CHAPTER 2

Literature Review

This chapter describes the literature review and conceptual framework of the study. The literature review includes the following topics:

1. Work motivation
    1.1 Definitions of work motivation
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2. Organizational commitment
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3. Relationship between work motivation and organizational commitment
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Work Motivation

Definitions of Work Motivation

The term “motivation” is derived from the Latin word for movement (movere) (Steers, Mowday, & Shapiro, 2004). Motivation is a social science. Work motivation is the application of motivation into organizational behavior. Work motivation has been variously described with over 140 definitions (Kleinginna & Kleinginna, 1981). In general, the scholars defined work motivation as a process, a force or willingness to exert actions. There are several wide definitions which were reviewed as follows:

Vroom (1964) defined work motivation as a process to govern individual choices among alternative forms of voluntary activities based on estimates of how well the expected results of a given behavior were going to match up with or eventually led to the desired results. Analogously, Steer and Porter (1991) defined work motivation as a process to which the behavior was energized, directed and sustained in the work environment.

In addition, Agarwal (1988) defined work motivation as a force which drives and sustains human behavior in a working life as a result of a feeling of satisfaction in terms of extrinsic and intrinsic need fulfillment. The extrinsic and intrinsic need fulfillment included six factors: dependence, organizational orientation, work group relations, psychological work incentives, material incentives and job situation. Moreover, Amabile (1993) defined work motivation as a force to drive people by a passionate interest or external inducements to engage in what they do. It encompassed intrinsic motivation and extrinsic motivation. More, Wegner and Miller (2003) defined work motivation as something that energized individuals to take action and be concerned with the choices the individual made as part of his or her goal-oriented behavior. Furthermore, Locke and Latham (2004) defined work motivation as a result of both internal and external factors that forced the employee to work with more vigor and excitedly which resulted in job satisfaction. Pinder (2008) defined work motivation as a set of energetic forces that originated both within as well as beyond an individual's being, to initiate work-related behavior, and to determine its form, direction, intensity, and duration.

Yes another definition for work motivation is from Mitchell (1982) defined work motivation as the degree to which an individual wants and chooses to engage in certain specified behaviors. Deci and Ryan (1985) defined work motivation as the willingness to exert the effort as a set of reasons to energize or activate people toward the goals or needs. It included three categories: amotivation, intrinsic motivation and extrinsic motivation, whilst extrinsic motivation can be characterized through four types: extrinsic regulation, introjected regulation, identified regulation and integrated regulation. Franco, Bennett, and Kanfer (2002) defined work motivation as the personal willingness to foster and maintain different levels of efforts to achieve the organizational goals.

From the above reviews, according to the purpose of current study, regarding work motivation as a force or willingness is a more suitable definition. However, amongst these definitions, Amabile's (1993) definition clearly and explicitly defines work motivation as a force that is intrinsically or extrinsically motivated. This definition is easier and simpler to understand for managers to make strategies to improve employees' motivation in the work. Thus, Amabile's (1993) definition was used in this study.

Concepts and Theories of Work Motivation

Work motivation theories generated during the late 1960s and early 1970s, made this period as its "golden age" (Steers et al., 2004). Up to now, there are many theories of work motivation which have been developed by theorists and they were grouped into two categories: content theory and process theory. Content theory is a need theory or psychological theory, which identifies the factors associated with motivation and focuses on the individuals who are motivated by their desire to satisfy their needs or answers "what drives behavior". On the other hand, process theory is to explicate the processes underlying motivation, or how motivation takes place (Borkowski, 2011). Hence, using content theory may be more suitable for managers to find impactful motivators and then to accordingly change the organizational structure to improve employees' motivation in the work. The most notable content theories of work motivation include McClelland's achievement motivation theory, Herzberg, Mausner and Snyderman's motivation-hygiene theory, Hackman and Oldham's job characteristics theory and Deci and Ryan's self-determination theory. Also, Amabile's (1993) model of motivational synergy was proposed. These theories and models of work motivation are reviewed as follows:

Herzberg's Motivation-hygiene Theory (1966). Herzberg wanted to find the things that made employees satisfied or dissatisfied, hence Herzberg, Mausner, and Snyderman (1959) interviewed 200 engineers and accountants to describe the events that they had experienced at the workplace which had made them either feel satisfied or dissatisfied. Through analyzing the interviewees' answers, they found events which made them feel satisfied related to the job content or intrinsic factors, and were called "motivators/ satisfiers". While the events which made them feel dissatisfied related to the job context or extrinsic factors and called this "hygiene factors/dissatisfiers". Thus, they proposed the motivation-hygiene theory. This also was the first time intrinsic motivation and extrinsic motivation was presented.

In light of the Herzberg's (1966) research, five factors stood out as work motivators: (1) achievement, (2) recognition, (3) work per se, (4) responsibility, and (5) advancement. When these factors are satisfied, the employees will be more motivated and this is good for developing their skills and improving their performance. Meanwhile, six hygiene factors stood out: (1) company policies, (2) administrative policies, (3) supervision, (4) salary, (5) interpersonal relations, and (6) working conditions. When these factors deteriorate to an unacceptable extent, it will create job dissatisfaction. However, when these factors are acceptable, there will be no job dissatisfaction. These hygiene factors defeat positive attitudes due to not allowing improvement in attitudes or performance.

Hackman and Oldham's Job Characteristics Model of Work Motivation (1980). In this model, Hackman and Oldham proposed that people's work motivation could be increased when they experienced the following three psychological states when they were working:

Experience meaningfulness of work. It refers to the degree to which the work is experienced as meaningful, valuable and worthwhile to employees. It is fundamental to intrinsic motivation as the work is motivating in itself. It is enhanced primarily by skill variety, which refers to the degree of the number of different skills and talents of the employees that is required to carry out the different activities; task identity, which refers to the degree of doing a job from beginning to end and completing the whole work or identifiable piece of work; and task significance, which refers to the degree that the job

that has a substantial impact on the lives of other people who are in the immediate organization or in the world at large.

Experience responsibility for work outcome. It refers to the degree that employees feel responsible for their work results. It is increased by autonomy, which refers to the degree that employees are given the opportunity to do the work with provides sufficient freedom, independence and discretion to the individual in scheduling and determining the procedures to implement the work.

Knowledge of result. It refers to the degree that the employees know the job and how well they are effective performing the job. It is increased by feedback, which refers to the degree that the results of work activities of employees are provided direct and clear information about the effectiveness of an employee's performance. Feedback can be from other people or the job per se. So, Hackman and Oldham's Job Characteristics Model of work motivation is based on the intrinsic process motivation.

McClelland's Achievement Motivation Theory (1985, as cited in Borkowski, 2011). On the basis of individual experiment, McClelland postulated that people were motivated in varying degrees by their needs for achievement, power, and affiliation. For these three types of motivational needs, people can have one or more types of motivational needs simultaneously (e.g., a high achievement need versus a high power need).

Achievement. It refers to the individual's need to excel and succeed. People with a high need for achievement had a desire of personal responsibility for their performance, follow a trend for setting moderately challenging tasks, and require feedback to affirm their success.

Power. It refers to the individual's need to influence others positively or negatively. The type of power that people want can be personalized power or socialized power. Those with a high need for personalized power tend to exhibit impulsive aggressive behaviors and have a negative aspect. While those with a high need for socialized power are motivated by a desire to influence others to accomplish tasks.

Affiliation. It refers to the individual's need to be liked and approved by others. People with a high need for affiliation have a desire to interact with others. They are motivated by interpersonal relationships, avoid conflict and criticism, and are afraid of rejection by others.

Deci and Ryan's Self-determination Theory (SDT) (1985). Deci and Ryan (1985, as cited in Ryan & Deci, 2000) proposed that work motivation included amotivation, extrinsic motivation and intrinsic motivation. Amotivation refers to the state of lacking an intention to act; extrinsic motivation refers to doing something in order to attain some separable outcomes; and intrinsic motivation refers to doing something because it was inherently interesting or enjoyable rather than for some separable consequences (e.g., I work because it is fun). Then they considered that motivation was a continuum of autonomy depending on how internalized the motivation or the degree to which the people's behaviors were autonomous or self-determined. Thus, extrinsic motivation was divided into the following four types (Ryan & Deci, 2000):

External regulation. External regulation refers to doing an activity in order to satisfy an external demand or obtain an externally imposed reward contingency. Individuals typically experience externally regulated behavior as controlled or completely non-internalized. It represents the least autonomous forms of extrinsic motivation.

Introjected regulation. Introjection regulation refers to people who perform actions with the feeling of pressure in order to avoid guilt or to attain ego-enhancement and increase self-esteem. It has been internalized as a type of internal regulation but was still controlled and not completely accepted as one's own.

Identified regulation. Identification regulation refers to the person having identified with the importance of a behavior and the value of his or her behavior. It has been accepted as one's own.

Integrated regulation. Integrated regulation refers to the person performing when the behavior-guiding values are congruent with the person's values or needs. It has been fully assimilated to the self and represented the most autonomous form of extrinsic

motivation. However, it is still extrinsic because behavior is motivated by its presumed instrumental value with respect to some outcomes that are separate from the behavior.

Accordingly, based on the perceived locus of causality of motivation, intrinsic motivation, integrated regulation and identified regulation can be integrated into autonomous motivation, and external regulation and introjected regulation can be integrated into controlled motivation. So, work motivation also can be divided into three categories: amotivation, autonomous motivation and controlled motivation. Autonomous motivation and controlled motivation both are intentional. They stand in contrast to amotivation, which is a lack of intention (Gagne & Deci, 2005).

Amabile's Model of Motivational Synergy (1993). Amabile (1993) described employee motivation as an important issue for administrators. Work motivation represented the way that people felt about their work, their willingness to do the work, the level of effort they were likely to exert and the quality of their performance. Employees who felt motivated toward their work were persistent, creative, and productive and would turn out high quality work in which they willingly undertook. However, unmotivated employees were inclined to exert little effort in their jobs, quit their job if given opportunity and yield low quality work. Work motivation was not stable, because the work environment or organizational changes and personalities of the employees could cause it to fluctuate enormously. Both previous theories and empirical research identified that work motivation included intrinsic motivation and extrinsic motivation. Herzberg's (1966) Motivator-hygiene theory, Hackman and Oldham's (1976) model of job enrichment and Deci and Ryan's (1985) self-determination theory also proposed these two facets of work motivation, and their differences from the conceptualizations of whether and how the facet of motivation could be combined. Afterwards, based on their theories, Amabile proposed that work motivation also encompassed intrinsic motivation and extrinsic motivation, as follows:

Intrinsic motivation refers to individuals engaged in their work and are intrinsically motivated or for its own sake. Because the work itself is interesting, engaging, or in some ways satisfying. People who have intrinsic motivation sought enjoyment, interest, satisfaction of curiosity, self-expression, task-involvement, competence or personal challenge. These intrinsic motivators arise from the people's feelings about the activity,

they are necessarily bound up with the work itself (Amabile, 1993). They can be labeled as challenge and enjoyment. Challenge refers to the willingness to accept a challenged work. Enjoyment refers to the strength of interest and involvement in the job (Amabile et al., 1994).

Extrinsic motivation refers to individuals engaged in their work and are extrinsically motivated in order to obtain something apart from the work itself. People who have extrinsic motivation sought the competition, evaluation, recognition, money or other tangible incentives and constraint by others. These extrinsic motivators come from an outside source that tended to control (or can be perceived as controlling) the initiation or performance of the work (Amabile, 1993). They can be labeled as compensation and outward. Compensation refers to the strength that an individual thought of rewards and promotion. Outward refers to the strength that an individual thought of others opinion of himself (Amabile et al., 1994).

Although both intrinsic motivation and extrinsic motivation could motivate people to do their work, intrinsic motivation and extrinsic motivation could have very different influences on subjective feelings about the work, eagerness to do the work and quality of performance. People engaged in their work had both an intrinsic motivator and an extrinsic motivator at the same time. In previous studies, the researchers thought intrinsic motivation and extrinsic motivation were incompatible. However, Amabile had a different perspective. She modified the prevailing psychological view that extrinsic motivation undermined intrinsic motivation, and suggested that intrinsic motivation and extrinsic motivation can be combined in some situations. Amabile proposed that there were individual differences with intrinsic motivation and extrinsic motivation, namely, people had different motivational orientations. Then, Amabile with her colleagues developed the Work Preference Inventory to directly investigate the possibility of individual differences in intrinsic and extrinsic motivational orientations. They found that individual can have both high intrinsic motivation and extrinsic motivation. Intrinsic motivation and extrinsic motivation can work positively together. Next, Amabile used two mechanisms that were an extrinsic service of intrinsics and the motivation-work cycle match to illustrate how intrinsic and extrinsic motivations operate and that they were not antagonistic. Thus, finally, they held the proposition that particular forms of extrinsic

motivation can combine positively with all forms of intrinsic motivation. Certain types of extrinsic motivators can combine synergistically with intrinsic motivation due to certain types of reward, recognition, external control and feedback did not necessarily undermine intrinsic motivation. In addition, extrinsic motivation can combine with intrinsic motivation because there is no relationship between intrinsic and extrinsic motivation that have been identified by Work Preference Inventory among the adult sample. In practice, a previous study also combined intrinsic motivation and extrinsic motivation to explore people's work motivation (Mwantu, Agbo, & Ngwama, 2015).

In summary, Amabile's new conceptualization of intrinsic and extrinsic motivation in the workplace builds upon, and goes beyond earlier theories of work motivation. Simultaneously, this model completely analyzed the relationship between intrinsic motivation and extrinsic motivation and was based on theoretical and experimental verification. Therefore, Amabile's (1993) model of motivational synergy was used in this study.

Measurements of Work Motivation

Based on the literature review, some instruments were developed to measure work motivation. The following two instruments were the most popular and have been used on various populations, including in nursing research:

The Work Preference Inventory (WPI) (1994). Amabile et al. (1994) developed the Work Preference Inventory (WPI) based on the Amabile's (1993) Model of Motivational Synergy. It was designed to assess individual differences in intrinsic and extrinsic motivational orientations, directly assess the level of an individual's work motivation, and aimed to capture the major elements of intrinsic motivation (concerns with self-determination, competence, task involvement, curiosity, enjoyment and interest) and extrinsic motivation (concerns with competition, evaluation, recognition, money or other tangible incentives and constraints by others). The WPI comprised of the two primary scales of Intrinsic Motivation and Extrinsic Motivation. They collected data from 1,363 undergraduates and 1,055 working adults (e.g., hospital workers, secretaries) samples in the northeastern United States. In order to further divide the WPI items into more fine-grained facets of intrinsic motivation and extrinsic motivation, after

exploratory factor analysis, the items were clustered into four aspects: challenge, enjoyment, compensation and outward. Hence, each primary scale consisted of two secondary scales. The intrinsic motivation scale encompassed the two secondary scales of Challenge and Enjoyment, and the extrinsic motivation scale encompassed the two secondary scales of Compensation and Outward. Challenge refers to the willingness to accept a challenged work. Enjoyment refers to the strength of interest and involvement in the job. Compensation refers to the strength that an individual thought of rewards and promotion. Outward refers to the strength that an individual thought of others' opinion of himself. The WPI consisted of 30 items with four secondary scales (or two primary scales): Challenge (5 items), Enjoyment (10 items), Compensation (5 items) and Outward (10 items). Among these items, 5 items were reverse-keyed items, 2 items in Challenge, 2 items in Compensation, and 1 item in Outward. A 4-point Likert scale was used to present the extent of truth it applies to the participant. The range was from 1=Never or almost never true of me to 4=Always or almost always true of me. The higher scores, the higher work motivation. Both intrinsic motivation and extrinsic motivation could be present at a high level.

Through confirmatory factor analysis, the fit of the two-factor model and four-factor model were within acceptable range. In the two-factor model, for the student group, n=1442, x^2=3681, df=404, GFI=.77, AGFI=.73; for the adult group, n=749, x^2=4728, df=404, GFI=.80, AGFI=.77. In the four-factor model, for the student group, n=1442, x^2=3045, df=399, GFI=.85, AGFI=.83; for the adult group, n=749, x^2=1897, df=399, GFI=.85, AGFI=.83. For the primary scale, the reliability test from the adult group showed that the Cronbach's alpha of Intrinsic Motivation scale was .75 and Extrinsic Motivation scale was .70. For the secondary scales, the Cronbach's alphas of Challenge, Enjoyment, Compensation, and Outward were .73, .67, .62, and .63, respectively. In this study, both the two primary scales of Intrinsic Motivation scale and Extrinsic Motivation scale were used (Amabile et al., 1994).

The Motivation at Work Scale (MAWS) (2010). Gagne, Forest, Gilbert, Aube, Morin and Malorni (2010) developed the Motivation at Work Scale based on the framework of self-determination theory. When created, amotivation items were deleted instead of active types of motivation and the integration items also were deleted as it has

typically been very difficult to psychometrically distinguish integration from identification. Thus, the initial MAWS was produced including five items for each of the following sub-scales: (1) external regulation, (2) introjection regulation, (3) identification regulation and (4) intrinsic motivation. Then, they examined the structure of the MAWS through collected data from a group of 1,644 Canadian workers in different industries in both English (N=1115) and French (N=529). After implementing Lagrange multiplier tests, two items per sub-scale were deleted due to have a low pattern coefficient. Finally, this instrument included 12 items and three items for each of the four sub-scales. All of questions were rated on a 7-point Likert scale ranging from "1 = not at all" to "7 = exactly".

The researchers through confirmatory factor analysis assessed the construct validity of the MAWS. The result confirmed the fit of this model and was within acceptable range in English and French. Meanwhile, the reliability alpha coefficients of intrinsic motivation, identified regulation, introjected regulation and extrinsic regulation were .89 (range from .88 to .95), .83 (range from .81 to .84), .75 (range from .72 to .77), .69 (range from .65 to .72), respectively in the English version. For the French version, they were .93 (range from .92 to .94), .87 (range from .85 to .89), .81 (range from .78 to .84), .91 (range from .89 to .92), respectively.

In summary, both these two instruments had acceptable qualities. However, Amabile et al.'s WPI was the most often used to directly measure work motivation (Mayer, Faber, & Xu, 2007). In addition, items of WPI are clearer and easier to understand than MAWS, and they are suitable for Chinese context. Thus, Amabile et al.'s (1994) WPI was used in this study.

Factors Related to Work Motivation

A number of factors have been found influencing work motivation. Except for the nature of work itself that had been mentioned in Amabile's (1993) model of motivational synergy, the work relevant factors and demographic factors are reviewed as follows:

Perceived organizational support. Organizational support predicted work motivation (Gillet, Huart, Colombat, & Fouquereau, 2013). It was supported by Ayyash and

Aljeesh's (2011) study that organizational support had a positive influence on nurses' work motivation. As more professional training opportunities were provided by hospitals led to nurses having a higher work motivation (Toode, Routasalo, Helminen, & Suominen, 2015).

Work environment. The work environment has been considered to be highly influential in motivation at work. The motivation factors in work environment can be summarized in three ways: economic factors comprise income, rewards and profit sharing; psychosocial factors include appreciation, authority, job security, job autonomy and mentoring for others; and organizational-managerial factors consist of opportunities for promotion, job attraction, physical environment (e.g., work load, job content), teamwork, and a fair and consistent discipline system (Heidarian, Kelarijani, Jamshidi, & Khorshidi, 2015; Kantek et al., 2015). Also, Iranmanesh, Fuladvand, Ameri, and Bahrampoor (2014) endorsed that a good salary, job security, promotion and appreciation positively promoted work motivation. Heavy workload negatively influenced work motivation (Toode et al., 2014).

Work achievements. Job meaningfulness, interpersonal relationships, and earned respect are work achievements that are the most important motivators for nurses (Gaki et al., 2013; Lambrou, Kontodimopoulos, and Niakas (2010). In addition, Hackman and Oldham (1980) and Toode et al. (2014) proposed that meaningful work is a positively important factor of work motivation. Having a good relationship with others also has been identified as a positive factor of work motivation (Toode et al., 2015). Earned respect related to acquired feedback and respect of the results from others (Toode et al., 2011). Positive feedback on performance was important when motivating nurses to work better (Toode et al., 2014).

Demographic factors. Some previous studies found that work experience positively influences nurses' motivation (Lambrou et al., 2010; Toode et al., 2015). It may be due to longer duration of service leads to nurses gain more experiences, so they become more competent, self-confident and have qualities to solve difficult work tasks and are easily involved (Gaki et al., 2013; Koch, Proynova, Paech, & Wetter, 2014). In addition, Sarwar and Khalid (2015) proposed that work shifts negatively related to work motivation. Because nurses who work in rotating shift always experience higher

physiological and psychological strain than nurses who just work the day shift, thus, they experience pervasive fatigue which decreased nurses' work motivation (Koivula, Paunonen, & Laippala, 1998). Moreover, Gaki et al. (2013) reported that nurses who had a high level of education were more motivated for certain job attributes (e.g., authority, decision-making and skill exploitation) than the nurses who had a lower level of education. The reason for this is nurses perceived their awareness of nursing philosophy, professionalism and abilities as internally motivating (Toode et al., 2011). In conclusion, demographic factors including work experience, work shift and educational level can impact nurse's work motivation, hence, they need to be asked about these factors in this study.

Studies Related to Work Motivation

Some studies have been conducted regarding work motivation on different professions, one study reviewed company employees and the other studies mentioned nursing field based on the different theoretical basis and situations or the context of nursing practice.

Lin (2012) investigated the differences between regular workers and dispatched workers on work motivation, job characteristics, job satisfaction, and organizational citizenship behaviors among 123 regular workers and 34 dispatched workers from the P Company in Taiwan. The WPI with 30 items was used to measure work motivation. The findings showed that the mean scores of intrinsic motivation, extrinsic motivation, and overall job motivation for regular workers were 3.66 (SD=0.47), 3.47 (SD=0.46), and 3.54 (SD=0.43), respectively; for dispatched workers, the mean scores of intrinsic motivation, extrinsic motivation, and overall job motivation were 3.52 (SD=0.48), 3.27 (SD=0.49), and 3.37 (SD=0.43) with a 4-point Likert scale, respectively.

In the nursing filed, Thomas (2015) explored the relationship between age, intrinsic motivation and extrinsic motivation and the factors of job satisfaction among 38 registered psychiatric nurses in Louisiana. The WPI with 30 items was used to measure nurses' intrinsic motivation and extrinsic motivation. The results showed that the mean score of intrinsic motivation was 2.81 and extrinsic motivation score was 2.34 with a 4-point Likert scale. Chung and Chen's (2012) study looked at the work motivation and

professional commitment correlated with work satisfaction for 501 operating room nurses Taiwan and Mainland China. The WPI with 25 items was used to measure work motivation. The results showed that the mean scores of intrinsic motivation, extrinsic motivation, and overall work motivation were 3.16 (SD=0.52), 3.63 (SD=0.47), and 3.42 (SD=0.42) with a 4-point Likert scale, respectively.

Jaiswal et al. (2014) assessed the level and factors of motivation among 200 health personnel including doctors, nurses, technicians, and support staff (50 in each category) working in a tertiary health care institution in India. The Motivation Questionnaire was used to measure work motivation. The results showed that the mean score of nurses' motivation was 3.47 (SD = 0.38) with a 4-point Likert scale, which means nurses' motivation was at a high level, whilst 62% nurses among them had a high to very high level of motivation index. Furthermore, Dill, Erickson, and Diefendorff (2016) examined the effects of nurses' motivation on job burnout, negative physical symptoms, and turnover intention among 730 nurses in the Midwestern United States. Nurses' motivation was measured by the Grant's (2008) motivation survey. The result showed that the mean score of nurses' intrinsic motivation was 3.13 (SD = 0.62) and extrinsic motivation was 2.84 (SD = 0.69) with a 4-point Likert scale.

Moreover, Toode et al. (2015) investigated work motivation among 201 Registered Nurses in Estonia. The Motivation at Work Scale (MAWS) (Gagne et al., 2010) was used to measure nurses' work motivation. It showed that the mean score of external regulation was 3.19 (SD = 0.97), introjected regulation was 3.51 (SD = 1.32), and identified regulation was 4.19 (SD = 1.20) with a 7-point Likert scale. It was reported that nurses were moderately externally motivated (M = 3.63, SD = 0.89) and intrinsically strongly motivated (M = 4.98, SD = 1.03). Sarwar and Khalid (2015) examined perceived social support and work motivation of nurses working in day and night shifts among 150 nurses from three teaching hospitals in Lahore, Pakistan. The Motivation at Work Scale (MAWS) (Gagne et al., 2010) was used to measure nurses' work motivation. The results showed the mean scores of nurses' work motivation with day shifts was 5.60 (SD=0.96), and night shifts was 4.60 (SD=1.34) with a 7-point Likert scale.

In addition, Kamanzi and Nkosi (2011) explored the factors influencing the motivation levels among 106 nurses working at Butare University Teaching Hospital

(BUTH) in Rwanda. The researchers developed a questionnaire based on the Herzberg's theory of motivation to measure work motivation and it revealed that the nurses had a moderate level of motivation. Said et al. (2013) conducted a study to identify work motivating factors among 150 staff nurses from Aboalreesh hospital and 120 staff nurses from Elmonira hospital in Cairo, Egypt. Work motivation was measured through a work motivating factors scale with 8 factors. The results showed that the nurses were moderately motivated, and the mean score was 1.138 (SD = 0.375) with a 5-point Likert scale from 2 to -2. Additionally, Negarandeh, Dehghan-Nayeri, and Ghasemi (2015) identified motivating factors among 310 nurses working at 14 hospitals of Tehran University of Medical Sciences in Iran. The researchers developed an instrument based on previous studies conducted in Iran to identify four motivating factors. The result showed that the mean score of motivation of nurse was 3.63 (SD = 0.43) with a 5-point Likert scale and at a medium level, the four motivating factors included career development ($\overline{X}$ = 3.23, SD = 0.81), job authority ($\overline{X}$ = 3.70, SD = 0.56), recognition ($\overline{X}$ = 3.78, SD = 0.63) and job characteristics ($\overline{X}$ = 3.81, SD = 0.44) were recognized.

Awosusi and Jegede (2011) examined the motivation and job performances among 300 nurses in Ekiti state, Nigeria. The researchers designed the questionnaire to examine motivation and job performance. This study showed that the nurses were poorly motivated. Moreover, Negussie (2012) examined the relationship between rewards and work motivation among 259 nurses in 5 public hospitals in Addis Ababa. Mitchell's (1997) questionnaire was used to measure work motivation and the result showed the mean score of nurses' work motivation was 1.41 (SD = 0.73) with a 5-point Likert scale, and revealed that the nurses were not motivated. More recently, Weldegebriel, Ejigu, Weldegebreal, and Woldie (2016) assessed the level of work motivation among 304 health professionals in public hospitals in West Amhara, Northwest Ethiopia. The researchers developed a self-administered close-ended questionnaire for the Ethiopian context to measure work motivation. The result showed that the mean motivation score (as the percentage of maximum scale scores) was 58.6% for the overall motivation score and over the standardized mean score (50), which means that health professionals were just motivated.

In mainland China, two studies have tested the work motivation for nursing research. Li et al. (2014) examined the levels of work stress and motivation and their contribution to job satisfaction among 930 community health workers from six cities in Heilongjiang Province. Work motivation was measured by the previous work motivation instrument (Dieleman, Cuong, & Martineau, 2003; Gagne & Deci, 2005; Wayne & Liden, 1995), the results showed that the mean score of overall work motivation was 3.80 (SD = 0.55), the extrinsic motivation was 4.10 (SD = 0.68), and the intrinsic motivation was 3.52 (SD = 0.77) with a 5-point Likert scale. Dong (2012) explored the relationship between innovation behavior, work motivation and organizational innovative atmosphere among 300 nurses working at tertiary hospitals in Tianjin. The researcher measured work motivation using the modified Amabile, Conti, Coon, Lazenby and Herron's (1996) KEYS scale. The result showed that the mean scores of overall nurses' work motivation was 2.99 (SD = 0.47), nurse staff was 3.03 (SD = 0.45), department head nurse was 2.99 (SD = 0.48), and ward head nurse was 2.94 (SD = 0.49) on a 6-point Likert scale.

In summary, different instruments have been used to measure nurses' work motivation in the world. Four studies definitely reported that nurses' work motivation at a moderate level, one study reported it at a high level, and two studies at a low level. Hence, the inconsistent results prompt more studies to be done. In China, the mean scores of those two studies reveal that there is a significant difference with nurses' work motivation that used different instruments in different settings. Moreover, there is no study which has examined the nurses' work motivation in Yunnan, P. R. China. Therefore, it is necessary to conduct a study to examine the nurses' work motivation in Yunnan, P. R. China.

Organizational Commitment

Definitions of Organizational Commitment

Organizational commitment was defined by different scholars with attitudinal and behavioral perspectives, whilst from unidimensional construct to multidimensional construct that are reviewed as follows:

Becker (1960) defined organizational commitment as the strength of an individual's identification with and involvement in a particular organization that had the effect of making side-bets for a person and thus constrained a person's future. Sheldon (1971) defined organizational commitment as an individual's attitude or orientation to an organization which connects the individual's identity to the organization.

Moreover, Morris and Sherman (1981) defined organizational commitment as an exchange result between an individual and an organization and is positively, psychologically conscious. Kanter (1968) defined organizational commitment as the willingness of a person to put energy and loyalty towards the employee's organization with the individual's attachment to the organization being seen as self-expressive.

Further, Porter, Steers, Monday and Boulian (1974) defined organizational commitment as a strong belief in and acceptance of the organization's goals and values, a willingness to exert considerable effort on behalf of the organization, and a strong desire to maintain membership in the organization. Wiener (1982) defined organizational commitment as the totality internalized normative pressures to act in a way which meets organizational goals and benefits. It reflects the personal sacrifice to the organization; predicts the behavior was continuance and not easily influenced by environment; and indicates the personal attention, and invests a lot of effort and time to the organization. Whilst, O'Reilly, and Chatman (1986) defined organizational commitment as the psychological attachment felt by the person for the organization. It will reflect the degree to which the individual internalizes or adapts characteristics or perspectives of the organization.

In addition, Meyer and Allen (1991) defined organizational commitment as a psychological state which retains employees in the organization and is accompanied by a

desire, a need or an obligation which reflects the relative degree of an individual's identification with and involvement in the employee's organization. It encompasses three components of commitment: affective commitment, normative commitment and continuance commitment.

Ling, Zhang, and Fang (2000) defined organizational commitment as a kind of attitude of the employee of an organization. It can explain why an employee may want to stay in the organization and it as an indicator of the loyalty of the employee to the organization. It includes five components of organizational commitment: affective commitment, ideal commitment, normative commitment, economic commitment, and opportunity commitment.

In summary, Meyer and Allen's (1991) definition of organizational commitment is clearly defined organizational commitment, including attitudinal and behavioral process, and it comprehensively expresses the individual psychological state. Hence, Meyer and Allen's (1991) definition was used in this study.

Concepts and Theories of Organizational Commitment

Many theories and models related to organizational commitment have been developed. These six theories and models are reviewed as follows:

Becker's Side Bets Theory (1960). In 1960, Becker first proposed the concept of organizational commitment. He argued an employee is retained in an organization by making a side bet with the organization. Making side bets is used to enhance the cost of failing and to persist staying with the organization, thereby increasing commitment. Becker suggests side bets include five categories, as follows:

Generalized cultural expectations. It refers to the expectations of important reference groups regarding what constitutes responsible behavior (e.g., how long one should stay at a job). Violating these expectations could lead to real or imagined, negative consequences.

Self-presentation concerns. It arises when a person attempts to present a consistent public image that requires behaving in a particular form. Failure to do so could tarnish the image.

Impersonal bureaucratic arrangements. It is a rule or policy put in place by the organization to encourage or reward long-term employment (e.g., a seniority-based compensation system).

Individual adjustments to social positions. It refers to efforts made by an individual to adapt to a situation, but that make him or her less fit for other situations (e.g., investment of time and effort to acquire organization-specific skills).

Non-work concerns. It refers to side bets made outside the organization itself, as when an employee establishes roots in a community that would be disrupted if he or she were to leave the organization and be forced to seek employment in another geographic location.

Kanter's Organizational Commitment Model (1968). Kanter (1968) proposes that organizational commitment include three types: continuance commitment, cohesion commitment and control commitment. These bind individual systems to the area of organizational systems, linking cognitive, cathectic and evaluation orientations to roles, relationships and norms, respectively. Continuance commitment occurs based on the individual's sacrifice and investment to the organization compared to the cost of leaving the organization, thus he or she chooses to stay with the organization. Cohesion commitment occurs based on the individuals' open renunciation of their relations with the previous organization, or participating in activities of increasing organizational cohesion with the present organization which produces attachment and communication with the organization. Control commitment occurs based on the individual surrendering the previous norms in light of the organizational values to reshape the self-concept in the direction to guide the individual behaviors.

Reichers's Organizational Commitment Model (1985). Reichers (1985) states that organizational commitment has three distinct forms: side-bets commitment, attribution commitment and individual/organization goal congruence commitment. Side-bets

commitment is based on the relationship between cost and remuneration and it has a positive relationship with seniority. Attribution commitment is based on personal attributions. When the person engaged in meaningful, clear and unalterable behaviors, it can be attributed to a commitment to an organization. Individual/organization at goal congruence commitment was based on the person being identified with the organization and devoted to the organizational goals and values.

Penley and Gould's Organizational Commitment Model (1988). Penley and Gould (1988) developed a model of commitment based on the Etzoni's (1961) commitment work. It exists both in affective and instrumental forms and consists of three dimensions of organizational commitment: (1) Moral commitment was represented as a highly positive affective form characterized by acceptance of and identification with organizational goals. (2) Calculative commitment was an instrumental form essentially centred around one's satisfaction with the exchange relationship. (3) Alienative commitment is represented as a highly negative affective form that is an outcome of a lack of control over the internal organizational environment and of a perceived absence of alternatives for organizational commitment.

Meyer and Allen's Three - Component Model (TCM) of Commitment (1991). Meyer and Allen (1991) developed this model in order to aid in the synthesis of existing research and went beyond the existing distinction between attitudinal and behavioral commitment. They incorporated both the attitudinal and behavioral approaches and their complementary relationship and simultaneously expended the concept of organizational commitment as a mindset or psychological state that could characterize the employee's relationship with the organization and implicate the decision to continue or discontinue membership in the organization. They argued that organizational commitment had at least three separable components reflecting a desire (affective commitment), a need (continuance commitment) and an obligation (normative commitment) to retain the employee in the organization. These three components of commitment have quite different antecedents and implications for work-related behaviors other than turnover. Hence, it seems more reasonable to expect that employees can experience one or more forms of commitment to varying degrees.

Affective commitment. Affective commitment refers to the employee's emotional attachment to, identification with, and involvement in the organization. An employee with a strong affective commitment continues employment with the organization because they want to do so. The antecedents of affective commitment include personal characteristics (e.g., demographic characteristics, personal dispositions), organizational structure and work experiences. Meyer and Allen (1991) pointed that work experience was a more important antecedent to satisfy employees' needs and to make them feel comfortable in the organization (e.g., equity in reward distribution, organizational support, role clarity and so on) and those that contribute to employees' feelings of competence in their work roles (e.g., accomplishment, autonomy, job challenge, opportunity for advancement and so on).

Continuance commitment. Continuance commitment refers to the employee's assessment of whether the cost of leaving the organization are greater than the cost of staying. Employees maintain a high level of continuance commitment with the organization because they need to do so. Meyer and Allen (1991) pointed that the most direct antecedents of continuance commitment include a lack of alternative employment opportunities and an accumulation of side bets or investments.

Normative commitment. Normative commitment refers to the employee's feelings of obligation to the organization. An employee with a high level of normative commitment with the organization feels that they ought to do so. Meyer and Allen (1991) point out that normative commitment was developed from normative pressure (e.g., familial, organizational and cultural socialization) and organizational investment of employees (e.g., paid college tuition, costs associated with job training) which may result in employees having a sense of obligation to reciprocate the organization until the debt has been repaid by committing themselves to the organization.

Cohen's Organizational Commitment Model (2007). Cohen (2007) developed the organizational commitment model based on the dimensions of time and commitment and proposed four components of organizational commitment: instrumental commitment propensity, normative commitment propensity, instrumental commitment and affective commitment. Cohen also stated that employees' attitude derived from the development of socialization process and there was no actual commitment before the employees

entered and worked in the organization. Before an employee enters the organization, instrumental commitment propensity and normative commitment propensity were formed. Instrumental commitment propensity relates to the employees' work expectations and work characteristics; normative commitment propensity is a moral obligation related to individual values and beliefs. After employees enter the organization the actual commitment is formed and includes instrumental commitment and affective commitment. Instrumental commitment relates to the relationship between the quality of actual exchange and previous expectations. Affective commitment is an emotional attachment that employees' identify with and attributes to the organization. Instrumental commitment is the basis of affective commitment while instrumental commitment is positively influenced by affective commitment. In turn, instrumental and affective commitment influences their commitment propensity.

In summary, these scholars propose diversity perspectives with organizational commitment from Becker's unidimensional theory to multidimensional model. It is not difficult to find that organizational commitment mentions three aspects: affective support, moral norms and effort-remuneration exchange. Among these multi-dimensional models, Meyer and Allen's model (1991) has been widely used in the nursing area, including in China (Wang & Tong, 2014). Moreover, Meyer and Allen's (1991) Three – Component Model (TCM) of commitment completely and clearly express the aforementioned three aspects. Hence, Meyer and Allen's (1991) Three – Component Model (TCM) of commitment was used in this study.

Measurements of Organizational Commitment

According to the literature view, there are three main instruments for measuring organizational commitment, of the three measurements to have been widely used in the world and one is designed by Chinese employees as described below:

Organizational Commitment Scale (1990). Allen and Meyer (1990) developed the Organizational Commitment Scale (OCS) based on the three-component model of commitment (Meyer & Allen, 1987), which was a link between employee and an organization to decrease turnover. The three-components were labelled "affective commitment", "continuance commitment", and "normative commitment", respectively.

Employees can experience each of these three separable mindsets to varying degrees. Therefore, it is possible to develop three independent measures for these three mindsets. A pool of 51 items was generated for scale construction and included along with these 51 items was the 15-item Organizational Commitment Questionnaire OCQ (Mowday, Steers, & Porter, 1979). The participants were asked to answer these 66 items and it was presented first with the exception of the OCQ items. Then, based on a series of decision rules of items selection and factor analysis, 24 items were selected for inclusion in the scales. Eight items were included in each of the Affective Commitment Scale (ACS), Continuance Commitment Scale (CCS) and Normative Commitment Scale (NCS), and there were some revers keyed items in each scale, such as ACS (4 items), CCS (2 items) and NCS (3 items). Responses indicate their strength of agreement using a 7-point Likert scale from 1(strongly disagree) to 7 (strongly agree). The reliability of each scale was .87, .75 and .79, respectively.

Three-Component Model (TCM) of Employee Commitment Survey (1993). Meyer et al. (1993) developed TCM Employee Commitment Survey based on the Three – Component Model of commitment (Meyer & Allen, 1991) to measure the three components of employees' commitment to organization: desired-based (affective commitment), cost-based (continuance commitment), and obligation-based (normative commitment). The items of this survey were developed based on the items of Allen and Meyer's (1990) Organizational Commitment Scale (OCS). Thus, it is a new version of Organizational Commitment Scale (OCS). Whilst this new version also included three scales: Affective Commitment Scale (ACS), Continuance Commitment Scale (CCS) and Normative Commitment Scale (NCS). Data collection was from 530 Registered Nurses. The OCS was revised from an eight items version to a six items version so the OCS includes 18 items. The two versions of the ACS and CCS were very similar and the greatest difference between these two versions was seen in the NCS (Meyer & Allen, 2004). In the original version, the NCS tended to include information about the basis for the obligation, but for the revised version, it didn't specify the basis and focused more specifically on the feeling of obligation. For the revised ACS, there were two items deleted due to having the weakest loadings on the relevant factor in the confirmatory factor analysis from Allen and Meyer (1990). For the revised CCS, three items were deleted and a new one item was increased. Similarly, there were four reverse-keyed items

in the scales: ACS (3 items) and NCS (1 item). Responses indicated their strength of agreement using a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The higher score, the higher organizational commitment. Due to the commitment it includes three different mind-sets and can be assessed by each form of commitment (Meyer & Herscovitch, 2001).

The relative noncentrality index (RNI) and the parsimonious normed-fit index (PNFI) were used to assess the fit of various models and indicates that the six-factor model shows a better fit to data: n = 530, $\chi 2$ = 1588.15, df = 579, RNI = .972, PNFI = .893, P < 0.05. Meyer, Allen and Smith (1993) reported the Cronbach's alphas of three dimensions: ACS was .85, CCS was .79 and NCS was .73.

The Chinese version of TCM Employee Commitment Survey was translated by Chen (2011) in her thesis to measure the organizational commitment of nurses in Yunnan Province, P. R. China. Chen (2011) used translation and back translation methods to translate the original English version into Chinese without any modification. The internal consistency reliability of Chinese version showed that the coefficient alpha of ACS, CCS, AND NCS were .76, .70, and .80, respectively.

Chinese Employee's Organizational Commitment Questionnaire (2000). Ling et al. (2000) developed the Chinese Employee's Organizational Commitment Questionnaire based on interviews, project collection, multiple pilot tests and science inspection. They used factor analysis with multivariate statistical analysis method to explore the psychological structure of the Chinese employee's organizational commitment and proposed five factors model, including affective commitment, normative commitment, ideal commitment, economic commitment and opportunity commitment. This instrument consists of 25 items and 5 items for each of the five factors. The response format adopted was a 4-point Likert scale ranging from 1 (completely disagree) to 4 (completely agree).

Factor analysis method was used to confirm the structure validity of the questionnaire. The results indicated that the total variance explained 66.1%, and it has good criterion-related validity. For the reliability, the test-retest reliability of organizational commitment showed that total organizational commitment was .87, affective commitment was .83, ideal commitment was .81, normative commitment was

.72, economic commitment was .89 and opportunity commitment was .89. The homogeneity reliability showed that total organizational commitment was .67, affective commitment was .85, ideal commitment was .79, normative commitment was .69, economic commitment was .81 and opportunity commitment was .82.

In summary, the Chinese version of Meyer et al.'s (1993) TCM Employee Commitment Survey was used in this study. First, the model of Chinese Employee's Organizational Commitment Questionnaire was not clear. Second, the TCM Employee Commitment Survey is more comprehensive and it assesses the employee' organizational commitment which includes behavior and attitudinal commitment. It is the most classic instrument used for measuring organizational commitment (Cohen, 2003). Third, the TCM Employee Commitment Survey is suitable in the Chinese context.

Factors Related to Organizational Commitment

Some work relevant factors and demographic factors that have been found influencing organizational commitment as follows:

Perception of management behavior. Perception of management behavior is an important factor of organizational commitment which has been manifested by some previous researchers, which includes psychological reward and trust from head nurses and supervisors, fairness perception and justice. According to De Gieter, De Cooman, Pepermans, and Jegers's (2010) study, psychological reward from head nurses and supervisors was positively related to organizational commitment. Also, a leader's trust with staff nurses had a positive impact on their commitment to the organization (Laschinger, Finegan, & Shamian, 2001). English and Chalon (2011) illustrated that fairness perception was associated with higher levels of affective commitment. In addition, a positive relation was exposure between justice and organizational commitment (English & Chalon, 2011; Jalonen, Virtanen, Vahtera, Elovainio, & Kivimaki, 2006).

Perception of organizational context. Perception of organizational context includes job status, job security and monetary benefits and were significantly related to organizational commitment. Several studies revealed that permanent nurses' had more of a sustained organizational commitment than temporary nurses (Han, Moon, & Yun, 2009;

Jalonen et al., 2006). Moreover, job security can impede nurse's commitment to organization (McNeese-Smith & Nazarey, 2001). As some researchers found workplace violence (Camerino, Estryn-Behar, Conway, van Der, & Hasselhorn, 2008; Demir & Rodwell; 2012) and bullying and internal emotional abuse (Demir & Rodwell; 2012) were negatively related to organizational commitment. Monetary benefits are positively vital factors of organizational commitment (McNeese-Smith & Nazarey, 2001).

Work environment conditions. Work environment conditions were reported for a positive correlation with affective commitment, which includes interpersonal relationship, managerial support and regular routine (Takase, Yamashita, & Oba, 2008; Vanaki & Vagharseyyedin, 2009). In addition, some studies found that interpersonal relationships affected people's commitment (Kuvaas, 2008; Lorber & Skela-Savic, 2014; Wong & Sohal, 2002). It was found that perceived organizational support can improve nurse's organizational commitment (Brunetto, Xerri, Shriberg, Farr- Wharton, Shacklock, Newman, & Dienger, 2013; Lee, 2011).

Demographic factors. There are several demographic factors influencing nurses' organizational commitment. Chang, Chou and Cheng (2007) and Chen (2011) reported that nurses' age were positively related to organizational commitment. Also, Chen (2011) and Tikare (2015) reported that married nurses had higher commitment. Tikare (2015) revealed that the higher the educational level of nurses, the lower the commitment to their organization. In a study done by Iramanesh et al. (2014), the female nurses had more commitment than male nurses. In addition, some researchers illustrated that nurses with more work experience would be more committed to their organization (Lee, 2011; Naz & Gul, 2014). In conclusion, demographic factors including age, marital status, educational level, gender and the number of years of work experience, need to be asked in this study.

Studies Related to Organizational Commitment

Organizational commitment as an organizational behavior has been widely studied, whereas in the health care setting, most studies were developed based on the three-component model of commitment and affective-dependence model. Therefore, correspondingly, the different versions of organizational commitment scale and Mowday

et al.'s (1979) OCQ are the most widely used in the world (Liu, Chang, & Zhou, 2013). However, there are several studies constructed using Meyer et al.,'s (1993) TCM Employee Commitment Survey to explore nurses' organizational commitment in Western and Eastern countries.

Meyer et al. (1993) explored organizational commitment, occupational commitment and the antecedent and outcome of commitment among 603 nurses in Ontario, Canada. Organizational commitment was measured using TCM Employee Commitment Survey. The results showed that the mean score of continuance commitment was 4.03 (SD = 1.39), affective commitment was 3.91 (SD = 1.47), and normative commitment was 3.04 (SD = 1.41) with a 7-point Likert scale. Ibrahem, Elhoseeny and Mahmoud (2013) assessed the relationship between workplace empowerment and organizational commitment among 150 nurses in Alexandria, Egypt and the results showed the mean score of affective commitment was 3.9 (SD = 1.83); the normative commitment was 4.3 (SD = 1.88); and the continuance commitment was 4.5 (SD = 1.79) with a 7-point Likert scale. Whilst, Porter (2015) studied the relationship between transformational leadership and organizational commitment among 322 direct care workers in the United States. The mean score of affective commitment was 1.52 (SD = 0.49), normative commitment was 3.06 (SD = 0.48), and continuance commitment 1.44 (SD = 0.49), and with a 7-point Likert scale. However, all of these authors did not report the level of organizational commitment.

In addition, De Gieter et al. (2011) examined the relationship between job satisfaction, organizational commitment and turnover intention among 287 nurses in Belgium. A 6-item ACS was used to measure the nurses' affective commitment. The mean score of affective commitment was 4.141 on a 7-point scale, and it reported that nurses had a stronger organizational commitment. Further, Olfat, Fatmam, and Hind (2016) conducted a study to observe the relationship between nurses' job satisfaction and organizational commitment among 1,650 nurses in Jeddah. The mean score of overall organizational commitment was 3.87 with a 7-point Likert scale and it reported that nurses had a good organizational commitment.

In China, there were four studies which reported organizational commitment which was measured through Meyer et al.'s (1993) TCM Employee Commitment Survey. Chen

(2011) examined the relationship between work empowerment and organizational commitment among 410 nurses in Kunming. The result showed that the mean score of affective commitment was 4.38 (SD=0.92), continuance commitment was 4.43 (SD=0.77), and normative commitment was 4.08 (SD=0.98) with a 7-point Likert scale, and the findings revealed that at a moderate level.

Moreover, Zhao et al. (2013) verified the impact of quality of work life on job embeddedness and affective commitment and their co-effect on turnover intention among 1,000 nurses in Heilongjiang, located in northeast China. A 6-item ACS was used to measure the affective commitment and the results showed that the mean score of affective commitment was 3.75 with a 5-point Likert scale. Chen, Yang, Gao, Liu, and De Gieter (2015) explored the factors of work attitude among 413 nurses in Shandong. A 6-item ACS was used to measure nurses' affective commitment and the results showed that the mean score was 3.61 with a 5-point Likert scale. Besides, Newman, Nielsen, and Smyth (2016) conducted a study to investigate the influence of individual and organizational variables on organizational commitment among 393 nurses in Zhejiang. A 6-item ACS was used to measure the affective commitment and the results showed that the mean score of affective commitment was 3.07 with a 5-point Likert scale.

However, in China, most of the studies related to nurses' organizational commitment have been done using the Chinese Employee's Organizational Commitment Questionnaire (Ling, Zhang, & Fang, 2000), and reveal different levels of organizational commitment in different settings. For instance, Yang, Liu, Huang, and Zhu (2013) identified the impact of empowerment on professional environment and organizational commitment among 750 full-time nurses in Tianjin. The results indicated the mean scores of over organizational commitment was 2.88; affective commitment was 2.82; normative commitment was 3.12; ideal commitment was 2.72; economic commitment was 2.92; and opportunity commitment was 2.75 with a 5-point Likert scale, and revealed that the nurses at a moderate level. Further, Cai and Wu (2014) explored the impact of organizational commitment on burnout among 432 nurses in Wenling. The results showed that the mean scores of overall organizational commitment was 2.12; affective commitment was 2.63; normative commitment was 2.45; ideal commitment was 2.25; economic commitment

was 1.72; and opportunity commitment was 1.53 with a 5-point Likert scale, and reported nurses at a low level of organizational commitment.

Among these above studies, the results indicate that the mean score of nurses' affective commitment was from 1.52 to 4.14, normative commitment was from 3.04 to 4.3 and continuance commitment was from 1.44 to 4.5 with a 7-Likert scale. It means that the nurses' organizational commitment is not high. Moreover, nurses experiencing the highest mindset of organizational commitment is inconsistent in different settings. In China, there is only one study which completely examined the three components of organizational commitment using Meyer et al.'s (1993) TCM Employee Commitment Survey, and the findings revealed that all of components were just at a moderate level. However, according to Meyer and Allen's (1991) study, all three components of organizational commitment were considered together and can assess well the nurses' commitment. Hence, more studies need to be done to completely examine the level of nurses' organizational commitment in Yunnan, P. R China.

Relationship Between Work Motivation and Organizational Commitment

According to the literature review, previous research have explored the relationship between work motivation and organizational commitment in some professions. However, there has been limited research on nurses.

Mwantu et al. (2015) examined the effects of employee work motivation and job satisfaction on organizational commitment among 120 company employees in Nigeria. The work preference inventory (Amabile et al., 1994) was used to measure employees' work motivation, and Allen and Meyer's (1990) organizational commitment scale with 18 items was used to measure their organizational commitment. The results showed that work motivation had a positive effect on employees' commitment in the organization ($F_{(1, 120)} = 4.616$, $P < .05$).

In the nursing area, Fernet et al. (2015) explored the relationship between transformational leadership, job demands and resources, work motivation, burnout, affective commitment and job performance among 637 nurses in Canada. In this study, the multidimensional work motivation scale (Gagne, et al., 2014) was used to measure

work motivation, and Meyer et al.'s (1993) affective commitment subscale was used to measure affective commitment. The findings revealed that there was a negative correlation between controlled motivation and affective commitment (r=-.20, P<0.01), and a positive correlation between autonomous motivation and affective commitment (r=.13, P< .05).

Battistelli et al. (2013) investigated the relationship between organizational commitment and work motivation among 652 nurses in Italy. Gagne et al.'s (2010) MAWS was used to measure work motivation. The Italian version of the scale developed by Meyer et al. (1993) was used to measure organizational commitment. The findings revealed that there was a positive correlation between affective commitment and intrinsic motivation, identified motivation and introjected motivation (r = .46, .39, .20 respectively; p < .01); there was a positive correlation between normative commitment and intrinsic motivation, identified motivation, introjected motivation and external motivation (r = .22, p < .01; r = .32, p < .01; r = .29, p < .01; r = .09, p < .05 respectively); there was also a positive correlation between high-sacrifice continuance commitment and intrinsic motivation, identified motivation, introjected motivation and external motivation (r = .27, .25, .23, .21 respectively; p < .01); and there was a positive correlation between low-alternative continuance commitment and introjected motivation (r = .05; r= .11, p < .05 respectively). In addition, negative relationships were found between some dimensions of organizational commitment and some categories of work motivation, including affective commitment with external motivation (r = -.02), low-alternative continuance commitment with intrinsic motivation (r = -.15, p < .01), and low-alternative continuance commitment with identified motivation (r = -.21, p < .01). Besides, Galletta et al. (2011) conducted a study to identify the relationship between intrinsic motivation, job autonomy, affective commitment and turnover intention among 442 nurses in Italy. Gagne et al.'s (2010) MAWS was used to measure intrinsic motivation and the affective commitment scale of Meyer et al.'s (1993) TCM Employee Commitment Survey was used to measure affective commitment. The results showed that there was a positive relationship between intrinsic motivation and affective commitment (r = 0.51, p < .01).

Moreover, Bahrami et al. (2016) developed a study to investigate the correlation between job motivating potential scores and employees' organizational commitment

among 181 employees in an educational hospital in Iran in 2014 and 2015. Job motivation was measured by John Wagner's (1993) job diagnostic survey, and Allen and Meyer's (1990) organizational commitment questionnaire was used to measure employees' organizational commitment. The results showed that nurses had low motivation, and a majority of nurses had a moderate level of organizational commitment. The findings revealed that there was a significant correlation between job motivating potential scores and organizational commitment ($r = 0.135$, $p < .05$). In addition, some negative correlation was observed in some dimensions of job motivation with some components of organizational commitment, such as job variety, task identity and feedback with normative commitment, and tack significant with affective commitment.

Altindis (2011) investigated the relationship between work motivation and organizational commitment among 204 health professionals in Turkey. The job motivation was measured using a motivation questionnaire which was developed based on Mottaz (1985), Brislin, MacNab, Worthley, Kabigting, and Zukis (2005) and Mahaney and Lederer's (2006) motivation works. The organizational commitment was measured using Meyer and Allen's (1997) organizational commitment scale. The result showed that affective commitment had a positive impact on intrinsic motivation ($r = 0.20$, $p = .000$), continuance commitment had negative impact on intrinsic motivation ($r = -0.28$, $p = .000$); normative commitment also had a positive impact on intrinsic motivation ($r = 0.32$, $p = .000$); affective commitment had a positive impact on extrinsic motivation ($r = 0.16$, $p = .000$); continuance commitment had a negative impact on extrinsic motivation ($r = -0.21$, $p = 0.000$); normative commitment also had a positive impact on extrinsic motivation ($r = 0.63$, $p = .000$).

Furthermore, Iranmanesh et al. (2014) assessed the relationship between organizational commitment and job motivation among 300 nurses in Iran. In this study, Ebadi's (1995) job motivation scale was used to measure job motivation and Meyer and Allen's (1997) organizational commitment scale was used to measure organizational commitment. There was a positive correlation between organizational commitment and job motivation, but amongst the relationships between subcategories of organizational commitment and subfactors of work motivation, affective commitment and intrinsic motivation were positively related ($r = 0.287$, $p = .000$), while normative commitment

and intrinsic motivation were negatively related. Additionally, Charoensook (2010) made a study to assess the level of organizational commitment and its correlation with motivation, individual factors and organizational climate among 250 Registered Nurses in Thailand. The researcher used a self-designed scale based on Herzberge et al.'s (1959) theory to measure work motivation and organizational commitment was measured by Meyer and Allen's (1997) organizational commitment scale. The results revealed that the organizational commitment at a moderate level, and there was a positive correlation between motivation and organizational commitment ($r = 0.54$, $p < .05$).

However, Tahere et al. (2012) investigated the effects of job experience, satisfaction and motivation on organizational commitment among 50 nurses in Iran. The results reported that there was no correlation observed between job motivation and organizational commitment.

Most studies show that there is a significant correlation between work motivation and organizational commitment among nurses. While one study reported that there was no correlation between job motivation and organizational commitment in Iran. In summary, the relationship between work motivation and each component of organizational commitment is still not clear. In addition, no study exists which explores the relationship between work motivation and each component of organizational commitment among nurses in China. Therefore, it is worthwhile to investigate the relationship between work motivation and each component of organizational commitment of nurses in affiliated hospitals of Dali University, P. R. China.

Situation Related to Work Motivation and Organizational Commitment in the P. R. China and Yunnan Province

The healthcare system in China is moving towards autonomous management with a market-driven economy, the State Council (CPC Central Committee and the State Council, 2009) approved the "Opinions on Deepening the Health Care Reform". It basic goal is to achieve health insurance coverage for whole of China while controlling medical costs. This reform encourages social capital and supports the development of the non-public hospitals. It impulses the competitive environment between public hospitals and non-public hospitals and offers more opportunities for nurses to choose new jobs, which

may decrease nurses' continuance commitment to the current organizations. However, above changing and competitive environment requires healthcare organizations to improve the cost-effectiveness and quality of care in China.

Meanwhile, in order to carry out quality of care and promote the healthcare organizational success, in 2010, at the National Nursing Work Conference, the project of "High Quality Nursing Service" was proposed (General Office of the Ministry of Health [GOMH], 2011). This project requires nurses to provide a holistically and continuance quality of care. Nurses need to pay more attention to the patient's psychological care, as well as more complete nursing documentations are required. According to Wang, Yang, Song, and Liu's (2016) statement, by the end of 2015, all tertiary hospitals have carried out high quality nursing service in China. Since providing high quality of care, the patients' outcome have been improved, while the nurse's workload and psychological pressure also have increased (GOMH, 2011).

The nursing shortage in China is a constant severe problem (Lyu et al., 2016). In 2010, it was reported that approximately 88% of China hospitals had a nursing shortage (Cheng & Li, 2010). The Ministry of Health of China (2016) reported that at the end of 2015, there were 3.241 million nurses. The ratio of nurse to population was 2.36:1000, which is relatively low when compared to America, the ratio of nurse to population was 9.8:1000. Moreover, in 2016, Chinese News Net announced that in most countries of the world, nurses account for approximately 5% of the total population, but in China, it was only 1%. Inadequacy of staffing would lead to heavy workload for health workers and, in turn to, negatively related their motivation at work and involvement in the organization (Wu, Peng, Ding, & Wang, 2011; Xie, Guo, Lin, & Chen, 2015).

However, nursing administrators are facing an enormous challenge of retaining their staff nurses to staying current organization. The main reason is the nurse's dissatisfication with their jobs with experiencing heavy workload, high-stress working environment, low social status and the input of their effort in working and what they gain as output are unequal (Sun, 2014). In 2016, *XinHua Net News* reported by the end of 2014, the rate of Chinese nurse turnover was 10.2% - 11.2%, and the rate of turnover intention was as high as 56.94%. These may deteriorate the environment of nursing

shortage and negatively affect the patient's safety and the improvement of quality of nursing care.

According to the comprehensive levels of the function, mission, facilities condition, construction technology, the quality of medical service and scientific management of hospitals, the Ministry of Health of China (1989) set criteria to classify the hospitals into three ranks: 1) The primary hospital serves the community population, which directly provides medical service, disease prevention, rehabilitation and health care. It is the primary health care institution. The number of hospital beds range from 22 to 99; 2) The secondary hospital serves the multi-community population which provides medical service, instructing the primary hospitals with practice skills, and to a certain degree of teaching and conducting scientific research. It is a regional hospital. The number of hospital beds range from 100 to 499; 3) The tertiary hospital serves the regional city, province and nation. It is integrated to provide high level medical service, teaching and conducting scientific research, whilst instructing primary and secondary hospitals with practice skills and training professionals. The number of hospital beds are more than 500. Each rank hospital is classified into three levels: Level-A (upper), Level-B (middle), and Level-C (lower) based on hospital accreditation according to some indicators. In addition, there is a superfine level for tertiary hospitals. Thus, Chinese hospitals are classified into a total of 10 grades (MoH, 1989). Therefore, it can be seen that tertiary hospitals have higher work-related demands for medical personnel, and they must undertake a heavier workload.

Besides a nursing shortage and a high turnover among nurses in China, there may be some situations affecting the nurses' work motivation and organizational commitment. First, according to the Chinese nursing employment system, there are two categories of nurses: permanent nurses and temporary nurses. These two types of nurses are all Registered Nurses and sign contracts with hospitals. Whereas, permanent nurses are employed for their lifetime with their contracts, temporary nurses need to sign a contract with their hospital each year or every two years depending on the evaluation from their head nurse and director of clinical department (Duan, 2016). This unstable status may make temporary nurses lack of a sense of belonging, and decrease their obligation to the organization (Sun, Ma, & Zhu, 2013). In addition, there are other differences between

these two types of nurses. For instance, temporary nurses get a lower salary than permanent nurses, they don't have a housing insurance, pension, and have less opportunities for continuing their education and getting a promotion, as well as having lower social status than permanent nurses (Gu, 2015). So, temporary nurses are treated unfairly and face with more stress which may lead them to hold a negative work enthusiasm and low work motivation, increase their intention to leave (MoH, 2006), whilst they may have less obligation to the organization. However, hospitals in order to spend less money, employ a majority of temporary nurses instead of permanent nurses. Yang (2012) reported that temporary nurses composed of 63%-85% of hospital nurses in Yunnan. In 2008, the State Council issued the Nurse Regulations which requires that nurses should acquire equal pay for equal work. Thus, temporary nurses may become the main force of clinical nursing work in the future in hospitals. However, few hospitals have achieved equal pay for equal work. In addition, permanent nurses entering hospitals are required to pass a series of strict, public provincial examinations and interviews, while temporary nurses are asked to take the hospital's examinations and interviews. In general, p a bachelor's degree is required for permanent nurses, hence they have a higher level of education than temporary nurses do. Thus, permanent nurses may always feel pride due to the the difficult requirements they had to fulfill compared to temporary nurses.

Second, regarding the educational system, at present, there are five educational levels which exist with Chinese nurses from low to high: (1) diploma degree program provided by health schools, (2) associated degree program provided by colleges of nursing, (3) bachelor's degree program provided by university, (4) master's degree program provided by university, and (5) doctoral degree program also provided by university. In addition, in order to improve the nurse' educational level, the continuing or adult nursing education programs are provided for the students who have had work experience. This can be for an associate degree for those nurses who already have a diploma degree or for a bachelor's degree for those nurses who have an associate degree (Liu, Rodcumdee, Jiang, & Sha, 2015). At the end of 2015, more than 62.5% of nurses hold an associate degree in China (Chinese News Net, 2016). The educational level of nurses are constantly improving when compared to 49% of nurses were still under associated degree (MoH, 2010) due to the requirements of high quality of care and the competition between nurses. Yang, Lui, and Lee (2006) found that physicians had more

positive attitudes toward the physician-nurse relationship when nurses have a higher educational level. Usually, most of nurses and physicians are fixed in a certain clinical department in public hospitals. The long time connection might lead to a good interpersonal relationship between them, thus doctors could give more trust and some suggestions to nurses (Chen, 2011). However, the bad news is in most cities, nurses with a high educational level and a low educational level do the same clinical job (Chen, 2011). Thus, the nurses' value and ability cannot be completely revealed, their identification with the organization are reduced (Jiang et al., 2015; Zhu et al., 2012).

Third, affected by the Chinese traditional view, nurses have a lower social status than other medical professions (Shen, 2010; Zhou, 2010). In the eyes of people, a nurse's job is still only providing injections, delivering medicines and simple basic nursing care (Hu & Liu, 2004). Nurses usually are regarded as the helpers of physicians and they just obey physicians' orders (Yang, 2012). Thus, this may result in nurses not being fully respected by society. Their value cannot be correctly recognized, which brings nurses to a sense of having a professional inferiority complex, and a further lack of interest in nursing work (Xiao, 2015). Hospital managers regard improving economics as the primary goal, hence, the physicians are more predominant due to they make more profits than nurses within the hospital (Wang et al., 2016), they are prone to recruit more physicians and buy equipment for advanced medical technology instead of recruiting nurses to attract patients (MoH, 2006). Thus, this may have exacerbated the proportion of medical staff which is out of balance. In spite of this, with the ongoing promulgation of the Medical Accidents Regulation, the legal consciousness of patients' have been enhanced, their demands and expectations with nursing service are becoming more and more(Li & Zhang, 2013). In order to meet the demands of patients and needs of medical development, the hospitals have to improve nurses' educational level and increase their competency through supporting nurses with continuing education programs (MoH, 2007).

Fourth, the characteristic of organizational structure in Chinese public hospitals is centralized power. According to the regulation of the Chinese public hospital structure, the leader of a clinical department should be a physician who is responsible for the whole unit including medical treatment and nursing services (MoH, 1982). The head nurses and staff nurses are usually under the direction of a department leader, who is a physician,

rather than the director of a Nursing Department (He, Gao, & Li, 2004). Under this management structure, nurses have less opportunity to participate in making decisions in the organization (Cao & Wang, 2008). They usually lack of the power and necessary information for self-development and have no chance to express their views and needs. In addition, less power results in nurses lack of autonomy, so that nurses' working enthusiasm is negatively influenced (Wang & Li, 2011). In addition, regarding Chinese culture, the long history has created a strong culture of collectivism in the Chinese people. They emphasized loyalty to the leader and organization to ensure the survival and effectiveness of the collective (Brislin, 1993). Randall (1993) argued that people from collectivistic cultures might experience higher levels of normative commitment than the people from individualistic cultures because they orientate toward group identity.

Yunnan province is located in southwestern China and has a moderate-low level of economic condition. Yunnan Bureau of Statistics in 2016 reported that the province' Gross Domestic Product (GDP) per capita was US$4,672.29 in 2015, which is much lower than the national GDP per capita which was US$7,943.21 (Yunnan Daily, 2016). Low economic development may indicate that the health service development is also lagging behind the national level (Yang, 2012). Yunnan Health Bureau (2015) stated that there were 110,000 Registered Nurses at the end of 2014. The ratio of nurse to per thousand people was 2.05: 1,000, which is lower than the national standard of 2.20: 1,000 (MoH, 2015). Yang et al. (2016) surveyed the ratio of bed to nurses and found it was 1:0.37 in 2014 in Yunnan Province, which is lower than the national standard of 1:0.6 (MoH, 2011). Whilst the ratio of physicians to nurses was 1:1.0 in 2014, which is also lower than national standard. The Ministry of Health of China stipulated that the ratio of physician to nurse was 1:2 in general units, for key units, the ratio should be 1:4 (Liu & Li, 2013). Simultaneously, the Yunnan Health Bureau stipulated the ratio of bed to population was 3.63 - 4.0:1,000 in 2015, yet the ratio was 4.77:1,000 which exceeded the standard from the statistic in 2014 (Yang et al., 2016). Therefore, it is obvious that there is a serious nursing shortage in Yunnan Province, P. R. China.

Nurses working in Yunnan perceived an imbalance of effort-reward in tertiary hospitals (Yan, 2012), which may influence their motivation to work, decrease nurses' continuance commitment and enhance more intention to leave the organization. Yan

(2012) also reported that nurses hardly participate in the decision-making process for their departments in Kunming. They cannot receive adequate information to get to know their hospitals. The nursing profession in Yunnan possess less power and autonomy than the medical profession (Geng, 2013). Lin (2012) examined nurses' fatigue in five tertiary hospitals in Yunnan, and found that nurses had a high level of lack of motivation, and were exhausted, overworked and disinterested in their work. Moreover, Luo (2011) studied burnout among nurses in tertiary hospitals in Yunnan, and found that the nurses had a high level of reduced personal achievement. In addition, Pu (2010) reported that nurses lack autonomy in tertiary hospitals. This implies that the nurses' motivation may not be high in Yunnan. In Dehong, 520 nurses from three secondary hospitals were surveyed and the results reported that the turnover intention was at a high level (Qin, Dao, & Wang, 2014). Therefore, nurses' organizational commitment may not be high in Yunnan.

Affiliated Hospitals of Dali University located in Yunnan Province consists of two tertiary hospitals: The Affiliated Hospital of Dali University and the Third People's Hospital of Yunnan Province. The Affiliated Hospital of Dali University is located in Dali Bai Minority Autonomous Prefecture, west of Yunnan. The Third People's Hospital of Yunnan Province is located in Kunming, which is the capital city of Yunnan Province. The bed number of each hospital is 1000. They serve as institute-affiliated medical centers that provide medical services for locals and outsiders, provide technical support to secondary and primary hospitals, and are responsible for medical education and scientific research in Yunnan. Both of them are Level-A tertiary hospitals. In China, tertiary hospitals are certified every four years, representing the highest level of medical care and receive mostly government financial support (MoH, 1989). Similarity, as university hospitals, they are required to have high productivity and good performance due to a large number of patients with diseases of severe clinical conditions (Zhang & Yang, 2007). It is believed that health resources and personnel of university hospitals are more competent than other hospitals. This reflects their good reputation.

The nurses working in these two affiliated hospitals have a high workload. One reason may come from the patients and relatives in Dali which have different customs and languages because there are so many minorities here, which underlies an increased

workload and a burden of medical care personnel (Liu, Yang, Zhang, Yang, & A, 2016). Moreover, recently, these two affiliated hospitals have rapidly developed and expanded, thus, an increased nursing workforce is urgently needed. The number of hospitalized patients outnumber the openly fixed beds, hence, additional beds are usually added for patients in some clinical departments without equally increasing nursing staff. During a typical work shift, a nurse who usually works in the evening and night shift may care for 20-30 patients in general units (Personal communication, 2016). In addition, nurses often complained that they received a lower salary when comparing to their efforts to other professions, some of them announced that if there were good alternatives provided for them, they would leave their organization. As Liu et al. (2016) observed that there was low satisfaction with remuneration among nurses in Dali, it may reduce their motivation at the work, increase their intention to leave the hospitals. Moreover, the nursing turnover rate is on the rise although there is no statistical data in the whole of Dali. The affiliated hospital of Dali University reported that the number of turnover was 17 nurses (3.26%) in 2014 to 27 nurses (4.83%) in 2015. The level of nurses' organizational commitment can be manifested by nurses' turnover status (Wagner, 2007). Recently, hospital administrators, in order to guarantee the quality of care that is cost-effective and retain nurses, have provided some opportunities for nurses to study abroad and training in some excellent hospitals.

As mentioned above, the nurses who are working in these two affiliated hospitals of Dali University are experiencing some difficult situations. These conditions which nurses encountered imply that there may be some problems about work motivation and organizational commitment among nurses in Yunnan province, but there is not even one study about the two variables in Yunnan Province. Thus, the condition of work motivation and organizational commitment is still unclear. This current study fills this gap by investigating the nurses of affiliated hospitals of Dali University. It is necessary to explore the level of work motivation and the level of each component of organizational commitment, whilst to examine the relationships between work motivation and each component of organizational commitment of nurses in affiliated hospitals of Dali University to help hospital and nursing administrators to improve hospital management.

Conceptual Framework

The conceptual framework of this study was based on Amabile's (1993) model of motivational synergy and Meyer and Allen's (1991) three-component model of commitment. Work motivation refers to a force to drive people by a passionate interest or external inducements to engage in what they do. It encompasses intrinsic motivation and extrinsic motivation. Organizational commitment refers to a psychological state that retains employee in the organization and is accompanied by a desire, a need or an obligation, which reflects the relative degree of an individual's identification with and involvement in the employment organization. It encompasses three components as affective commitment, continuance commitment and normative commitment. Having good work motivation may contribute to a full commitment of working as people felt a part of organization.