



**The relationship between positive psychological capital,
employee engagement and organizational citizenship behaviour:
A case study of an oil and gas company, Songkhla**

Jakita Maka-A-Pirak

A minor thesis submitted in Partial Fulfilment of the Requirements for
the Degree of Master of Business Administration

Prince of Songkla University

2018

ชื่อสารนิพนธ์	ความสัมพันธ์ระหว่างทุนทางจิตวิทยาเชิงบวก, ความผูกพันของพนักงาน และพฤติกรรมการเป็นสมาชิกที่ดีขององค์กร: กรณีศึกษาบริษัทน้ำมันและก๊าซธรรมชาติในจังหวัดสงขลา
ผู้เขียน	นางสาวเจกิตาน์ เมฆาอภิรักษ์
สาขาวิชา	(นานาชาติ) บริหารธุรกิจ
ปีการศึกษา	2561

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างทุนทางจิตวิทยาเชิงบวก ความผูกพันของพนักงานและพฤติกรรมการเป็นสมาชิกที่ดีขององค์กร กรณีศึกษาบริษัทน้ำมันและก๊าซธรรมชาติในจังหวัดสงขลา เก็บข้อมูลโดยใช้แบบสอบถามจากพนักงาน 136 คน ซึ่งผลที่ได้คือความสัมพันธ์ระหว่างทุนทางจิตวิทยาและความผูกพันของพนักงานมีความสัมพันธ์กันอย่างมาก เช่นเดียวกับความสัมพันธ์ระหว่างทุนทางจิตวิทยาและพฤติกรรมการเป็นสมาชิกที่ดีขององค์กรอยู่ในระดับสูง ผลการวิจัยพบว่าพนักงานที่มีระดับทุนทางจิตวิทยาสูงมีแนวโน้มในการแสดงความผูกพันและพฤติกรรมการเป็นสมาชิกที่ดีขององค์กรสูง ทางองค์กรควรจะริเริ่มให้ความสนใจกับการบริหารทรัพยากรบุคคลโดยมีจุดประสงค์เพื่อส่งเสริมทุนทางจิตวิทยาเชิงบวกในหมู่พนักงานให้มากขึ้น เพื่อเป็นการส่งเสริมสร้างทัศนคติเชิงบวกและพฤติกรรมดีเช่นความผูกพันของพนักงาน และพฤติกรรมการเป็นสมาชิกที่ดีขององค์กร

คำสำคัญ: ทุนทางจิตวิทยาเชิงบวก, ความผูกพันของพนักงาน, พฤติกรรมการเป็นสมาชิกที่ดีขององค์กร

Thesis Title	The relationship between positive psychological capital, employee engagement, and organizational citizenship behavior: A case study of an oil and gas company, Songkhla
Author	Miss Jakita Maka-A-Pirak
Major Program	Business Administration (International Program)
Academic Year	2018

ABSTRACT

The main aim of this study was to examine the relationship between psychological capital (PsyCap), employee engagement, and organization citizenship behaviour (OCB) by using a case study of an oil and gas company located in Songkhla province. Data from 136 employees were analysed using questionnaires. The relationship between PsyCap and employee engagement is highly correlated. Similarly, the correlation between PsyCap and OCB is high. Results suggest that employees who have higher level of PsyCap tend to have higher level of engagement and OCB. The organization may initiate HR practices aiming at promoting positive PsyCap among employees to enhance their attitude and behaviour like employee engagement and OCB.

Keywords: Positive Psychological Capital, Employee Engagement, Organizational Citizenship Behaviour

ACKNOWLEDGMENT

I would like to show my gratitude to all those who have supported me from the beginning to the end of my minor thesis. First, I would like to thank all staffs at Graduate office in Business Administration Department for their kindness and guidance. It is a good opportunity for me to challenge myself at the Faculty of Business Administration. More so, I appreciate all professors for providing excellent knowledge and suggestions both in the classroom and on my minor thesis as well.

Secondly, this minor thesis was completed with proper guidance and correction from my advisor, Dr.Daraneekorn Supanti. I appreciate her continuous counsel, motivation, patience and recommendation of writing skill on this minor thesis. Without her support, I will not be able to finish this minor thesis. I would like to thank the rest of my minor thesis committee: Asst. Prof. Dr. Suthinee Rurkkhum, and Dr. Sirinuch Loykulnanta for their insightful comments and encouragement. Especially for their difficult questions which inspire me to rise up all new research methodology from various perspectives.

Finally, I would like to express my sincere appreciation to my parents and my master student classmates for supporting me spiritually throughout writing this minor thesis.

Jakita Maka-A-Pirak

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Chapter 1

Introduction

This study focused on the relationship between positive psychological capital (PsyCap), employee engagement, and organizational citizenship behaviour (OCB) among employees in an oil and gas company. This chapter introduces the study and presents key information to explain such relationship. First, an introduction to the research background is provided. This background supports the problem statement and the purpose of the study. The research hypotheses are then presented. An overview of the significance of the study is then provided. The chapter closes with definitions of key terms used in the study.

1.1 Research background

Employee engagement is one of important area that helps organization to reduce staff turnover, improve productivity, and efficiency. Most importantly, engaged employees are happier both at work and in their lives. When employees are engaged, it infuses everything they do with purpose, energy, and enthusiasm (Phillips & Gully, 2014). Employee engagement can be described as employees feeling committed to, involved with, and enthusiastic about their job (Phillips & Gully, 2014). Engagement has been linked with commitment to high level of job performance both for the aspect of the job required by the organization and discretionary behaviour such as helping others at work (Phillips & Gully, 2014; Shuck, Reio, & Rocco, 2011). These discretionary behaviours are referred to as OCB and they benefit the organization but are not formally rewarded or required (Phillips & Gully, 2014).

Many organizational behaviour researchers recommend that a work attitude that can encourage employees to perform well at their job is OCB. However, some researchers revealed that OCB may also have a negative perspective because it can lead to work overload. Since each employee has their limited amount of time to spend at work, spending time doing OCB like helping other employees might be costly and might impact the employee's routine tasks (Bergeron, 2007). In other words, the effect of OCB on job performance will vary according to the situation. Researchers have also found relationship between employee engagement and OCB. While employee engagement is a positive workplace attitude, OCB is considered as behavioural construct. The positive relationship between employee engagement and OCB among employees of four large Thai organizations was found in the study of Rurkkhum and Bartlett (2012).

One way of understanding employee attitude is through the lens of positive psychological capital, which is often abbreviated as PsyCap. There is a positive relationship between PsyCap and positive desirable employee attitudes and behaviours (Avey, Reichard, Luthans, & Mhatre, 2011). PsyCap is a concept derived from positive psychology, which is a psychological discipline that is concerned with positive aspects of psychology rather than emphasizing dysfunction or disease (Luthans, K. Luthans, & B. Luthans, 2004). PsyCap, as originally defined by Luthans et al. (2004), builds on the capital analogy as established within the organizational literature with human capital and social capital. Positive psychological capital, which the authors explained as "who you are", includes psychological traits of confidence, hope, optimism, and resilience (Luthans et al., 2004). PsyCap is one of the theories that contribute to positive organizational behaviour, a discipline that, like positive

psychology, emphasizes positive behaviour rather than dysfunctional or harmful behaviour (Luthans & Youssef, 2007). PsyCap has been associated with positive individual outcomes within the organization, such as employee work performance and job satisfaction (Luthans, Avolio, Avey, & Norman, 2007). More recently, PsyCap has been recognized as a positive leadership tool, enabling leaders to address employee health and psychological well-being, rather than just their work-related performance (Luthans, Youssef, Sweetman, & Harms, 2013). As PsyCap has been an important concept for organization success, this perspective leads to the focus of this study on the relationship between PsyCap, employee engagement, and OCB.

1.2 Problem Statement

The oil and gas industry is an important natural resource production industry in Thailand. As of 2014/2015, Thailand produced 17.2 million tonnes of crude oil per year, most of which met domestic demand of 56.6 million tonnes (World Energy Council, 2016). Natural gas production reached 219.5 billion cubic meters of natural gas in 2015 (World Energy Council, 2016). Despite the importance of this industry, there has not been much research into the employee's perspective in this industry or their working conditions that may create physical and psychological stress. Offshore oil and gas employees work under high pressure conditions, including a dangerous physical environment filled with complex machinery and environmental stressors, long working hours, extremes of heat and cold, and sometimes close or uncomfortable working conditions (Clarke, 2006). These conditions could give employees high burnout and turnover intention (Bakker, Demerouti, & Sanz-vergel, 2014). Thus, understanding working practices within the industry is one step toward developing a better understanding of employees working in the oil and gas industry. An oil and gas

company selected as case study has over three decades of operational experience in the oil and gas industry of Thailand and the offshore business unit is based in Songkhla province.

The definition and initial measurement of the PsyCap concept suggests that high levels of PsyCap may be effective at offsetting some of these stressors and improving employee engagement and other outcomes (Luthans, Avey, Avolio, Norman, & Combs, 2006a; Luthans et al., 2004). PsyCap results have been found in hospitality employees (Paek, Schuckert, Kim, & Lee, 2015), IT professionals (Sihag & Sarikwal, 2014), and call centre employees (Simons & Buitendach, 2013). While this research is useful, there has been limited empirical studies carried out in the oil and gas industry. Thus, there is a gap in the literature that relates to how the PsyCap concept may apply to positive employee outcomes in higher stress industries like oil and gas. This research focuses on two of such positive outcomes, which are employee engagement and OCB.

1.3 Purpose of the Study

The aims and objectives of the study were established based on the preliminary literature review and the establishment of the problem of the research. The aim of the study was stated as follows: to examine the relationship between psychological capital (PsyCap), employee engagement, and organizational citizenship behaviour (OCB) among employees. To support this aim, two objectives were established. These objectives are as follows:

[1] To examine the level of PsyCap, employee engagement, and OCB.

[2] To investigate the relationship between PsyCap, employee engagement, and

OCB among employees.

1.4 Research Hypotheses

H1: PsyCap is positively related with employee engagement.

H2: PsyCap is positively related with OCB.

1.5 Significance of the Study

The main significance of this study is academic in nature. To date, most researchers have focused on the concept of PsyCap in office-based work such as IT workers or call centres (Paek et al., 2015; Sihag & Sarikwal, 2014; Simons & Buitendach, 2013). There have been limited studies in industries which are characterized with the usage of large or heavy equipment, complex processes, and large or heavy products. By applying PsyCap in an industrial context (i.e., the oil and gas industry in this study), this study may contribute by providing empirical information about the extent to which the concept applies in an oil and gas company. This is because the psychology of the employees in the industry or manufacturing sector might be different from the psychology of the employees in an office-based job due to different working environment and conditions. The research also has some practical implications by studying the relationship between PsyCap, employee engagement, and OCB. This research can provide insights for industrial managers to understand how the state of PsyCap may improve the employee engagement and OCB which are desired attitude or behaviour of employees than can help the organization achieve its set goals. This could result in more effectively managed organizations that meet the needs of their employees and improve their organisational performance.

1.6 Research Outline

This study is arranged in five chapters, each of which presents a different facet or stage of the study process. This chapter (Introduction) has provided the background and basic rationale for conducting the study. It also established the scope and importance of the study. In Chapter 2 (Literature Review), a theoretical basis for the study is established through review of the existing literature on PsyCap and its relationship with employee engagement and OCB. In Chapter 3 (Methodology), the method used for the study are described and explained. In Chapter 4 (Results), the findings of the data analysis are presented and interpreted. These findings are then synthesized with the literature review to explain and contextualize the outcomes in Chapter 5 (Conclusions and Discussion) which provides recommendations for research and practice.

1.7 Definition of Terms

1.7.1. Psychological Capital (PsyCap) refers to a core positivity factor of psychology in general and standard states in particular, that goes beyond social and human capital to obtain the competitive advantage through investment and development of ‘who you are’ (Luthans, Avolio, Walumbwa, & Li, 2005). PsyCap has been conceptually identified to consist of four positive psychological resources of hope, optimism, efficacy, and resilience.

1.7.1.1. Hope refers to a positive individual’s motivation to succeed. It is the state where a feeling of goal oriented determination and proactively planning to reach goals have been met in positive side (Luthans et al., 2007).

1.7.1.2. Optimism refers to an individual’s perspective in positive angle

(Brissette, Scheier, & Carver, 2002).

1.7.1.3. Efficacy refers to self-confidence of individual in their ability to achieve their goals. Also have high level of action in specific situation (Stajkovic & Luthans, 1998).

1.7.1.4 Resilience refers to the ability of an individual to flexibly and elastically bounce back any risky situation and handle with change (Masten & Reed, 2002).

1.7.2. Employee engagement refers to the level at which employees are committed to, involved with, and enthusiastic about their job (Phillips & Gully, 2014).

1.7.3. Organizational citizenship behaviour refers to behaviour of employees that goes beyond the basic job requirement and to a large extent discretionary and beneficial to organization (Organ, 1988).

Chapter 2

Literature Review

This chapter presents the literature review that was conducted to support the study. The literature review provides support for the research, including definitions, theories, and previous observations and known relationships. The literature is drawn from academic, peer-reviewed journals to ensure that the literature is well supported and has been evaluated for quality. The chapter opens with the most theoretical aspect, which is a review of the conceptual definitions that are important to the study. These definitions include positive psychological capital and its components, employee engagement and organisational citizenship behaviour (OCB). Next, a review of the theoretical basis of PsyCap, employee engagement, and OCB are provided. The chapter then addresses the core relationship of the study, which is the relationship of PsyCap and employee engagement. Both theoretical and empirical findings are discussed. The chapter concludes with a presentation of the theoretical framework of the paper and the hypotheses that were studied in the primary research.

2.1 Conceptual Definitions

The key definitions in the research include positive psychological capital, or PsyCap, employee engagement and OCB. Here, a definition of each concept and where appropriate its dimensions and features is provided. These definitions are used throughout the remainder of the study as theoretical model and practical application.

2.1.1 The Oil and Gas Industry

The oil and gas industry is the industry that is composed of companies involved in the exploration, extraction, refining, transportation, and marketing of crude oil. The industry can be broadly divided into three namely; the upstream, midstream, and the downstream sector. The upstream sector produces the crude oil and natural gas through exploration and extraction or production. The midstream stores and transport the crude oil produced by the upstream sector to the downstream sector. The downstream sector includes the refining of the crude oil into different by-products and also the retail outlet.

The upstream sector which is also known as the exploration and production (E&P) sector can be further divided into onshore and offshore production. The onshore is the exploration of crude oil on land by drilling deep wells on the earth surface whereas the offshore refers to the exploration of crude oil on the sea by drilling underneath the seabed. According to World Energy Council (2016), 80% of the oil production in Thailand comes from the offshore drilling in the Gulf of Thailand.

2.1.2 Characteristics of the Offshore Sector

The offshore exploration is done by mounting a big platform off the shore of the sea. The platform is where the heavy equipment for drilling is placed and where the offshore workers and engineers operate. Offshore oil production is recognised as a very stressful occupation (Chen, Wong, Yu, Lin, & Cooper, 2003; Parkes, 1998). The offshore sector is characterized with adverse physical environment, rough seas, the risk of travel by helicopter and ship, exposure to noise and accident, boring life because of limited space, isolation from community and family, and special demands

and constraints which can affect the psychological health of the employee (Chen et al., 2003). One of the psychological health issues that are found among offshore worker is anxiety which is caused by the exposure to the external work environment of the offshore production (Cooper & Sutherland, 1987). The sector is also characterized with the usage of heavy machines. Therefore, it is expected that the psychological capital of the employees who work on the offshore may be different from that of office-based worker that have been mostly explored by researchers.

2.1.3 Positive psychological capital (PsyCap)

Positive psychological capital, or PsyCap, is a theoretical expansion of the economic model of capital and the previous applications to human relationships, including human capital (knowledge and skills) and social capital (relationships) (Luthans et al., 2004) (Please see Figure 1). While PsyCap is a relatively new theory, the term had been used sporadically previous to the current theory (Avey et al., 2011). Luthans et al. (2004) were the first authors to extend the economic capital to an individual's psychological state of well-being. The canonical definition of psychological capital is that it is:

... An individual's positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success." (Luthans, Youssef, & Avolio, 2007, p. 3)

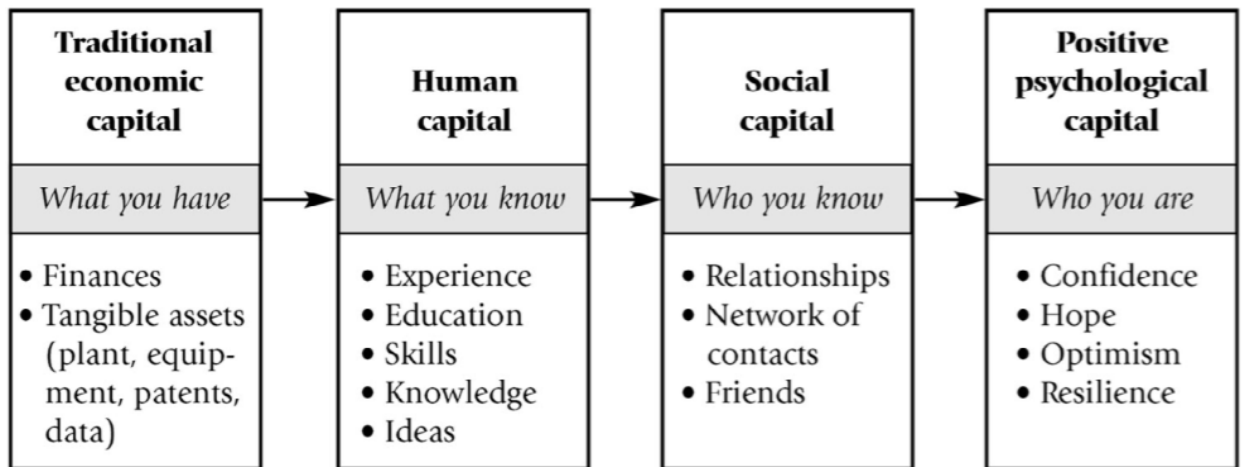


Figure 1 Extension of the 'capital' metaphor to PsyCap

Source: Luthans et al. (2004, p. 48)

2.1.3.1 Definition of confidence (self-efficacy)

The first dimension of the PsyCap construct is that of *confidence*, which is sometimes called efficacy or self-efficacy depending on the terms selected by different authors (Luthans et al., 2007) referring to self-efficacy in relation to the task being undertaken. Confidence or efficacy relates to the individual's beliefs about her abilities to complete the task by moving through stages of motivation and use of appropriate cognitive resources and processes to achieve the targeted task (Avey, Luthans, Smith, & Palmer, 2010b). Like the other factors included in the study, confidence or efficacy is primarily a cognitive construct, rather than an affective construct (Avey et al., 2010b). Confidence is one of the most strongly supported theoretical constructs in the model, as self-efficacy and its development is a well-studied phenomenon with a psychological and organizational background (Luthans et al., 2006a).

2.1.3.2 Definition of hope

The second dimension of the PsyCap construct is that of *hope*. The authors do not define hope as in a layman's definition; instead, hope refers in this model to a "positive motivational state (Avey et al., 2010b, p. 20)", in which the individual is motivated to seek out paths to succeed with a target goal, and sometimes to change the approach used to ensure this success. Hope includes multiple beliefs about the nature of goal achievement and the individual's role (Luthans et al., 2007). Elements of hope include "agency, pathways, and goals (Luthans et al., 2006a)", a set of attitudes and beliefs that allow the individual to recognize their abilities and choices to achieve their intended goals. Agency is an expression of will and belief in ability to move toward the goal, while pathways are routes to achieve the specified goal (Luthans et al., 2007).

2.1.3.3 Definition of optimism

The third dimension of PsyCap is optimism. As Avey et al. (2010b) explained, optimism relates to how individuals attribute past events and outcomes that they have experienced. Optimism refers to the extent to which the individual is likely to attribute successes to internal states (such as individual skill) and failure to external states (such as bad luck) (Avey et al., 2010b). Optimism is not necessarily all-positive; for example, individuals with high levels of optimism may be prone to optimism bias or to deflecting responsibility for failures (Luthans et al., 2007). Like other PsyCap traits, optimism can be built up through development interventions, and furthermore may be built during interventions for other constructs such as self-efficacy (confidence) (Luthans et al., 2006a). Thus, like the other constructs, optimism should

not be considered an immutable personality trait, but an aspect of individual cognition that can be developed within the organization.

2.1.3.4 Definition of resilience

The final dimension of PsyCap is resilience. Resilience refers in brief to the individual's ability to overcome difficulties in goal achievement, achieving as expected or better when faced with such barriers (Avey et al., 2010b). The concept resilience is critical in the PsyCap construct because it represents the capital resources that individuals use to solve problems and overcome barriers to achievement. Resilience is a long-known psychological trait that has been observed in different contexts, although it was derived from research on schizophrenic parents (Luthans, Vogelgesang, & Lester, 2006b). Resilience is distinct from optimism and hope in that it is not a state-based dimension, but is instead a trait-based or functional dimension (Luthans et al., 2006b). However, even though resilience is defined as an individual trait, it is not like a personality trait because it can be developed through organizational practices and culture (Luthans et al., 2006b).

2.1.4 Employee Engagement

Employee engagement refers to “an individual's involvement with, satisfaction with, and enthusiasm for the work he or she does (Robbins & Judge, 2013, p. 77).” Thus, employee engagement is one of the positive attitudinal outcomes that can improve organizational and individual performance (Larson, Norman, Hughes, & Avey, 2013). Like PsyCap, employee engagement is a theory based in positive organizational behaviour and positive psychology (Robbins & Judge, 2013). Employee engagement has significant implications for both workers and employers.

For workers, employee engagement leads to more psychologically fulfilling workplace experiences, reducing stress, burnout, and other negative outcomes (Bakker et al., 2014). For employers, employee engagement increases the likelihood of employees engaging in organizational citizenship behaviours (OCB) and reduces the likelihood of negative behaviours like absenteeism (Robbins & Judge, 2013). Thus, increasing employee engagement is an important positive organizational behaviour intervention (Larson et al., 2013). However, there is some danger that employee engagement can be a meaningless term, so it must be used with care (Robbins & Judge, 2013).

2.1.5 Organizational Citizenship Behaviour

Organizational citizenship behaviour (OCB) continues to be of substantial interest to researchers and practitioners (LePine, Erez, & Johnson, 2002). There are almost 30 different forms of OCB that many researchers have described. The root of organization citizenship behaviour or OCB started from Barnard (1938) who pointed out the importance of oneself to commit in organization after that so many researchers develops from Organ's study (1988). He defined OCB as cautious behaviour that benefit the organization, and favours efficiency in organization even if they are not forced by rules or used in the reward system. Various authors have different views and classified OCB in many areas; they also agree that OCB is a multi-dimensional construct (Graham, 1989). The first approach of OCB was based on Organ's study in 1983 that became the mostly used. Organ (1988) defined OCB as the behaviour of individual that not directly perform according to formal reward system and show the effective functioning of organization.

Podsakoff, MacKenzie, Paine, and Bachrach (2000) designed a theoretical model for explanation of OCB with five factors:

- ***Altruism***: helping behaviours for supporting personal or the co-workers who have work related problems in organization.
- ***Conscientiousness***: behaviours that cause a person to do tasks more than what he is expected or the commitment of high level of work responsibility and quality of each employee.
- ***Courtesy***: the actions that prevent creation of problem at workplace.
- ***Sportsmanship***: behaviours that avoid acting in negative way and too much complaint at work.
- ***Civic virtue***: manners representing individual's involvement in the activities related to the organization.

Other researchers like Smith, Organ, and Near (1983) and Graham (1989) also show OCB in four concepts:

- Interpersonal helping (Altruism) that point out on helping coworkers when help is needed.
- Individual initiative (Civic virtue) that focused on communication with others to improve self and group performance.
- Personal industry (Conscientiousness) identified on specific performance about tasks that is beyond duty.
- Loyal boosterism describes promotion of organizational image to public.

From many literature reviews of OCB, the definition of OCB is based on categories of altruism (helping behaviour of individual), conscientiousness (performance that benefit to organization), courtesy (avoid problems), sportsmanship (less compliant), and civic virtue (involve organization's activities) (Podsakoff et al., 2000). Moreover, Williams and Anderson (1991) identified OCB into two broad categories. While OCB-O refers to the behaviour that gives benefit to organization in general, OCB-I gives benefits to specific individual and directly contributes to the organization. Thus, OCB can be classified into many areas; this study will be based OCB from William and Anderson (1991).

2.2 Theoretical Foundation

2.2.1 Theoretical Foundation of PsyCap

Although PsyCap is a relatively new construct, it is based in existing positive psychology constructs (Luthans et al., 2004). PsyCap is based in the theory of positive organizational behaviour, an emerging area of positive psychology that emphasizes positive outcomes rather than focusing on negative or dysfunctional organizational behaviour (Luthans & Youssef, 2007). Related constructs to PsyCap include Big Five personality traits and other positive traits such as character strength, positive organizational culture and processes, and positive behavioural research (Luthans & Youssef, 2007). Although the principle of PsyCap like much of positive organizational behaviour only emerged during the early 2000s, there is a growing body of empirical research that supports the role of PsyCap in positive organizational and individual outcomes (Donaldson & Ko, 2010).

The PsyCap construct is relatively new, dating to the early 2000s (Luthans et al., 2004). There has been a lot of theoretical and measurement work conducted to make it a reliable construct. There are several measures that have been developed for PsyCap. These measures include the Psychological Capital Questionnaire (or PCQ-24) and the compound PsyCap Scale (CPC-12) (Görgens-Ekermans & Herbert, 2013; Lorenz, Beer, Pütz, & Heinitz, 2016). These instruments have been shown to be reliable and valid within multiple samples. For example, Lorenz et al. (2016) demonstrated that their German version of the CPC-12 was reliable and valid within the sample. A quantitative meta-analysis of previous studies has also shown that the expected positive relationships of the four dimensions of PsyCap and positive individual attitudinal, behavioural, and performance outcomes do exist (Avey et al., 2011). Thus, there are multiple instrumentation approaches that can be used to reliably measure PsyCap.

2.2.2 Theoretical Foundation of Employee Engagement

Based on the research of Kahn (1990) and Schaufeli, Salanova, González-Romá, and Bakker (2002), employee engagement is made up of three aspects, a physical component of using physical energy while engaging in tasks and positive emotion, a cognitive component on being alert, standby and involve in any situation that engaged to work, and an emotional component on being related to own/others tasks while working on and responsible for assigned jobs. Past literature reviewed point out that burnout is the opposites of engagement, (Bakker, Schaufeli, Leiter, & Taris, 2008).

In addition, Kahn (1990) stated that three psychological states are associated with employee engagement and the psychological states include: meaningfulness, safety, and availability. In other words, employees feel engaged when the work environment offer them psychological meaningfulness, psychological safety and when they are psychologically available at the job. Phillips and Gully (2014) stated that employees feel engaged at their job when they have the perception that their job is meaningful and contribute to the overall success of the organization. Accordingly, Organizations expect their employees to be engaged, committed and active, responsible for their own development and access the standard of high quality performance. Therefore, employee engagement is a desired attitude that the organization needs from its employees in order to achieve the organization's goal.

2.2.3 Theoretical Foundation of OCB

OCB is discretionary behaviours that are beneficial to the organization and are not formally required from the employees or rewarded by the employer (Phillips & Gully, 2014). It entails employees voluntarily going over and above their job requirement even when the organization has not asked for such actions and may not formally reward such actions. OCB can be explained in the context of the social exchange theory (SET). Social exchange has been found to be a motivator of OCB by employees (Podsakoff et al., 2000). SET argues that obligations or responsibilities are created through series of interactions between parties who are in a state of reciprocal interdependence (Saks, 2005). In other words, employees reciprocate with OCB based on the benefits already received from the organization or the anticipated benefits. This was referred to as OCB-O by Williams and Anderson (1991). Also, employees could reciprocate OCB towards their fellow employees that are interdependent on one

another because of the benefit already received from the other employees or anticipated. This was referred to as OCB-I by Williams and Anderson (1991).

However, people vary in their ability to exhibit OCB due to different personality traits. For instance, personality traits like conscientiousness and altruism (an aspect of agreeableness that represents the tendency to be selfless) have been identified as a component of OCB (Graham, 1989; Podsakoff et al., 2000; Smith et al., 1983).

2.3 Effects of PsyCap on Employee Engagement

The relationship that is of interest in this study is the relationship of PsyCap and its individual dimensions to employee engagement. The theory of PsyCap proposes that high stocks of the four dimensions of PsyCap would have a positive effect on individual outcomes like employee engagement (Luthans et al., 2007). Studies have addressed this relationship previously, both theoretically and empirically. In general, these studies have supported a positive relationship between the two constructs. These studies are reviewed here to demonstrate the expected relationships.

A review of studies on work engagement (often called work engagement) identified several of its situational and personal antecedents (Bakker et al., 2014). Situational antecedents included job resources like social support, coaching and feedback, task variety and task significance. While burnout (disengagement with work) could be caused by job demands including high-risk, physically stressful work, unsociable hours, and so on, typically the positive effect of job resources has been

higher than the negative effect of job demands (Bakker et al., 2014). Individual factors are more commonly identified by this study. For example, self-efficacy, optimism, emotional stability, and proactive personality traits were all identified as positive influences on employee engagement. Although these authors' literature review did not explicitly follow the PsyCap model, their findings in relation to individual factors show congruence with the four dimensions of PsyCap. Thus, a broad review of the literature on employee engagement does support the importance of the dimensions of PsyCap in employee engagement.

There have been several studies that have identified a positive effect of PsyCap on employee engagement. Many of these studies are practice-based studies, in which PsyCap was used as the basis for organizational intervention and development. For example, one article reported on an organizational intervention, in which the PsyCap model was used to increase personal resources, followed by interventions focusing on job crafting (Van Wingerden, Bakker, & Derks, 2016). These authors did show that following the intervention, which consisted in part of PsyCap dimension development, there was an increase in work engagement and work performance among the individuals that took part (van Wingerden et al., 2016).

Another study also identified PsyCap as an appropriate development target to increase employee engagement (Thompson, Lemmon, & Walter, 2015). These authors presented several case studies that demonstrated the relationship of PsyCap and employee engagement. One example of such a case study was a family-owned catering company where the owners transitioned to a more delegating and trusting style of management, surrendering their micro-management approach. The authors showed that improving PsyCap by improving the organization's culture also resulted

in an improvement in employee engagement (Thompson et al., 2015). These studies do provide some useful information about the potential relationship of PsyCap, but the use of qualitative or single-firm case studies does create some problems in terms of the rigor and application of the findings. This is commonplace with positive organizational behaviour literature, which is largely based on such qualitative findings or even anecdotal evidence and may not be well supported empirically (Dawkins & Martin, 2010). Thus, there is an opportunity for the present research to contribute to understanding PsyCap and its effect on employee engagement by conducting a quantitative, broad survey that rigorously tested the proposed relationships.

Other studies have used more rigorous quantitative approaches in their analysis of the research question. For example, one group of authors conducted a longitudinal survey of South Korean hospitality employees (Paek et al., 2015). These authors measured PsyCap and work engagement at time 1, and then work morale at time 2. They found that PsyCap did have a positive effect on work engagement (which was defined similarly to employee engagement in this study). They also found that work engagement had a significant effect on job satisfaction and affective commitment, indicating that work engagement was a mediating variable for PsyCap and these outcome variables (Paek et al, 2015).

Furthermore, a second survey examined the effect of PsyCap on employee engagement among information technology (IT) workers in India (Sihag & Sarikwal, 2014). These authors found that PsyCap had a significant positive effect on employee engagement. They also found the expected positive relationships of the dimensions of PsyCap to the latent PsyCap construct using structural equation modelling (Sihag & Sarikwal, 2014).

Moreover, a third study examined call centre workers in South Africa (Simons & Buitendach, 2013). These authors used the Utrecht Work Engagement Scale (UWES), Psychological Capital Questionnaire (PCQ), and the Organizational Commitment Questionnaire (OCQ) to test their full model. Their findings showed that PsyCap dimensions did have a significant effect on employee engagement, although it did not have a direct effect on organizational commitment (Simons & Buitendach, 2013). Even among university students, quantitative analysis has identified a positive effect of PsyCap on study engagement (which was defined as dedication, absorption, and vigor) (Siu, Bakker, & Jiang, 2014). Taken together, these studies do empirically support the effect of PsyCap on employee engagement. This means that these studies are stronger evidence than those discussed previously, which were primarily organizational case studies. However, there are still some issues with these studies. Specifically, they are focused on a specific type of office job that has similar job demands and resources. As Bakker et al. (2014) showed, different job demands can have different effects on PsyCap. Thus, examining in an oil and gas context, which have far higher job demands in terms of physical and psychological risk and stress, will yield more information about the role of PsyCap in higher stress roles.

2.3.1 Contradicting evidence for effects of PsyCap on employee engagement

Not all the empirical evidence supports the causal effect of PsyCap on employee engagement. One study suggests that the causal relationship may go the other way (from employee engagement to PsyCap) (de Waal & Pienaar, 2013). These authors conducted a longitudinal survey of South African employees, using the UWES and a PsyCap measure. They examined both cross-sectional and longitudinal

causal effects in both directions. They found that while PsyCap at time 1 did not predict employee engagement at time 2, employee engagement at time 1 did predict PsyCap at time 2 (de Waal & Pienaar, 2013). This study was outside the general trend of research into the relationship between PsyCap and work engagement, but it did point to a potential problem with the existing research that relationships may not be stable or that there may be a feedback loop causing circular causation. This research could contribute to the literature by providing more insights into relationship directionality.

2.3.2 Other issues with the relationship of PsyCap and employee engagement

There are some possible difficulties in identifying a relationship between PsyCap and employee engagement. It should be noted that in most previous studies, PsyCap has been shown to be an *additive* factor, rather than a wholly explanatory factor, in positive attitude and performance outcomes (Avey, Luthans, & Youssef, 2010a). That is, PsyCap increased the explanatory model for positive behaviours when examined in conjunction with factors like personality traits, demographics, self-evaluation, and person-organization fit (Avey et al., 2010a). Thus, even though it is worth including PsyCap when studying employee engagement, it is unlikely that it will fully explain the outcome, and other factors also need to be considered.

Furthermore, the effect may develop over time, as it does with employee well-being (Avey, Luthans, Smith, & Palmer, 2010b). It is possible that the full effect of PsyCap may not be seen immediately, but may grow over time (Avey et al., 2010b). In addition, it is not the case that PsyCap is an innate trait; instead, individual or

multiple dimensions of PsyCap may be developed using individual or organizational interventions (Luthans et al., 2006a; Luthans et al., 2006b). Thus, it is possible that the relationship of PsyCap and employee engagement may not be readily detectable, particularly if there has not been any organizational interventions that have addressed the formation of PsyCap or if workers are particularly low in PsyCap.

2.3.3 Effects of PsyCap on OCB

Employees who engage in OCB and have level of PsyCap tend to receive better performance rating by their managers (Podsakoff et al., 2000). This can be the result of employees who engage in OCB being more favourable (Organ, 2006). The result from Chiu and Chen (2005) said there is a significant correlation between self-efficacy and OCB that means one continent of PsyCap effect to OCB. There is an effect of OCB in employee who performs this behaviour in organization, which allows employees to have more space and scope to work outside their formal roles that improve individual's experience and reduce organization's turnover intention and actual turnover (Podsakoff et al., 2000).

However, these benefits of OCB appear to come at a cost. Emotional exhaustion and conflict between home life and work are both higher for conscientious employees, and these effects are stronger amongst employees exhibiting high in-role performance (Deery, Rayton, Walsh and Kinnie, 2017). In this study, the effect of PsyCap on OCB will base on Altruism which effect directly to employees' PsyCap and give lots of benefit to organization as this follow; (1) increase supportive and productivity, (2) increase collaboration across departments, (3) organization have ability to keep good performance employees, (4) organization's performance is more stable, (5) organization capable effectively manage environment, (6) reduce administrative cost (Podsakoff et al., 2000).

2.4 Conceptual Framework

The conceptual framework of the paper was derived from the theoretical definition of PsyCap (Avey et al., 2010a; Avey et al., 2010b; Luthans et al., 2007; Luthans et al., 2004) and the previously observed effects of PsyCap on employee engagement (de Waal & Pienaar, 2013; Paek et al., 2015; Sihag & Sarikwal, 2014; Simons & Buitendach, 2013; Siu et al., 2014; Thompson et al., 2015; van Wingerden et al., 2016). These studies have generally supported a positive relationship between each of the four dimensions of PsyCap (hope, efficacy or confidence, optimism, and resilience) and work-related outcomes including employee engagement and OCB. Therefore, this study aims to examine the relationship between PsyCap, employee engagement, and OCB. Thus the conceptual model is presented as follow.

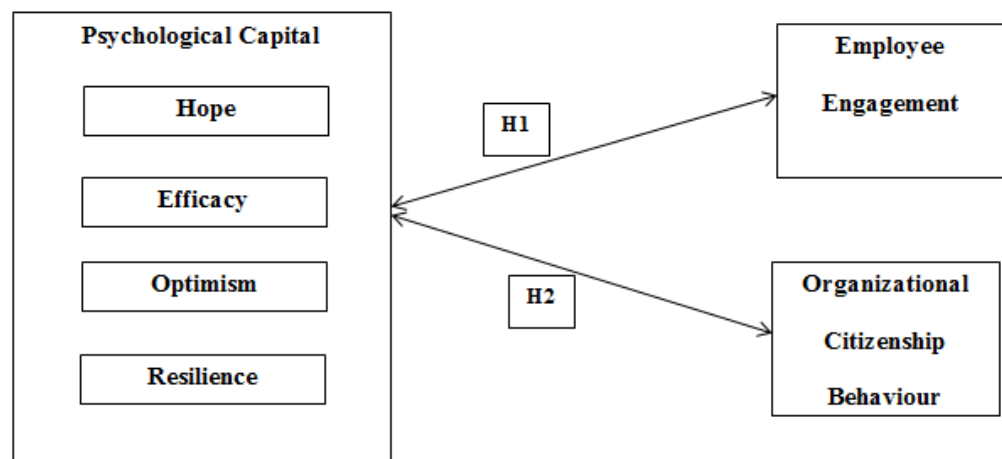


Figure 2 Conceptual Models.

Chapter 3

Research Methodology

This chapter presents the research methodology and methods chosen for the study. The methodology of the study is the philosophical and theoretical principles that are applied on the basis of the research question, while the research methods refers to the specific choice of techniques and practices for the study (Creswell, 2014). This chapter begins with an overview of the population and sampling approach, which explains who is being studied and how the participants are selected. Next, the research approach and research procedure are explained. These aspects of the methodology explain what kind of research was most appropriate for the research questions. This section also explains the data collection strategy. The design of the research instrument is then explained, including how the basic instruments were selected and how they were adopted. Finally, the data analysis procedure is explained, including tools used and steps taken for the analysis.

3.1 Sampling

This study used the employees of an oil and gas company as the case study. The oil and gas company selected for this study was used because it is one of the offshore oil and gas companies with the highest number of years of operation in the Southern region of Thailand and is currently doing offshore exploration in the Gulf of Thailand. Moreover, the company has an office in Songkhla province where the employees are transported by helicopter to the platform on the sea. The company has a total number of 147 offshore employees that work in Songkhla province. All the 147 offshore employees were surveyed. Therefore, this study used the total population of

the employees in the oil and gas company selected due to the small number of employees.

3.2 Research Approach

This research used a quantitative approach to collect and analyse data. Quantitative research approaches are those that use standardized data collection and analysis techniques to generate findings that apply to a broad population (Creswell, 2014). This contrasts to qualitative research, which uses a variety of non-standardized techniques for data collection and analysis, and mixed methods research, which incorporates elements of both qualitative and quantitative research (Creswell, 2014). The choice of quantitative research was made as a response to critiques of previous research into PsyCap and other aspects of positive organizational research, which has shown that there is a relative dearth of reliable and valid causal information and an over-reliance on qualitative and anecdotal evidence (Dawkins & Martin, 2010).

Furthermore, the quantitative approach is the best approach to answer questions about causal relationships within a wide population (Goodwin, 2016). Thus, a quantitative approach was ideal in this case, as it was the only way the research objectives could be accomplished. Because there was no organizational availability for conducting case studies or interventions, the choice of an employee survey was made. This approach has been used successfully by previous researchers (de Waal & Pienaar, 2013; Paek et al., 2015; Sihag & Sarikwal, 2014; Simons & Buitendach, 2013; Siu et al., 2014).

3.3 Research Procedure

The research procedure is shown in Figure 2. A staged process was used to ensure that each step in the research was well grounded in theory and good research technique. The procedure began with identification of the research questions and conceptual framework through the literature review. Identification of a population of interest was then conducted, through consideration of what industries had not been previously studied. The questionnaire was designed by adapting previous instruments that measured the factors of interest. An adaptive approach was selected because it is more reliable and draws on existing theories and research (Goodwin, 2016). The adapted questionnaire was translated to Thai language by an expert translator. The Thai questionnaire was translated back to English language by a different translator to confirm the accuracy of the Thai translation. The Thai language questionnaire was however used after the accuracy of the translation is confirmed. This is because the all the employees are Thai nationals and it could be easier for them to answer the questionnaire in Thai language which is their first language. The data collection stage then followed. The self-administered survey was distributed and collected. Data was prepared by entering it into an SPSS dataset for analysis. The analysis process, described below, was then conducted. Finally, the findings of the study were interpreted and analysed to generate a response to the research questions.

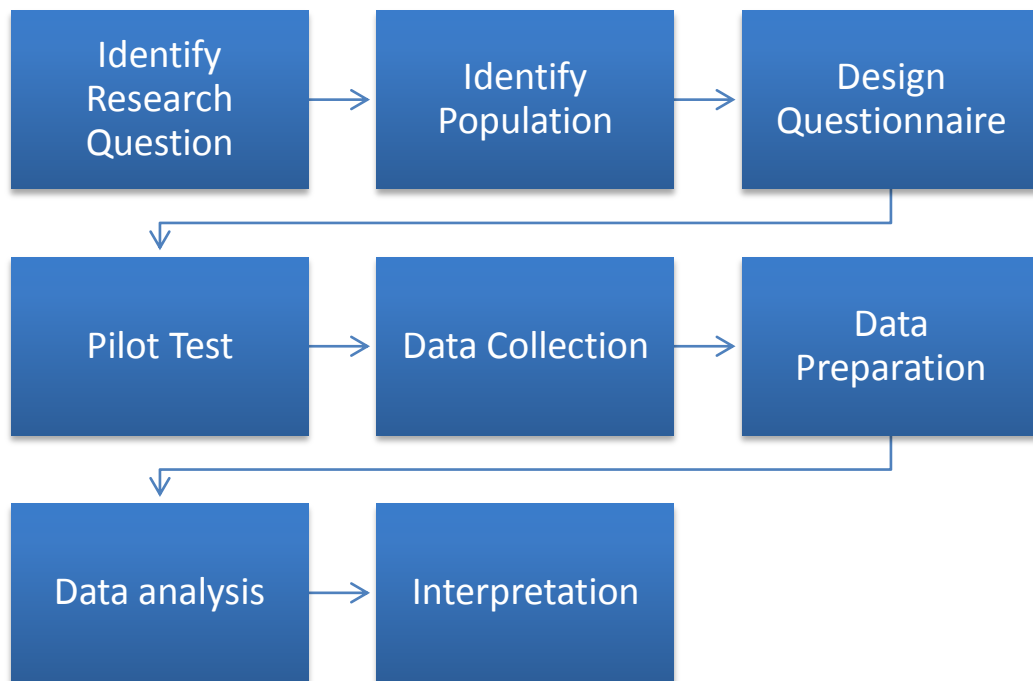


Figure 3 Research Procedure

3.4 Research instrument

For measurement of PsyCap, the researcher used short version of PsyCap's questionnaires as the instrument based on questions or PCQ-12 items that has 12 questions adapted from Luthans' PCQ-24 (see Avey et al., 2011a for the validation of this shorter version). It utilizes 12 items psychometrically derived directly from the PCQ-24 items to measure each aspect of PsyCap's four psychological components. This scale was drawn from established scales previously published and tested. This instrument includes efficacy (3 items), hope (4 items), resilience (3 items), and optimism (2 items) with six Likert-scale from strongly disagrees to strongly agree. In addition to the obvious pragmatic advantage of shorter length to get better cooperation and less fatigue from participants, the PCQ-12 has no reverse-scored items and particularly in measuring positive constructs which match to this study. The Cronbach's alpha of this variable in this study is 0.97

The measurement items of employee engagement were adopted from the study of Schaufeli et al. (2002) using nine items that was measured on a five point Likert scale. The Cronbach's alpha for this variable in this study is 0.96. The items for the questionnaire for OCB was adapted from Williams and Anderson (1991). The original OCB questionnaire was adopted the 6 items of OCB-I from Williams and Anderson (1991) since this scale examined at individual level and not at organization level. The Cronbach's alpha of the OCB-I in this study is 0.89.

3.5 Data Analysis

Data analysis was conducted in SPSS, which is a highly reliable and flexible analysis tool. The first step in analysis was descriptive statistics, which are used to describe the characteristics of the sample. Descriptive statistics are selected based on the data type and the intended characteristic. For this research, categorical variables like demographics and industry sectors were analysed using frequency tables, while Likert scale variables and other attitudinal measures were analysed using means and standard deviations. This information provides insight into the trends within the sample. The second step of analysis was inferential analysis, which identifies relationships between variables. The analysis used exploratory factor analysis (EFA) as tool for measuring and evaluating construct validity between variables. Pearson correlation was selected as the most appropriate tool for studying the relationship between PsyCap, employee engagement, and OCB.

Chapter 4

Results

4.1 Introduction

The research is designed to examine the relationship between PsyCap (hope, efficacy, resilience, and optimism), employee engagement and organizational citizenship behaviour (OCB) in an oil and gas company. It presents the results of quantitative analysis of study which collected data using questionnaires. The number of returned questionnaires was 136 accounting for 92% of response rate.

This section will provide the results from descriptive statistics analysis, exploratory factor analysis (EFA) for all variables (PsyCap, employee engagement, and OCB), followed by Pearson correlation matrix which focus on relationship between variables. The statistical ranges of -2 to 2 for skewness and kurtosis are acceptable (George & Mallery, 2010); therefore this data set has acceptable normality and lends itself to further analysis.

4.2 Demographic and Background Information

This section shows information regarding to gender, age, education, salary, work experience, and job function. Descriptive statistics analysis was used in form of percentage, frequency, mean, and standard deviation to analyse data. The collected data were conducted in July, 2018. All data were gathered from employees who working in an oil and gas company in Songkhla province and received 136 responses. The classification of demographic and background information of respondents was presented in Table 4.1 below.

According to Table 4.1, the data displays 61% of the respondents were male as 61% and 39% were female. The minimum age of respondents is 19 years old and maximum age is 42 years old. The majority of respondents is bachelor degree holders (64%) and earns 10,001 to 15,000 baht per month (41.2%). Most respondents were engineers (24.3%) as the job position (drilling, engineering, etc.) more than other job functions with 4 - 6 years of work experience (32.4%).

Table 4.1: Demographic and Background Information of respondents

Classification	Description	Frequency	Percentage
Gender	Male	83	61%
	Female	53	39%
	Total	136	100%
Education	College certification/ Diploma	33	24.3%
	Bachelor Degree	87	64%
	Master Degree	13	9.6%
	Others	3	2.2%
	Total	136	100%
Salary	10,000 baht or less	1	0.7%
	10,001-15,000 baht	56	41.2%
	15,001-20,000 baht	33	21.3%
	20,001-25,000 baht	10	7.4%
	25,001-30,000 baht	11	8.1%
	More than 30,000 baht	25	18.4%

Classification	Description	Frequency	Percentage
	Total	136	100%
Work Experience	Less than 1 year	8	5.9%
	1-3 years	42	30.9%
	4-6 years	44	32.4%
	More than 6 years	42	30.9%
	Total	136	100%
Job Function	Engineers	33	24.3%
	Foreman	22	16.2%
	Accountants	16	11.8%
	Human resource	20	14.7%
	Marketing	18	13.2%
	Logistic	13	9.6%
	Scheduling	14	10.3%
	Total	136	100%

4.3 Exploratory Factor Analysis

Exploratory factor analysis (EFA) is a useful tool for analysing, refining measures, and evaluating construct validity. EFA is one technique for factor analysis to uncover the underlying structure of relationships between measured variables (Norris & Lecavalier, 2010). Churchill (1979) defined factor analysis as the analysing process for supporting scale development. The purpose of using EFA is to measure

the variables that have the large set and to summarize data to match with process (Field, 2013) and to ensure the interpretation in each question that communicate clearly and not to convey more than one meaning

In term of Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, Field (2013) indicates KMO above 0.70 are good, which mean that collected data is suitable to use for factor analysis. In addition, Bartlett's test of sphericity is used to test the hypothesis that based on Chi-Square to get the significant less than 0.05. Moreover, EFA supports the cut-off point of the questions that can be interpreted more than one meaning by SPSS program which made questions in this study to be more validity and reliability. For the reliability, the value should be more than 0.70, the data was screening by Cronbach's Alpha test in order to assess to reliability of data that the value of data is more than 0.70 and it is acceptable.

This study used the extraction method of Principal Axis Factoring and rotation method of Varimax with Kaiser Normalization. This study used the eigenvalues to determine the number of factors that influence a set of items that eigenvalues must greater than one is the rule (Fabrigar & Wegener, 2011). Table 4.2 below shows the result of EFA analysis of all items used in the questionnaire. The EFA result shows that there are three factors and hence three dimensions namely; psychological capital, employee engagement and OCB. The KMO measure verified the sampling adequacy for the analysis with $KMO = 0.94$. The Bartlett's test of sphericity $X^2(276) = 3799.0$, $p < 0.01$ indicates that the correlation structure among items is adequate for factor analysis.

Table 4.2 EFA for all items used

Items	Factor Loading	α
Psychological Capital		0.97
I feel confident contributing to discussions about the organization's strategy	0.81	
If I should find myself in a jam at work, I could think of many ways to get out of it.	0.72	
Right now, I see myself as being pretty successful at work.	0.68	
I can think of many ways to reach my current work goals.	0.72	
At this time, I am meeting the work goals that I have set for myself.	0.78	
I can be "on my own," so to speak, at work if I have to.	0.78	
I usually take stressful things at work in stride	0.61	
I can get through difficult times at work because I've experienced difficulty before.	0.70	
I always look on the bright side of things regarding my job.	0.69	
I'm optimistic about what will happen to me in the future as it pertains to work.	0.71	
I feel confident in representing my work area in meeting with management.	0.78	
Employee Engagement		0.96
I look forward to going to work.	0.60	
Time goes very quickly when I am	0.68	

Items	Factor Loading	α
working.		
My work is very absorbing.	0.74	
I get fully immersed in my work activities.	0.69	
I am proud of the work that I do.	0.69	
I am enthusiastic about my work place.	0.74	
I feel inspired when I am at work.	0.75	
I put a lot of energy into my work.	0.62	
I always persevere, even when things do not go well.	0.74	
OCB		0.89
I help my co-workers when their workload is heavy.	0.73	
I help my co-workers who have been absent to finish their work.	0.70	
I take time to listen to my co-workers' problems and worries.	0.67	
I go out of my way to help new co-workers.	0.78	

Note: Extraction method: Principal Axis Factoring, Rotation method: Varimax with Kaiser Normalization (Rotation converged in 6 iterations). α = Cronbach's alpha.

The items of PsyCap were reduced from 12 items to 11 items. The third item (I feel confident presenting information to a group of colleagues) of the PsyCap instrument was deleted due to cross loading. These 11 items were the composite of PsyCap consisting of four items of hope, two items of efficacy, two items of optimism and three items of resilience. The range of the factor loading for these eleven items is

from 0.61 to 0.81. This factor (psychological capital) was extracted at the eigenvalue of 7.53 and the items explained 31.36% of the variance. The reliability of the instrument showed that the Cronbach's alpha is 0.97 which shows that it is reliable since it is above the required minimum of 0.70.

For the second factor which is employee engagement all the nine items are used. Therefore there is no reduction in the number of items for this factor. The range of the factor loading for these nine items is from 0.60 to 0.75. The factor was extracted at the eigenvalue of 6.39 and the items explained 26.61% of the variance. The reliability of the instrument showed that the Cronbach's alpha is 0.96 which shows that it is reliable since it is above the required minimum of 0.7.

The third factor (organizational citizenship behaviour) was originally made up of six items. These six items were reduced to four items due to cross loading on more than one factor. The factor loading for the items ranges from 0.67 to 0.78. The factor was extracted at the eigenvalue of 3.81 and the items account for 15.89% of the variance. The reliability test of the instrument revealed that the instrument is reliable at Cronbach's alpha of 0.89.

4.4 Level of PsyCap, Employee Engagement, and OCB

To answer the first objective of this study, the level of PsyCap, employee engagement, and OCB of the employees in the oil and gas company used as the case study is examined by using descriptive statistics of mean and standard deviation. Since all the items of PsyCap, employee engagement, and OCB were measured on Likert scale, interval scale is used to interpret the results.

PysCap was measured on a six point Likert scale from strongly disagree to strongly agree; therefore the class interval for the interpretation of the mean scores is as shown below.

$$\begin{aligned} \text{Class interval} &= \frac{\text{Highest value} - \text{lowest value}}{\text{Number of class}} \\ &= \frac{6 - 1}{6} \\ &= 0.83 \end{aligned}$$

Hence, the mean score of 1.00 – 1.83 is interpreted as strongly disagree, 1.84 – 2.66 is disagree, 2.67- 3.49 is somewhat disagree, 3.50 -4.32 is somewhat agree, 4.32 – 5.15 is agree, and 5.16 – 6.00 is strongly agree.

Employee engagement and OCB were both measured on a five point Likert scale from strongly disagree to strongly agree, therefore, the class interval for the interpretation of the mean scores is as shown below.

$$\begin{aligned} \text{Class interval} &= \frac{\text{Highest value} - \text{lowest value}}{\text{Number of class}} \\ &= \frac{5 - 1}{5} \\ &= 0.8 \end{aligned}$$

Therefore 1.00 – 1.80 is interpreted as strongly disagree, 1.81 – 2.60 is disagree, 2.61- 3.40 is neither, 3.41 -4.20 is agree and 4.21 – 5.00 is strongly agree.

The results of the descriptive statistics of the three variables (PsyCap, employee engagement, and OCB) are as shown in Table 4.3 below. In the PsyCap items, the lowest means score is the item: I can get through difficult times at work

because I've experienced difficulty before, while the item with the highest mean score is: I'm optimistic about what will happen to me in the future as it pertains to work. On the average, employees of the oil and gas company surveyed agreed that they have positive PsyCap (Mean = 4.23, S.D = 1.08).

The employees of the company agree to all the items of both employee engagement and OCB. The item with the lowest mean score in employee engagement construct is: My work is very absorbing, while the highest mean score item is: I put a lot of energy into my work. Overall the employees of oil and gas company surveyed agree that they feel engaged in their work. The item with the lowest mean score in the OCB construct is: I help my co-workers who have been absent to finish their work, while the item with the highest mean score is: I take time to listen to my co-workers' problems and worries. Overall the employees of the oil and gas company surveyed agreed that they exhibit organization citizenship behaviours.

Table 4.3 Levels of PsyCap, Employee Engagement, and OCB

Items	Mean	S.D	Interpretation
Psychological Capital			
I feel confident contributing to discussions about the organization's strategy	4.32	1.15	Agree
If I should find myself in a jam at work, I could think of many ways to get out of it.	4.04	1.29	Somewhat agree
Right now, I see myself as being pretty successful at work.	4.20	1.13	Somewhat agree
I can think of many ways to reach my current work goals.	4.01	1.23	Somewhat agree
At this time, I am meeting the work goals	4.26	1.26	Somewhat agree

Items	Mean	S.D	Interpretation
that I have set for myself.			
I can be “on my own,” so to speak, at work if I have to.	4.21	1.18	Somewhat agree
I usually take stressful things at work in stride	4.06	1.25	Somewhat agree
I can get through difficult times at work because I’ve experienced difficulty before.	3.96	1.32	Somewhat agree
I always look on the bright side of things regarding my job.	4.54	1.22	Agree
I’m optimistic about what will happen to me in the future as it pertains to work.	4.62	1.25	Agree
I feel confident in representing my work area in meeting with management.	4.26	1.07	Somewhat agree
Average of all items of PsyCap	4.23	1.08	Somewhat agree
Employee Engagement			
I look forward to going to work.	3.64	0.76	Agree
Time goes very quickly when I am working.	3.60	0.92	Agree
My work is very absorbing.	3.54	0.84	Agree
I get fully immersed in my work activities.	3.58	0.87	Agree
I am proud of the work that I do.	3.79	0.86	Agree
I am enthusiastic about my work place.	3.62	0.88	Agree
I feel inspired when I am at work.	3.62	0.89	Agree
I put a lot of energy into my work.	3.87	0.82	Agree
I always persevere, even when things do not go well.	3.64	0.85	Agree

Items	Mean	S.D	Interpretation
Average of all items of employee engagement	3.66	0.74	Agree
OCB			
I help my co-workers when their workload is heavy.	3.61	0.90	Agree
I help my co-workers who have been absent to finish their work.	3.49	0.89	Agree
I take time to listen to my co-workers' problems and worries.	3.87	0.79	Agree
I go out of my way to help new co-workers	3.76	0.96	Agree
Average of all items of OCB	3.68	0.77	Agree

Note: S.D = Standard deviation

4.5 Pearson correlation matrix

According to Emerson (2015), the correlation may range from -1 to 1. This can be considered as variables do not have relationship when $r = 0$ and when $r = 1$ means that two variables are perfectly the same direction. When $r = -1$ means two variables are perfectly sync but they move in different directions. The values from -0.5 to -0.1 and 0.5 to 1 are considered, as a strong relationship.

This section discusses the correlation between variables, which are 1) PsyCap and employee engagement, and 2) PsyCap and OCB. Table 4.4 shows the result of Pearson correlation matrix to examine the relationship between variables. Pearson correlation's table shows the results of all average mean and standard deviation score of both dependent and independent variables. PsyCap got the highest score for both mean and standard deviation ($M = 4.23$, $SD = 1.08$), followed by OCB with average

mean at 3.8 and standard deviation at 0.77. Lastly, employee engagement has mean score of 3.66 and SD is 0.74. Moreover, Pearson correlation matrix was conducted to find the correlation of each factor which the result has shown in Table 4.4. In this research, three variables to analyses correlation were ranging from 0.67 to 0.83 and positive.

The strongest correlation happened between PsyCap and employee engagement which $r = 0.83, p < 0.01$ while the lowest correlation happened between employee engagement and OCB at $r = 0.67, p < 0.01$. According to the table, all three variables had positive correlation to each other which indicated high level of relationship between PsyCap and employee engagement and PsyCap and OCB. Therefore, H1 and H2 are accepted.

Table 4.4: Pearson Correlation of each variable

Variables	Mean	SD	1	2	3
1. Psychological Capital	4.23	1.08	1		
2. Employee Engagement	3.66	0.74	0.83**	1	
3. Organizational Citizenship Behaviour	3.68	0.77	0.68**	0.67**	1

Note: Significant at *** $p < 0.01$

Table 4.5: Summary of Hypothesis Testing

Hypothesis	Results
H ₁ : PsyCap is positively related with employee engagement	Accepted
H ₂ : PsyCap is positively related with OCB.	Accepted

Chapter 5

Discussion

In this chapter, all of results from the findings in Chapter 4 are discussed by comparing the results of the study with results from previous studies, explaining the meaning of the results. The discussion is also linked to the objective of the study that was stated in Chapter 1. This discussion part details the conclusion of findings, implication of study, limitation, and recommendations.

5.1 Conclusion

The main aim of this study was to examine the relationship between positive psychological capital (PsyCap), employee engagement, and organizational citizenship (OCB). An oil and gas company in Songkhla is a selected case study. Working condition in this industry may create physical and psychological stress, including a dangerous physical environment filled with complex machinery and environmental pressures, long working hours, extreme of heat and cold, and sometimes closed/uncomfortable working conditions (Clarke, 2006). The PsyCap concept suggests that high levels of PsyCap may be effective at offsetting some of these stressors and improving employee engagement and other outcomes (Luthans et al., 2004; Luthans et al., 2006a). Thus, there is a gap in the literature that relates to how the PsyCap concept may apply to positive employee outcomes in highly stressful industries like oil and gas. This research focuses potential outcomes and the desirable employees' attitude or behaviour, such as employee engagement and OCB. The aim of the study was stated as follows: to examine the relationship between PsyCap, employee engagement and OCB among employees.

With 136 valid responses, majority of the respondents were male which forms 61% of the respondents. Most of the respondents (64%) had Bachelor degree and 32.4% of them have been working for 4-6 years. The EFA of the items in the questionnaire was undertaken to analyse, refine measures, and evaluate constructs validity. Three factors were identified from the EFA result using Principal Axis Factoring and Varimax with Normalization rotation. The three factors are PsyCap, employee engagement, and OCB. PsyCap was comprised of eleven items reported on a 6-point Likert scale that explained 31.36% of the variance with factor loadings from 0.61 to 0.81. The Cronbach's alpha for this variable is 0.97 for this study. Employee engagement was comprised of nine items reported at 5-point Likert scale that explained 26.61% of the variance with factor loadings from 0.60 to 0.75. The Cronbach's alpha for this variable is 0.96 for this study. Finally, OCB was comprised of four items reported on a 5-point Likert scale that explained 15.89% of the variance with factor loadings ranging from 0.67 to 0.78. The Cronbach's alpha is 0.89 for this study.

The employees of the oil and gas company surveyed somewhat agree that they have positive PsyCap (Mean = 4.23, S.D = 1.08). The mean scores between employee engagement (Mean = 3.66, S.D = 0.74) and OCB (Mean = 3.68, S.D = 0.77) are similar. This descriptive result indicates that employees have a good level of PsyCap, employee engagement, and OCB. The possible explanation for such a result in an oil and gas company, which is characterized with high stressors, is that management may enhance the positive environment at work in order to improve employee's positive attitude and their OCB.

The results of the Pearson correlation revealed that all the three variables of PsyCap, employee engagement, and OCB are significant and positively correlated. PsyCap is positively correlated to employee engagement at $r = 0.83$, $p < 0.01$ which is the highest level of correlation among the variables. Also, PsyCap is positively correlated to OCB at $r = 0.68$, $p < 0.01$. These results are further discussed in the following section.

5.2 Discussion

The hypotheses for this study were: 1) PsyCap is positively related with employee engagement, and 2) PsyCap is positively related with OCB. These hypotheses were accepted based on the results of the data analysis. This section therefore discusses the results by comparing to previous studies and explaining the possible reasons for the relationship.

5.2.1 PsyCap and Employee Engagement

The relationship between PsyCap and employee engagement is highly correlated. This means that when employees' positive PsyCap increases, their level of engagement at work also increases and vice versa in this oil and gas company. The finding is consistent with Avey, Wernsing, and Luthans (2008), with employees from a broad cross-section of organisations and jobs; found that PsyCap was related positively to their positive emotions which were, in turn, related to their attitudes of engagement. Similarly, Strümpfer (1990) explained that psychological strengths can create tendencies that are favourable to engagement. This is because when employees are strong psychologically they can better handle or cope with the stress associated with work and have better level of engagement with their jobs. This perspective is

supported by the findings of Bakker et al. (2014) who found that PsyCap identified as positive influences on employee engagement. In addition, Halbesleben (2010) indicated in meta-analysis that efficacy and optimism which are components of PsyCap gave the strongly effect on employee engagement. Moreover, employees with high level of psychological strength might be able to withstand burnout, which is the opposite of engagement (Phillips & Gully, 2014), than employees with low level of psychological strength. Accordingly, the present study suggests that employees who have higher level of PsyCap tend to have higher level of engagement.

5.2.2 PsyCap and OCB

PsyCap is highly correlated to OCB. This means that when employees' positive PsyCap increases, they tend to perform more organizational citizenship behaviour. This is consistent with the studies of Chiu and Chen (2005) which found a significant positive correlation between self-efficacy (a component of PsyCap) and OCB. Similarly, Norman, Avey, Nimnicht, and Graber (2010) found a positive and significant correlation between PsyCap and OCB studying a cross-section of 199 working adults in the USA. They found out that participants who were higher in PsyCap reported engaging in more OCB. This is because positive PsyCap is generally oriented towards an individual's ability to find various ways to succeed through the combination of hope, optimism, and resilience can create extra role behaviour in such individuals like engaging in organizational citizenship behaviour. More so, PsyCap is associated with self- confidence and self-motivation which might be the characters that differentiate employees that go over and beyond their required job role and those that do not. Therefore, the present study suggests that employees with high level of PsyCap tend to exhibit higher level of OCB.

5.3 Limitation and Recommendation

There are some limitations in this study. First, this study selected a single company as a case study. The results may not be generalizable to other industries. Second, the measure of OCB focused on individual OCB rather than other dimensions of OCB. Future research may use multiple dimensions of OCB examining in different industry in order to investigate the relationship of these variables. In addition, future research should study other areas of PsyCap with different dependent variables such as employee commitment and other behaviours to fully understand the consequences of PsyCap. Moreover, this study used quantitative research method in order to investigate the research questions and objectives. However, future research may use qualitative research method or mix method in order to offer better understanding of these relationships.

5.4 Practical Implication

According to the results in this study, the finding indicated that positive relationships exist between PsyCap, employee engagement, and OCB in the oil and gas company. Top management of this company should pay attention to PsyCap. This is because by investing in employees PsyCap, it can lead to increasing employee engagement and OCB. Employee engagement and OCB are important since they may enhance team and organization functioning (Williams & Anderson, 1991). They may also lead to employee satisfaction, increased enthusiasm, higher retention, higher productivity, less absenteeism and increase employee loyalty. A study by Luthans et al. (2006) found that human resource interventions aimed at developing the state-like construct of PsyCap can be facilitated using training sessions. The development of

PsyCap and positive employee attitudes and behaviours are expected to contribute to positive work-related outcomes (Donaldson & Ko, 2010). Furthermore, the complementary nature of engagement is conducive to long-term performance and sustainable human-based organizational competitive advantage (Youssef & Luthans, 2007). According to Youssef and Luthans (2007), organization gets the benefit in terms of more loyalty from employee when they maintain their employees' positive PsyCap and their OCB. The relationship between PsyCap, employee engagement, and OCB seem to offer substantial benefits to organization in terms of retaining good employee performance and improving organisational performance.

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APPENDIX



Welcome to our survey

Topic: The relationship between positive psychological capital, employee engagement and organizational citizenship behavior: A case study of an oil and gas company, Songkhla

Dear,

The survey is hosted by Ms. Jakita Maka-A-Pirak from MBA Program (International Program), Faculty of Management Sciences, Prince of Songkla University. This survey is designed to understand your perception in terms of positive psychological capital (PsyCap), employee engagement, and OCB. This will take approximately 25 minutes to complete.

Your responses are completely anonymous. If you have any questions about this questionnaire, please contact Ms. Jakita Maka-A-Pirak, Faculty of Management Sciences (email: Jakita.Maka@gmail.com).

Best, Regards

Jakita Maka-A-Pirak

Part1: OCB is commitment within an organization that is not part of his or her tasks.

Please indicate the items that you are feeling right now by putting X on the table.

Using the following scale to indicate how much you agree or disagree with the following statements.				
Strongly disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly agree (5)

Statements	Strongly disagree < - > Strongly agree				
	1	2	3	4	5
1.1. I help my co-workers when their workload is heavy.					
1.2. I help my co-workers who have been absent to finish their work.					
1.3. I take time to listen to my co-workers' problems and worries.					
1.4. I go out of my way to help new co-workers.					
1.5. I take personal interest in my co-workers.					
1.6. I pass along notices and news to my co-workers.					

Part2: Employee Engagement: What do you think about your job?

Please indicate the items that you are feeling right now by putting X on the table

Using the following scale to indicate how much you agree or disagree with the following statements.				
Strongly disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly agree (5)

Statements	Strongly disagree < - > Strongly agree				
	1	2	3	4	5
2.1. I look forward to going to work.					
2.2. Time goes very quickly when I am working.					
2.3. My work is very absorbing.					
2.4. I get fully immersed in my work activities.					
2.5. I am proud of the work that I do.					
2.6. I am enthusiastic about my work at my work place.					
2.7. I feel inspired when I am at work.					
2.8. I put a lot of energy into my work.					
2.9. I always persevere, even when things do not go well.					

Part3: Psychological Capital (PsyCap), how do you think about yourself right now?

Please indicate the items that you are feeling right now by putting X on the table.

Using the following scale to indicate how much you agree or disagree with the following statements.					
Strongly disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)

Statements	Strongly disagree < - > Strongly agree					
3.1. I feel confident in representing my work area in meeting with management.	1	2	3	4	5	6
3.2. I feel confident contributing to discussions about the organization's strategy.	1	2	3	4	5	6
3.3. I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
3.4. If I should find myself in a jam at work, I could think of many ways to get out of it.	1	2	3	4	5	6
3.5. Right now, I see myself as being pretty successful at work.	1	2	3	4	5	6
3.6. I can think of many ways to reach my current work goals.	1	2	3	4	5	6
3.7. At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5	6
3.8. I can be "on my own," so to speak, at work if I have to.	1	2	3	4	5	6
3.9. I usually take stressful things at work in stride.	1	2	3	4	5	6
3.10. I can get through difficult times at work because I've experienced difficulty before.	1	2	3	4	5	6
3.11. I always look on the bright side of things regarding my job.	1	2	3	4	5	6
3.12. I'm optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6

Part4: Demographics (Please fill your information as below;

1. What is your gender?

Male Female

2. What is your age?

Please specify _____

3. Level of your education

High school

Colleague certification/ Diploma

Bachelor Degree

Master Degree

Others _____

4. Your approximate income (monthly):

10,000 baht or less 10,001-15,000 baht 15,001-20,000 baht

20,001-25,000 baht 25,001-30,000 baht more than 30,000 baht

5. How many years of your working experience?

Less than 1 year 1-3 Years 4 - 6 years

More than 6 years

6. Which department do you work at:

- | | | |
|---|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> Engineers | <input type="checkbox"/> Foreman | <input type="checkbox"/> Accounting |
| <input type="checkbox"/> Human resource | <input type="checkbox"/> Marketing | <input type="checkbox"/> Transport |
| <input type="checkbox"/> Scheduling | <input type="checkbox"/> Others _____ | |

** Thank you for completing the survey**