



Shu-Te University
College of Informatics
Graduate School of Information Management

Master Thesis

A Study on Relationship among Job
Autonomy, Supervisor Support, Task
Interdependence, Intrinsic Motivation and
Critical Reflective Working Behavior

Student : Tran Thai Hoa

Advisor : Dr. Gow Ming Dong

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ABSTRACT

The purpose of this study is to test the relationship between intrinsic motivation and critically reflective working behavior, particularly critical opinion-sharing dimension among individuals from a broad cross-section of job types among public employees with the objectives of contributing to self-determination theory and assisting public management practice and research. To obtain these purposes, the self-determination theory is considered as the basic one to propose the theoretical framework for this study. Therefore, in order to increase our knowledge of the quality of self-determination theory as a work motivation theory, an empirical study using self-administered survey questionnaire and statistical tools will be conducted to validate the proposed framework. The results demonstrates that three factors-job autonomy, supervisor support, job interdependence have positive impact critical reflective working behavior is mediated by intrinsic motivation. As a result, implications of the findings for managerial perspectives; and directions for future research are discussed.

Keywords: Motivation (psychology), Job satisfaction, Employee attitudes, Workplace learning, Critically reflective working behavior, Vietnam

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List of Abbreviations

ANOVA: Analysis of Variance

CET: Cognitive Evaluation Theory

FDI: Foreign Direct Investments

GDP: Gross Domestic Product

HRM: Human Resource Management

SDT: Self-Determination Theory

SPSS: Statistical Package for Social Sciences

Chapter 1 Introduction

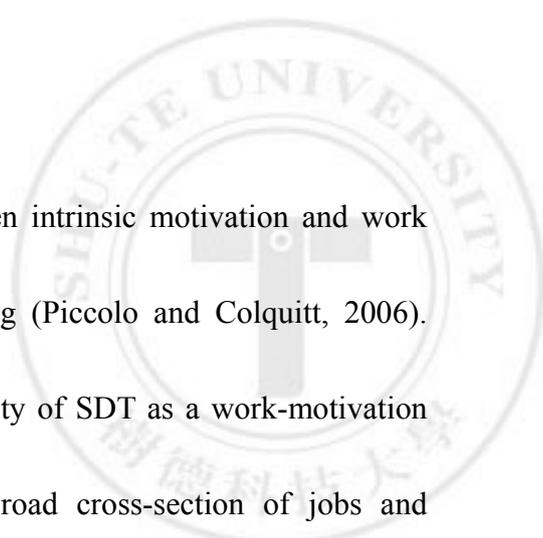
1.1 Research background

Since the nation's re-unification in 1975, the per capita GDP has been triple. It started taking off in 1988, two years after the implementation of Doi Moi economic policies. The transition process from a central planning to market oriented economy made Vietnamese people happy. In the five years of 1987-1991, per capita GDP grew 3% annually, on average. After that, economic grow approximately 6-7% p.a. for almost two decades. The Vietnamese economy remained stable throughout most of the 1990s. Annual GDP growth rates ranged from 8-9%, except the few last years when the Asian crisis worsened the regional economy. The recovery process took about four years. Vietnam's economic growth was 6.5% in 2004 again. This expansion continued to firm up till present. Although growth expectation of 2008 was reduced from 9% to 7% because of the national chaotic economic conditions, the nation still saw a 6.5% of GDP growth, in the first half. The plausible economic achievements of Vietnam had its deep roots in early days of the extensive reform. The introduction of the Law on Foreign Investment in 1987 was a milestone in Vietnam's reforming path. This Law encouraged and legitimized foreign direct investments (FDI) into Vietnam. Since 1988, FDI has always been a major driving economic force ([2, World Bank, 1998]). The relative

importance of FDI inflows to Vietnam's economy has so far been profound.

The competition economic environment in Vietnam is higher and working behavior is more important. But the research on working behavior in Vietnamese company is little. This study uses critical reflective working behavior dimension to measure working behavior. Critically reflective work behavior was defined as a set of connected activities carried out individually or in interaction with others, aimed at optimizing individual or collective practices, or critically analyzing and trying to change organizational or individual values. Based on the survey, an instrument was developed for measuring six dimensions of critically reflective work behavior, namely, critical opinion-sharing, asking for feedback, challenging group-think, openness about mistakes, experimentation and career awareness. In this study, critical opinion-sharing is concentrated.

Kuvaas (2006a) recently showed a strong relationship between intrinsic motivation and self-reported work performance among typical knowledge-workers. Such employees, however, may be much more energized by intrinsic motivation and the work itself when compared with more "ordinary" workers (Thomas, 2002). Furthermore, the recent review of self-determination theory (SDT) and work motivation by Gagne and Deci (2005) casts doubt on the performance implications of intrinsic motivation for less



complex or interesting tasks. Finally, the link between intrinsic motivation and work performance has received very little empirical testing (Piccolo and Colquitt, 2006). Thus, in order to increase our knowledge of the quality of SDT as a work-motivation theory, we need empirical research that spans a broad cross-section of jobs and functions in organizations. Furthermore, and despite the importance of motivation among public sector employees in an era of transformation to a more business-oriented approach, empirical research on public sector employee motivation has received relatively little attention (Manolopoulos, 2008).

1.2 Research purpose

The purpose of this study was to test the relationship between intrinsic motivation and work performance among individuals from a broad cross-section of job types among public sector employees with the objectives of contributing to SDT and assisting public management practice and research.

1.3 Research questions of study

The question in this study is: “What factors intrinsic motivation has?” “What is critically reflective work behavior?” Then, another questions were arise: “How motivation factors impact to critically reflective working behavior?”

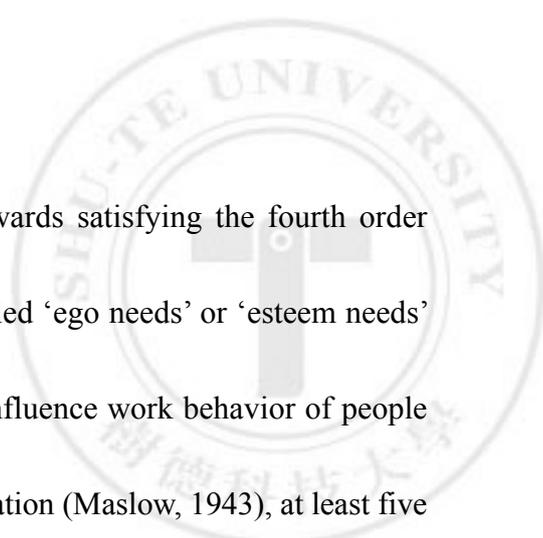
Chapter 2 Literature review

Motivation has been a central and perennial issue in the field of psychology, for it is at the core of biological, cognitive, and social regulation. More important, in the real world, motivation is highly valued because of its consequences: motivation produces. It is therefore of preeminent concern to those in roles such as manager, teacher, religious leader, coach, health care provider, and parent that involve mobilizing others to act (Ryan R.M. and Deci E.L., 2000). The theoretical issues related to motivation will be presented in this section.

2.1 Definitions of motivation

In the past, employees were considered just another input into the production of goods and services. What perhaps changed the way of thinking about employees was researched, referred to the Hawthorne Studies, was conducted by Elton Mayo from 1924 to 1932 (Dickson, 1973). That study found employees are not motivated solely by money and employee behavior is linked to their attitude (Dickson, 1973). The Hawthorne Studies began the human relations approach to management, through the needs and motivations of employees become the primary focus of managers (Bedeian, 1993).

Most of the working people have their physiological, security and belongingness

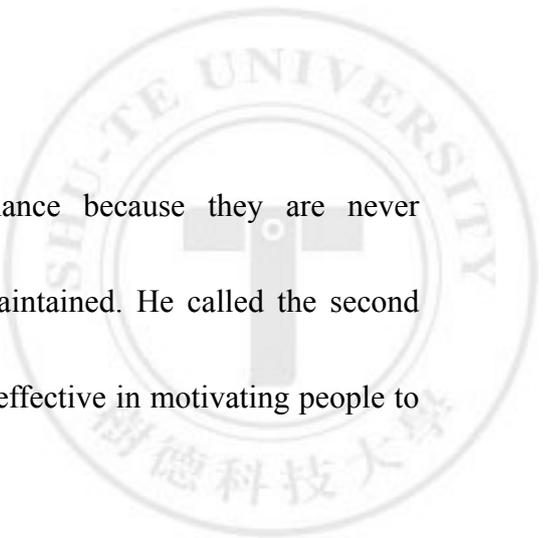


needs satisfied. Their behavior is mostly directed towards satisfying the fourth order needs of power, prestige and status. These are also called ‘ego needs’ or ‘esteem needs’ or ‘social motives’. These needs have been found to influence work behavior of people in different work settings. In a theory of human motivation (Maslow, 1943), at least five sets of goals are called basic needs. These are briefly physiological, safety, love, esteem, and self-actualization. These basic goals are related to each other, being arranged in a hierarchy of prepotency (Figure 2.1). This means that the most prepotent goal will monopolize consciousness and will tend of itself to organize the recruitment of the various capacities of the organism. The less prepotent needs are minimized, even forgotten or denied. But when a need is fairly well satisfied, the next prepotent (‘higher’) need emerges, in turn to dominate the conscious life and to serve as the center of organization of behavior, since gratified needs are not active motivators (Maslow, 2003).



Figure 1. Maslow's Hierarchy of Needs and Herzberg's Motivation- Hygiene Theory

Therefore, it can be said that the psychological meaning of motivation, it is the internal mental state of a person which relates to the initiation, direction, persistence, intensity, and termination of behavior (Landy and Becker, 1987). Derived from the Maslow's theory, Herzberg in hygiene theory found out that people have two different categories of needs in the work situation, and these are essentially independent of each other and affect behavior in different ways. He found that when people felt dissatisfied with their jobs, they were concerned about the environment in which they were working. On the other hand, when people felt good about their jobs, this had to do with the work of itself. Herzberg called the first three category of needs is hygiene or maintenance factors. Hygiene because they describe people's environment and serve their primary



function of preventing job dissatisfaction: maintenance because they are never completely satisfied – they have to continue to be maintained. He called the second category of needs, motivators since they seemed to be effective in motivating people to superior performance (MM Anwar, 2003).

Work Motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior, and to determine its form, direction, intensity and duration (T.J. Kamalanabhan, 2007).

Work motivation is the process that initiates and maintains goal-directed performance. It energizes our thinking, fuels our enthusiasm and colors our positive and negative emotional reactions to work and life (Clark, R. E., 2003). Motivation generates the mental effort that drives us to apply our knowledge and skills. Without motivation, even the most capable person will refuse to work hard. Motivation prevents or nudges us to convert intention into action and start doing something new or to restart something we've done before. It also controls our decisions to persist at a specific work goal in the face of distractions and the press of other priorities. Finally, motivation leads us to invest more or less cognitive effort to enhance both the quality and quantity of our work performance. So, motivational performance gaps exist whenever people avoid starting something new, resist doing something familiar, stop doing something important and

switch their attention to a less valued task, or refuse to “work smart” on a new challenge and instead use old, familiar but inadequate solutions to solve a new problem (Clark R. E., 1998).

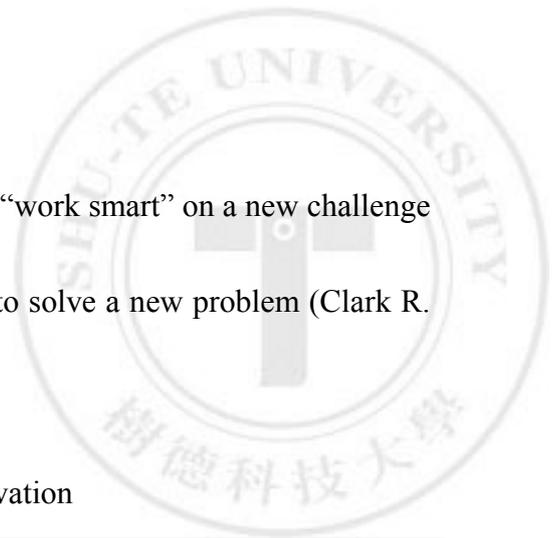
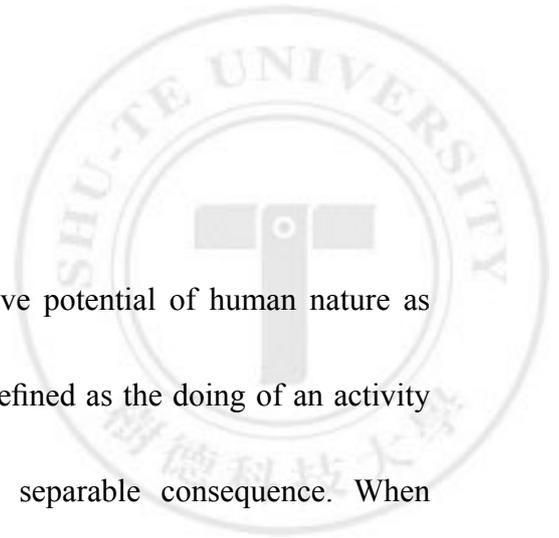


Table 1. Definition of motivation

Sources	Definitions
Douglas Mc Gregor	These assumptions which describe as Theory X, are, that most people prefer to be directed, are not interested in assuming responsibility, and want safety above all. Theory Y assumes that people are not, by nature lazy and unreliable.
David Mc Clelland	He studied the basic needs and concerns, people frequently express, and divided them into three groups.
Maslow	There are at least five sets of goals, which we may call basic needs. These are briefly physiological, safety, love, 'esteem, and self-actualization. Moreover, we are motivated by the desire to achieve or maintain the various conditions upon which these basic satisfactions rest and by certain more intellectual desires.
Fredrick Herzberg	Herzberg found out that people have two different categories of needs in the work situation, and these are essentially independent of each other and affect behavior in different ways.

2.2 Types of motivation

The issue of whether people stands behind a behavior out of their interests and values, or do it for reasons external to the self, is a matter of significance in every culture (e.g., Johnson, 1993) and represents a basic dimension by which people make sense of their own and others’ behavior (Heider, 1958). In summary, there are two types of motivation: intrinsic motivation and extrinsic motivation dicussed as following.



Intrinsic motivation

Perhaps no single phenomenon reflects the positive potential of human nature as much as intrinsic motivation. Intrinsic motivation is defined as the doing of an activity for its inherent satisfactions rather than for some separable consequence. When intrinsically motivated a person is moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards (Ryan R. M. and Deci E. L., 1999). The phenomenon of intrinsic motivation was the first acknowledged within experimental studies of animal behavior, where it was discovered that many organisms engage in exploratory, playful, and curiosity-driven behaviors even in the absence of reinforcement or reward (White, 1959). These spontaneous behaviors, although clearly bestowing adaptive benefits on the organism, appear not to be done for any such instrumental reason, but rather for the positive experiences associated with exercising and extending ones capacities.

Although intrinsic motivation is clearly an important type of motivation, most of the activities people do are not, strictly speaking, intrinsically motivated. To understand the motivation for those activities, we need to look more deeply into the nature and dynamics of extrinsic motivation.

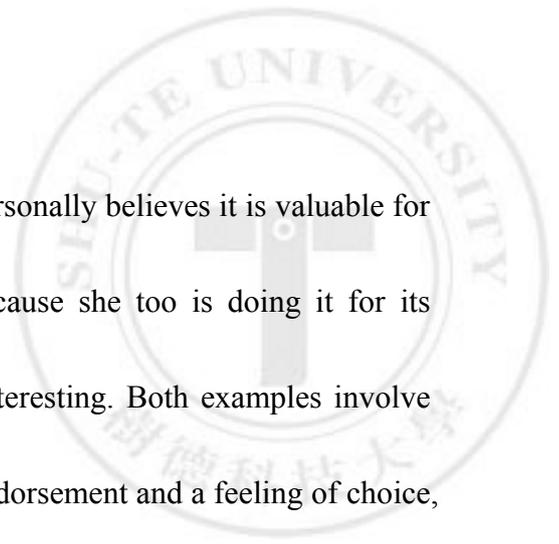
Table 2. Definition of Intrinsic motivation

Sources	Definitions
M. Ryan and Edward L. Deci	Intrinsic motivation is defined as the doing of an activity for its inherent satisfactions rather than for some separable consequence.
White	The phenomenon of intrinsic motivation was the first acknowledged within experimental studies of animal behavior, where it was discovered that many organisms engage in exploratory, playful, and curiosity-driven behaviors even in the absence of reinforcement or reward.

Extrinsic motivation

Extrinsic motivation pertains to a wide variety of behaviors where the goals of action extend beyond those inherent in the activity itself (Vallerand R.J., 1997).

Extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome. Extrinsic motivation thus contrasts with intrinsic motivation, which refers to doing an activity simply for the enjoyment of the activity itself, rather than its instrumental value. However, unlike some perspectives that view extrinsically motivated behavior as invariably non-autonomous, SDT proposes that extrinsic motivation can vary greatly in the degree to which it is autonomous (Ryan R. M. and Deci E. L., 1999). For example, a student who does his homework only because he fears parental sanctions for not doing it is extrinsically motivated because he is doing the work in order to attain the separable outcome of avoiding sanctions.

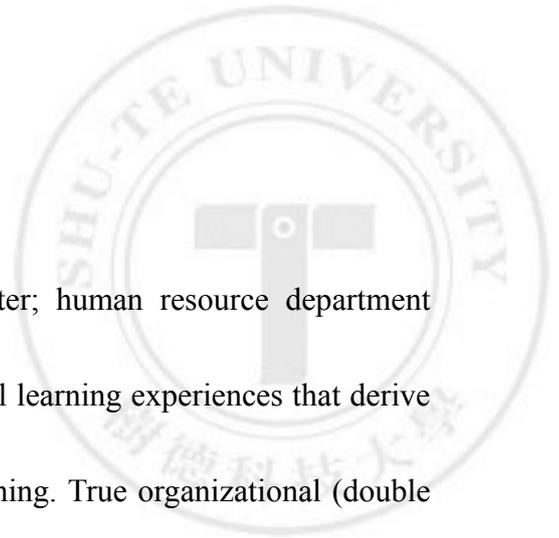


Similarly, a student who does the work because she personally believes it is valuable for her chosen career is also extrinsically motivated because she too is doing it for its instrumental value rather than because she finds it interesting. Both examples involve instrumentalities, yet the latter case entails personal endorsement and a feeling of choice, whereas the former involves mere compliance with an external control. Both represent intentional behavior, but the two types of extrinsic motivation vary in their relative autonomy.

Because extrinsically motivated behaviors are not typically interesting, the primary reason people initially perform such actions is because the behaviors are prompted, modeled, or valued by significant others to whom they feel attached or related (Ryan R. M. and Deci E. L., 2004). This suggests that relatedness, the need to feel belongingness and connectedness with others, is centrally important for internalization.

Table 3. Definition of Extrinsic motivation

Sources	Definitions
Robert J. Vallerand	Extrinsic motivation pertains to a wide variety of behaviors where the goals of action extend beyond those inherent in the activity itself.
Richard M. Ryan and Edward L. Deci	Extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome.

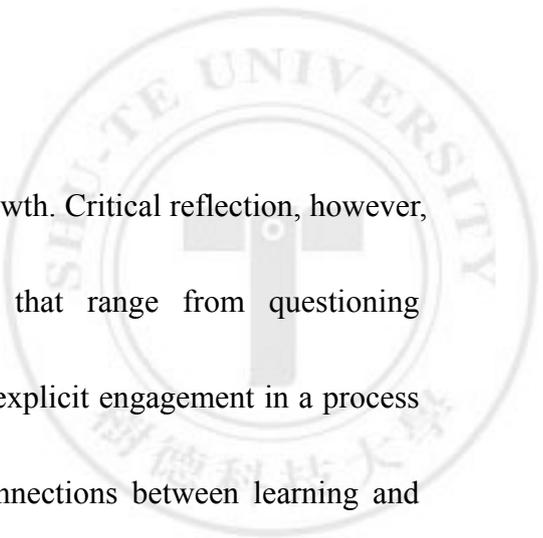


2.3 Critical reflection of working behavior

The transfer of training is a very complex matter; human resource department should focus more on how to make use of the informal learning experiences that derive from everyday working life, instead of on formal training. True organizational (double loop) learning can only happen when management and employees work in a critical reflective way. In order to work well, people must be able to put up for discussion their day to day work practices. It seems that critical reflection brings together the interests of both employers and employees. The benefits of critical reflection to the employee lie in the critical reflection itself, which gives him/her a feeling of self-determination, growing personal mastery and which will help him/her in career development. For the employer, however, it is the economic value of critical reflection that is of importance. Critical reflection is essential for continuous improvement, quality management and innovation – all matters those are vital in order to survive in a competitive economy (Van Woerkom M., 2002).As a result, it is very important to understand the definition of critical reflection of working behavior and its aspects in this part.

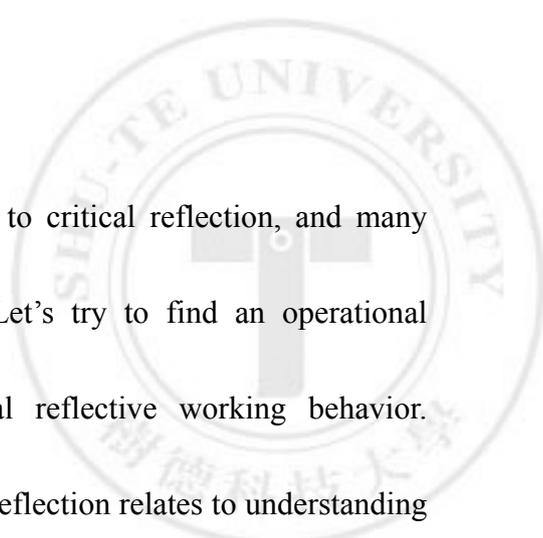
2.3.1 Definition of critical reflection

Critical reflection has been gaining advocates in recent years as a response to the critiques of reflection for being purely instrumental, overly individualized, or for

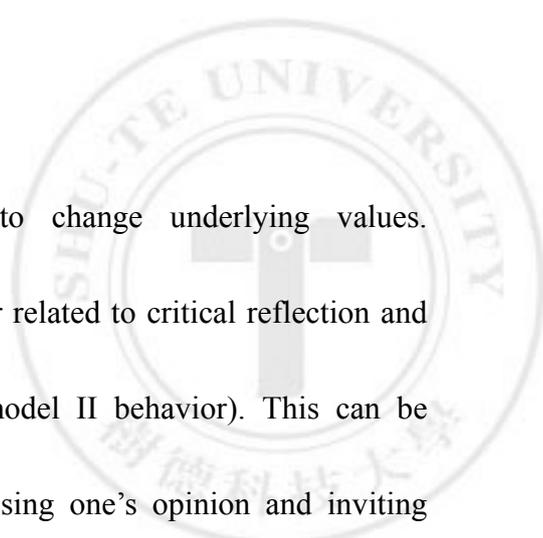


serving narrowly defined purposes of individual growth. Critical reflection, however, is a broadly interpreted term, with meanings that range from questioning assumptions and presuppositions, through to more explicit engagement in a process of drawing from critical perspectives to make connections between learning and work experiences, so as to better understand and ultimately change personal, interpersonal and organizational practices (Clare Rigg, Kiran Trehan, Jim Stewart, 2008).

After having identified critical reflection as an important aspect of successful working behavior, the concept of critical reflection needs to be defined (Van Woerkom M., 2002). What exactly is critical reflection and how can we describe critical reflective individuals in work organizations? As Brooks (1999) rightly remarks, because the concept of critical reflection has been developed within the context of theory or practice, rather than research (Brookfield, 1987), it has not been developed operationally and no instrument exists to identify individuals capable of critical reflection. Furthermore, scholars do not seem to agree on terminology and definitions. Some speak about critical reflection, while others speak of reflection, critical thinking, double loop learning, model II behavior, transformative learning, etc.

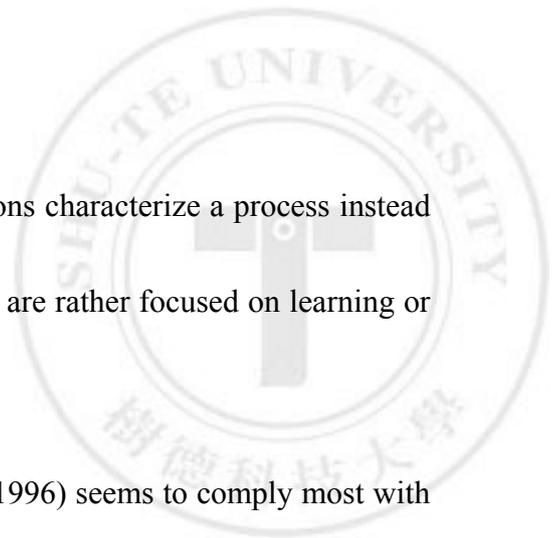


As said before, many concepts are related to critical reflection, and many definitions exist on what critical reflection is. Let's try to find an operational definition that can help us to measure critical reflective working behavior. According to Marsick and Watkins (1990) critical reflection relates to understanding one's own standards, goals, and interests, and learning about backgrounds, assumptions and performance objectives aimed at improvement. The research of Marsick and Watkins (1990) showed that critical reflection enabled people to challenge norms and to examine the assumptions behind their reasoning and actions. According to Brooks (1999) the ability to ask critical questions is fundamental to "informal critically reflective learning". "Making inquiries stands as the only method we have to break us out of the worldviews we take for granted." According to Brooks, critical reflection is useful for improving work practices, addressing moral and ethical dilemmas, and evaluating organizational goals and strategies. A practical means of assessing the value of critical reflection is to measure whether it improves work practices. The concept of double-loop learning that Argyris and Schon (1996) distinguished is closely related to critical reflection. Double-loop learning enables workers to identify, question and change the assumptions underlying workplace organization and patterns of interaction. Workers publicly



challenge workplace assumptions and learn to change underlying values. Furthermore, Argyris and Schon describe behavior related to critical reflection and necessary for double loop learning (so called model II behavior). This can be characterized by asking critical questions, expressing one's opinion and inviting others to give feedback or to confront visions, perspective taking and experimenting with new behavior and work methods. Non-defensive behavior is also part of model II behavior. Brookfield (1987) defined the process of critical thinking as the process by which we detect and analyze the assumptions that underlie the actions, decisions and judgments in our lives. Essentially it has three stages: first, becoming aware that these assumptions exist; second, making them explicit and third, assessing their accuracy and validity. Bolhuis and Simons (1999) define critical learning as learning that is consciously initiated by the learner out of dissatisfaction with earlier learning. What has been learned before has to be unlearned to make place for new knowledge, skills and attitudes. Critical learning can be seen as breaking down and building up.

This small sample proofs different characteristics of definitions and functions. Questioning assumptions seems to be a central aspect of most of the definitions, but is not being made concrete in an organizational context. Assessing the usefulness for the purpose of this research, a few problems emerge: most of these definitions are



indeed not very operational; most of these definitions characterize a process instead of a visible behavior; and most of these definitions are rather focused on learning or thinking than on working in an organization.

The model II behavior (Argyris and Schon, 1996) seems to comply most with the purpose of critical reflective working behavior-a survey research. For that research it is important to make critical reflection operational in terms of observable examples of critically reflective behavior in work organizations. Therefore the following definition of critical reflective working behavior is being made: critical reflective working behavior is a set of connected, individual activities, aimed at analyzing, optimizing or innovating work practices on individual, team, or organizational level (Van Woerkom M., 2002).

Table 4. Definition of critical reflective working behavior

Sources	Definitions
Marsick and Watkins	Critical reflection relates to understanding one's own standards, goals, and interests, and learning about backgrounds, assumptions and performance objectives aimed at improvement.
Brooks	The ability to ask (critical) questions is fundamental to "informal critically reflective learning".
Brookfield	The process of critical thinking as the process by which we detect and analyze the assumptions that underlie the actions, decisions and judgments in our lives.
Bolhuis and	Critical learning as learning that is consciously initiated by the

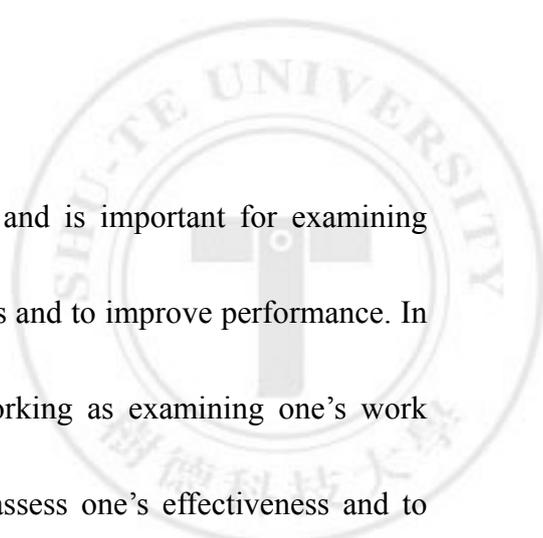
Simons	learner out of dissatisfaction with earlier learning.
Van Woerkom M.	Critical reflective working behavior is a set of connected, individual activities, aimed at analyzing, optimizing or innovating work practices on individual, team, or organizational level.

2.3.2 Dimensions of critical reflective working behavior

In 2002, Van Woerkom M. leads the operationalization of critically reflective working behavior in dimensions: reflection on oneself in relation to the job, learning from mistakes, vision sharing, challenging group-think, asking for feedback, experimentation, sharing knowledge, awareness of employability. However, in 2007, Van Woerkom M. had aspects of critically reflective working behavior: reflective working, openness about mistakes, asking for feedback, experimentation, critical opinion-sharing, challenging groupthink, career awareness.

Reflective working

Reflective working is easy to recognize in the literature on reflection in the workplace, and especially in Schon's (1987) theory about reflection-in-action and reflection-on-action. Reflection-on-action refers to thinking back on what one has done and experimenting in the mind by formulating new hypotheses. Reflection-in-action refers to thinking about what one is doing while one is doing it, when there are still opportunities to experiment with alternative approaches. Reflection is aimed at the assessment of assumptions implicit in beliefs about how to



solve problems (Mezirow and Associates, 1990) and is important for examining one's experience, in order to assess its effectiveness and to improve performance. In Van Woerkom M. study she defines reflective working as examining one's work experiences both in and after action in order to assess one's effectiveness and to improve performance.

Openness about mistakes

Despite the rather negative view of errors generally held in society and the severe consequences that workplace errors may have for individuals and organizations, from psychological perspective errors are great because they make it possible to learn (Keith and Frese, 2005). Errors may help to correct false assumptions, to break down premature or inadequate "routinization", and stimulate exploration and new discoveries. In a social context like the workplace, especially openness about mistakes is important. Chillarege et al. (2003) defined openness about mistakes is not being afraid to make errors. Our definition of openness about mistakes, however, also includes not covering mistakes up or reacting defensively when confronted with an error (Argyris and Schon, 1996), thus limiting possibilities for oneself and others in the organization to learn from them.

Asking for feedback

Reflection leads to consciousness of undesirable. Instead of denying these undesired matters, they are interpreted as something positive, namely as source for improvement or learning (Van Woerkom M., 2002). Reflection should be operationalized as an interactive, dialogical action (Vince, 2002), in which feedback from others is an important source for learning to occur (Annett, 1969; Ashford et al., 2003; Ashford and Tsui, 1991), asking for feedback is another important aspect of critically reflective work behavior. The functions of feedback are assumed to be cognitive as well as motivational. According to Swift and West (1998), the feedback search rate of a team is a useful indicator of reflectiveness, since it suggests that a group is sufficiently open in its interpretation of its world and functioning to value external feedback. Ashford and Tsui (1991) have operationalized the active feedback-seeking behavior of managers by discriminating between negative and positive feedback-seeking and between direct and indirect inquiry strategies. All these scales refer to feedback on performance. In this study, asking for feedback may, however, also refer to one's opinions, underlying values or criteria about what is important at work, thereby stimulating a discussion on the theories-in-use (Schon, 1983) that may stimulate double-loop learning.

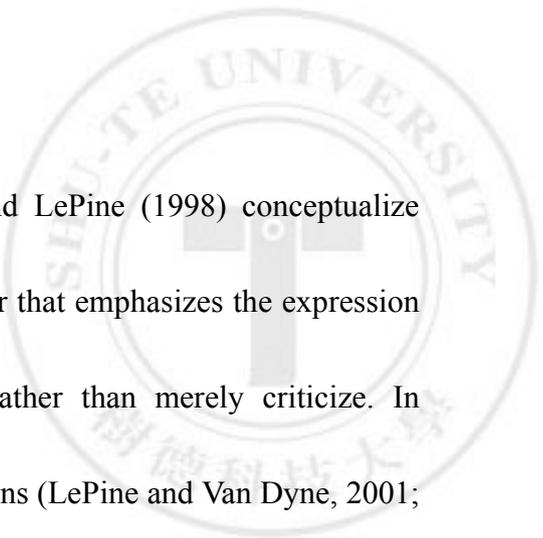
Experimentation

Experimentation is often mentioned as the last step in a reflection cycle (Kolb, 1984; Korthagen, 1985). According to Dewey, the founder of the concept of reflection, mere doing is not enough to produce learning: doing should become trying, an experiment with the world to find out what it is like. Schön (1987) distinguishes between reflection-on-action and reflection-in-action. Reflection-in-action is a kind of experimenting. The concept of reflection-in-action (Schon, 1983) is close to experimentation. When a person reflects in an action, he becomes a researcher in the practical context. He is not dependent on the categories of established theory and technique, but constructs a new theory of the unique case. Brookfield (1987) perceives “exploring and imagining alternatives” as one of the two central activities of critical thinking. Experimenting also relates to personal initiative: an individual’s active and self-starting approach to work and going beyond what is formally required in a given job (Fay, 1998; Fay and Sonnentag, 2002). The concept of personal initiative, however, is broader than experimenting, and more focused on organizational goals, whereas experimenting is focused on individual learning by trying out new ways of working.

Critical opinion-sharing

Whereas reflection is concerned with problem-solving and with answering “how to” questions, critical reflection is devoted to problem-posing and with answering “why” questions about the justification for the very premises on which problems are posed in the first place (Mezirow and Associates, 1990). Organizations are the place for espoused theories, general norms about what works that everybody agrees on (Schon, 1983). However, even if espoused theories do not work, people will be afraid to criticize them, for fear of appearing incompetent, being expelled from their professional group (Schon, 1983) or to avoid the problems and uncertainty of conflicts (Swieringa and Wierdsma, 1992). Thus, just as the process of critical reflection can be made possible through the assistance of others, because their feedback opens the learner up to other points of view, it also involves the ability to withstand social pressure. People who dare to criticize espoused theories are perceived as saying “the emperor wears no clothes” or as “troublemakers” (Brooks, 1999).

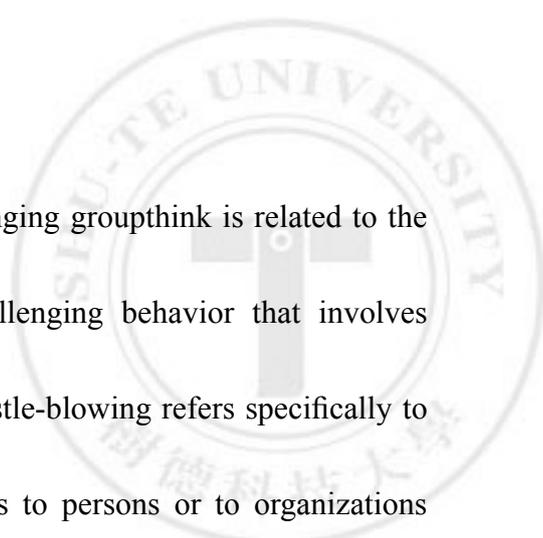
Critical opinion-sharing refers to an examination of social and political “taken-for-granted” (Reynolds, 1998) in the organization. Critical opinion-sharing is related to change-oriented forms of organizational citizenship behavior or



contextual performance, like voice. Van Dyne and LePine (1998) conceptualize voice in a harmonious model as promotive behavior that emphasizes the expression of constructive challenge intended to improve rather than merely criticize. In addition to expressing ideas, information and opinions (LePine and Van Dyne, 2001; Olson-Buchanan and Boswell, 2002; Van Dyne et al., 2003), in our study critical opinion-sharing also involves asking managers and colleagues critical questions about the organization.

Challenging groupthink

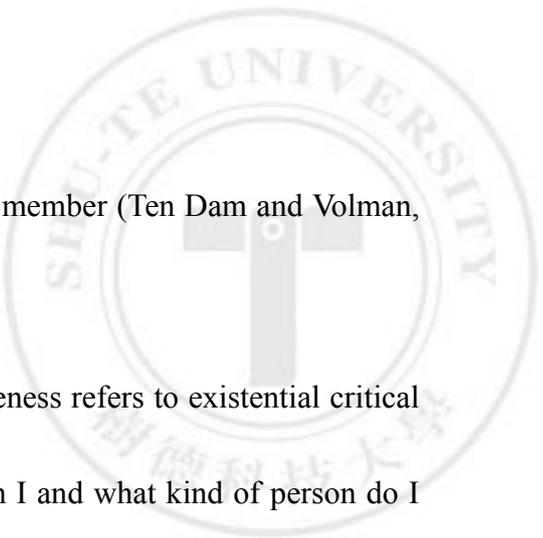
In literature on organizational learning, critical reflection on organizational values is often approached using harmonious models that do not involve conflict. A popular example of this is the concept of double-loop learning (Argyris and Schon, 1996). However, sometimes, critical reflection is approached using a conflict model in which individuals challenge groupthink, it cannot always be perceived as being positive (Brooks, 1999; Brookfield, 1987). Challenging groupthink is another important aspect of critical reflection, as the latter cannot always be based on harmony with the social environment. Groupthink refers to a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' striving for unanimity overrides their motivation to realistically appraise



alternative courses of action (Janis, 1972). Challenging groupthink is related to the concept of whistle-blowing, an example of challenging behavior that involves conflict (Van Dyne and LePine, 1998). While whistle-blowing refers specifically to reporting illegal, immoral or illegitimate practices to persons or to organizations who might be able to affect a remedy (Miceli and Near, 1988; Somers and Casal, 1994), challenging groupthink refers to the competency to express disagreement, even when everyone else is in agreement.

Career awareness

Career awareness can be seen as a practical implication of critical self-reflection aimed at the emancipation and identity formation of the individual in relation to the organization. Since learning transforms who we are and what we can do, it is not just an accumulation of skills, but an experience of identity – to become a certain person or, conversely, to avoid becoming a certain person (Wenger, 1998). Apart from a process of transforming knowledge, it thus also entails a context in which to define an identity of participation. Wenger (1998) stresses that communities of practice at the workplace are not intrinsically benevolent for the individual: they are the cradle of the self, but also the potential cage of the soul. Through critical self-reflection, people can learn to create one's own identity in the



communities and social practices of which one is a member (Ten Dam and Volman, 2002).

In Cunliffe's (2004) terminology, career awareness refers to existential critical reflexivity that is focused on the question "Who am I and what kind of person do I want to be in my work?" As a result of this, people become aware of their motives and the extent to which their jobs satisfy them. Career awareness refers to the intention to match self-development with career development, and, if necessary, to orient oneself towards opportunities outside one's current job or employer. Both organizations and the people who work in them do benefit from employable employees who ask themselves if they really want to follow the changes in their job or if they would not prefer to look for another job (Marianne van Woerkom, Wim J. Nijhof, Loek F.M. Nieuwenhuis, 2002). This means asking oneself fundamental questions about one's own identity as a member of the community of practice and the need for self-change (Marsick, 1988), aimed at self-realization and development.

There are many dimensions of critical reflective working behavior, but in this study, critical opinion-sharing is concentrated.

2.4 Theoretical background

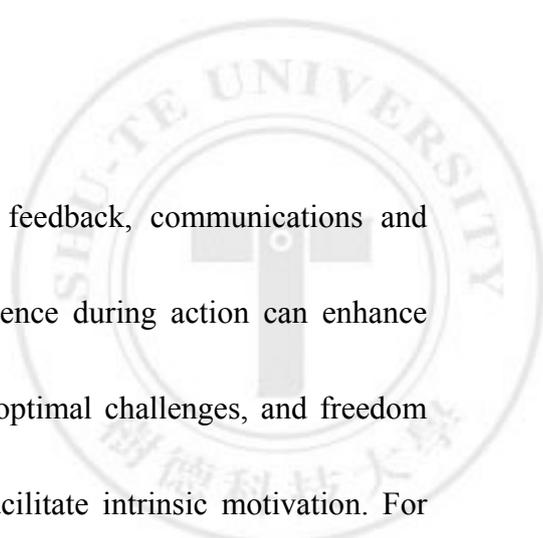
In this part, the fundamental theories as Cognitive evaluation theory (CET) and

Self-determination theory; the previous studies on the relationship between working motivation and critical reflection behavior will be reviewed to propose the theoretical framework for study.

2.4.1 Cognitive evaluation theory (CET)

Cognitive evaluation theory (CET) was presented by Deci and Ryan (1985) as a sub-theory within SDT that had the aim of specifying factors that explain variability in intrinsic motivation. CET is framed in terms of social and environmental factors that facilitate versus undermine intrinsic motivation, using language that reflects the assumption that intrinsic motivation, being inherent, will be catalyzed when individuals are in conditions that conduce toward its expression. In other words, it will flourish if circumstances permit. Put in this way, the study of conditions that facilitate versus undermine intrinsic motivation is an important first step in understanding sources of both alienation and liberation of the positive aspects of human nature.

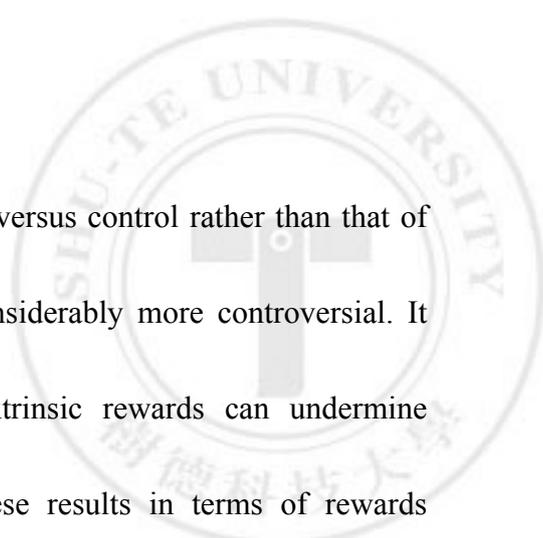
CET, which focuses on the fundamental needs for competence and autonomy, was formulated to integrate results from initial laboratory experiments on the effects of rewards, feedback, and other external events on intrinsic motivation, and was subsequently tested and extended by field studies in various settings. The theory



argues, first, that social-contextual events (e.g., feedback, communications and rewards) that conduce toward feelings of competence during action can enhance intrinsic motivation for that action. Accordingly, optimal challenges, and freedom from demeaning evaluations were all found to facilitate intrinsic motivation. For example, early studies showed that positive performance feedback enhanced intrinsic motivation, whereas negative performance feedback diminished it (Deci, 1975), and research by Vallerand and Reid (1984) showed that these effects were mediated by perceived competence.

CET further specifies, and studies have shown (Fisher, 1978; Ryan, 1982), that feelings of competence will not enhance intrinsic motivation unless accompanied by a sense of autonomy or, in attributional terms, by an internal perceived locus of causality (deCharms, 1968). Thus, according to CET, people must not only experience competence or efficacy, they must also experience their behavior as self-determined for intrinsic motivation to be in evidence. This requires either immediate contextual supports for autonomy and competence or abiding inner resources (Reeve, 1996) that are typically the result of prior developmental supports for perceived autonomy and competence.

In fact, most of the research on the effects of environmental events in intrinsic



motivation has focused on the issue of autonomy versus control rather than that of competence. Research on this issue has been considerably more controversial. It began with the repeated demonstration that extrinsic rewards can undermine intrinsic motivation. Deci (1975) interpreted these results in terms of rewards facilitating a more external perceived locus of causality (i.e., diminished autonomy). Although the issue of reward effects has been hotly debated, a recent, comprehensive meta-analysis (Deci, Koestner, & Ryan, 1999) confirmed, in spite of claims to the contrary by Eisenberger and Cameron (1996), that all expected tangible rewards made contingent on task performance do reliably undermine intrinsic motivation.

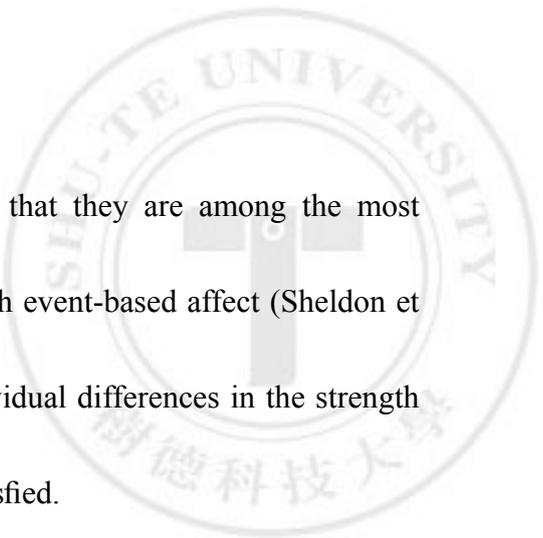
To summarize, the CET framework suggests that social environments can facilitate or forestall intrinsic motivation by supporting versus thwarting people's innate psychological needs. Strong links between intrinsic motivation and satisfaction of the needs for autonomy and competence have been clearly demonstrated, and some work suggests that satisfaction of the need for relatedness, at least in a distal sense, may also be important for intrinsic motivation. It is critical to remember, however, that people will be intrinsically motivated only for activities that hold intrinsic interest for them, activities that have the appeal of novelty,

challenge, or aesthetic value.

2.4.2 Self- determination theory (SDT)

Self-determination theory (SDT) is an approach to human motivation and personality that uses traditional empirical methods while employing an organismic metatheory that highlights the importance of humans' evolved inner resources for personality development and behavioral self-regulation (Ryan, Kuhl, & Deci, 1997). Thus, its arena is the investigation of people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes (Richard M. Ryan and Edward L. Deci, 2004). Inductively, using the empirical process, we have identified three such needs - the needs for competence (Harter, 1978; White, 1963), relatedness (Baumeister & Leary, 1995; Reis, 1994), and autonomy (deCharms, 1968; Deci, 1975) - that appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being.

Self-determination theory (SDT) suggests that the social environment influences intrinsic motivation through its impact on need satisfaction or perceptions of competence, autonomy and relatedness (Grouzet et al., 2004). These needs are



seen as universal necessities and studies suggest that they are among the most salient needs and those most closely associated with event-based affect (Sheldon et al., 2001). Moreover, the focus of SDT is not individual differences in the strength of these needs, but the degree to which they are satisfied.

The theory of self-determination (Deci and Ryan, 1985; Deci and Flaste, 1995) expects three factors in workplace conditions to have a distinct impact on motivation for working and learning, namely experience of social integration, experience of autonomy and experience of competence. People feel socially integrated if they believe that their work is acknowledged by their colleagues and superiors and if they feel integrated in the community of work. People experience autonomy when they have the feeling that they have the scope to act independently and to carry out their work according to their own planning and insights. People feel competent if they believe that they can carry out their work successfully and effectively. Another motivational component is the balance between insecurity and challenge in a situation (Maddi, 1970). A hypothesis in this research is that these motivational components all have a positive effect on critical reflective working behavior. However, the effect of social integration is still ambiguous. On the one hand feeling socially integrated will make it easier to be open, vulnerable and

critical. Also, social integration can make it more difficult to resist social pressure and to come up with new ideas, ask (critical) questions etc.

Table 5. Previous Studies SDT

Authors	Previous Studies	Years
Deci and Ryan	The general causality orientations scale: self-determination in personality”	1985
Deci, E.L.	Intrinsic Motivation	1975
Deci, E.L. and Ryan, R.M.	Intrinsic Motivation and Self-Determination in Human Behavior	1985
Sheldon, K.M., Elliot, A.J., Kim, Y. and Kasser, T.	What is satisfying by satisfying events? Testing 10 candidate psychological needs	2001
Ryan, R. and Deci, E.	Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being	2000
Grouzet, F.M.E., Vallerand, R.J.	From environmental factors to outcomes: a test of integrated motivational sequence	2004

Chapter 3 Research methodology

This chapter describes the methodology of the current research in order to response the research questions. As mentioned in the previous section, this study is attempted to investigate which attributes of working motivation influencing on critical reflective of working behaviors. This section discusses about the research framework and hypotheses; the quantitative methodology; the sampling method employed in this research; questionnaire design and data analysis procedures.

3.1 Research Framework and Hypotheses

From the above discussion on literature of both motivation and critical reflection, a framework was supposed as figure 2.2. with the objective that investigating the affecting factors of working motivation on critical reflection behavior in Vietnam companies.

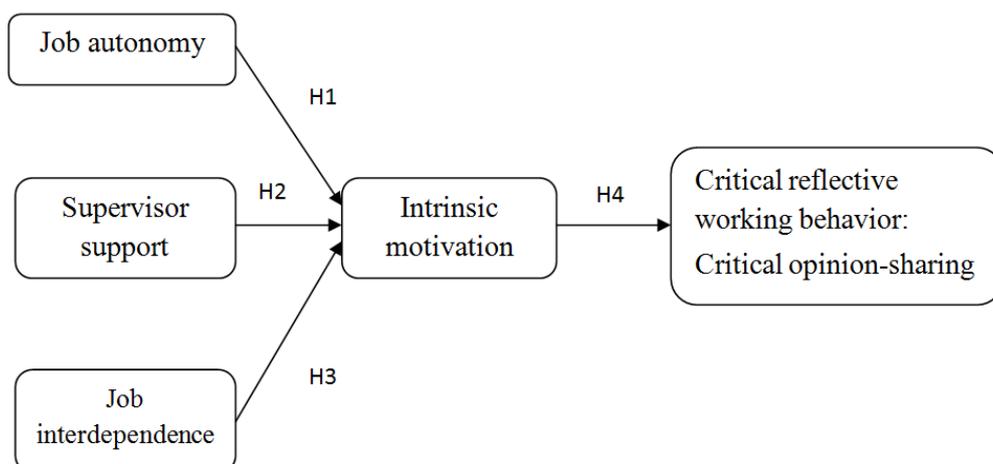
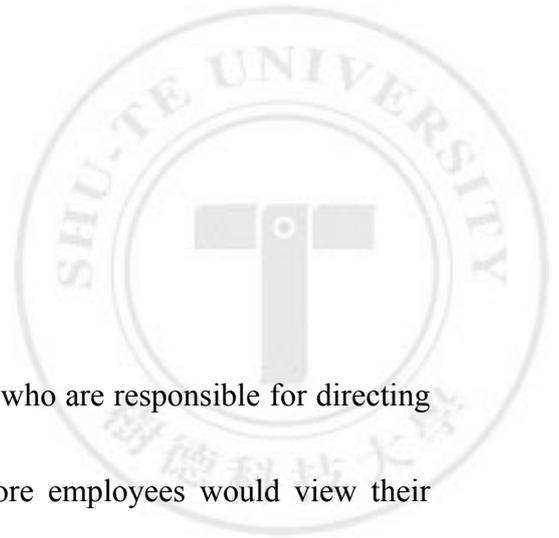


Figure 2. Theoretical framework of study



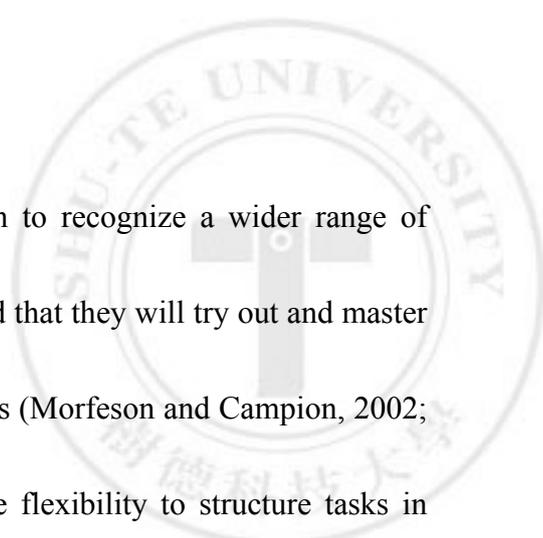
3.2 Hypotheses

3.2.1 Antecedents of intrinsic motivation

In organization, supervisors act as the agents who are responsible for directing and evaluating subordinate's performance, therefore employees would view their supervisor's favorable or unfavorable orientation toward them as indicative of working motivation. Several studies have found that manager's support leads to greater satisfaction of the needs for competence, relatedness and autonomy, and in turn, to favorable work behaviors or attitudes (Gagne and Deci, 2005); Piccolo and Colquitt, 2006). As a result, it can be seen that employee perception of supervisor support for development, competence and autonomy will increase intrinsic motivation through greater satisfaction of needs and autonomy and competence. Thus, the first hypothesis of this study is proposed as following:

H1: The relationship between supervisor support and critical reflective working behavior will be fully mediated by intrinsic motivation.

Motivation research has consistently found that job characteristics influence intrinsic motivation (Ambrose & Kulik, 1999). Many researches demonstrate that employee who perceived higher levels of autonomy report lower levels of overload (Moore, 2000) and derive greater satisfaction from their jobs (Guimaraes & Igbaria,



1992). Autonomy enhances employee's motivation to recognize a wider range of skills and knowledge as important for their jobs and that they will try out and master new task and integrate more task into their job roles (Morfeson and Campion, 2002; Parket, 2998). Autonomous employees possess the flexibility to structure tasks in ways they find intrinsically motivating and consequently derive greater pleasure from task performance (Wrzesniewski & Dutton, 2001). Job autonomy leads to the critical psychological state of "experienced responsibility of the outcomes of the work" and in turn, internal working motivation (Hackman and Oldham, 1976).

Therefore, it is hypothesized that:

H2: The relationship between job autonomy and critical reflective working behavior will be partly mediated by intrinsic motivation.

The last attributes of working motivation is task independence. Task independence reflects the degree to which the job depends on others in order to finish the work (Morgeson and Humphrey, 2003). Activities characterized by high levels of task independence may help to satisfy the need for relatedness which therefore increases intrinsic motivation. Research of Bachrach et al., 2006) suggests that task interdependence may increase communication, helping and information-sharing, organizational citizenship behavior, etc. In summary, task independence can

be seen as one of antecedent of intrinsic motivation aimed to contribute to explain the relationship between intrinsic motivation and critical reflective of working behavior.

H3: The relationship between task interdependence and critical reflective working behavior will be partly mediated by intrinsic motivation.

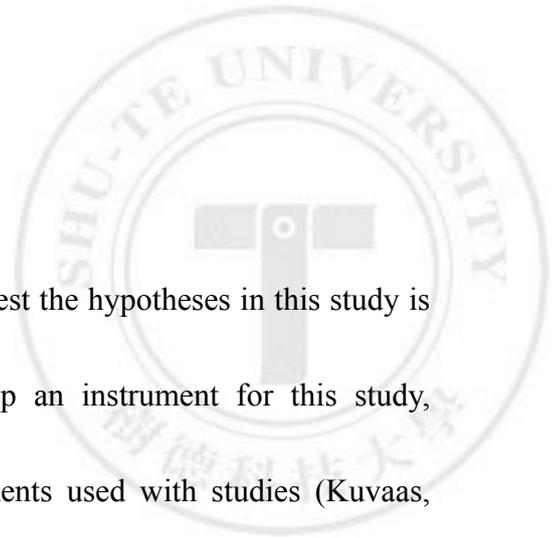
3.2.2 Intrinsic motivation and critical reflective of working behavior

The theory of self-determination (Deci and Ryan, 1985; Deci and Flaste, 1995) expects three factors in workplace conditions to have a distinct impact on motivation for working and learning, namely experience of social integration, experience of autonomy and experience of competence. Intrinsic motivation as a predictor of working behaviors is strongly supported by research in working employee in organizations (Callahan at al., 2003, Catley and Duda, 1997). In addition, a few of studies have found a positive relationship between intrinsic motivation and work performance in work organizations (Gagne and Deci, 2005; Kuvaas, 2007)

H4: Intrinsic motivation is positively related to critical reflective working behavior.

3.3 Quantitative Methodology

According to Yin (1994) the best approach to use for a study depends on the purpose of the study and the accompanying research questions. Indeed, the nature of the problem is an important factor to decide on better-suited approach. Therefore, to gain a better understanding of factors of intrinsic motivation on critical reflective of working behaviors, a quantitative study is well fit to fulfill these specified aims and objectives of research. In sense, a quantitative, consistent with the quantitative paradigm, is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalizations of the theory hold true (Creswell, 1994). Quantitative research is most often used in studies with clearly stated hypothesis that can be tested. This deductive path makes a distinction between science and personal experience and tends to concentrate more on description, explanation, generalization, and abstraction. It focuses on well-defined and narrow studies. Quantitative research strives to use a consistent and logical approach toward what is being investigated and uses statistical inferences and mathematical techniques for processing the data (Foster, 1998).



3.4 Instrument development

The main method for data collection on which to test the hypotheses in this study is a self-administered survey questionnaire. To develop an instrument for this study, previous literature was examined to identify instruments used with studies (Kuvaas, 2008; Woerkom and Croon, 2007) having similar objectives

Critical opinion-sharing (CO) is the one of the attributes of critical reflective of working behavior used in this study. It is related to change-oriented forms of organizational citizenship behavior or contextual performance. The items of this variable are shown as following (Woerkom and Croon, 2007):

- I come up with ideas how things could be organized differently here.
- I make suggestions to my supervisor about a different working method.
- I give my opinion about developments at work.
- I call this organization's policy into question.
- I put critical questions to my supervisor about working of this organization.
- I make suggestions to my colleagues about a different working method.

Supervisor Support (SS) is the efforts of supervisor to encourage the competence, relatedness and autonomy of employee. It includes a few of items derived from Kuvaas, 2007)



- My immediate supervisor supports the development of my professional skills (SS)
- My immediate supervisor lets me develop my competency (SS)
- My immediate supervisor contributes to my professional development (SS)
- My immediate supervisor helps me develop self-determination in my job
- My immediate supervisor stimulates me to make my own decisions about how to schedule my work (SS)
- My immediate supervisor makes me feel competent in performing my job (SS)
- My immediate supervisor expresses confidence in my abilities (SS)

Job autonomy (JA) includes statements which are a wide range of skill and knowledge of employee (Kuvaas, 2008)

- The job provides me with significant autonomy in making decisions (JA)
- The job gives me a chance to use my personal initiative or judgement in carrying out the work (JA)
- The job allows me to make decisions about what methods I use to complete my work (JA)
- The job gives me considerable opportunity for independence and freedom in how I do the work (JA)

Task independent (TI) is the degree to which the job depends on to complete their

work. The latent variables of this constructs are adapted from Kavaas, 2008

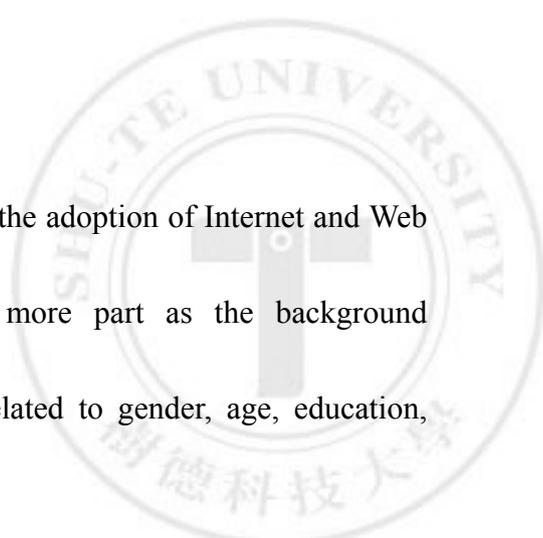
- Other jobs depend directly on my job (TI)
- Unless my job gets done, other jobs cannot be completed (TI)
- The job requires me to accomplish my job before others complete their job (TI)
- The job activities are greatly affected by the work of other people (TI)
- The job depends on the work of many different people for its completion (TI)

Intrinsic motivation (IM) refers to motivation that comes from inside an individual.

The motivation comes from the pleasure one gets from the task itself or from the sense of satisfaction in completing or even working on a task. Its scales are also taken from the study of Kavaas, 2008

- My job is meaningful
- The tasks that I do at work it represent a driving power in my job
- My job is so interesting that it is a motivation in itself
- I feel lucky being paid for a job I like this much

For all the above listed scales, the respondents were requested to give a score to each of the totally 26 attributes on the levels of agreement separately using a five- point Likert's scale ranging from “strongly disagree”, coded as one, to “strongly agree”, coded as five.



Apart from the part of evaluating the factors affecting the adoption of Internet and Web technology, the questionnaire is involved in one more part as the background information of respondents to get the information related to gender, age, education, working experience, etc

3.5 Data collection method

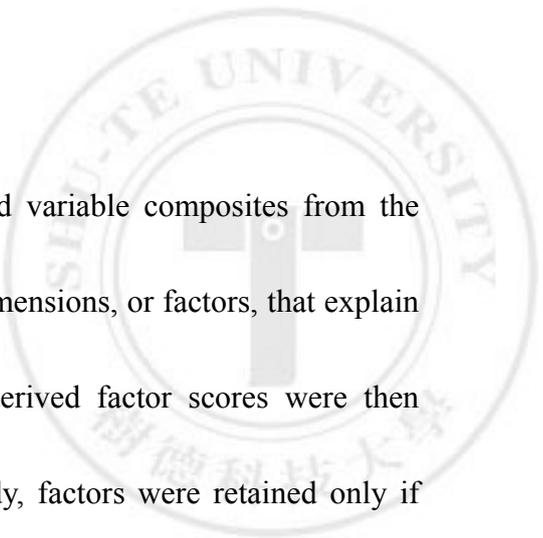
To strengthen its validity and consider its suitability with the Vietnam context, the questionnaire is translated from English to Vietnamese, then was examined by two general directors and three human resource managers of 5 companies in Vietnam.

To examine the intrinsic motivation factors influence critical reflective of working behaviors, the target population was focused on full-time employee in companies in Ho Chi Minh City during the period time from April, 2009 to May, 2009. Totally 192 questionnaires were randomly delivered to the staff by email.

3.6 Data analysis method

After sorting out the invalid questionnaires, data were coded, computed, and analyzed using the Statistical Package for Social Sciences (SPSS).

Statistical analyses such as frequencies, descriptive, factor analysis, correlation analysis, multiple regression, Analysis of Variance (ANOVA) were used according to the respective objectives of the study.



Factor analysis was conducted to create correlated variable composites from the original 26 attributes and to identify a smaller set of dimensions, or factors, that explain most of the variances between the attributes. The derived factor scores were then applied in subsequent regression analysis. In this study, factors were retained only if they had values greater than or equal to 1.0 of eigenvalue and a factor loading greater than 0.5.

Analysis of Variance (ANOVA) was used to identify the differences in the overall satisfaction of tourists' in terms of tourists' demographic characteristics and travel behavior characteristics.

Multiple regression analysis was used to test the hypotheses of the study. The mutually relationship between the independent and dependent variables will be checked by multiple regression analysis.

Chapter 4 Data Results and Discussion

4.1 Data result and finding

4.1.1 Demographics statistics

In the table below 4.1, the characteristics of gender are summarized. The greater number of male was 97 (50.5%), female was 95 (49.5%). The percent of male is quite the same with female. The gender of this study is equal.

There are 23.4% of people are 26-30 years old, 63.5% of object are 21-25 years old. The age of the object is young.

There are 72.4% is bachelor, after that is post graduate, 14.6 %. Student is 6.8%. Totally, 93.8% of object is well education.

About their major, environment is 26.6%, telecommunication is 21.9%, and informatics is 8.9%. More than 57.4% of object is technical person.

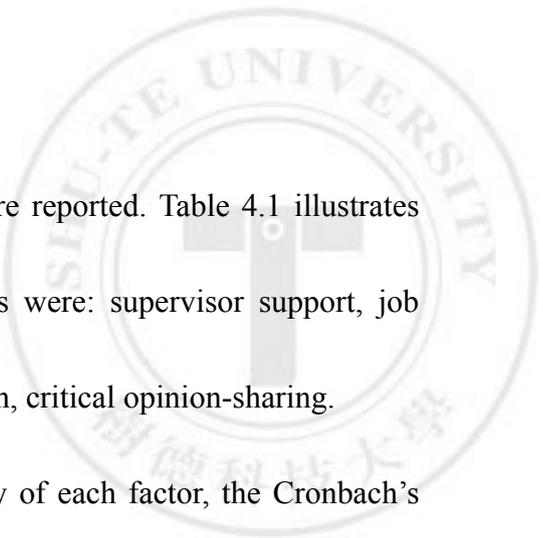
Their working experience is 1-3 years, 37.7%; 3-5 years is 28.3%. More than 66.0% of them work more than 1 year.

Table 6. Demographics statistics

	Categories	N	Percentage
Gender	Male	97	50.5
	Female	95	49.5
Age	18-20	3	1.6
	21-25	120	63.5
	26-30	45	23.4
	31-35	13	6.8
	35-40	7	3.6
	41-45	2	1
	>46	2	1
	Education	Student	13
Bachelor		139	72.4
Post graduate		28	14.6
Others		2	5.2
Major	Math-computing	2	1
	Informatics	17	8.9
	Physics	2	1
	Telecommunication	42	21.9
	Chemistry	13	6.8
	Biology	3	1.6
	Geographic	1	0.5
	Environment	51	26.6
	Others	61	31.8
Working Experiences	Less than 1 year	41	21.5
	1-3 years	72	37.7
	3-5 years	54	28.3
	Over 5 years	24	12.6

4.1.2 Factor analysis

The principal components factor method was used to generate the initial solution. The eigenvalues suggested that a five- factor solution explained 55.35% of the overall variance after rotation. This means that 44.65% of information about the eight variables is lost. The factors with eigenvalues greater than or equal to 1.0 and



attributes with factor loadings greater than 0.5 were reported. Table 4.1 illustrates the results of the factor analysis. The five factors were: supervisor support, job autonomy, task interdependence, intrinsic motivation, critical opinion-sharing.

To test the reliability and internal consistency of each factor, the Cronbach's alpha of each was determined. The results showed that the alpha coefficients ranged from 0.74 to 0.84 for five factors. The results were considered more than reliable, since 0.50 is the minimum value for accepting the reliability test (Nunnally, 1967).

The five factors underlying intrinsic motivation factors and critical opinion-sharing are as follows:

Table 7. Result of factors analysis

Attributes	Factor Loading					Comm- unality
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
SS1	0.76					0.62
SS2	0.71					0.62
SS3	0.64					0.50
SS4	0.72					0.58
SS5	0.71					0.62
SS6	0.60					0.51
SS7	0.54					0.46
JA1		0.66				0.62
JA2		0.72				0.62
JA3		0.72				0.62
JA4		0.75				0.64
IM1			0.60			0.55
IM2			0.76			0.44
IM3			0.78			0.78
IM4			0.78			0.74
TI2				0.54		0.56
TI3				0.85		0.71
TI4				0.81		0.73
TI5				0.52		0.70
OS1					0.76	0.72
OS2					0.66	0.61
OS5					0.69	0.57
Eigenvalue	3.80	3.33	2.82	2.23	2.21	
Variance (%)	14.61	12.82	10.83	8.59	8.49	
Comulative variance (%)	14.61	27.43	38.26	46.85	55.35	
Cronbach alpha	0.84	0.82	0.81	0.74	0.79	
Number of items	7	4	4	5	6	

Factor 1- Supervisor support contains six attributes and explains 14.61% of variance in the data, with an eigenvalue of 3.80 and with a reliability of 0.84. The statements associate with this factor dealt with the supervisor support items,

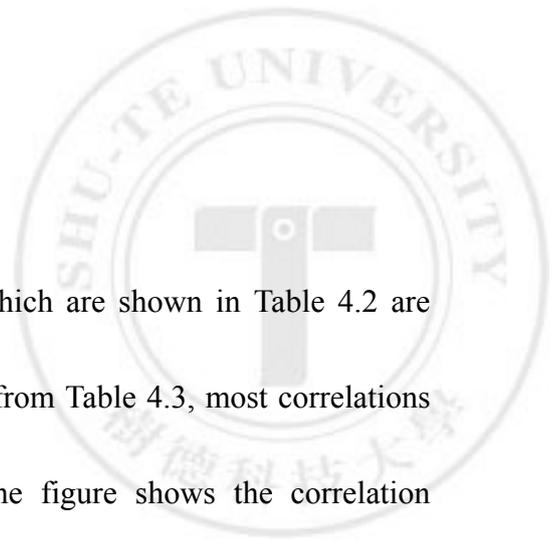
including “SS1”, “SS2”, “SS3”, “SS4”, “SS5” and “SS6”.

Factor 2- Job autonomy contains four attributes and explains 12.82% of variance in the data, with an eigenvalue of 3.33 and with a reliability of 0.82. The statements associate with this factor dealt with the job autonomy items, including “JA1”, “JA2”, “JA3”, “JA4”.

Factor 3- Intrinsic motivation contains four attributes and explains 10.83% of variance in the data, with an eigenvalue of 2.82 and with a reliability of 0.81. The statements associate with this factor dealt with the intrinsic motivation items, including “IM1”, “IM2”, “IM3”, “IM4”.

Factor 4- Task interdependence contains four attributes and explains 8.59% of variance in the data, with an eigenvalue of 2.23 and with a reliability of 0.74. The statements associate with this factor dealt with the task interdependence items, including “TI1”, “TI2”, “TI3”, “TI4”.

Factor 5- Critical opinion-sharing contains three attributes and explains 8.49% of variance in the data, with an eigenvalue of 2.21 and with a reliability of 0.79. The statements associate with this factor dealt with the critical opinion-sharing items, including “OS1”, “OS2”, “OS5”.



4.1.3 Correlation Coefficient

The relationships between each construct which are shown in Table 4.2 are tested by using Bivariate correlation analysis. As from Table 4.3, most correlations are positive and relatively strong. Especially, the figure shows the correlation coefficient of all the five constructs as “SS”, “JA”, “TI”, “IM” and “OS” with itself are all positive and significant at the 0.001 level (2-tailed). This indicates that the organization not only excel in one area but also likely to excel in other area. The five factors have a very strong correlation among itself.

Table 8. Bivariate correlations among variables

	Mean	SD	SS	JA	TI	IM	OS
Supervisor Support (SS)	4.04	0.64	1				
Job Autonomy (JA)	3.88	0.72	0.43**	1			
Task Interdependence (TI)	3.67	0.72	0.41**	0.33**	1		
Intrinsic Motivation (IM)	3.51	0.73	0.39**	0.42**	0.44**	1	
Critical opinion- sharing (OS)	3.88	0.66	0.39**	0.54**	0.33**	0.45**	1

** . Correlation is significant at the 0.001 level

*. Correlation is significant at the 0.05 level

4.1.4 One-way ANOVA analysis

ANOVA was used to find out which of the factors differed significantly across the groups or discriminated the groups (Field, 2005).

The requirement is to test the mean difference in each construct between the

experiences of employees in the organization. The responses are classified into four categories as “Less than 1 year”, “1-3 years”, “3-5 years”, “Over 5 years”. Consequently, it is suitable to use one-way ANOVA test as a method to check the mean difference of the above five. The final results are represented as Table 4.4.

The results, as presented in the above table, express significant between different working experience because its p-value is smaller than 0.05. This proves that the people who have difference working experience will have the different perceptions of motivations and working behavior. The mean values of task interdependence are 3.54, 3.68, 3.80 and 3.54 according to working experience, these numbers do not have gaps, and it means that task interdependence is not impacted by working behavior.

Table 9. ANOVA test for the composite variables based on the working experiences

Variables	Working experience				F	P-value
	Less than 1 year	1-3 years	3-5 years	Over 5 years		
Supervisor Support (SS)	3.88	4.00	4.25	4.02	2.97	0.03
Job Autonomy (JA)	3.59	3.84	4.09	4.03	4.36	0.01
Task Interdependence (TI)	3.54	3.68	3.80	3.54	1.32	0.27
Intrinsic Motivation (IM)	3.10	3.53	3.74	3.67	7.10	0.00
Critical opinion- sharing (OS)	3.63	3.82	4.12	3.99	5.15	0.00

4.1.5 Hypotheses testing

H1: The relationship between supervisor support and critical reflective working behavior will be fully mediated by intrinsic motivation.

H2: The relationship between job autonomy and critical reflective working behavior will be partly mediated by intrinsic motivation.

H3: The relationship between task interdependence and critical reflective working behavior will be partly mediated by intrinsic motivation.

As can be seen from table 4.5, hypothesis H1, that supervisor support will positive influence intrinsic motivation ($\beta= 0.16$ at $p<0.05$); hypothesis H2, that job autonomy will positive influence intrinsic motivation ($\beta= 0.26$ at $p<0.05$); hypothesis H3, that task interdependence will positive influence intrinsic motivation ($\beta= 0.29$ at $p<0.05$) were all supported. As in almost all innovative endeavors in the organization, supervisor support is extremely important. Supervisor support includes a commitment to support the technology, the daily work, the relationship between staffs, and the home life also, etc., at all levels of the organization. Intrinsic motivations help employee not only connect but also make them satisfy with organization. Job autonomy makes workers think they are owner of their job. They can make a decision whenever they think they right. As the results, they create new

value, and that motivate them. Task interdependence firstly makes staff understand their job. The connection with others colleague task make them responsible for their task. And then, the staffs think they are important, their values are recognized, that encourage the staffs working.

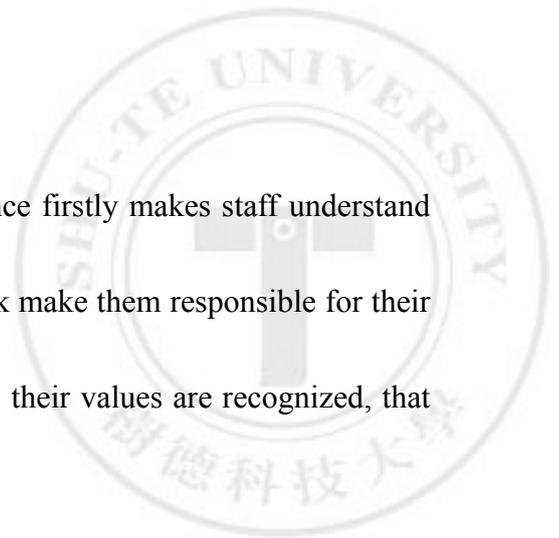


Table 10. Results of Hypotheses 1, 2, 3 testing

Dependent variable: Intrinsic motivation (IM)

Independent variable: Three factors: Supervisor Support (SS); Job autonomy (JA); Task independence (JI)

Model summary

R	R ²	Adjusted R ²	Std. Error
0.545	0.297	0.286	0.62

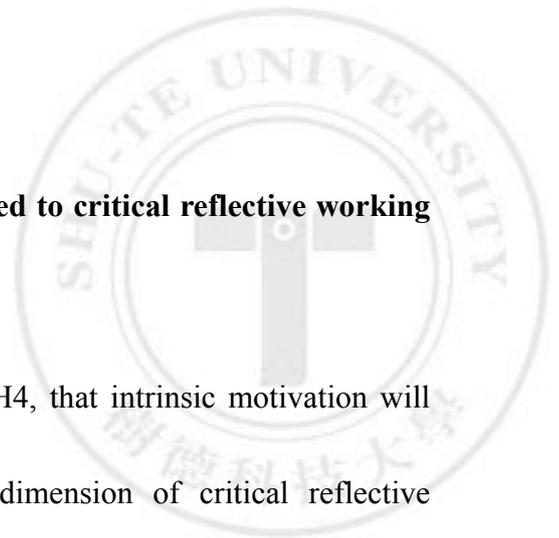
Analysis of variance

	Sum of square	df	Mean square	F	P-value
Regression	30.455	3	10.152	26.528	0.000
Residual	71.943	188	0.383		
Total	102.398	191			

Regression Analysis

Independent variables	Beta	t	p-value
(Constant)		2.06	0.04*
Supervisor Support (SS)	0.16	2.26	0.03*
Job Autonomy (JA)	0.26	3.73	0.00**
Task Independence (TI)	0.29	4.23	0.00**

Note: *p<0.05.**<0.001



H4: Intrinsic motivation is positively related to critical reflective working behavior.

As can be seen from table 4.6, hypothesis H4, that intrinsic motivation will positive influence critical opinion-sharing, the dimension of critical reflective working behavior ($\beta= 0.446$ at $p<0.001$). Intrinsic motivation is a self-energy for employee working. Motivation makes employee satisfy to their job, and then form their behavior of working. Critical reflective working behavior has critical opinion-sharing. Workers are not affair to tell their opinion, means that they are motivated.

Table 11. Result of Hypothesis 4 testing

Dependent variable: Critical- opinion sharing (OS)

Independent variable: Intrinsic motivation (IM)

Model summary

R	R ²	Adjusted R ²	Std. Error
0.446	0.199	0.194	0.59

Analysis of variance

	Sum of square	df	Mean square	F	P-value
Regression	16.54	1	16.54	47.077	0.000
Residual	66.75	190	0.351		
Total	83.29	191			

Regression Analysis

Independent variables	Beta	t	p-value
(Constant)		11.754	0.000**
Intrinsic motivation	0.446	6.861	0.000**

Note: **p<0.001

4.2 Discussion

The purpose of this study was to test the relationship between antecedents of intrinsic motivation and critical reflective of working behaviors, particularly critical opinion sharing. Although SDT is based on a strong empirical foundation, there have been relatively few studies that have tested the theory within an organizational setting (Gagne and Deci, 2005). In this study, SDT research has typically investigated both the determinants of the antecedents of intrinsic motivation (Grouzet et al., 2004), and examined both determinants and the consequence of intrinsic work motivation in an organizational setting.

First of all, this study examined the relationship between IT workers' intrinsic motivation and its antecedents (H1, H2, H3). The findings of this study suggest that job autonomy, supervisor support for competence, development and autonomy, and task interdependence, positively influence intrinsic motivation (p-values<0.05). After that, this study examined the influence of intrinsic motivation on critical reflective of

working behaviors (H4). The result also witnesses that intrinsic motivation positively affected on critical opinion sharing ($p\text{-value} < 0.05$).

This research has important implications for both academics and practitioners. This study underlines the importance of examining intrinsic motivation as a construct distinct from intrinsic job characteristics. Analysis suggests that intrinsic motivation's influence on employee working behavior and affective organizational commitment is distinct from job characteristics. Hence, intrinsic motivation can be considered as an important construct that is worthy for further theoretical and empirical attention when examining employee working with many different attributes of working behaviors.

Chapter 5 Conclusions

5.1 Conclusion of study

The purpose of this study is to test the relationships between intrinsic motivation and critical reflective working behavior in Vietnamese organizations. The results shown in chapter four concludes that job autonomy, supervisor support, and task interdependence, positively impact intrinsic motivation. The results indicate support for the SDT position that the social environment affects intrinsic motivation through its impact on the needs of satisfaction or perceptions of working characteristics. While SDT provides a detail theory of basic human motivation methods, including the differences between intrinsic motivation and a different levels of autonomous extrinsic motivation, this research supports the implications of SDT regarding the importance of work climates characterized by support for autonomy, competence and relatedness across different tasks and functions that demonstrate how interesting, important, complex, challenging and meaningful they are.

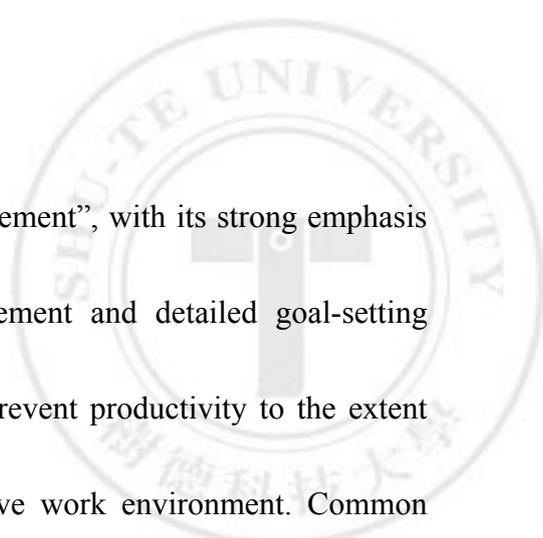
SDT is based on a strong empirical foundation but there have been relatively few studies that have tested the theory within organizational settings (Gagne and Deci, 2005). As the result, this research contributes to SDT by obtaining support for hypotheses derived from it among a sample of public sector employees from a broad

cross-section of job types and supports the use of SDT as a theory of work motivation.

In combination with an instrument measuring organizational climate, the instrument may play a role in relating the work behavior of employees to job characteristics and perceptions of organizational climate (Van Woerkom, 2003). Conceptualizations of critical reflection often express ideals for deeper, better and more liberating ways of learning and can therefore be seen as created approaches to education (Reynolds, 1998) or as the hope of pedagogies (Freire, 1994), rather than as theories about learning processes that rely on empirical research. One way of keeping the concept of critical reflection from the dangers of loss of meaning is to maintain a constant debate around it and the ways where it is understood and practiced (Brookfield, 2000). Our operationalization of critical reflective work behavior may feed the discussion on what critical reflection in work organizations entails in practice and how worker and organizations may have benefit from it.

5.2 Contribution of study

This research may contribute to public management research and practice. Consistent with recent finding based on Greek sample of public employees (Manolopoulos, 2008), the results achieve here underline the importance of intrinsic motivation among public sector employees in Vietnamese company. As the result, from



a motivational point of view, “hard new public management”, with its strong emphasis on management by objectives, performance management and detailed goal-setting schemes (e.g. Christensen and Lægreid, 2007), can prevent productivity to the extent that it may represent a threat to autonomy supportive work environment. Common arguments are found in human resource management (HRM) research on “soft”, progressive, high-commitment, and high-involvement or “best practice” of HRM, which basically proposes that superior organizational performance, is achieved when workers exert themselves on behalf of the organization (Guest, 1997; Purcell, 1999). Unlike controlling and hard HRM, this perspective views the completion of staff needs as an end in itself (e.g. (Guest, 1997) and pertains to autonomous, flexible and empowering work systems that rest primarily on employees’ self-regulated behavior and discretionary effort (e.g. Arthur, 1994; Pfeffer, 1998a; Truss et al., 1997). This way of thinking is perhaps best explained by Pfeffer and Veiga (1999), who suggest that “Simply put, people work harder because of the increased involvement and commitment that comes from having more control and say in their work; people work smarter because they are encouraged to build skills and competence; and people work more responsibly because more responsibility is placed in hands of employees further down in the organization”. Whether such “best practices” have these types of favorable

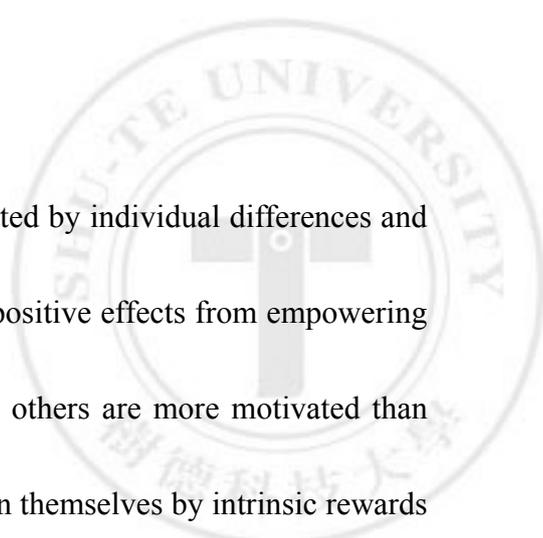
outcomes in individual organization is widely debated (Wright and Boswell, 2002).

As above discussion, critical reflective working behavior is a set of connected activities carried out individually or in interaction with other staffs, aimed at optimizing individual or collective practices, or critically analyzing and trying to change organizational or individual values (Van Woerkom, 2003). Van Woerkom have identified six dimensions of critical reflective working behavior, namely critical opinion-sharing, openness about mistakes, challenging groupthink, asking for feedback, experimenting and career awareness. The concept of critical reflective working behavior can function as a bridge between individual and organizational learning.

Finally, since all of these characteristics apply to Vietnam, and the relationships referred to relate to key constructs in the present study, the results obtained may have implications for other Asia countries.

5.3 Managerial Implication

Despite its limitations, this study may have important implications for practice. First, the findings imply that empowering working conditions characterized by autonomy and competence support and task interdependence seems to increase intrinsic motivation and work performance across different tasks and functions that vary in how interesting, important, challenging, complex and meaningful they are. Despite the fact that this is



not a totally novel finding, which may even be moderated by individual differences and other factors, it suggests that managers should expect positive effects from empowering working conditions. Still, the tendency to predict that others are more motivated than themselves by extrinsic rewards and less motivated than themselves by intrinsic rewards is prevalent among many managers in both the private and the public sectors (DeVoe and Iyengar, 2004; Ferraro et al., 2005; Heath, 1999; Manolopoulos, 2008; Pfeffer, 1998b; Pfeffer and Veiga, 1999), leading them to use theories to offer inappropriate and ineffective working conditions for their employees (Heath, 1999; Noblet et al., 2005).

If critical reflective working behavior indeed is an indicator for double loop learning, it is quite hard for organizations to stimulate it. If organizations do want to stimulate double-loop learning this has to be achieved via stimulating employees, self-efficacy. In order to work well, workers must be able to put up for discussion their every day work practices. It seems that critical reflection brings together the interests of both employers and employees (Van Woerkom, 2003). The benefits of critical reflection to the employees lie in the critical reflection itself, which gives them a feeling of self-determination, growing personal mastery and which will help them in career development. For the employer, it is the economic value of critical reflection that is of importance. Critical reflection is essential for quality management, continuous

improvement and innovation-all matters that are vital in order to survive in a competitive economy.

5.4 Research Limitations

The contributions of this research should be viewed in the light of several limitations. First, the data were gathered at one point in time, making it impossible to draw inferences of causality or rule out the possibility of reverse causality. Consequently, longitudinal or experimental studies are needed to come closer to causality inferences on the relationships examined in the present study. Another limitation is the reliance on self-reported questionnaire data, causing concerns about possible mono-method bias and percept-percept inflated measures (e.g. Crampton and Wagner, 1994).

This study may also be limited by the fact that the data were obtained exclusively from employees in Vietnam municipalities. Finally, the time allotted is not long enough to have more careful preparation and more detailed investigation on the research issues.

5.5 Directions of Future Research

The only construct that could have been validly measured by means other than self-report in this study is critical reflective working behavior. Moreover, working behavior ratings by supervisors help rule out the validity threats of self-report and

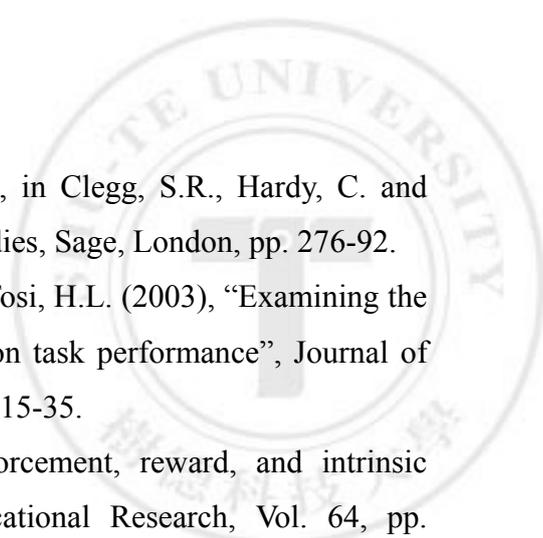
mono-method, performance appraisal research suggests that performance ratings conducted by supervisors may be even more biased than self-report measures (Levy and Williams, 2004).

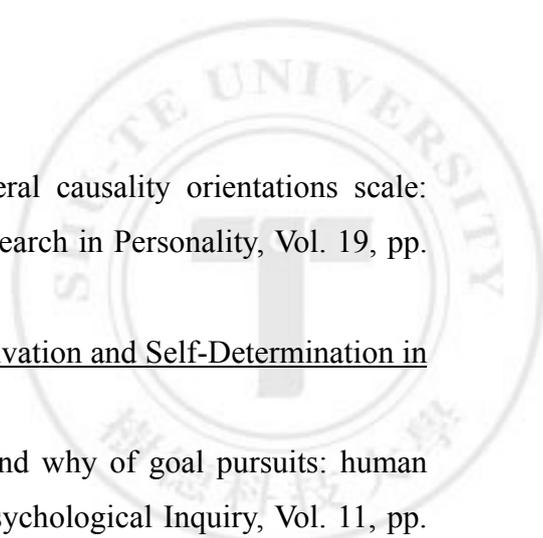
Future research should also include measures of need satisfaction or perceptions of autonomy, competence and relatedness in organizational settings in order to test the more detailed propositions from SDT. Then it will be possible to simultaneously investigate the relationships between environmental factors, need satisfaction and intrinsic motivation.

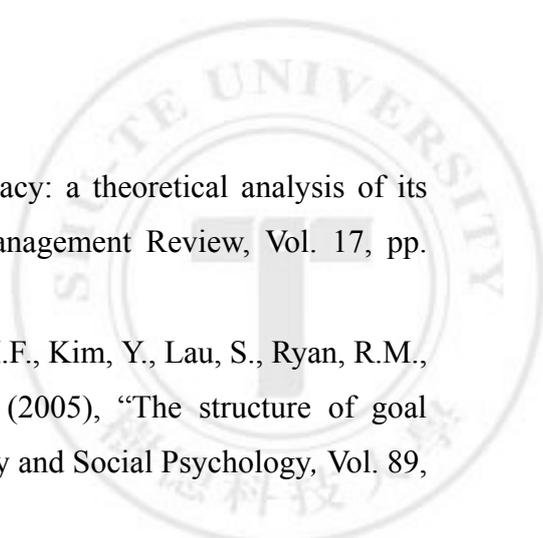
Still, research on the self-determination model of intrinsic motivation provides support for the relevance of need for competence and autonomy across very different national cultures and countries. Furthermore, the link between intrinsic job characteristics and job satisfaction is found to be similar across richer countries, countries with better governmental social welfare programmes, more individualistic countries, and smaller power distance countries (Huang and Van de Vliert, 2003). Research in other organizations from different countries should be conducted before any firm conclusions can be drawn (Bard Kuvaas, 2008).

References

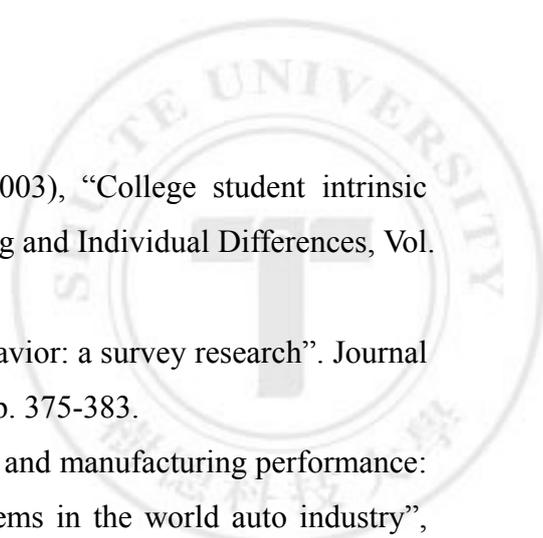
- [1] Abraham K. K. (1970), "Toward an hypothesis of work behavior", *Journal of Applied Psychology*, Vol. 54, No. 1, pp. 31-41.
- [2] Argyris, Ch., Schön, D.A. (1996), Organizational Learning II: Theory, Method and Practice, Addison-Wesley Publishing, Reading, MA..
- [3] Arthur, J.B. (1994), "Effects of human resource systems on manufacturing performance and turnover", *Academy of Management Journal*, Vol. 37 No. 3, pp. 670-87.
- [4] Bachrach, D.G., Powell, B.C., Bendoly, E. and Richey, R.G. (2006), "Organizational citizenship behavior and performance evaluations: exploring the impact of task interdependence", *Journal of Applied Psychology*, Vol. 91 No. 1, pp. 193-201.
- [5] Bandura, A. (1986), Social Foundations of Thought and Action: A Social Cognitive Theory, Prentice-Hall, Englewood Cliffs, NJ.
- [6] Bandura, A. (1997), Self-Efficacy: The Exercise of Control, Freeman, New York, NY.
- [7] Baron, R. and Kenny, D. (1986), "The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-82.
- [8] Blascovich, J., Mendes, W.B., Hunter, S.B. and Salomon, K. (1999), "Social facilitation as challenge and threat", *Journal of Personality and Social Psychology*, Vol. 77 No. 1, pp. 68-77.
- [9] Brockner, J., Tyler, T.R. and Cooper-Schneider, R. (1992), "The influence of prior commitment to an institution on reactions to perceived fairness: the higher they are, the harder they fall", *Administrative Science Quarterly*, Vol. 37, pp. 241-61.
- [10] Brookfield, S.D. (1987), Developing Critical Thinkers, Jossey-Bass, San Francisco, CA.
- [11] Brooks, A.K. (1999), "Critical reflection as a response to organizational disruption", *Advances in Developing Human Resources*, No.3, pp.67-97.
- [12] Bruno S. F. and Reto J. (1999), "Motivation Crowding Theory: A Survey of Empirical Evidence", *Journal of Economic Surveys*, No.26.

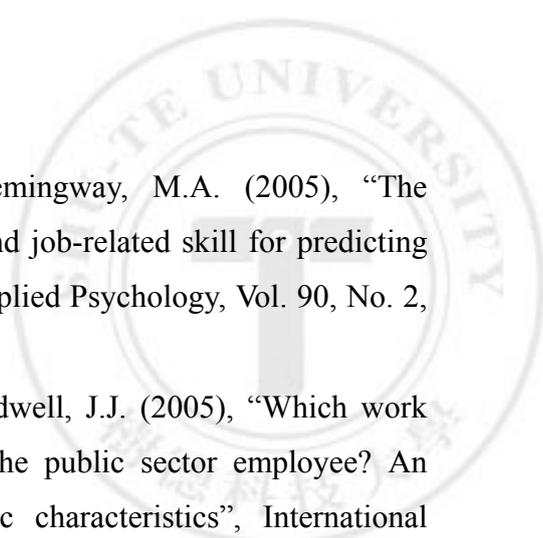
- 
- [13] Bryman, A. (1996), Leadership in organizations, in Clegg, S.R., Hardy, C. and Nord, W.R. (Eds), Handbook of Organization Studies, Sage, London, pp. 276-92.
- [14] Callahan, J.S., Brownlee, A.L., Brtek, M.D. and Tosi, H.L. (2003), “Examining the unique effects of multiple motivational sources on task performance”, Journal of Applied Social Psychology, Vol. 33 No. 12, pp. 2515-35.
- [15] Cameron, J. and Pierce, W.D. (1994), “Reinforcement, reward, and intrinsic motivation: a meta-analysis”, Review of Educational Research, Vol. 64, pp. 363-423.
- [16] Catley, D. and Duda, J.L. (1997), “Psychological antecedents of the frequency and intensity of flow in golfers”, International Journal of Sports Psychology, Vol. 28, pp. 309-22.
- [17] Christensen, T. and Lægveid, P. (Ed.) (2007), Transcending New Public Management: The Transformation of Public Sector Reforms, Ashgate, Aldershot.
- [18] Clark, R. E. (2003), “Fostering the work motivation of individuals and teams”, Performance Improvement, Vol. 42, pp. 21-29.
- [19] Coyle-Shapiro, J.A.-M., Kessler, I. and Purcell, J. (2004), “Exploring organizationally directed citizenship behaviour: reciprocity or It’s my job?”, Journal of Management Studies, Vol. 41, No. 1, pp. 85-106.
- [20] Crampton, S.M. and Wagner, J.A. (1994), “Percept-percept inflation in micro-organizational research: an investigation of prevalence and effect”, Journal of Applied Psychology, Vol. 79, pp. 67-76.
- [21] Csikszentmihalyi, M. and Nakamura, J. (1989), “The dynamics of intrinsic motivation: a study of adolescents: Vol. 3. Goals and cognitions”, in Ames, C. and Ames, R. (Eds), Research on Motivation in Education, Academic Press, New York, NY, pp. 45-71.
- [22] Deci, E.L. (1975), Intrinsic Motivation, Plenum Publishing, New York, NY.
- [23] Deci, E.L. and Ryan, A.M. (2000), “The what and why of goal pursuits: human needs and the self-determination of behavior”, Psychological Inquiry, Vol. 11, pp. 227-68.

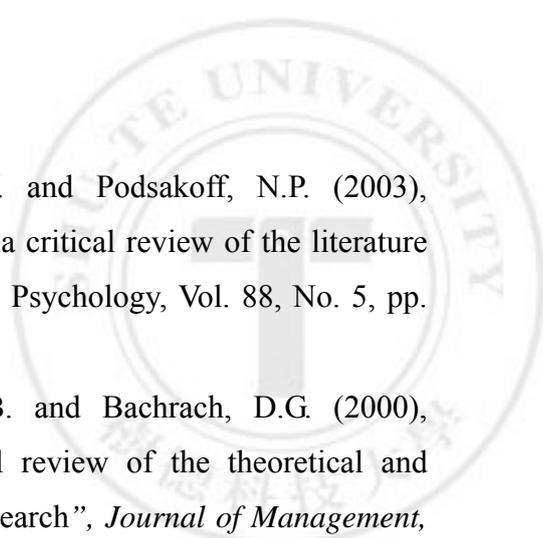
- 
- [24] Deci, E.L. and Ryan, R.M. (1985a), “The general causality orientations scale: self-determination in personality”, *Journal of Research in Personality*, Vol. 19, pp. 109-34.
- [25] Deci, E.L. and Ryan, R.M. (1985b), Intrinsic Motivation and Self-Determination in Human Behavior, Plenum, New York, NY.
- [26] Deci, E.L. and Ryan, R.M. (2000), “The what and why of goal pursuits: human needs and the self-determination of behavior”, *Psychological Inquiry*, Vol. 11, pp. 227-68.
- [27] Deci, E.L., Connell, J.P. and Ryan, R.M. (1989), “Self-determination in a work organization”, *Journal of Applied Psychology*, Vol. 74, No. 4, pp. 580-90.
- [28] Deci, E.L., Flaste (1995), Why We Do What We Do. The Dynamics of Personal Autonomy, Grosset/Putnam, New York, NY.
- [29] Deci, E.L., Ryan, R.M., Gagne, M., Leone, D.R., Usunov, J. and Kornazheva, B.P. (2001), “Need satisfaction, motivation, and well-being in the work organizations of a former Eastern Bloc country: a cross-cultural study of self-determination”, *Personality and Social Psychology Bulletin*, Vol. 27, No. 8, pp. 930-42.
- [30] DeVoe, S.E. and Iyengar, S.S. (2004), “Managers’ theories of subordinates: a cross-cultural examination of manager perceptions of motivation and appraisal performance”, *Organizational Behavior and Human Decision Processes*, Vol. 93, pp. 47-61.
- [31] Ferraro, F., Pfeffer, J. and Sutton, R.I. (2005), “Economic language and assumptions: how theories can become self-fulfilling”, *Academy of Management Review*, Vol. 30, No. 1, pp. 8-24.
- [32] Fox, S. and Dinur, Y. (1988), “Validity of self-assessment: a field evaluation”, *Personnel Psychology*, Vol. 41, pp. 581-92.
- [33] Gagne, M. and Deci, E.L. (2005), “Self-determination theory and work motivation”, *Journal of Organizational Behavior*, Vol. 26, pp. 331-62.
- [34] Gagne, M., Senecal, C.B. and Koestner, R. (1997), “Proximal job characteristics, feelings of empowerment, and intrinsic motivation: a multidimensional model”, *Journal of Applied Social Psychology*, Vol. 27, pp. 1222-40.

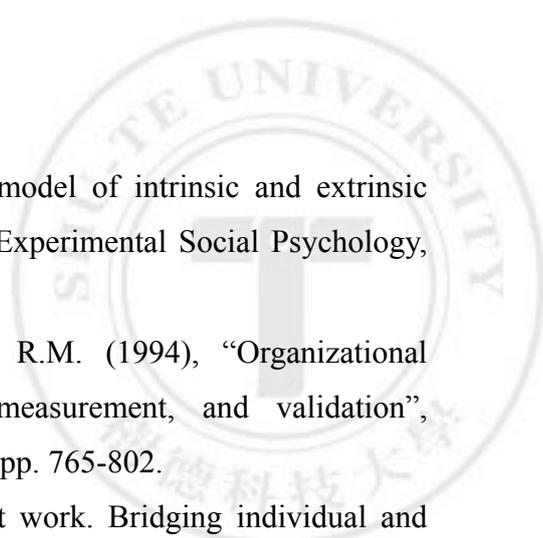
- 
- [35] Gist, M.E. and Mitchell, T.R. (1992), "Self-efficacy: a theoretical analysis of its determinants and malleability", *Academy of Management Review*, Vol. 17, pp. 183-211.
- [36] Grouzet, F.M.E., Kasser, T., Ahuvia, A., Dols, J.M.F., Kim, Y., Lau, S., Ryan, R.M., Saunders, S., Schmuck, P. and Sheldon, K.M. (2005), "The structure of goal contents across 15 cultures", *Journal of Personality and Social Psychology*, Vol. 89, No. 5, pp. 800-16.
- [37] Grouzet, F.M.E., Vallerand, R.J., Thill, E.E. and Provencher, P.J. (2004), "From environmental factors to outcomes: a test of integrated motivational sequence", *Motivation and Emotion*, Vol. 28, No. 4, pp. 331-46.
- [38] Guest, D. (1997), "Human resource management and performance: a review and research agenda", *International Journal of Human Resource Management*, Vol. 8, No. 3, pp. 263-76.
- [39] Hackman, J.R. and Oldham, G.R. (1976), "Motivation through the design of work: test of a theory", *Organizational Behavior and Human Performance*, Vol. 16, pp. 250-79.
- [40] Hackman, J.R. and Oldham, G.R. (1976), "Motivation through the design of work: test of a theory", *Organizational Behavior and Human Performance*, Vol. 16, pp. 250-79.
- [41] Hair, J.F.J., Anderson, R.E., Tatham, R.L. and Black, W.C. (1998), Multivariate Data Analysis, 5th ed., Maxwell Macmillan International, New York, NY.
- [42] Heath, C. (1999), "On the social psychology of agency relationships: lay theories of motivation overemphasize extrinsic incentives", *Organizational Behavior and Human Decision Processes*, Vol. 78, No. 1, pp. 25-62.
- [43] Huang, X. and Van de Vliert, E. (2003), "Where intrinsic job satisfaction fails to work: national moderators of intrinsic motivation", *Journal of Organizational Behavior*, Vol. 24, pp. 159-79.
- [44] Itim International (2005), Geert Hofstede Cultural Dimensions, available at: www.geert-hofstede.com (accessed 20 May, 2008).
- [45] Jose, P.E. (2003), "MedGraph-I: a programme to graphically depict mediation among three variables. The internet version", available at:

- www.vuw.ac.nz/psyc/staff/paul-jose/files/medgraph/medgraph.php (accessed 20 May, 2008).
- [46] Joseph A. R. (1998). "Work-based learning in practice", *Journal of Workplace Learning*, Vol. 10, No. 6/7, pp. 280-283.
- [47] Karasek, R., Theorell, R. (1990), Healthy Work: Stress, Productivity and the Reconstruction of Working Life, Basic Books, New York, NY.
- [48] Kelly, J.E. (1992), "Does job re-design theory explain job re-design outcomes?", *Human Relations*, Vol. 45, pp. 753-74.
- [49] Kiffin-Petersen, S. and Cordery, J.L. (2003), "Trust, individualism and job characteristics as predictors of employee preference for teamwork", *International Journal Human Resource Management*, Vol. 14, No. 1, pp. 93-116.
- [50] Kiggunde, M.N. (1983), "Tasks interdependence and job design: test of a theory", *Organizational Behavior and Human Performance*, Vol. 31, pp. 145-72.
- [51] Kuvaas, B. (2006a), "Work performance, affective commitment, and work motivation: the roles of pay administration and pay level", *Journal of Organizational Behavior*, Vol. 27, No. 3, pp. 365-85.
- [52] Kuvaas, B. (2006b), "Performance appraisal satisfaction and employee outcomes: mediating and moderating roles of motivation", *The International Journal of Human Resource Management*, Vol. 17, No. 3, pp. 504-22.
- [53] Kuvaas, B. (2007), "Different relationships between perceptions of developmental performance appraisal and work performance", *Personnel Review*, Vol. 36, No. 3, pp. 378-97.
- [54] Kuvaas, B. (2009), "A test of hypothesis derived from self-determination theory among public sector employees", *Employee Relations*, Vol. 31, No. 1, pp. 39-56.
- [55] Lepper, M.R. and Greene, D. (1978), The Hidden Costs of Reward: New Perspectives on the Psychology of Human Motivation, Laurence Erlbaum, Hillsdale, NJ, pp. 109-48.
- [56] Levy, P.E. and Williams, J.R. (2004), "The social context of performance appraisal: a review and framework for the future", *Journal of Management*, Vol. 30, No. 6, pp. 881-905.

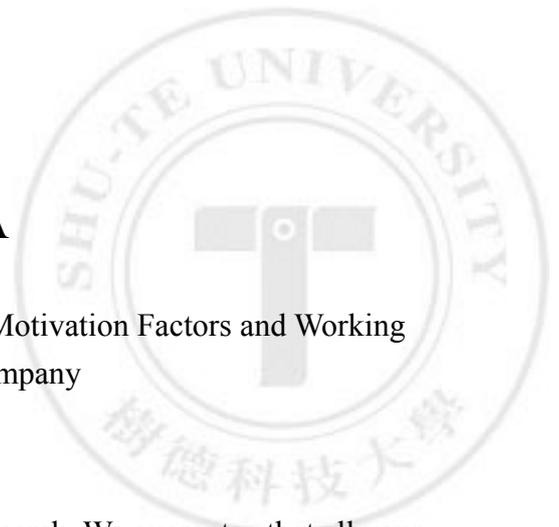
- 
- [57] Lin, Y.-G., McKeachie, W.J. and Kim, Y.C. (2003), “College student intrinsic and/or extrinsic motivation and learning”, *Learning and Individual Differences*, Vol. 13, pp. 251-8.
- [58] Loek F.M., 2002. “Critical reflective working behavior: a survey research”. *Journal of European Industrial Training*, Vol. 26, No. 8, pp. 375-383.
- [59] MacDuffie, J.P. (1995), “Human resource bundles and manufacturing performance: organizational logic and flexible production systems in the world auto industry”, *Industrial and Labor Relations Review*, Vol. 48, pp. 197-221.
- [60] Manolopoulos, D. (2008), “An evaluation of employee motivation in the extended public sector in Greece”, *Employee Relations*, Vol. 30, No. 1, pp. 63-85.
- [61] Marianne van Woerkom, 2002. “Critical reflective working behavior: a survey research”. *Journal of European Industrial Training*, Vol. 26, No. 8, pp. 375-383.
- [62] Marsick, V.J., Watkins, K.E. (1990), Informal and Incidental Learning in the Workplace, Routledge, London.
- [63] Martinsen, Ø.L. (2005), Handbook Leder profil, PSI – Assessment AS, Oslo.
- [64] Maslow A. H. (1943), “A Theory of Human Motivation”, *Psychological Review*, Vol. 50, pp. 370-396.
- [65] May, T.Y., Korczynski, M. and Frenkel, S.J. (2002), “Organizational and occupational commitment: knowledge workers in large corporations”, *Journal of Management Studies*, Vol. 39, No. 6, pp. 775-801.
- [66] Menard, S. (1995), Applied Logistic Regression Analysis, Sage, Thousand Oaks, CA.
- [67] Morgeson, F.P. and Campion, M.A. (2002), “Minimizing tradeoffs when redesigning work: evidence from a longitudinal quasi-experiment”, *Personnel Psychology*, Vol. 55, pp. 589-612.
- [68] Morgeson, F.P. and Humphrey, S.E. (2003), Annual Meeting of the Academy of Management, Seattle, WA.
- [69] Morgeson, F.P. and Humphrey, S.E. (2006), “The work design questionnaire (WDQ): developing and validating a comprehensive measure for assessing job design and the nature of work”, *Journal of Applied Psychology*, Vol. 91, No. 6, pp. 1321-39.

- 
- [70] Morgeson, F.P., Delaney-Klinger, K. and Hemingway, M.A. (2005), "The importance of job autonomy, cognitive ability, and job-related skill for predicting role breadth and job performance", *Journal of Applied Psychology*, Vol. 90, No. 2, pp. 399-406.
- [71] Noblet, A., Teo, S.T.T., McWilliams, J. and Rodwell, J.J. (2005), "Which work characteristics predict employee outcomes for the public sector employee? An examination of generic and occupation-specific characteristics", *International Journal Human Resource Management*, Vol. 16, No. 8, pp. 1415-30.
- [72] Organ, D.W. (1988), Organizational Citizenship Behavior: The Good Soldier Syndrome, Lexington Books, Lexington, MA.
- [73] Osborne, J.W. and Costello, A.B. (2004), "Sample size and subject to item ratio in principal component analysis", *Practical Assessment, Research & Evaluation*, Vol. 9, No. 11.
- [74] Parker, S.K. (1998), "Enhancing role breadth self-efficacy: the roles of job enrichment and other organizational interventions", *Journal of Applied Psychology*, Vol. 83, No. 6, pp. 835-52.
- [75] Parker, S.K. and Turner, N. (2002), "Work design and individual work performance: research findings and a agenda for future inquiry", in Sonnentag, S. (Ed.), *Psychological Management of Individual Performance*, Wiley, Chichester, pp. 69-92.
- [76] Pfeffer, J. (1998a), "Seven practices of successful organizations", *California Management Review*, Vol. 40, No. 2, pp. 96-124.
- [77] Pfeffer, J. (1998b), "Six dangerous myths about pay", *Harvard Business Review*, Vol. 76, No. 3, pp. 108-19.
- [78] Pfeffer, J. and Veiga, J.F. (1999), "Putting people first for organizational success", *Academy of Management Executive*, Vol. 13, No. 2, pp. 37-48.
- [79] Piccolo, R.F. and Colquitt, J.A. (2006), "Transformational leadership and job behaviors: the mediating role of core job characteristics", *Academy of Management Journal*, Vol. 49, No. 2, pp. 327-40.
- [80] Podsakoff, P.M. and Organ, D.W. (1986), "Self reports in organizational research: problems and prospectus", *Journal of Management*, Vol. 12, pp. 531-44.

- 
- [81] Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003), “Common method biases in behavioral research: a critical review of the literature and recommended remedies”, *Journal of Applied Psychology*, Vol. 88, No. 5, pp. 879-903.
- [82] Podsakoff, P.M., MacKenzie, S.B., Paine, J.B. and Bachrach, D.G. (2000), “Organizational citizenship behaviors: a critical review of the theoretical and empirical literature and suggestions for future research”, *Journal of Management*, Vol. 26, pp. 513-61.
- [83] Preacher, K.J. and Leonardelli, G.J. (2001), “Calculation for the Sobel test: an interactive calculation tool for mediation tests”.
- [84] Purcell, J. (1999), “Business strategies and human resource management: uneasy bedfellows or strategic partners?”, *Human Resource Management Journal*, Vol. 9, No. 3, pp. 26-41.
- [85] Ryan, R. and Deci, E. (2000), “Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being”, *American Psychologist*, Vol. 55, pp. 68-78.
- [86] Schön, D.A. (1987), Educating the Reflective Practitioner, Jossey-Bass, San Francisco, CA.
- [87] Senge, P.M. (1990), The Fifth Discipline: The Art and Practice of the Learning Organization, Doubleday, London.
- [88] Sharma, A., Rich, G.A. and Levy, M. (2004), “Comment: Starting to solve the method puzzle in salesperson self-report evaluations”, *Journal of Personal Selling & Sales Management*, Vol. XXIV, No. 2, pp. 135-9.
- [89] Sheldon, K.M., Elliot, A.J., Kim, Y. and Kasser, T. (2001), “What is satisfying by satisfying events? Testing 10 candidate psychological needs”, *Journal of Personality and Social Psychology*, Vol. 80, pp. 325-39.
- [90] Thomas, K.W. (2002), Intrinsic Motivation at Work: Building Energy & Commitment, Berrett-Koehler Publishers, San Francisco, CA.
- [91] Truss, C., Gratton, L., Hope-Hailey, V., McGovern, P. and Stiles, P. (1997), “Soft and hard models of human resource management: a reappraisal”, *Journal of Management Studies*, Vol. 34, No. 1, pp. 53-73.

- 
- [92] Vallerand, R.J. (1997), "Toward a hierarchical model of intrinsic and extrinsic motivation", in Zanna, M.P. (Ed.), *Advances in Experimental Social Psychology*, Vol. 29, pp. 271-360.
- [93] Van Dyne, L., Graham, J.W. and Dienesch, R.M. (1994), "Organizational citizenship behavior: construct redefinition, measurement, and validation", *Academy of Management Journal*, Vol. 37, No. 4, pp. 765-802.
- [94] Van Woerkom, M. (2003), "Critical reflection at work. Bridging individual and organizational learning", Dissertation, Twente University, Enschede.
- [95] Van Woerkom, M. (2004), "The concept of critical reflection and its implications for human resource development", *Advances in Developing Human Resources*, Vol. 6, pp. 178-93.
- [96] Van Woerkom, M. (2007), "Operationalising critically reflective work behaviour", *Personnel review*, Vol. 37, No. 3, pp. 317-331.
- [97] Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K.M. and Deci, E.L. (2004), "Examining the Motivational Impact of Intrinsic Versus Extrinsic Goal Framing and Autonomy-Supportive Versus Internally Controlling Communication Style on Early Adolescents' Academic Achievement", *Journal of Personality and Social Psychology*, Vol. 87, No. 2, pp. 246-60.
- [98] Wang, J.H.-Y. and Guthrie, J.T. (2004), "Modeling the effects of intrinsic motivation, extrinsic motivation, amount of reading achievement on text comprehension between US and Chinese students", *Reading Research Quarterly*, Vol. 39, No. 2, pp. 162-86.
- [99] Wim J. Nijhof, University of Twente, Enschede, The Netherlands, 2002. "Critical reflective working behavior: a survey research". *Journal of European Industrial Training*, Vol. 26, No. 8, pp. 375-383.
- [100] Wright, P.M. and Boswell, W.R. (2002), "Desegregating HRM: a review and synthesis of micro and macro human resource management research", *Journal of Management*, Vol. 28, No. 3, pp. 247-76.
- [101] Zajonc, R.B. (1980), "Compresence", in Paulus, P.B. (Ed.), Psychology of Group Influence, Lawrence Erlbaum Associates, Hillsdale, NJ, pp. 35-60.

Appendix A



Questionnaire for a Study on Relationship Between Motivation Factors and Working Behavior in Vietnamese Company

Dear all,

First of all, we appreciate your participation for our research. We guarantee that all your personal information will be treated as confidential and only be used in this studied purpose.

Once again, we appreciate for your helping and corporation.

Dr. Gow Ming Dong

Student: Tran Thai Hoa

PART 1: THE MAIN CONTENT

Please read the following questions carefully and decide your level of answers. There are five levels from 1 to 5 corresponding from “Absolute Disagree” to “Absolute Agree”. You only choose one answer for each question. For example, you want to choose Absolute Agree, then check in the box as following:

Absolute Disagree	Disagree	No idea	Agree	Absolute Agree
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Questions (Note: Only choose one answer for each question)	1	2	3	4	5
	Supervisor Support (SS)					
1	My immediate supervisor supports the development of	<input type="checkbox"/>				

	my professional skills					
2	My immediate supervisor lets me develop my competencycc	<input type="checkbox"/>				
3	My immediate supervisor contributes to my professional development	<input type="checkbox"/>				
4	My immediate supervisor helps me develop self-determination in my job	<input type="checkbox"/>				
5	My immediate supervisor stimulates me to make my own decisions about how to schedule my work	<input type="checkbox"/>				
6	My immediate supervisor makes me feel competent in performing my job	<input type="checkbox"/>				
7	My immediate supervisor expresses confidence in my abilities	<input type="checkbox"/>				
	Job autonomy (JA)					
8	The job provides me with significant autonomy in making decisions	<input type="checkbox"/>				
9	The job gives me a chance to use my personal initiative or judgement in carrying out the work	<input type="checkbox"/>				
10	The job allows me to make decisions about what methods I use to complete my work	<input type="checkbox"/>				
11	The job gives me considerable opportunity for independence and freedom in how I do the work	<input type="checkbox"/>				
	Task independent (TI)					
12	Other jobs depend directly on my job	<input type="checkbox"/>				
13	Unless my job gets done, other jobs cannot be completed	<input type="checkbox"/>				
14	The job requires me to accomplish my job before others complete their job	<input type="checkbox"/>				
15	The job activities are greatly affected by the work of other people	<input type="checkbox"/>				
16	The job depends on the work of many different people	<input type="checkbox"/>				

	for its completion					
	Intrinsic motivation (IM)					
17	My job is meaningful	<input type="checkbox"/>				
18	The tasks that I do at work it represent a driving power in my job	<input type="checkbox"/>				
19	My job is so interesting that it is a motivation in itself	<input type="checkbox"/>				
20	I feel lucky being paid for a job I like this much	<input type="checkbox"/>				
	Critical opinion-sharing	1	2	3	4	5
21	I come up with ideas how things could be organized differently here	<input type="checkbox"/>				
22	I make suggestions to my supervisor about a different working method	<input type="checkbox"/>				
23	I give my opinion about developments at work	<input type="checkbox"/>				
24	I call this organization's policy into question	<input type="checkbox"/>				
25	I put critical questions to my supervisor about working of this organization	<input type="checkbox"/>				
26	I make suggestions to my colleagues about a different working method	<input type="checkbox"/>				

PART 2: EXTRA INFORMATION

Please fill in the box for some extra information:

1. **Gender:** Male Female

2. **Age:** 18- 20 21-25 26-30 31- 35

35-40 41-45 over 46



3. Educational Level:

- Under-graduated Graduated
 Post Graduated Other

4. Working Experience

- Less than 1 year 1-2 years 3-5 years
over 5 years

All information and feedback please contact: **TRAN THAI HOA**

MIS Department, Shu-Te University, Kaohsiung, Taiwan

E-mail: hoa.tran.thai@gmail.com

Thank you for your help!



BẢNG CÂU HỎI
TÁC ĐỘNG CỦA ĐIỀU KIỆN LÀM VIỆC LÊN TÍNH HIỆU QUẢ CỦA CÔNG
VIỆC

Chào các bạn,

Trước hết xin cảm ơn các bạn đã dành thời gian quý báu của mình để tham gia cuộc điều tra này.

Sự giúp đỡ của các bạn có ý nghĩa rất quan trọng đối với nghiên cứu này. Chúng tôi xin đảm bảo mọi thông tin các bạn cung cấp sẽ được **giữ bí mật và chỉ sử dụng cho mục đích của bài nghiên cứu này.**

Một lần nữa xin chân thành cảm ơn sự giúp đỡ và cộng tác của các bạn!

Trần Thái Hòa

PHẦN I: NỘI DUNG CHÍNH

Bạn vui lòng đọc kỹ mỗi câu phát biểu dưới đây và quyết định mức độ đồng ý hay không đồng ý cho mỗi câu phát biểu đó. Có 5 mức độ mô tả từ “Hoàn toàn không đồng ý” tới “Hoàn toàn đồng ý” của bạn ứng với 5 con số từ 1 đến 5 và bạn chỉ được **lựa chọn 1 con số duy nhất**. Ví dụ bạn hoàn toàn đồng ý với câu phát biểu, xin hãy điền vào ô số 5 như sau:

Hoàn toàn KHÔNG đồng ý	Không đồng ý	Không ý kiến	Đồng ý	Hoàn toàn đồng ý
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Câu hỏi (lưu ý chỉ chọn 1 phương án trả lời cho 1 câu hỏi)	1	2	3	4	5
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	Supervisor support					
1	Nhà quản lý hỗ trợ tôi phát triển kỹ năng nghề nghiệp	<input type="checkbox"/>				
2	Nhà quản lý cho tôi cơ hội phát triển kỹ năng nghề nghiệp	<input type="checkbox"/>				
3	Nhà quản lý giúp tôi kiểm soát công việc một cách hiệu quả	<input type="checkbox"/>				
4	Nhà quản lý đóng vai trò nhất định trong việc phát triển kỹ năng nghề nghiệp của tôi	<input type="checkbox"/>				
5	Nhà quản lý giúp tôi phát triển khả năng quyết đoán	<input type="checkbox"/>				
6	Nhà quản lý cho tôi lời khuyên về khả năng tự lãnh đạo	<input type="checkbox"/>				
7	Nhà quản lý khiến tôi cảm thấy tôi có đủ khả năng trong công việc	<input type="checkbox"/>				
	Job autonomy	1	2	3	4	5
8	Nghề nghiệp cho phép tôi tự điều hành công việc	<input type="checkbox"/>				
9	Nghề nghiệp cho phép tôi tự lập kế hoạch	<input type="checkbox"/>				
10	Nghề nghiệp cho phép tôi tự đưa ra quyết định	<input type="checkbox"/>				
11	Nghề nghiệp cho tôi khả năng tự quyết trong các quyết định của mình	<input type="checkbox"/>				
	Task interdependence	1	2	3	4	5
12	Những công việc khác phụ thuộc trực tiếp vào công việc của tôi	<input type="checkbox"/>				
13	Nếu công việc của tôi chưa xong thì các công việc khác cũng không thể hoàn thành	<input type="checkbox"/>				
14	Tôi buộc phải hoàn thành công việc của mình trước khi những người khác hoàn thành công việc của họ	<input type="checkbox"/>				
15	Các hoạt động của những người khác ảnh hưởng ảnh hưởng rất lớn tới công việc của tôi	<input type="checkbox"/>				
16	Công việc hoàn thành dựa trên sự cộng tác của rất nhiều người khác nhau	<input type="checkbox"/>				

	Intrinsic motivation	1	2	3	4	5
17	Công việc tôi làm thì có ý nghĩa	<input type="checkbox"/>				
18	Những việc tôi làm đóng vai trò chủ đạo trong nghề nghiệp của tôi	<input type="checkbox"/>				
19	Công việc của tôi hấp dẫn và nó cũng là động lực thúc đẩy tôi	<input type="checkbox"/>				
20	Tôi cảm thấy may mắn được nhận lương cho công việc mà tôi yêu thích	<input type="checkbox"/>				
	Critical opinion-sharing	1	2	3	4	5
21	Tôi có nhiều ý tưởng sắp xếp công việc theo những cách khác nhau	<input type="checkbox"/>				
22	Tôi nêu nhiều phương thức làm việc khác nhau cho người quản lý tôi	<input type="checkbox"/>				
23	Tôi nêu nhiều ý tưởng phát triển công việc	<input type="checkbox"/>				
24	Tôi luôn làm việc dựa trên chính sách của công ty	<input type="checkbox"/>				
25	Tôi nêu những vấn đề quan trọng về hoạt động của công ty cho nhà quản lý	<input type="checkbox"/>				
26	Tôi nêu những phương thức hoạt động khác nhau cho đồng nghiệp	<input type="checkbox"/>				

PHẦN II: THÔNG TIN BỔ SUNG

Bạn hãy vui lòng trả lời các câu hỏi dưới đây bằng cách đánh dấu vào ô vuông thích

hợp:

1. Giới tính:

Nam Nữ



2. Tuổi: 18- 20 21-25 26-30 31- 35
 35-40 41-45 trên 46

3. Trình độ học vấn cao nhất của bạn:

- Đang học Đại học/Cao đẳng Đã tốt nghiệp Đại học/cao đẳng
 Thạc sĩ Khác.....

4. Chuyên ngành của bạn:

- Toán học Công nghệ thông tin
 Vật lý Kinh tế
 Hóa học Sinh vật học
 Địa chất học Khoa học môi trường
 Khác.....

5. Kinh nghiệm đi làm

- Dưới 1 năm 1-2 năm 3-5 năm Trên
5 năm

Mọi thông tin phản hồi xin gửi về địa chỉ: **TRẦN THÁI HÒA**

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E-mail: hoa.tran.thai@gmail.com

Xin chân thành cảm ơn sự giúp đỡ của các bạn!