malaysian tax world proved to be one of the reasons why this area of business dealings are attracting more scrutiny and supervision. The move made by the Inland Revenue Board of Malaysia (IRBM) to amend the Transfer Pricing Guidelines 2007 to a complete act in 2012 showed such effort hurled to curb any manipulation and malpractice among the related parties transactions in particular among the Public Listed Companies (PLCs). This study aims to examine the potential transfer mispricing practices among the public listed companies in Malaysia through the analysis of the effective tax rate (ETR) and the number of subsidiaries possessed by those companies, especially the tax haven subsidiaries. From a sample of seventy (70) companies consisting of seven (7) industries, the general view of the landscapes of the transfer pricing practices are analysed through the complex arrangement of some companies via their arrays of subsidiaries. The results indicate that PLCs have the alternative to using their subsidiaries as a medium to evade tax since the tax haven countries are also one of the famous location to be utilized by PLCs to erect subsidiaries. However, the argument is not entirely robust since only some company that meet all the criteria of having a low ETR, possessing significant amounts of subsidiaries as well as tax haven subsidiaries. These findings show that the risk indicators based on the OECD Guidelines and IRBM Guidelines shall be used to predict transfer pricing practices among PLCs. The potential results can be used as policy recommendations to relevant authorities in monitoring transfer pricing practices and enhance the collection of tax revenue.

Keywords: *Transfer pricing, public listed companies (PLC), tax haven subsidiaries, effective tax rate (ETR)*

1. Introduction

From creative accounting to financial statement frauds as well as tax fraud, organisations from time to time discover new ways to manipulate their financial data thus enable them to enjoy an even higher return from their businesses. These schemes are done due to various reasons, whether to cook their book to make it looks good in order to seek financial assistance, maintaining consistent profitability trends, or even an attempt to reduce their tax liabilities. The latter is what people are very much concern of since tax revenue is one of the sources of income for a country. For instance, based on Christian Aid report in 2010, there are two major forms of tax evasion involving multinational corporations (MNCs), which are transfer mispricing and false invoicing. Both of these tax-based crimes deprive tax revenues of developing countries amounting to a massive US\$160 billion every year (Christian Aid, 2010).

Corporate tax is making firms from all over the place busy planning and administering their tax bill. The corporate tax revenue itself contributes around thirty-percent (30%) of the total tax revenue collected in 2013 by the US government amounting to an enormous yield of \$USD350 billion (Zucman, 2014). Some companies manage to plan it wisely, yet there are also several of them that remain in the middle or called the “grey” area. It is not much known to us whether they are evading or planning their taxes. According to Gravelle (2015), the term tax avoidance is considered to be a lawful reduction in the tax perspectives while tax evasion is a reduction scheme that is illegitimate. However, the term may differ due to different jurisdictions of various rules and regulations. On the other hand, some organisations failed to mitigate a way out of the situation, therefore crossing the border of legality. Thus, the evasion of tax

revenues is deemed to be a crime to the host or the home country as a whole since the company is diverting a portion of the funds out of the government pocket.

There is a huge loss suffered by a country if transfer pricing practices are not properly controlled and monitored. As per Christian Aid Report (2009), the impact of deprivation of tax revenue is vital to a nation since it involves such public allocations to erect infrastructures and human resources. The money seems to be siphoned out of the possession of the respected countries, since, in ordinary circumstances, they shall get the tax revenues, but the transfer mispricing schemes denied their rights. Thus, the country together with their citizen silently suffers, without knowing about the existence of the plausible tax funds.

In the context of Malaysia, the regulation is also of the same with the rest of the world. There is a provision in the Income Tax Act (ITA) 1967 regarding wilful evasion of tax covered under Section 114. It is further explained in Public Ruling No. 8/2000 to describe several examples to illustrate different situations which amounting to tax evasion schemes. The Malaysian government views tax fraud as a serious offense whereby the punishment include imprisonment as well as a fine imposed to the perpetrator (Income Tax Act 1967, 2014). In 2012 alone, Inland Revenue Board of Malaysia (IRBM) solved nearly RM1.9 billion worth of tax evasion cases (New Sabah Times, 2013). Furthermore, just glance through the Bank Negara Malaysia (BNM) website, where there are also numerous cases being investigated, and it also involves tax fraud cases among companies in Malaysia (Bank Negara Malaysia, 2015).

The Global Financial Integrity (GFI) report estimated that 80% of the unrecorded financial outflows in Malaysia amounting to USD\$227.1 billion during 2001-2010 were due to trade mispricing (Kar and Freitas, 2012). The pioneer legal case of alleged transfer pricing manipulation in Malaysia is involving MM Sdn Bhd, where Transfer Pricing Guidelines 2012 issued by IRBM had no lawful impact on the case as it is merely a guideline for companies to follow (Quantera Global, 2013). Much to the government dismay, the decision favoured the taxpayer and the claimed tax evasion scheme through transfer pricing medium was unsuccessful.

MM Sdn Bhd (taxpayer) is one of the world's largest shipping and logistics operators. The litigation represented the conclusion of a long and tiring battle, which started with an audit process conducted by the IRBM on the taxpayer, which lasted for more than two (2) years (Armizam, 2014). The main highlights are the commission rates, Business Process Improvement services, and regional service charges or known as "inter-company service charges" (Armizam, 2014). The transfer pricing aspect is referring to the intra-firm service charges where IRBM disregard the charges for several years alleging that MM Sdn Bhd's Singaporean company did not provide the services to them (Armizam, 2014). The dispute is on the legal basis regarding the power possessed by the IRBM to disregard the services, as it is claimed to be a legitimate transaction by the taxpayer.

The IRBM also had come up with a new Transfer Pricing Guidelines in 2012, where it replaces the earlier version of Transfer Pricing Guidelines incorporated in 2003. The guidelines serve as the medium to further define the transfer pricing aspects as per outlined in the Section 140A of the Income Tax Act (ITA) 1967. In the same year too, OECD (Organisation for Economic Co-operation and Development) comes up with a recommendation to deal effectively with transfer pricing. The report entitled "Dealing Effectively with the Challenges of Transfer Pricing" indicates that OECD is putting great emphasis on transfer pricing practices among its member countries, as they provided some features that might suggest transfer pricing risk.

This paper is trying to examine the potential transfer mispricing practices among the public listed companies (PLCs) in Malaysia. Transfer mispricing practices will be gauged by the extent of effective tax rate (ETR) of a company, the number of subsidiaries as well as the number of tax haven subsidiaries. Then, the paper will proceed with the review of past literature from which hypotheses will be developed. Then, it further continues to the empirical stage of variable measurement, sampling, data analysis and discussion of results. The final part of this paper presents conclusion, limitations, and suggestions for future research.

2. Transfer Pricing

Transfer pricing or sometimes known as trade pricing is one part of management accounting technique. Previously, it is known only by a few tax experts. However, the situation has already changed. Lorraine Eden (2009) in her book defines transfer price as the price charged in transactions between

companies that are associated, for example, trade between a parent company and its foreign subsidiary or between two affiliates. Harrowven (2014) defines transfer pricing as the price whereby associated enterprises charge each other for goods or services. It can be in the form of commission, items, royalties, and any forms of pricing transacted between related parties. The definition of transfer pricing will be further elaborated by IRBM (2012), where in the guidelines it is defined as intercompany pricing arrangements for the transfer of goods, services, and intangibles between associated person. Generally, any transactions that include the related parties are known as transfer price because there is a need for a determination of the transfer price between these related entities.

The determination of the “arm’s length price” is one of the most discussed topics in the transfer pricing world. The issue here is when the transfer price is set for these companies; they can easily determine the price based on their discretionary estimation without considering the arm’s length (AL) principle. As this matter is getting widespread in the international trade sector, authorities have implemented AL pricing as the main principle of taxing multinational corporations (MNCs) to safeguard the tax base (Keuschnigg and Devereux, 2013). The AL price is the rate set in a transaction between independent firms (Keuschnigg and Devereux, 2013). The rate will refer to the most acceptable price determined by both parties (similar or as of the same to any independent transactions) before carrying on with the intra-firm transactions. It will govern the prices at which intra-firm transfers are set for tax purposes, and it can be found in Article 9 of the OECD Model Tax Convention (Keuschnigg and Devereux, 2013)

2.1 Tax Planning Theory

In this modern yet fast changing world, there is a need for a multinational corporation (MNC) to manage their tax bills properly. Due to their enormous business transactions all over the world, they are facing various types of taxes in return. Failing to do so may result in massive payment being issued by corporations for tax purposes. A further complication arises from the additional cost of compliance they face due to the need to comply with the different administrative requirements that may differ from country to another (OECD, 2010). Thus, it is acceptable for an MNC to plan their tax bill by referring to the available incentives and rebates offered by the countries they resided in.

The theory outlines the importance of devising a strategy to provide a better tax return for a company. Tax planning or sometimes refers to tax mitigation is concerned with the organisation of a taxpayer’s affair so that it has an effect on the minimum tax liability within the law (Kasipillai, 2010). Often this legal approach is involved with the choice of a business vehicle and the use of options or tax shelters which will reduce the tax liabilities (Kasipillai, 2010).

An MNC, especially the one that deals with major transactions across the world borders may face varieties of tax bills. Normally, tax planning is the process of structuring one’s affairs to defer, reduce or even eliminate the amount of tax payable to the government (Pniowsky, 2010). In Malaysia, tax planning is legal as long as it is executed through proper means. The government of Malaysia has their way to boost foreign direct investment (FDI) or precisely to attract the foreign companies to do business here. The implementation of several tax incentive schemes such as Pioneer Status (PS), Investment Tax Allowance (ITA) and Reinvestment Allowance (RA) are considered as the most prominent incentives offered to businesses (Hoe, 2011).

2.2 Subsidiaries and Tax Planning

An MNC usually has big businesses that comprise of multiple locations in different regions. Due to the geographical constraint to monitor the businesses across nations, MNC tends to construct subsidiaries under their belt to undertake their daily chores. They have displayed an emergent trend to expand through establishing subsidiary companies, either through buying the already-existing companies or creating new companies (Eisenberg, 1971).

According to Oxford Dictionary (2015), a subsidiary is a company controlled by a holding or parent company. Based on IRBM Guidelines (2012), two companies are associated companies respectively to each other if one of the companies has shares or participate directly or indirectly in the management, control or capital of the other company; or the same persons participate directly or indirectly in the management, control or capital of both companies. The word subsidiary is not an exhaustive term that only

include a direct subsidiary, as the term also include indirect subsidiary, joint venture companies alongside associate companies.

2.3 Tax Haven Subsidiaries and Tax Planning

The term “tax haven” already forms an indifferent meaning to the people as the word “haven” may suggest some shelter from a normal taxation practice. Tax haven features are defined based on the low or taxes-free, insufficient effective information change and transparency, bank secrecy, requires little or no substantial economic activity for an entity to obtain legal status (Gravelle, 2015). A tax haven subsidiary is a subsidiary that meets the stipulated requirements above.

Kasipillai (2011) in his book emphasises about tax havens that exist in many developing countries as they induce businesses from overseas through offering low tax rates on various business entities. There are plenty of countries deemed to be recognised as tax haven countries. Besides, there are several international bodies that have set their standard to label a country as a tax haven. Several past studies had revealed that MNCs systematically charge different prices for internal transactions or report higher profits in low-tax countries (Egger and Seidel, 2013).

2.4 Perceived Transfer Mispricing Practices and Tax Planning

The transfer pricing practices sometimes are carried out to meet a company’s certain objectives and evolves into a negative connotation that is known as “transfer mispricing”. Transfer mispricing or sometimes also known as transfer price manipulation (TPM) is the strategic setting of transfer prices above or below opportunity cost in order to avoid (but not evade, since evasion is illegal) government controls and/or arbitrage differences in regulations between countries (Horst, 1971; Eden, 1998; Eden 2003). The impact of transfer mispricing done by businesses proves to be damaging since they will escape from paying a higher tax, and the tax revenue for a country will be lesser.

Clausing (2003) suggested that the behavior of intra-firm trade is affected by tax minimization strategies of multinational firms. Meanwhile, Sikka and Willmott (2010) argument was that firms look at transfer pricing as a method that is still a weakly regulated area where detection of the regulatory bodies are low, and they deemed it as an acceptable business risk. However, on a certain point they do agree with Clausing (2003) such as due to the openness of the market territorial jurisdictions, companies can easily erect subsidiaries, affiliates, or other called terms that represent another company under their power and control, and take advantages of the geographical differences that will yield lower subsidies and taxes (Sikka and Willmott, 2010).

In an overall view, according to Huizinga and Laeven (2008), several past researchers (Hines and Hubbard, 1990; Collins and Shackelford, 1992; Froot and Hines, 1992; Grubert, 1998) provide evidence that multinational financial composition and the arrangement of intra-firm interest and other income flows are consistent with the tax minimization objectives. Thus, this intra-firm interest is synonymous yet closely related to transfer pricing practices.

3. Methodology

3.1 Sampling Technique

The study population will consist of seventy (70) PLCs that meet most of the criteria stipulated by OECD (2012) regarding the transfer pricing risk indicators. The nine criterion are as follows- (1) Significant transactions with related parties in low tax jurisdictions; (2) Transfers of intangibles to related parties; (3) Business restructurings; (4) Specific types of payments; (5) Loss-making; (6) Poor results; (7) Effective Tax Rates; (8) Poor/Non-existent documentation; and (9) Excessive debt. However, the study will only focus on two (2) out of the nine (9) criteria which are low tax jurisdictions (ordinary subsidiaries and tax haven subsidiaries) and effective tax rates since there are several constraints in gathering the intended data.

The companies selected are within the same industry (10 companies for each industry) to ease the comparability analysis as per industry based on the recommendation by OECD’s Guidelines for Multinational Enterprises and Tax Administrations (2010). A total of seven (7) industries selected to make

it a list of 70 PLCs in total. Although the number of samples is below 100 and can be considered small, it is still in a relevant range as the study is done using a micro backward-looking approach from a sample of seventy (70) companies consisting of 350 firm-years for the year 2009 to 2013.

To conclude, the list of PLCs selected should also fulfil several risk indicators for transfer pricing practices provided by OECD's transfer pricing risk guidelines (2012). The least requirement is that the company has subsidiary companies to enable them to engage in transfer pricing. Then only, the samples are also picked from PLCs with gross profit exceeding RM25 Million. This is to align with IRBM's Transfer Pricing Guidelines (2012) whereby it is more focused on PLCs that meet the thresholds for them to initiate an investigation. The Transfer Pricing Guidelines (2012) actually covers companies that exceed RM25 Million amount of gross profit alongside more than RM15 Million amount of related-party transaction.

The data for all the PLCs are obtained from the annual reports covering the years from 2009 to 2013. The list of the samples of PLCs is shown in Table 4.5. The data gathered is only extracted from the annual reports. Data consists of the number of subsidiaries alongside several tax haven countries are obtained from this medium.

3.2 Measurement of Variables

The dependent variable in this research is ETR of each of the PLC for the five years period between 2009 and 2013. The discussion of the DV will be on the ETR yielded by the PLCs whereby the selected companies' corporate ETR will be ascertained and analysed accordingly. The calculation of ETR for each PLC is by dividing the Tax Expense (or tax income) with the Profit before tax (pre-tax income). The basis of measuring the ETR is referring to Gupta and Newberry (1997), whereby the ETR is considered normal if it is around 10% to 25% while it is considered low if it is less than 10%. The low ETR is somehow may be related to transfer mispricing practices.

ETR yielded is use in the equation to measure transfer pricing activities. The adoption of ETR is supported by Olibe and Rezaee (2008) where they use US Effective Tax Rate (ETRUS) as one of the variable to measure cross-border intra-firm transfers (CITs). Based on Olibe and Rezaee (2008) results, they found out that their finding are consistent with Jacob (1996) and Mills and Newberry (2003), where ETRUS is a positive function of CITs. This means that companies that engage in CITs are those that pay more US taxes.

The first independent variables; the subsidiaries location will base on the diverse locations of the company's subsidiaries as per listed in the annual reports. The measurement of the first variable, the number of subsidiaries is based on the number of subsidiaries a PLC possessed. These include local and foreign subsidiaries. The measurement relies on the final calculation of the number of subsidiaries a PLC possessed.

The second variable which is referring to tax haven subsidiaries is based on the number of tax haven countries a PLC possessed. The criteria are based on OECD's List of Tax Haven Countries (2000) which is recently updated in 2006. Those PLCs which do not own any subsidiaries will be measured at zero (0). Both the first and second variables are only based on the respective PLC's Annual Report in 2013. The lists of ordinary subsidiaries alongside tax haven subsidiaries are gathered from each of the selected samples in the study. The year 2013 is selected as the latest year where the information required for the study is available. In addition, the reason is also due to the data constraint, as the list of subsidiaries is only compulsory to be disclosed by the PLCs in 2011. This is by referring to Bursa Malaysia Disclosure Guide (2011) where it requires a comprehensive disclosure for a PLC with regards to its subsidiaries and related-party transactions. Thus, in the year before 2011, there were not much data available, as PLCs may omit the items or just ignore the information though there might be some included the listings in their report. The second reason is due to the consistent pattern of possessing subsidiaries, as when one firm acquire a subsidiary, it is by a slim chance to see they part off with their affiliates.

Table 1 Definition and measurement of variables

Variable	Acronym	Definition	Measurement
NOS		Number of Subsidiaries	Based on the number of subsidiaries a PLC possessed. These include local and foreign subsidiaries.
THS		Tax Haven Subsidiaries	Based on the number of tax haven countries a PLC possessed. The criteria are based on OECD's List of Tax Haven Countries (2000) which is recently updated in 2006. Those PLCs which do not own any subsidiaries will be measured at zero (0).
ETR		Effective Tax Rate	Dividing the Tax Expense with the Profit before tax (pre-tax income).

4. Findings and Analysis

4.1 Descriptive Statistics for Variables

Table 2 Descriptive statistic for dependent variable

	Range	Minimum	Maximum	Mean	Std.
ETR	281.7678	-111.4841	170.2837	20.392530	22.6778465

Table 2 presents the descriptive statistics on the dependent variable that is the ETR. From 70 samples selected across five (5) years period, the mean value of ETR is 20.3925, and the range is from the minimum score of -111.48 to 170.283. Thus, it shows that on average, the ETR stands at 20.39%, which means that most of the PLC's ETR results are within the normal range as suggested by Gupta and Newberry (1997).

Table 3 Descriptive statistics for the independent variables

	Range	Minimum	Maximum	Mean	Std. Deviation
NOS	177	2	179	27.46	33.383
THS	32	0	32	1.19	4.260

Note: NOS represents number of subsidiaries, THS represents number of tax haven subsidiaries

Based on the result from Table 3, the mean value for the number of subsidiaries is high, approximately 27 subsidiaries possessed by a PLC, within the range of two (2) to 179. In relation to tax haven aspect, the mean value of 1.19 is reasonably high; as one (1) PLC is subject to have at least one (1) tax haven subsidiaries. The presence of tax haven is evident in developing countries as they encourage foreign businesses through offering lower tax rates on various business activities (Kasipillai, 2010). The amount cannot be interpreted easily, as it is a vague issue as the utilisation of tax haven countries is not wrong according to the legal perspectives, though that it might be used as a special purpose vehicle (SPV) to reduce tax and acquire lower tax liability.

Table 4 Proportion of ETR across 5-years period for each Public Listed Companies (PLC)

ETR	2009	2010	2011	2012	2013
Low (<10%)	14	18	18	14	22
Normal (10%-25%)	25	27	26	29	23
High (>25%)	31	25	26	27	25
Total PLCs	70	70	70	70	70

Table 4 represents the ETR incurred by those selected PLCs, and the ETR results are classified into three groups which are low (L), normal (N), and high (H) (Gupta and Newberry, 1997). In 2009, most of the PLCs have a high ETR, while in the following year there were more PLCs having a normal ETR. Meanwhile, in 2011, the result shows that normal ETR and high ETR shared the same numbers while the trend changes in 2012 and 2013, where more PLCs had a high ETR. In an overall view, the numbers of PLCs having low ETR for each year are lesser as compared to normal and high ETR groups.

Table 5 Proportion of low ETR across 5-years period based on Industry

Low ETR (<10%)	2009	2010	2011	2012	2013
Industrial	3	3	1	3	4
Trading/Services	1	1	2	1	1
Construction	2	3	3	1	4
Properties	1	3	3	1	1
Consumer Products	1	1	2	2	2
Plantation	0	1	1	1	3
Technology	6	6	6	5	7
Total PLCs	14	18	18	14	22

Table 5 depicts the proportion of low ETR across 5-years period divided by seven (7) different industries. All the other industries generated a lesser lower level of ETR except technology-based industry. This is because out of ten (10) companies in the technology-based industry, there are more than five (5) companies for each consecutive years yielded low ETR rates. This may be due to the lots of trading from outside countries to procure the technological-based items or equipment.

For the purpose of this study, the research will only focus on the low (L) ETR yielded since this mean that the firm pays less tax as compared to the actual amount they should pay. This may trigger the tax authority alert as the company may do a proper tax planning or might as well a tax evasion scheme to reduce their tax bill.

Table 6 Number of subsidiaries held by the Public Listed Companies (PLCs) as at 2013

Sample Company No.	Industry	Local Subsidiaries	Foreign Subsidiaries	Tax Haven Subsidiaries	Total (All)
1	Industrial	7	0	0	7
2	Industrial	13	4	0	17
3	Industrial	10	3	0	13
4	Industrial	17	0	0	17
5	Industrial	5	4	0	9
6	Industrial	8	6	4	18
7	Industrial	15	16	1	32
8	Industrial	5	6	0	11
9	Industrial	4	0	0	4
10	Industrial	13	6	0	19
11	Trading/Services	55	1	0	56
12	Trading/Services	17	14	2	33
13	Trading/Services	29	22	3	54
14	Trading/Services	11	1	0	12
15	Trading/Services	63	6	4	73
16	Trading/Services	37	8	1	46
17	Trading/Services	15	0	1	16

Sample Company No.	Industry	Local Subsidiaries	Foreign Subsidiaries	Tax Haven Subsidiaries	Total (All)
18	Trading/Services	4	0	0	4
19	Trading/Services	10	2	0	12
20	Trading/Services	70	93	32	195
21	Construction	23	2	0	25
22	Construction	34	5	2	41
23	Construction	138	41	14	193
24	Construction	25	5	0	30
25	Construction	3	0	0	3
26	Construction	20	3	2	25
27	Construction	15	0	0	15
28	Construction	86	3	0	89
29	Construction	34	13	0	47
30	Construction	8	1	0	9
31	Consumer Products	15	8	0	23
32	Consumer Products	3	3	0	6
33	Consumer Products	46	0	0	46
34	Consumer Products	17	2	0	19
35	Consumer Products	4	1	0	5
36	Consumer Products	21	3	1	25
37	Consumer Products	2	0	0	2
38	Consumer Products	8	1	0	9
39	Consumer Products	5	1	0	6
40	Consumer Products	4	0	0	4
41	Properties	27	2	1	30
42	Properties	51	2	0	53
43	Properties	6	0	0	6
44	Properties	57	3	0	60
45	Properties	58	2	1	61
46	Properties	28	0	0	28
47	Properties	87	20	4	111
48	Properties	14	1	0	15
49	Properties	61	3	3	67
50	Properties	22	4	0	26
51	Plantation	8	0	0	8
52	Plantation	14	5	1	20
53	Plantation	40	2	0	42
54	Plantation	6	0	0	6
55	Plantation	28	0	0	28
56	Plantation	10	2	0	12
57	Plantation	2	0	0	2
58	Plantation	11	0	0	11
59	Plantation	45	32	8	85
60	Plantation	2	0	0	2
61	Technology	10	1	0	11
62	Technology	3	1	0	4
63	Technology	12	0	0	12

Sample Company No.	Industry	Local Subsidiaries	Foreign Subsidiaries	Tax Haven Subsidiaries	Total (All)
64	Technology	9	4	0	13
65	Technology	3	1	0	4
66	Technology	2	2	0	4
67	Technology	7	0	0	7
68	Technology	0	4	0	4
69	Technology	5	1	0	6
70	Technology	3	2	0	5

Table 6 shows that from the list of 70 PLCs, 18 of them possessed tax haven subsidiaries. The maximum number of tax haven subsidiaries held by a PLC stood at 32, where on average those companies (18 PLCs who possessed tax haven subsidiaries) possessed nearly five (5) tax haven subsidiaries each. In term of industry, six (6) out of 10 PLCs in trading/services sector have tax haven subsidiaries on their rank.

Table 7 PLCs who possessed tax haven subsidiaries with low ETR from 2009 until 2013

Sample Company No.	Industry	2009	2010	2011	2012	2013
6	Industrial		√			
7	Industrial					
12	Trading/Services					
13	Trading/Services					
15	Trading/Services					
16	Trading/Services		√	√	√	√
17	Trading/Services	√				
20	Trading/Services					
22	Construction					
23	Construction					
26	Construction		√	√		√
36	Consumer Products					√
41	Properties					
45	Properties					
47	Properties		√			
49	Properties					
52	Plantation					
59	Plantation					

Table 7 presents the total 18 PLCs who have tax haven subsidiaries, alongside the verification of their low ETR results from the year 2009 until 2013. Five (5) out of 18 PLCs shown are having low ETR during those years. To be specific, only two (2) of the sample PLCs showed a continuous yield of low ETR within that period which are PLC number 16 and 26.

5. Conclusion and Limitation

5.1 Summary of Findings

The primary objective of this study is to explore the potential transfer mispricing practices through descriptive analysis of some risk indicators as per the OECD Guidelines (2012) and IRBM Guidelines. Based on a sample of 70 PLCs listed on Bursa Malaysia for the financial periods 2009 to 2013, the descriptive analysis revealed that from the 70 samples selected across the five (5) years period, the mean value of ETR is 20.3925, and the range is from the minimum score of -111.48 to 170.283. Thus, it shows

that on average, the ETR stands at 20.39%, which means that most of the PLC's ETR results are within the normal range as suggested by Gupta and Newberry (1997). However, the results indicate that all industries have less low level of ETR except technology-based industry. This may be due to substantial trading from outside countries to procure the technological-based items or equipment. In a nutshell, 18 PLCs have tax haven subsidiaries, from the total 70 samples collected.

As a summary, based on the results, it can be concluded that the subsidiaries, tax haven subsidiaries, as well as ETR are merely significant to predict the transfer pricing practices. This is because the higher the number of subsidiaries a PLC possessed, there is only some PLCs that have a low level of ETR. The situation also of the same with the possession of tax haven subsidiaries, as though the latter may be utilized as special purpose vehicle (SPV), still there is only five (5) PLCs that simultaneously have tax haven subsidiaries alongside the lower amount of ETR. These subsidiaries may be utilized to be the channels to store some of the profits of these large firms and consequently act as a tax shelter for them. Hence, these two results may indicate a plausible transfer mispricing practices, but somehow it is not a strong yet decisive result to say that the PLCs are involved in transfer mispricing scheme.

5.2 Limitation

Some limitations of this study are worth mentioning. First of all, this study was tested using the financial data from public listed companies and could not extend the samples to private firms as the financial statements were not publicly available. However, private companies also could have been subjected to transfer pricing manipulation practices. A firm that does not have any subsidiary is automatically excluded as transfer pricing is an inter-company transaction that requires a subsidiary to do at least a transfer price.

Furthermore, the samples selected were relatively small in size as it was limited to ten (10) PLCs of seven (7) industries. Hence, the results cannot be generalized.

5.3 Future Study

This study only explores three risk indicators of transfer pricing practices as per stated in the OECD guidelines (2012). It is recommended that all or most of the risk indicators be examined in predicting transfer pricing activities. Also, the sample size needs to be extended to more than just seventy (70) PLCs. More sample size may produce more robust results that can be used as policy recommendations to the relevant tax authority.

Finally, a qualitative research approach could be conducted in the future to support the quantitative results, such as interviewing the finance managers and the transfer pricing personnel of the related firms. Nevertheless, the findings of this study provide some indications that the indicators can be used to predict transfer pricing practices among public listed companies.

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Financial Characteristics of Thai Listed Companies - CG Ranking Base

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Abstract

Based on the Corporate Governance Report (CGR) of Thai listed companies 2014, published by the Thai Institute of Directors Association (Thai IOD) in collaboration with the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC), this paper investigates the determinant characteristics of the Thai listed companies. Our research question is to see the financial characteristics of those Thai listed firms all of which are ranked according to their corporate governance performance. Two groups of company's corporate governance were classified; high rank and low rank corporate governance (CG) levels. Eight efficient CG determinants are taken into our study. The statistical analyses - *t*-test analysis and chi-square- are used in this study. Our result provides evidence that seven determinants (ownership structure, board size, proportion of firm's equity, proportion of independent committee, firm size, board size range, and type of audit firm) out of eight illustrated the statistical significance between the two groups. Only 'dual CEO', as refers to the same person between the CEO and owners, is the only one determinant that did not illustrate statistical differences. These seven determinants are crucial to distinguish between good governance of high and low rank levels. To interpret this result, either the company appoints the owner or major shareholder to become a CEO or else does not influence the quality of the CG ranking of such company. Further research requires for in-depth investigations on those seven determinants.

Keywords: *corporate governance, CG Ranking, ownership structures, performance, listed companies, Thailand*

1. Introduction

Corporate governance (CG) broadly refers to the mechanisms, processes and relations by which corporations are controlled and directed. Corporate scandals have maintained public and political interest in the regulation of corporate governance. In running businesses, the failure to separate between ownership and control of a private corporation could reasonably affect the business performance. The matter of separation or non-separation of ownership and control gives rise to a principal-agent problem, which can result in the suboptimal use of capital (Stiglitz and Edlin, 1995; Shleifer and Vishny 1998). In a situation that ownership is highly dispersed, the individual shareholder has little or no incentive to monitor management due to the cost of the monitoring. It is often that the cost exceeds the marginal benefits of improved performance (Stiglitz, 1982). As early as 1932, Berle and Means mentioned that there is the fundamental principal-agent conflict in the United States. Several firms had transformed from privately owned and entrepreneurial driven entities into public companies, to gain the benefits of scale and access to the stock exchange capital (Chandler, 1990). Over the last twenty years, Europe has experienced fundamental changes in ownership structures. The government control was reduced its control to the large-scale privatization programs. Several stated-owned enterprises privatized to the private sector and be able to raise equity capital on public markets for the first time. The issues of efficient ownership structures and corporate governance are important for the European Union due to a greater percentage of GDP flows through publicly listed companies by which controlled by a small number of shareholders. To solve such agency problem, corporate governance is then concerned and used as a mean to assure the investors on the return on their investment (Shleifer & Vishny, 1997).

In Thailand, The Thai Institute of Directors Association (IOD) in collaboration with the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC, Thailand)

has continuously assessed corporate governance practices of listed companies. Good corporate governance (CG) is highly promoted and is seen an essential characteristic of listed companies. As stated by the Stock Exchange of Thailand (SET, 2012) in the Principles of Good Corporate Governance for Listed Companies 2012 Report that having good CG means that 'the company has efficient, transparent, and auditable management systems that create trust and confidence amongst its shareholders, investors, other stakeholders and all relevant parties' (SET, 2012, p. 52).

Corporate governance has a long history in Thailand. Started in 2002, the Stock Exchange of Thailand supported listed firms to have good CG by proposing the 15 Principles of Good Corporate Governance as preliminary guidelines and revised to be comprehensive and comparable to the Principles of Corporate Governance of the Organization for Economic Co-operation and Development (OECD) (OECD, 2006). This version also includes recommendations made by the World Bank in its Report on the Observance of Standards and Codes related to Thai CG (CG-ROSC). Again in 2012, 2006 Principles were revised to be compatible with ASEAN CG Scorecard criteria; which is used to assess and rank listed companies' CG practices in ASEAN. Therefore, all Thai listed companies need to comply with these practices. The report on CG ranking by the Thai Institute of Directors Association (Thai IOD) on the overall average CG score in 2014 is 72 percent (550 companies) which is six percentage points lower than that of 2013 (526 companies). There is only 308 companies (56% of companies) receive a score higher than 70 percent level, with 30 companies (5.5% of companies) earning an "Excellent" level of recognition.

It is of our interest to see that with the different CG ranking recognitions (excellent, very good, good, fair and pass) characteristics of the companies will illustrate any similarities or differences. The paper is divided into five parts. The following part is the literature review, where we reviewed many researches done on CG both in Thailand or overseas (See part 2). On part 3, we stated our objectives of the study and hypothesis setting. Research methodology can be found in part 4 and later on part 5; we draw the results and discussion. The final part of our paper is the conclusion and contribution of the study.

2. Literature Review

Corporate governance has developed mechanisms both internal control, and external control to mitigate the agency problem. It is argued by several researchers such as La Porta, Lopez-de-Silanes, Shleifer and Vishny (1996), La Porta and Vishny (1997), La Porta, Lopez and Shleifer (1999) that deficiencies in national Corporate Governance structures are mitigated by higher concentrations of ownership. La Porta et al. (1996), La Porta et al. (1997), La Porta et al. (1999) argued that ownership concentration and institutional differences are a response to differing degrees of legal protection of minority shareholders across countries. Furthermore, political determinants primarily explain differences in ownership concentration (Roe, 2003). Pagano and Lombardo (1999) and Pagano and Volpin (2001) argued that political determinants primarily explain differences in ownership concentration.

The impact of ownership structures on firm performance is vital. Concentrated ownership can provide for better control of management as the size of an ownership stake, and the incentive to monitor are positively correlated. This should improve firm performance and equally benefit minority shareholders. However, it can come with costs for minority shareholders as the controlling owners might try to expropriate from them (Jensen & Meckling, 1976; Grossman & Hart, 1988).

The current ownership arrangements are viewed by Coffee (1999, p.3), as a "product of a path-dependent history rather than the 'neutral' result of an inevitable evolution toward greater efficiency". This suspicion is confirmed by Thomsen et al. (2003), who study firms in the largest continental European countries, concluded that blockholders might destroy firm value. Demsetz and Lehn (1985) and Demsetz and Villalonga (2001) argue that an optimal ownership structure, based on the value maximization principle, be achieved through private contracting between shareholders and management. The financing cost of concentrated ownership increases with firm size. These are because families, and other controlling investors, cannot diversify their portfolio. Therefore, a firm has a natural incentive to move to a more diffuse ownership structure. There is a need to observe an optimal ownership structure where the benefits of control and financing are at equilibrium. In conclusion, they argue that no relation between the two variables can be detectable. The empirical research found no relationship between ownership structure and performance for a sample of US firms between 1976 and 1980. Later in 2001, Demsetz, Harold, and Belen

also study ownership structure and the performance of corporations. They conclude that if ownership is made multi-dimensional, then it is treated as an endogenous variable. The finding also supports the studies of Demsetz and Lehn (1985) and Demsetz and Villalonga (2001) that diffuse ownership also yields compensating advantages that offset such problems. They found that no systematic relation between ownership structure and firm performance is to be expected (Demsetz & Villalonga (2001).

Those arguments above present significant differences in ownership structures within the European Union (Barca & Becht, 2001; Faccio & Lang, 2002). Not only the differences in the European Union are present, but the studies from other countries also show some differences in results of the relationship between ownership structures and firms' performance such as articles from Israel, Turkey, East Asia, China, and Thailand.

Lauterbach and Vaninsky (1999) study examines the effect of ownership structure on the firm performance of 280 Israeli firms. They distinguish between family firms, firms controlled by partnerships, and firms where blockholders have less than 50% of the vote. They found that owner-manager firms are less efficient in generating net income than firms managed by a professional (non-owner) manager. These mean that family firms run by their owners perform (relatively) the worst. This suggestion from this study is that the modern form of business organization, namely the open corporation with dispersing ownership and non-owner managers, promotes firm performance (Lauterbach & Vaninsky, 1999). The results are also similar to the study from Turkey; the authors used data from 2003 to 2010 of 164 industrial firms listed on Istanbul Stock Exchange (BIST-Borsa Istanbul), the empirical exploration of the impact of large shareholders on firm performance measured by ROA and Tobin's Q were done. The finding suggests that large shareholders have a significantly positive effect on the performance of the firms. When ownership of the large shareholder exceeds a certain level, once again, there is a positive relation between large shareholders and firm performance (Isik & Soykan, 2013).

Among nine East Asian countries, Claessens, Djankov, and Lang (2000) examine the separation of ownership and control for 2,980 corporations. They find that voting rights frequently exceed cash-flow rights via pyramid structures and cross-holdings. For family-controlled companies and small companies, the separation of ownership and control is most pronounced (Claessens, Djankov, & Lang, 2000). While the study by Lemmon and Lins (2003) on the crisis in eight East Asian countries using 800 firm data, also supports that ownership structure plays an important role in determining whether insiders expropriate minority shareholders. The study finds that during the crisis period, the returns from shares of firms where managers who have high levels of control, but have separated their roles on control and cash flow ownership, are 10–20 percentage points lower than those of other firms (Lemmon & Lins, 2003).

The issue of ownership structures and firms' performance raises the concern on corporate governance by which is often regarded as a weak point in Asian company performance (Tam & Tan, 2007). Most studies have focused on the relationship between ownership and firm value, but the instruments that mediate that relationship is often overlooked. The relationship between ownership structures and firm performance is analyzed through variations in governance practices and impact on firm performance studies. The conclusion shows that different types of majority owners exhibit distinct traits of behavior and preferences for corporate governance practices in which an environment of the pervasive concentration of shareholding, and several firm characteristics are found to impact firm performance (Tam & Tan, 2007).

The meta-analysis of the relationship between concentrated ownership and firm financial performance in Asia, there is a significant positive association between both variables. This finding suggests that ownership concentration is an efficient corporate governance strategy. They found that a certain threshold level of institutional development was necessary to make concentrated ownership an effective corporate governance strategy. (Heugens, van Essen, & van Oosterhout, 2009).

In China, the Chinese listed companies have mixed ownership structures with three predominant groups of shareholders - the state, legal persons (institutions), and individuals—each holding approximately 30% of the stock. Ownership structure is heavily concentrated. The five largest shareholders accounted for 58% of the outstanding shares in 1995, compared with 33% in Japan, 57.8% in the Czech Republic, and 79% in Germany. The results show that there is a positive and significant correlation between ownership concentration and profitability (Xu & Wang, 1999). Both fixed effects model and Generalized Methods of Moments (GMM) are used to study the impact of ownership structure on enterprise performance in China.

This study finds that marketized state-owned enterprises outperform the firms that are controlled by the government. It is indicating that partial privatization of state-owned Chinese firms improves the corporate governance of such firms. In China, the non-controlling large shareholders of marketized state-owned enterprises and private enterprises plays active roles in corporate governance. The evidence shows that ownership concentration of a controlling shareholder decreases the incentives to arrogate minority shareholders (Kang & Kim, 2012).

In Thailand, there is some research study the ownership structure of the listed firms. The study of 136 manufacturing firms listed on the Thai Stock Exchange (SET) during 1993-1997, the results, measured by the accounting-based return on asset (ROA) and economic-based total factor productivity (TFP), suggest that there is a significant relation between ownership structure and firm performance. It also finds that significant correlation between the degree of control and ROA and TFP where the level of correlation varies by the type of the ownership. While another determinants - director, institutional, and corporate ownership, generate a positive impact on TFP and director, corporate ownership, and individual ownership has a significant impact on ROA. Interestingly, the government ownership also has a negative impact on firm performance (Trangadisaiikul, 2007).

Such results also were supported by the study of Thai listed firms in 1996 by Wiwattanakantang (2001). It is found that the ownership structure of the listed firms in Thailand is extremely concentrated, 82.59 percent of the firms' sample, the largest shareholders own at least 25% of the shares. The controlling shareholders (a shareholder with this level of shareholding, called a firm's controlling shareholder) are mainly families and approximately 70% of the firms' samples. The controlling shareholders involved in the firms' management as top executives and directors (Wiwattanakantang, 2001).

The issue of corporate governance on firm's value in Thailand is also concerned and studied by many researchers and organizations. CG has become an important issue among stakeholders, with the belief that CG might help to enhance a firm's value. However, having good CG has not come with a cheap cost. Earning management is then linked with the firm's corporate governance. The effective **governance** enhances financial and operational transparency, which in turn, reduces adverse selection (Prommin, Jumreornvong, & Jiraporn, 2014). There is an only high cost involved to have good CG in the firms both recognizing and implementing CG. The finding from concludes that cost of sustaining employees' welfare is the most effective to promote better CG recognition classification (Nawaruek, 2014). The question is raised whether such investment in implementing CG is worth. Thailand has taken many approaches to improve the country's corporate governance. Examples of the approaches are increasing the accountability of the board of directors; making accounting and auditing standards to consistent with the internationally acceptable standards; enhancing the rights of minority shareholders and creditors; and strengthening the enforcement of securities regulation (Persons, 2006).

Connelly, Limpaphayom, and Nagarajan (2012) develop a comprehensive measure of corporate governance and show that Tobin's q is the great measurement. They find that q values are lower for firms that exhibit deviations between cash flow rights and voting rights and the value benefits of complying with "good" corporate governance practices are nullified in the presence of pyramidal ownership structures. It raises doubts about the effectiveness of governance measures when ownership structures are not transparent. The firms with the family control, in other words, is having pyramidal ownership structures can comply seemingly with preferred governance practices. They also, use the control to their advantage (Connelly, Limpaphayom, & Nagarajan, 2012).

The study of CG practices of companies in Thailand by Hoschka, Nast, and Villinger (2002) found that from the 100 largest companies listed on the Stock Exchange of Thailand (SET), the companies with the best overall corporate governance performance were found to have average market valuations 45 percent higher than the average of companies located in the bottom quartile. The author discusses that the companies with poor governance scores can boost their market valuations, and should improve their performance in such dimensions as board oversight, shareholder rights, the treatment of minority shareholders, and financial reporting (Hoschka, Nast, & Villinger, 2002).

3. Objectives and Hypothesis Setting

Several ideas and contradict conclusions on ownership structure, firm performance and relating to the corporate governance do exist. Nevertheless, all the evidence implies that such characteristics matter to firm performance, whether positively or negatively and that inevitably affect the CG ranking of such companies. Therefore, in this study, we set out to examine the available evidence on their association between CG component efficiency and CG ranking level.

The objectives of this paper are: i.) to observe the determinants as CG component efficiency and the CG ranking levels of the Thai listed companies, and ii) to investigate the differences in the determinants of companies that have been high CG ranked and low CG ranked.

Our hypothesis is then set based on our perceptions that the determinants of companies with high CG ranking must illustrate some differences from the companies with low CG ranking. Following is our hypothesis.

H1: Determinants of the high CG ranking companies are different from that of the low CG ranking companies

4. Research Methodology

4.1 Data

This study is to investigate whether the CG has been efficient in governing the listed firms. We take the Thai listed firms that were ranked by the Thai Institute of Directors (Thai IOD) on their corporate governance practices according to the Corporate Governance Report 2014 of Thai Listed Companies (CGR). According to a result of the survey under the CGR 2014 project conducted by the IOD, with the support of the Stock Exchange of Thailand (SET) and the Securities and Exchange Commission (SEC), Thailand's 550 listed companies had good corporate governance compliance scores at an average of 72%. Comparing companies in each level by some symbols earned from the National Corporate Governance Committee, 308 listed firms had average scores at over 70%. Of the total, 30 companies (5%) had excellence scores at 90% and above, 108 companies (20%) had very good scores at 80-89%, and 171 companies (31%) had good scores at 70-79% (Corporate Governance Report of Thai Listed Companies 2014).

We take the samples into two groups, the firms with performance rating excellent, very good and good recognition levels as one group, and with performance rating fair, pass, and no CG recognition level as another. We observe and comparison of the board size, the proportion of firms' equity, the proportion of independent committee and firms' size, dual CEO, type of audit firms, and ownership structure of such two groups. A majority of corporate governance codes and standards consider that the board must be formed by a 'reasonable' number of members. The size of the board would affect the monitoring and control management actions (Fama & Jensen, 1983). Jensen (1993) hypothesizes that board size affects corporate governance independent of other board attributes. The larger pool of people on the board results in greater monitoring capacity and then enhances the firm's performance (Goodstein et al., 1994). Board size and proportions both of equity and independent committee are matters to clarify the transparency of the firms. Dual CEO also shows the overlap and conflict of interest of the CEO and the owners or major shareholders. We expect to see some differences between those two groups.

Group 1: High - The firms with performance rating excellent, very good and good recognition levels

Group 2: Low - The firms with performance rating fair, pass, and no CG recognition level

We have collected data from the 56-1 report of the companies listed on the stock exchange of Thailand, for five consecutive years starting from 2009 – 2013. Excluding financial institution and firms under rehabilitation, out of 705 companies, the number of companies taken into this study is 327 or 1,635 firm-year observations, all of which have completed financial statements and have been CG ranked by IOD for those five years and have the ending operating date on December 31.

Among those 327 firms, we group them according to their performance rating recognition level on CGR Report (Thai Institute of Directors Association, 2014).

Variables used in this study are detailed as follows.

Table 1 Variables Used

No	Variables	Meaning
1	Ownership structures	There are four types of ownership structures. 1) Government structure (major shareholders are governmental organizations), 2) Family structure (first five major shareholders has the majority of shareholders more than 50 %), 3) Institutional structure (the major shareholders are the Bank of Thailand, commercial banks, insurances and financial institutions, and other mutual funds), and 4) Other structure (any other structures). We assume a significant relation between ownership structures and firm performance. Different CG rank groups will have different ownership structures.
2	Board size	Refer to the total number of directors who sit on the board of a company. We assume that board size affects corporate governance independent. High CG rank group would have different board size when compare with that of the low CG rank group.
3	Proportion of firms' equity	Percentage of managerial ownership.
4	Proportion of independent committee	Percentage of independence directors of the firms
5	Firms' size	Logarithm of ending total assets of the firms
6	Dual CEO	The slip between the chairman and CEO of the firms. We assume that spreading ownership and non-owner managers or not to be the same persons will promote the firm performance. Companies with high CG rank will have a difference on this determinant.
7	Board size range	3 ranges, i. 1 – 10, ii. 11 – 20, iii. 21 - 30
8	Type of audit firms	Audit services by big four firms (EY, Deloitte, KPMG, and PwC) or non-big four firms. We assume that audit services provided by the Big 4 are associated with higher audit quality.

4.2 Methodology

As we examined the differences in the determinants of the two CG rank groups, we employed statistics analysis to these comparisons.

Table 2 Variables used in the study

No.	Variables	Statistics Used
1	Ownership structures <ul style="list-style-type: none"> • government structure • family structure • Institutional structure • other structure 	Using t-test analysis
2	Board size	Using t-test analysis
3	Proportion of firms' equity	Using t-test analysis
4	Proportion of independent committee	Using t-test analysis
5	Firms' size – using log of total assets	Using t-test analysis
6	Dual CEO (Yes/No)	Using Chi-square analysis
7	Board size range <ul style="list-style-type: none"> • 1 – 10 • 11 – 20 • 21 - 30 	Using Chi-square analysis
8	Type of audit firms (Big 4 firms/Non-big 4 firm)	Using Chi-square analysis

5. Results and Discussion

Characteristics of the sampling firms are described below (see Table 3). From our 1,635 observations, the majority of them, 1,143 observations or 69.7 % is classified in a 'high' ranked group, while 492 observations or 30.1 % in a 'low' ranked group. Optimal board size may vary according to many factors such as the type of organization, and type of business operation. Having a large board size may assist the organization to manage more easily the workload of the board while the small board size may make communication easily but may not consider efficient at some stage. Board ranges which represent the size of the firms' board, 1,433 observations or 87.65 % had the board range of 11 – 20 people, majority of which was in a high ranked group.

Table 3 The observations' CG ranking recognitions

CG Rank	Total Observations	%
High	1,143	69.9
Low	492	30.1
Total	1,635	100.0

Regarding ownership structure, more than half of our samples (886 observations, 54.19%) was fallen onto the institutional structure and was ranked in a high group. Chief Executive Officer (CEO), often also the chairman of the board, and sometimes the president oversees the company's finances and strategic planning. If CEO and the owners (shareholders) are the same people, in other words, it is called 'duo managers,' it may not cause a conflict of interest, but there are both pros and cons for this. The characteristic of the sampling observations, almost 80 %, is having CEO and owners as different persons, the majority of which is ranked in a high group. The big4-audit firms refer to the four largest accounting firms in the world, providing accounting and auditing services including external audit, taxation services, management and business consultancy, and risk assessment and control. Having the big four firm's services seem to assure the quality of the firms' reports. However, all observations used the big4 firms and non-big four firm's services at close proportions, 46 and 54 %. However, 70 % of them were ranked in a high group (see Tables 4 and 5).

Table 4 The observations' determinants

Details		Amount			%		
		CG Rank			CG Rank		
1.	Board ranges	High	Low	Total	High	Low	Total
	1-10	83	76	159	5.08	4.65	9.72
	11-20	1,021	412	1433	62.45	25.20	87.65
	21-30	39	4	43	2.39	0.24	2.63
	Total	1,143	492	1635	69.91	30.09	100.00
2.	Ownership Structure	High	Low	Total	High	Low	Total
	Government structure	100	7	107	6.12	0.43	6.54
	Family structure	173	102	275	10.58	6.24	16.82
	Institutional structure	647	239	886	39.57	14.62	54.19
	Others structure	223	144	367	13.64	8.81	22.45
	Total	1,143	492	1,635	69.91	30.09	100.00
3.	Dual CEO	High	Low	Total	High	Low	Total
	same person	227	111	338	13.88	6.79	20.67
	different person	916	381	1,297	56.02	23.30	79.33
	Total	1,143	492	1,635	69.91	30.09	100.00
4.	Audit firm types	High	Low	Total	High	Low	Total
	Big 4	454	301	755	27.77	18.41	46.18
	Non-big 4	689	191	880	42.14	11.68	53.82
	Total	1,143	492	1,635	69.91	30.09	100.00

With the board size classified by CG rank, board size of high ranked group is 15 persons, while the low ranked group is 13 persons. Proportions of the equity of high and low ranked groups are 15.66 and 19.24 % accordingly. This illustrates that the low ranked group has a higher proportion of equity than high ranked group. Also, the low ranked group has a smaller number of independent committee, 24%, compared with high ranked group which has a proportion of independent committee at 27.02 %. Asset sizes of both CG ranked groups are similar considering of asset logarithms at 15.8 and 14.6 (see Table 5).

Table 5 Important figures on characteristics classified by CG ranked groups

Ranging of CG	N	Mean	Std. Deviation
Board size			
High	1,143	14.73	2.956
Low	492	13.17	2.820
The proportion of equity of management			
High	1,143	15.66	20.21
Low	492	19.24	20.84
The proportion of independent committee			
High	1,143	27.02	7.77
Low	492	23.99	8.70
Log of total Asset			
High	1,143	15.83	1.87
Low	492	14.57	1.31

We analyzed the observations data considering having two groups of CG rank according to their performance rating recognition level on CGR Report publication. For the scale data, independent t-test analysis is used to investigate the differences between those two groups. The variables taken into the t-test analysis are the board size, the proportion of equity, the proportion of independent committee, a log of total assets, we found that all of the variables illustrates the statistical significances between two CG ranked groups. It can be interpreted that all considering variables between the high ranked groups differ from the low ranked group (see Table 6).

Table 6 Independent *t*-test analysis summary result

	t	df	Sig. (2-tailed)
Board size	-9.955	1633	.000
proportion of equity	3.256	1633	.001
proportion of independent committee	-6.650	843.677	.000
Log of total Asset	-15.571	1301.401	.000

For the dummy variable, chi-square analysis is employed to see the difference between those two groups. The variables taken into the chi-square analysis are Dual CEO (different person, same person), types of audit firm (big 4 and non-big four firms), ownership structures (government, family, institute, and others), and board ranges. It is found that only the dual CEO did not illustrate the statistical significance at the 99.5 confident intervals (see Table 7).

Table 7 Pearson Chi-Square analysis summary result

	Value	df	Asymp. Sig. (2-sided)
Duo CEO	1.530a	1	.216
Audit firm type	63.725a	1	.000
Ownership structure	53.294a	3	.000
Board ranges	33.757a	2	.000

This can be interpreted that the differences between two CG ranked groups are not statistically significant. Whether the companies have the same person of CEO and owners, does not matter to the CG rank classification.

6. Conclusions and Contributions of the Paper

This paper is a result of the research on corporate governance ranking bases. Data from the 56-1 report of the companies listed on the stock exchange of Thailand, for five consecutive years starting from 2009 – 2013 were collected. Information of financial institution and firms under rehabilitation is excluded from this paper. Out of 705 companies, the number of companies taken into this study is 327 or 1,635 firm-year observations, all of which have completed financial statements and have been CG ranked by IOD for those five years and have the ending operating date on December 31. Among those 327 firms, we group them according to their performance rating recognition level on CGR Report (Thai Institute of Directors Association, 2014).

Observation on important CG determinants was investigated. The findings have shown that seven out of eight variables which represent the CG characteristics have significant influence over CG ranking classification. These important factors include ownership structure, board size, board size range, the proportion of firm's equity, the proportion of independent committee, firm's size and types of the audit firm. The only factor - Dual CEO, does not show the impact on CG performance. With this result, it brings us to accept the set hypothesis that states determinants of the high CG ranking companies are different from that of the low CG ranking companies. However, not all determinants will comply with that statement. We found that both types of CG ranking recognitions had used the duo CEO – both CEO and major shareholders are the same persons.

First of all, the Board size is considered to be an important factor. If some the board members is too high or too few, it will both create the problem in management and difficulty in decision-making. From the sample data, 87.65% of observations show that the board range of 11-20 people is most popular among all listed companies. On average, board size of companies in high ranked group is 15 members, while it is 13 persons for companies in the low ranked group. This result illustrates the level of concentrated control of board members of the high CG rank group companies higher than the other group. This is similar to the conclusion of Jensen (1993) who hypothesizes that board size affects corporate governance independent and board size also affects the monitoring and control management actions (Fama & Jensen, 1983). Goodstein et al. (1994) also state in his research conclusion that the larger pool of people on the board results in high monitoring and then enhances the firm's performance.

Secondly, the proportion of equity has also proven to have significant influence over the CG performance. It is also interesting to know that low ranked group tends to have a higher proportion of equity than high ranked group. Also, the total asset which represents the firm's size also has the influence of the difference in CG ranking. Our finding matches with the finding of Demsetz and Lehn (1985) and Demsetz and Villalonga (2001) that the financing cost of concentrated ownership increases with firm size because the firms with small size, by which family members, and other controlling investors, cannot diversify their portfolio.

Regarding the proportion of independent committee within firms, data analysis shows a statistically significant relationship to CG ranking classification. On average, companies at high ranked group have a higher proportion of independent committee than companies at the low ranked group. It can be explained by the existence of more independent committee might help to manage the business operations more effectively and efficiently. One of the significant CG characteristics is ownership structure. Among four categories of business structure, the institutional structure has the highest proportion of all observations in sample data. It is important to understand that the concentration of ownership will create the difference in CG practices and performances. The data analysis also shows a clear impact of types of the audit firm to the CG ranking classification.

The choice of whether using audit service from Big Four firms or non-big four firms might affect to the CG practice of business. It is kind of interesting to observe that among all companies in high ranked group, the number of companies using non-big four firms' services is greater than the ones using big four firms' services. This might need further investigation in the future. Last but not least, the factor of dual CEO eventually shows no influence over CG performance of the business. It means in case the company has CEO and owner as the same personnel; it will not create any different in CG practices comparing to other firms rank group. This result might contradict to literature above; Goodstein et al. (1994) conclude in their study that dual CEO presents the overlap and conflict of interest of the CEO and the owners or major

shareholders. The dispersing ownership and non-owner managers promote firm performance (Lauterbach & Vaninsky, 1999), and the returns about 10 – 20 percentage points lower are from firms where managers who have high levels of control, but separate their roles on control (Lemmon & Lins, 2003). With no difference on this determinant on both CG rank groups, further investigation in the future research is needed.

In conclusion, this paper has identified which CG determinant has significant influence over CG ranking classification. It provides valuable information for business with its CG practices. The contribution of this research will help managers to evaluate the current CG performance of their companies, identify the weaknesses and make a plan to improve the effectiveness and efficiency of CG. Therefore, it will support business to improve its overall performance as well. Furthermore, CG is particularly important for investment whether new or potential investors will invest in the companies may reasonably related to CG of that company. Inevitably, having effective governance in a company will enhance its financial and operational transparency. It will also reduce adverse selection (Prommin, Jumreornvong, & Jiraporn, 2014). To give more insightful and detail understanding of CG practices, our research will continue to develop in the future. Expanding the size of data and investigating further into the relationship between these CG determinants stated above and CG performance are needed. All in all, good governance comes with a high cost for both recognizing and implementing CG.

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APPENDIX A

RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)

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Anek Laothamatas, *Rangsit University, Thailand*
Anuchat Pongsomlee, *Mahidol University, Thailand*
Anusorn Tamajai, *Rangsit University, Thailand*
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Attakrit Patchimnan, *Thammasat University, Thailand*
Boonsri Cheevakumjorn, *Rangsit University, Thailand*
Brian Gibson, *TOP Education Institute, Australia*
Newcastle Business School, Australia
Bruce Weeks, *Rangsit University, Thailand*
Carmine Bianchi, *University of Palermo, Italy*
Chaiyan Chaiyaphon, *Chulalongkorn University, Thailand*
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Chitriya Pinthong, *Rangsit University, Thailand*
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Jamie Wallin, *The University of British Columbia*
Jan Golembiewski, *The University of Sydney, Australia*
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Jomdet Trimek, *Rangsit University, Thailand*
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Nam Hoang, *University of New England, Australia*
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Nirumon Tattanarat, *Thammasat University, Thailand*
Nimnuan Visedsun, *Rangsit University, Thailand*
Nitas Raiyawa, *Ministry of Public Health, Thailand*
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Surapong Jayanama, *Former Ambassador of Thailand to Vietnam, República Portuguesa, Greece, Germany and Republic of South Africa*
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APPENDIX B

RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)

NOTE FOR AUTHORS

1. Aims and Scope

Rangsit Journal of Social Sciences and Humanities (RJSH) is an international scholarly journal officially published biannually, in print and on-line. The months of publication are January and July. It is a multidisciplinary journal that aims to provide a high profile vehicle for publication of various new issues in different academic areas. The scope of the *Journal* encompasses, but is not limited to, social sciences, and humanities.

2. Submission Deadline

Submissions are to be permanently open. A manuscript submitted between July 1st and December 31st will be considered for publication in the January-June Issue of the subsequent year whereas a manuscript submitted between January 1st and June 30th will be considered for publication in the July-December Issue.

3. Categories of Articles

The *Journal* accepts the following types of articles:

1. **Research Articles:** A research article is a regular quantitative or qualitative article which aims to present new findings or interpretations.
2. **Notes or Address:** A brief record of something or speech written down that presents important issues.
3. **Review Articles:** There are two types of review articles: non-systematic (or journalistic) reviews and systematic reviews. Non-systematic or journalistic reviews provide a summary of evidence derived from primary studies that have been selected and synthesized according to the author's personal and professional perspective. Non-systematic reviews can cover a wide range of subject matter at various levels of totality and comprehensiveness. Systematic reviews, on the other hand, provide summaries of related primary studies that have been searched for, evaluated, and selected and reported according to a rigorous methodology.
4. **Innovations:** An innovation is an article which aims to present creative arts and designs, procedures or devices.
5. **Comments or Critiques:** A comment or critique is a short article that makes comments or replies to a comment on another article already published by this Journal.
6. **Book Reviews:** A book review is a short article that is written by a specialist and read by the general community. The aim of a book review is to give a brief summary of the book's strengths and weaknesses and to evaluate the book's overall usefulness to the audience it is intended for.

Research articles, review articles, and innovations should not exceed 15 pages of standard A4 paper using *RJSH* format. Notes, comments or critiques, and book review should not exceed 5 pages. Template for research articles is available at www.rsu.ac.th/rjsh. All categories of articles must coincide with manuscript preparation instruction (see Manuscript Preparation Section).

4. Editorial Policies

RJSH accepts only the work that has not been published; that is not under consideration for publication, elsewhere; and that its publication has been approved by all co-authors and the relevant authorities responsible at the institute where the work was conducted. Submission also implies that the authors have already obtained all necessary permissions for the inclusion of copyrighted materials, such as figures and tables from other publications. Previously published work will not be considered for publication. Submitting a copied piece of writing as one's own original work is considered plagiarism. The *Journal* is published by Rangsit University Press, Thailand. Contributions are in English. Copyright is by the publisher and the authors.

Authorship: *RJSH* expects that all of the authors listed on a manuscript have contributed substantially to the submitted paper. By submission of the manuscript, cover letter, and Copyright Transfer Agreement (CTA), the corresponding author affirms that all named authors have agreed to be listed as authors of the paper. Furthermore, by their signatures on the CTA, all authors affirm that they have both read and approved the manuscript, and that they take full responsibility for the content of the article.

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Confidentiality: As is customary for the peer review process, *RJSH* holds the identity of authors and the contents of all submitted manuscripts in confidence until such time as the papers are published. This confidentiality extends to the comments of editors and reviewers that have evaluated the paper; these comments and reviews are released only to the corresponding author. Co-authors may have access to these documents either by obtaining them directly from the corresponding author or by submitting to *RJSH* a letter of request that has been signed by the corresponding author. Similarly, *RJSH* expects that editors and reviewers will maintain strict confidentiality of the authors' identities and the contents of manuscripts that they examine during the review process, and furthermore, will never disclose the contents (either orally or in writing) of documents related to the peer review of a manuscript. A violation of this policy is considered a serious breach of trust.

Research Involving Animals or Humans: Authors must state in the manuscript that the work was approved by, at least, their institutional ethical review board for any research involving human and animal subjects. These approvals are required for publication in *RJSH*.

5. Manuscript Preparation

General Instruction: Submit your manuscript in both PDF and MS word formats. Manuscripts are acceptable in both US and UK English, but the use of either must be consistent throughout the manuscript. Please note that the editors reserve the right to adjust style to certain standards of uniformity.

Format: Unless specified, type text with 10-point Times New Roman font on 12-point line spacing, with a 1.25 inch left margin, 1 inch bottom and right margin, 2 inch top margin, 1.2 inch header, and 0.6 inch footer. Main text is set in single column. First lines of paragraphs are indented 0.5 inch. For hard copy, use standard A4 paper, one side only. Use ordinary upper- and lower-case letters throughout, except where italics are required. For titles, section headings and subheadings, tables, figure captions, and authors' names in the text and reference list: use ordinary upper- and lower-case letters throughout. Start headings at the left margin. If you wish, you may indicate ranking of complicated section headings and subheadings with numerals (1, 1.1, 1.1.1). Try not to exceed three ranks. All pages must be numbered in the top right-hand corner.

Title: Use 11-point bold font on 12-point line spacing. The length of the title of the article must not exceed 2 lines. A title should be concise and informative. The alignment of the title is centered.

Author Names: Use 10-point font on 11-point line spacing. Centered alignment and leave one line space below the title of the article. Begin with the first name of the author followed by the last name. For more

than one author, separate each name by a comma (,), and identify each author's affiliation by superscript numbers at the end of the author's last name.

Author Affiliations: Use 9-point font on 10-point line spacing. Centered alignment and leave one line space below the author names. Include institutional and e-mail addresses for all authors. Place superscript numbers at the beginning of each affiliation accordingly.

Abstract: Use 10-point font on 11-point line spacing for heading and 9-point font on 11-point line spacing for abstract content. An abstract of up to 250 words must be included as and when appropriate. For research papers; the purpose and setting of the research, the principal findings and major conclusions, and the paper's contribution to knowledge should be briefly stated. For empirical papers the locations of the study should be clearly stated, as should the methods and nature of the sample, and a summary of the findings and conclusion. Please note that excessive statistical details should be avoided, abbreviations/acronyms used only if essential or firmly established.

Keywords: List up to 6 keywords and separate each keyword by a comma (,). The keywords should accurately reflect the content of the article. The keywords will be used for indexing purposes.

Main Text: Use 10-point font on 12-point line spacing. In the main body of the submitted manuscript the following order should be adhered to: introduction, methodology, results (if any), discussion (if any), conclusion, acknowledgements, and references. Please note that some article categories may not contain all components above. Tables or figures must be included in the text for the reviewing process. In addition, tables and figures must also be submitted individually in separate files. Refer in the text to each table or illustration included, and cite them in numerical order, checking before submission that all are cited and in correct sequence.

References in the Text: To insert a citation in the text use the author-year system, i.e., the author's last name and year of publication. Examples are as follows: "Since Johnson (2008) has shown that..." or "This is in agreement with results obtained later (Benjamin, 2010)". For 2-3 authors; all authors are to be listed, with "and" separating the last two authors, for more than three authors, list the first author followed by et al. The list of references should be arranged alphabetically by authors' names. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. Responsibility for the accuracy of bibliographic citations lies entirely with the author(s). Citation of a reference as "in press" implies that the item has been accepted for publication. Authors are responsible for the accuracy of the content of the references.

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Abstracts

Author./ (Year of publication)./Title of Abstract (abstract)./Journal Title,/Volume(Issue),/Page number.

Example:

Clark, D.V., Hausen, P.H., & Mammen, M.P. (2002).Impact of dengue in Thailand at the family and population levels (abstract). *Am J Trop Med Hyg*, 67(2 Suppl), 239.

Books

Author./ (Year of publication)./Book Title./Edition (if any)./Place of publication:/Publisher.

Example:

Goodwin, C.J. (1995). *Research in psychology: Methods and design*. New York: John Wiley & Sons, Inc.

Book Articles

Author./ (Year of publication)./Article Title./Book Title (Page Numbers)./Edition (if any)./Place of publication:/Publisher.

Example:

Holland, J.L. (1973). Making vocational choice. *A theory of career* (pp. 43-49). New Jersey: Prentice-Hall.

Conference and Seminar Proceedings

To cite proceedings that are published regularly, use the same format as for a journal article. To cite proceedings that are published in book form, use the same format as for an article in a book.

Dissertation or Thesis

Author./ (Year of publication)./ Title of dissertation or thesis./ Type of Thesis./ Awarding Institution.

Example:

Norasingha, A. (2009). Expression and distribution of mucorinic receptors in hepatic composite of the cirrhotic rats. A thesis for the degree of Master of Science in Biomedical Sciences. Rangsit University.

Editorials

Author./ (Year of publication)./ Title of Editorial (editorial)./ *Journal Title*,/ Volume(Issue),/ Page numbers.

Example:

Fisher, R.I. (2003). Immunotherapy in Non-Hodgkin's lymphoma: Treatment advances (editorial). *Semin Oncol*, 30(2Suppl 4), 1-2.

Journal Articles

Author./ (Year of publication)./ Article Title./ *Journal Title*,/ Volume(Issue),/ Page numbers.

Example:

- Leelawat, S., Leelawat, K., Narong, S., & Matangkasombut, O. (2010). The dual effects of delta 9-tetrahydrocannabinol on cholangiocarcinoma cells: Anti-invasion activity at low concentration and apoptosis induction at high concentration. *Cancer Investigation*, 28(4), 357-363.
- Polk, A., Amsden, B., Scarrott, D., Gonzal, A., Oknamefe, O., & Goosen, M. (1994). Oral delivery in aquaculture. *Aquacult. Eng*, 13, 311-323.
- Seals, D.R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Adv Physiol Educ*, 22, 52-58.
- Srichandum, S. & Rujirayanyong, T. (2010). Production scheduling for dispatching ready mixed concrete trucks using bee colony optimization. *American J. of Engineering and Applied Sciences*, 3(1), 823-830.

Letters

Author./ (Year of publication)./ Title of Letter./ *Journal Title*,/ Volume(Issue),/ Page number.

Example:

Enzensberger, W., & Fisher, P.A. (1996). Metronome in Parkinson's disease (letter). *Lancet*, 347, 1337.

Notes

Author./ (Year of publication)./ Title of Note./ *Journal Title*,/ Volume(Issue),/ Page number.

Example:

Haier, R.J., Schroeder, D.H., Tang, C., Head, K., & Colom, R. (2010). Gray matter correlates of cognitive ability tests used for vocational guidance. *Biomed Central*, 3, 206.

Unpublished/In Press Articles

Author./ (In press Year)./ Article Title./ *Journal Title*./ (in press).

Example:

Veena, B. (2004). Economic pursuits and strategies of survival among Damor of Rajasthan. *J Hum Ecol*. (in press).

Internet periodicals

Author./ (Year of publication)./ Article Title./ *Journal Title*,/ Volume(issue),/ page numbers./ Retrieved mm dd, year, from the full URL of the web page

Example:

Adams, P.J. (2000). Australian economic history. *Journal of Australian Economics*, 5(2), 117-132.
Retrieved June 12, 2001, from <http://jae.org/articles.html>

Internet non-periodicals

Author./(Year of publication)./Article Title./Retrieved mm dd, year, from the full URL of the web page

Example:

Lemire, D. (n.d.). Write good papers. Retrieved July 1, 2010, from <http://www.daniel-lemire.com/blog/rules-to-write-a-good-research-paper>

Illustrations and Figures: All illustrations should be provided in a file format and resolution suitable for reproduction, e.g., EPS, JPEG or TIFF formats, without retouching. Photographs, charts and diagrams should be referred to as "Figure(s)" and should be numbered consecutively in the order to which they are referred. In addition to placing figures with figure captions into the main text, **submit each figure individually as a separate file.**

Line Drawings: All lettering, graph lines and points on graphs should be sufficiently large and bold to permit reproduction when the diagram has been reduced to a size suitable for inclusion in the journal. Do not use any type of shading on computer-generated illustrations.

Figure Captions: Type figure captions using 9-point font on 10-point line spacing. Insert figures with figure captions into the main text (see *Illustrations and figures* Section). Type as follows: Figure 1
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Tables: Tables must be cell-based without vertical lines. They should be produced in a spreadsheet program such as Microsoft Excel or in Microsoft Word. Type all text in tables using 9-point font or less. Type the caption above the table to the same width as the table. Insert tables and table captions into the main text. Tables should be numbered consecutively. Footnotes to tables should be typed below the table and should be referred to by superscript numbers. Submit separate files of tables in their original file format and not as graphic files in addition to incorporating in the main text. Tables should not duplicate results presented elsewhere in the manuscript (e.g., in graphs).

Proofs: Proofs will be sent to the corresponding author by PDF wherever possible and should be returned within 1 week of receipt, preferably by e-mail. Corrections must be restricted to typesetting errors. It is important to ensure that all of your corrections are returned to us in one all-inclusive e-mail or fax. Proofreading is solely the responsibility of the author(s). Note that *RJSH* may proceed with the publication of your article if no response is received in time.

Reprints: During the first year of publication (year 2011), authors will receive 25 free reprints of their papers and one free copy of the journal in which their work appears. From the second year (2012) onward, reprints will be available on demand at 25 USD per copy.

English Language Editing before Submission: Authors for whom English is a second language may choose to have their manuscript professionally edited before submission.

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Manuscripts should be submitted electronically to the Editor-in-Chief as an attachment to an e-mail (RJSH@rsu.ac.th), in word processing format. The *RJSH* submission form must be completed. Included in the submission form are: (a) the title and authors, (b) complete contact information for the corresponding author (mailing address, e-mail address, and telephone and fax numbers), (c) confirmation of the originality of the reported work, (d) approval of the submitted version of the manuscript by all authors, and (e) the authors' consent for publication in *RJSH*, if accepted. The submission form is available at <http://www.rsu.ac.th/RJSH/>.

7. Manuscript Revision and Re-submission

There are four editorial decisions: Accept, Accept with Minor Revision, Resubmit with Major Revision, and Reject. A Reject decision is definitive and authors may not submit a new version of the manuscript to the *RJSH*. A Resubmit with Major Revision requires a major re-write of the manuscript and/or inclusion of significant new data, and thus the creation of a new manuscript, which will thus be assigned a new submission date. An Accept with Minor Revision decision implies that the paper can, in principle, attain the required standard of the *Journal* without major change. Editors may or may not have a revised manuscript reviewed (generally, by the original reviewers), in order to ascertain whether changes to the original manuscript adequately responded to the criticisms. If changes made do not result in a paper of the required standard, the revised manuscript will be definitively rejected. If a revised manuscript of "Accept with Minor Revision" is accepted, the original submission date will be retained.

8. Copyright Agreement

Once a manuscript is accepted for publication, authors will be required to sign a Copyright Transfer Agreement form (CTA). CTA is available at <http://www.rsu.ac.th/RJSH/CTA/>. Signature of the CTA is a condition of publication and papers will not be passed for production unless a signed form has been received. Please note that signature of the Copyright Transfer Agreement does not affect ownership of copyright in the material. Please submit the completed form with the final version of the manuscript back to the Editor-in-Chief.

9. Further Reading

The following resources will provide valuable guidelines for the preparation of manuscripts.

Anonymous. (n.d.). How to write abstract. Retrieved January 17, 2011, from

http://www.journal.au.edu/au techno/2006/jan06/vol9num3_howto.pdf

Anonymous. (n.d.). How to write an abstract: Links and tips. Retrieved January 17, 2011, from

<http://research.berkeley.edu/ucday/abstract.html>

Koopman, P. (n.d.). How to write an abstract. Retrieved January 17, 2011, from

<http://www.ece.cmu.edu/~koopman/essays/abstract.html>

Lemire, D. (n.d.). Write good papers. Retrieved January 17, 2011, from <http://lemire.me/blog/rules-to-write-a-good-research-paper/>

Plonsky, M. (n.d.). Psychology with style: A hypertext writing guide. Retrieved January 17, 2011, from <http://www.uwsp.edu/psych/apa4b.htm>

Seals, D.R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Adv. Physiol. Educ*, 22, 52-58.

Jones, A., & Pham, H. (n.d.). Basic Referencing using the APA System, Teaching and learning unit, Faculty of Economics and Commerce, The University of Melbourne. Retrieved February 15, 2011, from <http://www.scribd.com/doc/57603066/A-Pa-Style>

APPENDIX C

RANGSIT JOURNAL OF SOCIAL SCIENCES AND HUMANITIES (RJSH)

Research Article Single-Column Template

Please note that the paper size is standard A4 size (approx 8.27 x 11.69 in)

**Type your title here using 11-point Times New Roman bold font on 12-point line spacing.
The length of the title of the article must not exceed 2 lines.**

Author Names (Use 10-point Times New Roman font on 11-point line spacing.

Begin with the first name of the author followed by the last name. For more than one author, type 'and' before the last author's name. For more than two authors, also separate each name by a comma (.). Identify each author's affiliation by superscript numbers at the end of the author's last name.)

Author Affiliations (Use 9-point Times New Roman font on 10-point line spacing.

Include institutional and e-mail addresses for all authors. Place superscript number in front of author's affiliation corresponding to author's name.)

Submitted date month, year; accepted in final form date month, year (To be completed by RJSH)

Abstract (10-point bold font on 11-point line spacing)

For abstract content, use 9-point Times New Roman font on 11-point line spacing. First line is indented 0.5 inch. An abstract of up to 250 words must be included. Include your major findings in a useful and concise manner. Include a problem statement, objectives, brief methods, results, and the significance of your findings.

Keywords: List up to 6 keywords and separate each keyword by a comma (.). The keywords should accurately reflect the content of the article. The keywords will be used for indexing purposes.

1. Introduction

The actual manuscript will be published in a single-column style in the RJSH journal. This single column template is adopted as a user friendly format. Thus, with this template, the main text is set in a single column. Type text with 10 point Times New Roman font on 12 point line spacing, with a 1.25 inch left margin, 1 inch bottom and right margin, 2 inch top margin, 1.2 inch header, and 0.6 inch footer. First lines of paragraphs are indented 0.5 inch. Please note that the paper size is standard A4 size (approx 8.27 x 11.69 in). In MS Word, select "Page Layout" from the menu bar, and under Paper Size select A4 Size.

The introduction should put the focus of the manuscript into a broader context. As you compose the introduction, think of readers who are not experts in this field. Include a brief review of the key literature. If there are relevant controversies or disagreements in the field, they should be mentioned so that a non-expert reader can find out about these issues further. The introduction should conclude with a brief statement of the overall aim of the experiments.

To insert a citation in the text use the author-year system, i.e., the author's last name and year of publication. Examples are as follows: "Since Johnson (2008) has shown that..." or "This is in agreement with results obtained later (Benjamin, 2010)". For 2-3 authors; all authors are to be listed, with "and" separating the last two authors, for more than three authors, list the first author followed by et al. The list of references should be arranged alphabetically by authors' names. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of authors' names and dates are exactly the same in the text as in the reference list. Responsibility for the accuracy of bibliographic citations lies entirely with the author(s). Citation of a reference as "in press" implies that the item has been accepted for publication. Authors are responsible for the accuracy of the content of the references.

2. Objectives

The objectives of the study should be specified explicitly.

3. Materials and Methods

This section should provide enough detail to allow full replication of the study by suitably skilled investigators. Protocols for new methods should be included, but well-established protocols may simply be referenced.

4. Results

The results section should provide details of all of the experiments that are required to support the conclusions of the paper. There is no specific word limit for this section. The section may be divided into subsections, each with a concise subheading. The results section should be written in past tense.

Tables must be cell-based without vertical lines. They should be produced in a spreadsheet program such as Microsoft Excel or in Microsoft Word. Type all text in tables using 9-point font on 10-points line spacing. Type the caption above the table to the same width as the table.

Tables should be numbered consecutively. Footnotes to tables should be typed below the table and should be referred to by superscript numbers. Submit separate files of tables in their original file format and not as graphic files in addition to incorporating in the main text. Tables should not duplicate results presented elsewhere in the manuscript (e.g., in graphs).

Table 1 Table caption

C1	C2	C3	C4
R1			
R2			
R3			
R4			
R5			
R6			

If figures are inserted into the main text, type figure captions below the figure. In addition, submit each figure individually as a separate file. Figures should be provided in a file format and resolution suitable for reproduction, e.g., EPS, JPEG or TIFF formats, without retouching. Photographs, charts and diagrams should be referred to as "Figure(s)" and should be numbered consecutively in the order to which they are referred



Figure 1 Figure caption

Table 2 Table caption

C1	C2	C3	C4	C5	C6	C7
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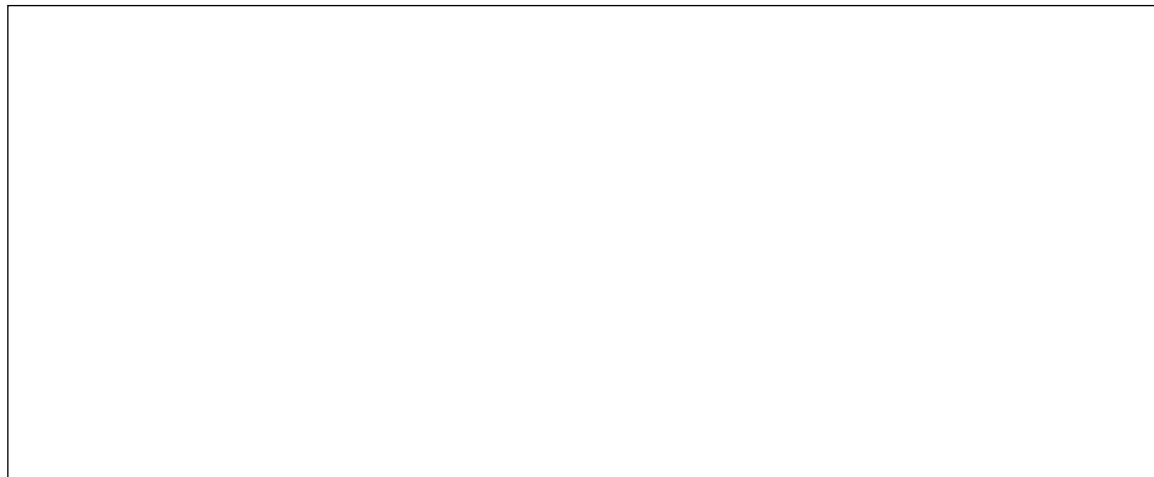


Figure 2 Figure caption

5. Discussion

The discussion should spell out the major conclusions of the work along with some explanation or speculation on the significance of these conclusions. How do the conclusions affect the existing assumptions and models in the field? How can future research build on these observations? What are the key experiments that must be done? The discussion should be concise and tightly argued. Conclusions firmly established by the presented data, hypotheses supported by the presented data, and speculations suggested by the presented data should be clearly identified as such. The results and discussion may be combined into one section, if desired.

6. Conclusion

The Conclusion section restates the major findings and suggests further research.

7. Acknowledgements

People who contributed to the work but do not fit criteria for authorship should be listed in the Acknowledgments, along with their contributions. It is the authors' responsibility to ensure that anyone named in the acknowledgments agrees to being so named. The funding sources that have supported the work should be included in the acknowledgments.

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Fisher, R.I. (2003). Immunotherapy in Non-Hodgkin's lymphoma: Treatment advances (editorial). *Semin Oncol*, 30(2 Suppl 4), 1-2.

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- Leelawat, S., Leelawat, K., Narong, S., & Matangkasombut, O. (2010). The dual effects of delta 9-tetrahydrocannabinol on cholangiocarcinoma cells: Anti-invasion activity at low concentration and apoptosis induction at high concentration. *Cancer Investigation*, 28(4), 357-363.
- Polk, A., Amsden, B., Scarrtt, D., Gonzal, A., Oknamefe, O., & Goosen, M. (1994). Oral delivery in aquaculture. *Aquacult. Eng*, 13, 311-323.
- Seals, D.R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Adv Physiol Educ*, 22, 52-58.

Srichandum, S. & Rujirayanyong, T. (2010). Production scheduling for dispatching ready mixed concrete trucks using bee colony optimization. *American J. of Engineering and Applied Sciences*, 3(1), 823-830.

Letters

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Haier, R.J., Schroeder, D.H., Tang, C., Head, K., & Colom, R. (2010). Gray matter correlates of cognitive ability tests used for vocational guidance. *Biomed Central*, 3, 206.

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Veena, B. (2004). Economic pursuits and strategies of survival among Damor of Rajasthan. *J Hum Ecol.* (in press).

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Adams, P.J. (2000). Australian economic history. *Journal of Australian Economics*, 5(2), 117-132.
Retrieved June 12, 2001, from <http://jae.org/articles.html>

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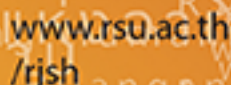
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