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**THE RELATIONSHIP BETWEEN JOB RESOURCES AND WORK ENGAGEMENT
IN AN INTERNATIONAL CONTEXT**

A Thesis in

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by

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Abstract

The purpose of this study was to examine the relationship between job resources (performance feedback, autonomy, development opportunities, and task variety) and work engagement in an international context. Specifically, power distance and uncertainty avoidance were predicted to moderate this relationship. A sample of 877 employees from four countries (China, India, the UK, and the Netherlands) was used to test the hypotheses. Results indicated that power distance and uncertainty avoidance, respectively, had an impact on work engagement. Also, a moderating effect was found of uncertainty avoidance between autonomy and work engagement. Another surprising result was that power distance did not moderate the relationship between development opportunities and work engagement.

Keywords: work engagement, job resources, power distance, uncertainty avoidance

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Introduction

Work engagement, a new term in the 1990s, is now believed to be a significant predictor of job performance and productivity (Christian, Garza, & Slaughter, 2011; Harter, Schmidt, & Keyes, 2002). Today, to keep productive in this competitive world, more and more employers are concerned about how engaged their employees are with work, and what management practices help enhance employees' work engagement. Job resources, such as performance feedback, social support from colleagues, and autonomy, are found to contribute positively to work engagement (Hakanen, Bakker, & Demerouti, 2005; Schaufeli & Bakker, 2004; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Meanwhile, due to economic globalization, an increasing amount of corporations have branches or offices in more than one country. Cultural differences have caused several employers to realize the necessity of executing different human resources practices to keep their employees motivated and engaged at work. According to Hofstede (1980b) and House, Hanges, Javidan, Dorfman, and Gupta (2000), cultural dimensions (e.g. power distance and uncertainty avoidance) have an impact on employees' perceptions and demands at the workplace. In other words, employees in different cultures are supposed to hold different values and beliefs, leading to a different relationship between job resources and work engagement.

Even though there are several studies on the relationship between job resources and work engagement, there are not many on how the relationship operates in a global setting. This paper, therefore, aims to explore the role of culture in the relationship between job resources and work engagement.

This study is designed to investigate the relationship between job resources, including performance feedback, autonomy, development opportunities, and task variety, and work engagement in an international context. The research question is to discover if culture moderates the relationship of work engagement with each measured job resource. To test the hypotheses, this study uses a sample of 877 employees from four countries (China, India, the UK, and the Netherlands).

This paper has six parts: the literature review, hypotheses, methodology, findings, discussion, and conclusion. The literature review introduces the existing studies on work engagement and job resources. I further present the

theories that support this study, and it also gives an introduction about studies on culture and its impact at the workplace. The second section illustrates the hypotheses, which are built based on theories and research from previous studies. After that, the paper explains the data collection procedures, participant information, and the measures used in this study. Following the methodology section, the findings section interprets the statistical tables and the next section further discusses the important information that the data indicate.

This is a unique study that focuses on the effect of culture on work engagement. It contributes to the gap in the existing literature of how the relationship between job resources and work engagement varies in different cultural contexts. It also provides statistical support for future studies on related topics.

Literature Review

Work Engagement

Work engagement, a term which came out in 1990, is no longer a new word for lots of practitioners and scholars. It became increasingly popular in the following years since many scholars have investigated this topic from many different aspects including its definition, outcomes, and antecedents (Kahn, 1990; Maslach, Schaufeli, & Leiter, 2001; Saks, 2006; Schaufeli, Salanova, Les-Roma, & Bakker, 2002). This section will present the existing popular definitions and measures of work engagement as well as its antecedents.

Definition of Work Engagement

According to the existing studies, work engagement can be categorized into four important phases (Shuck, 2011), from Kahn's studies (1990) to the latest Hayes's Q12 on work engagement. The following paragraphs will illustrate these four phases of work engagement and measures developed in these phases.

The term "engagement" was first applied to the workplace by Kahn (1990) and used in particular to describe the degree to which workers actively participate in work (Shuck, 2011). According to Kahn (1990, p. 694), engagement refers to "the simultaneous employment and expression of a person 'preferred self' in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional), and active, full role performance". Engaged employees are expected to physically, emotionally, and cognitively devote themselves to various tasks at work (Kahn, 1990). He also pointed out that work engagement contained three psychological conditions: meaningfulness, safety, and availability. Meaningfulness was defined as a feeling an individual viewed as a return on his physical, emotional, or cognitive participation in work. Safety referred to the ability to present oneself "without fear of negative consequences created by self-image, status, or career" (p.708). Availability was viewed as the degree to which an individual believes in having sufficient physical, emotional, cognitive resources to engage at work. An empirical study conducted in an American Midwestern insurance company proved that the three psychological conditions were significantly positively related with employee engagement at work (May, Gilson, & Harter, 2004). According to Shuck (2011), the popular application of Kahn's definition of engagement established a

theoretical framework for future studies.

The second important study on work engagement was conducted by Maslach et al. (2001). They pointed out that engagement, as one of the two prototypes of employees' well-being, had three dimensions: efficacy, energy, and involvement. As they defined it, engagement presented the degree to which an individual fits a job, including a sustainable workload, feelings of choice and control, a supportive work community, justice and fairness, appropriate recognition and reward, and meaningful and valued work. Work engagement emphasizes the work itself and presents a comprehensive understanding between an individual and his/her work (Maslach et al., 2001).

Meanwhile, Schaufeli, Salanova, et al. (2002) presented a new concept of engagement. Their concept of engagement was defined as "a positive, fulfilling, and work-related state of mind that is characterized by vigor, dedication, and absorption" (p.465). It is a persistent, affective-cognitive state (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). According to Schaufeli and his colleagues (2002), vigor refers to "high levels of energy and mental resilience at work, and the willingness and ability to invest efforts in one's work". Dedication refers to the degree to which an individual senses "significance, enthusiasm, inspiration, pride, and challenge". Absorption was characterized by "being fully concentrated and happily engrossed in one's work". In other words, an engaged employee is more energetic, resilient, and fully attracted by their work, and he is more likely to accept challenging tasks and have a strong desire to perform better. Thus, engagement, is a motivational and positive concept (Bakker & Leiter, 2010). To assess engagement, Schaufeli, Bakker, and Salanova (2006) developed a self-report questionnaire named the Utrecht Work Engagement Scale (UWES) that includes three subscales of Vigor, Dedication, and Absorption. Schaufeli, Salanova, et al. (2002) and Hakanen et al. (2005) have proved that the UWES model had factorial validity and satisfactory psychometric properties.

Later, grounded on Schaufeli and his colleagues' studies, Saks (2006, p. 602) conceptualized engagement as "a distinct and unique construct consisting of cognitive, emotional, and behavioral components... associated with individual role performance". He was the first one to come out with a multi-dimensions measurement of work engagement by assessing engagement from six different aspects including job characteristics, perceived organizational support, perceived supervisor support, rewards and recognition, procedural justice, and

distributive justice.

The most recent study on conceptualization on work engagement is that of Harter, Schmidt, and Hayes (2002). They defined work engagement as “the individual involvement and satisfaction with as well as enthusiasm for work” (p.269). They further created a new measure of work engagement named “The Gallup Q12”(the Q12), which is a questionnaire containing a 12-item evaluation of employees’ perceptions of their work with regard to both attitudinal index (e.g. job satisfaction and loyalty) and the degree of supervisory control. Collecting 7,030 business units in 36 independent companies in multi-industries, Harter and his colleagues used a meta-analysis method to analyze data and found the positive impact of employee engagement on business unit performance in terms of productivity, profitability, employee turnover, safety, and customer satisfaction. Wu (2011) argued that unlike the UWES, the Q12 emphasized more on traits. Based on Harter’s study, some later studies started placing emphasis on the influence of personality on work engagement (Harter, Schmidt, & Keyes, 2002; Luthans & Peterson, 2002). For instance, in a study among 170 managers in the United States, it was shown that managers’ self-efficacy is positively correlated with work engagement (Luthans & Peterson, 2002).

In recent decades, the Q12 and UWES have been two commonly used work engagement measures. In terms of the Q12, it has been widely used in business practices; however, its construct is often criticized by some scholars (Wu, 2011). For example, Little and Little (2006) argued that measured items in the Q12 were “statistically derived items”, and no theoretical studies supported the design of the questionnaire. Unlike the Q12, the UWES was developed based on a theoretical model raised by Schaufeli, Salanova, et al. (2002). According to existing journals, the UWES has been widely tested and proved to have factorial validity by many studies conducted in different countries such as the United States, China, Japan, Egypt, Italy, and Norway (Bakker & Leiter, 2010; Balducci, Fraccaroli, & Schaufeli, 2010; Burk & El-Kot, 2010; Fond & Ng, 2012; Nerstad, Richardsen, & Martinussen, 2010; Shimazu et al., 2008). As Bakker, Albrecht, and Leiter (2011, p. 9) said, the UWES measurement is the most frequently used “scientifically derived measure of engagement”.

Antecedents of Work Engagement: Job Resources

The following section will present a comprehensive introduction of the existing studies on the definition of job resources and its relationship with work engagement.

Job resources refer to “those physical, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; and (c) stimulate personal growth and development” (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001, p. 501). Examples of job resources are performance feedback, autonomy, development opportunities, and task variety. Theoretically, job resources (e.g. task significance, problem solving, feedback, and job complexity) are positively related to work engagement (Christian et al., 2011), and this relationship lasts over time (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009a). For example, in a research study among 102 students at a Canadian university, it was found that job characteristics were significant antecedents of job engagement (Saks, 2006). Another study of over 2500 Finnish dentists demonstrated that job resources, such as the flexibility of being creative, and positive performance feedback, were significant predictors of work engagement (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). Later, a study conducted in a Dutch company showed that autonomy and opportunities to learn and development were positively associated with work engagement (Bakker, 2011). The positive effects of job resources can be found not only in long-term work performance, but also in daily workdays. Xanthopoulou and colleagues (2009b) designed a research study investigating the predictive impact of work engagement on performance on a daily basis. Their research results demonstrated that employees were more likely to be engaged at work on a day when more job resources were provided (Xanthopoulou et al., 2009a). Thus, generally, job resources are beneficial to work engagement.

Some researchers suggested that the positive relationship between job resources and work engagement was moderated by job demands. Bakker and Demerouti (2007) established a Job Demands-Resources Model, which is cited more than 800 times in a Google Scholar search. In this model, job demands serve as a mediator in the positive correlation between job resources and work engagement, leading to an impact on organization outcomes. Crawford, Lepine,

and Rich (2010) argued that the job resources and engagement relationship is enhanced if demands are perceived as challenging; however, this relationship is weakened if demands are perceived as hindrances.

Compared to the impact of job demands on work engagement, the impact of job resources on work engagement is much stronger (Christian & Slaughter, 2007; Halbesleben, 2010). Demerouti, Bakker, Jonge, Janssen, and Schaufeli (2001) collected surveys from 381 employees in an insurance company and found that job resources were more strongly associated with employee's personal engagement than job demands were. Also, some scholars investigated the moderating effect of job resources on the relationship between job demands and work engagement (Bakker & Demerouti, 2007; Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hakanen et al., 2005). For example, a survey conducted among 3,255 Finnish dentists found that all job resources (e.g. job control and innovativeness) buffered the relationship between job demands and work engagement (Hakanen et al., 2005). After analyzing many existing studies, Bakker and Demerouti (2007) concluded that favorable influences of job resources in the context of high job demands were salient. An empirical study of over 800 teachers done by Bakker and his colleagues (2007) indicated that job resources increased work engagement significantly, especially under the condition that job demands were substantially high. Specifically, job resources were significantly related to work engagement for respondents who experienced high levels of job demands, while this relationship was rather weak or non-existent for respondents who experienced low levels of demands (Bakker et al., 2007).

This paper is designed to examine how job resources, including performance feedback, autonomy, development opportunities, and task variety, influence work engagement. The following section will explain the theories that help to build this study.

Theoretical Supports

The idea of the relationships between job resources and work engagement measurement is based on three theories: social exchange theory (Blau, 1964), job characteristics theory (Hackman & Oldham, 1976), and the conservation of resources theory (Hobfoll, 2001). Social exchange theory, which illustrates the individual motivation behind attitudes and behaviors, builds a theoretical basis

for the future studies on relationship between organizations and its employees (Blau, 1964). Conservation of resources theory explains generally and comprehensively how workplace resources are associated with job performance at the organizational level, and job characteristics theory emphasizes more the association of resources with work outcomes at the task level.

Social exchange theory is one of the most basic and influential theories that illustrate the correlation of an individual's behaviors and attitudes with his returns at the workplace (Cropanzano & Mitchell, 2005). According to this theory, individuals will voluntarily provide services if they are motivated by the rewards they expect to get and, in fact, they do get from others (Blau, 1964). In other words, employees are more motivated and feel more obliged to repay their organizations when they can get satisfactory returns or resources from their work. Cropanzano and Mitchell (2005) summarized that employees are able to develop social exchange relationships with both their immediate supervisors and their colleagues, employers, and clients. For instance, a study among 1,413 employees in the United States used social exchange theory to explain the fact that employees were more likely to perform better and present organizational citizenship behaviors that are beneficial to their leaders in exchange of benefits provided by their leaders (Wayne, Shore, & Liden, 1997). Another study argued that a lack of balanced social exchange, such as organizations providing limited returns other than employability but expecting more in return from employees, led to an increase in cynicism and mistrust, which were negatively associated with job performance (Cartwright & Holmes, 2006).

Concerning work engagement, this theory explains clearly that employees will vary their degree of engagement corresponding with the rewards (resources) they get at the workplace (Saks, 2006). When employees receive fewer resources at the workplace, in return they will probably reduce their engagement. Saks (2006) also believed that compared to job performance, work engagement was a better indicator of satisfaction on job resources since performance was usually closely related to compensation and promotion decisions which affected one's living standards. Thus, based on the work engagement definition provided by Schaufeli, Salanova, et al. (2002), it is assumed that the amount of vigor, dedication, and absorption employees input at work is consistent with the amount of returns and resources they receive from the organizations.

Further, the idea to assess job resources from four dimensions: performance feedback, autonomy, development opportunities, and task variety is mainly supported by two theories: job characteristics theory (Hackman & Oldham, 1976) and conservation of resources (COR) theory (Hobfoll, 2001).

Focused on how different job characteristics influence an individual's work outcomes (Hackman & Oldham, 1974), job characteristics theory promotes the idea that job resources at the task level --autonomy, feedback, skill variety, task identity, and task significance -- are beneficial to individual work performance. (Bakker & Demerouti, 2007; Hackman & Oldham, 1976). For instance, according to the theory, when an employee is given more freedom and independence to complete daily work (autonomy), this employee will perform better.

The third theory supporting this study is conservation of resources theory, which promotes the idea that "individuals strive to obtain, retain, protect, and foster those things that they value" (Hobfoll, 2001, p. 341). Value here refers to resources in terms of task resources (e.g. autonomy, feedback), interpersonal resources (e.g. colleagues supports), organizational resources (e.g. learning opportunity), and individual resources (e.g. personality, self-discipline) (Hobfoll, 2001). Hobfoll (2001) believes that these resources were determined by any particular culture, instead of by any specific individual objects, and they were transcultural. Consequently, the job resources variables measured in this study, including autonomy, performance feedback, development opportunities, and task variety, are reasonable job resources indicators across four countries (China, India, the UK, and Netherlands).

Influence of Culture at the Workplace

The previous description presents that the positive relationship of work engagement with job resources has been tested many times and has been found to be true in a particular country such as Spain, Portugal, Germany, Finland, and the Netherlands (Bakker, Demerouti, & Schaufeli, 2003; Demerouti, Bakker, Nachreiner, et al., 2001; Hakanen, Bakker, & Schaufeli, 2006; Schaufeli, Martinez, et al., 2002). Studies on the effects of culture indicate that the national culture influences people's behaviors and attitudes, no matter if in one's personal leisure time or at the workplace (Hofstede, 1980b; House, 2000). Many scholars began to think that the positive relationship between job resources and work engagement is influenced by the national culture.

Culture refers to “the collective programming of the mind that distinguishes the members of one group or category of people from another” (Hofstede, 1980b, p. 25). Hofstede and Bond (1984) raised a four-dimension culture theory, including power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity. Later, Hofstede (1994) further developed this theory to a five-dimension version by adding a new dimension which he termed long-term orientation. The definition of each dimension is listed below.

Power Distance (PDI): “The extent to which the less powerful members of institutions and organizations accept that the power is distributed unequally (Hofstede & Bond, 1984, p. 419).”

Uncertainty Avoidance (UAI): “The extent to which people feel threatened by ambiguous situations, and have created beliefs and institutions that try to avoid these (Hofstede & Bond, 1984, p. 419).”

Individualism (IDV): “A situation in which people are supposed to look after themselves and their immediate family only (Hofstede & Bond, 1984, p. 419).”

Masculinity (MAS): “Masculinity is defined as a situation in which the dominant values in the society are success, money, and things; Femininity is defined as a situation in which dominant values in the society are caring for others and the quality of life (Hofstede & Bond, 1984, p. 419).”

Long-term Orientation (LTO): Long-term orientation describes the degree to which a society emphasizes on “values oriented towards the future, like persistence”(Hofstede, 1993, p. 90).

By using these five dimensions, some cross-national studies prove cultural impacts on management practices and organizational performance (Newman & Nollen, 1996; Schuler & Rogovsky, 1998) . For instance, corporations in different social context were encouraged to implement a different compensation and rewards system. In individualistic societies, employees performed better when their rewards were closely related to individual contributions, and in societies that had a high score in masculinity, merit-based compensation and promotion were better incentives for employees to have higher performance (Newman & Nollen, 1996). Also, with regard to conflict resolution, individuals in

individualistic contexts (e.g. American and European countries) were less likely to compromise and use a harmonious method of dealing with conflicts than were individuals in a collectivistic context (e.g. Mexico, China, and Japan) (Holt & DeVore, 2005). Another research study conducted by Aycan, Kanungo, and Sinha (1999) demonstrated that in India, where organizations were highly hierarchical (high score in power distance), managers were expected to provide explicit guidance and, consequently, their relationship with subordinates was usually hierarchical.

Based on Hofstede's cultural theory (1980a), House (2000) designed another programmatic research measurement called "the Global Leadership and Organizational Behaviors Effectiveness Research Program" (GLOBE) to evaluate cultural impacts on leadership and organizational practices. The GLOBE study designed a 39-question questionnaire based on the ideas of "value as the desirable" and "existed practices" (Hofstede, 2010, p. 1340). In Hofstede's perspectives (2010), the GLOBE model integrated his cultural dimensions and extended it from five dimensions to nine. The GLOBE model has dimensions similar to those of Hofstede's cultural dimensions, including uncertainty avoidance, gender egalitarianism, in-group and institutional collectivism. Meanwhile, it also created new dimensions such as assertiveness, future orientation, performance orientation, and human orientation.

Power Distance: "The degree to which members of a community accept and endorse authority, power differences, and status privileges (Carl, Gupta, & Javidan, 2000, p. 513)." A higher score in this part indicates larger power distance. (Carl et al., 2000)

Uncertainty Avoidance: "The extent to which members of collectives seek orderliness, consistency, structure, formalized procedures, and laws to cover situations in their daily lives (p.602)." Society, which has low tolerance in uncertainty, is more likely to get a higher score in this study (Luque & Javidan, 2000).

Institutional Collectivism: "The degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action (House, 2000, p. 30)." The higher score each country has, the more collectivistic it is (Gelfand, Bhawuk, Nishii, & Bechtold, 2000).

In-group Collectivism: "The degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families (House, 2000, p. 30)." The countries or regions are less likely to be collectivistic if they are scored very low in the survey (Gelfand et al., 2000).

Gender Egalitarianism: "The degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others (House, 2000, p. 30)." A relative score is given to compare the egalitarianism in one society compared with that of others (Emrich, Denmark, & Hartog, 2000).

Assertiveness: "The degree to which individuals are assertive, confrontational, and aggressive in their relationships with others (House, 2000, p. 30)." Higher scores indicate greater assertiveness (Hartog, 2000).

Performance Orientation: "The degree to which a collective encourages and rewards group members for performance improvement and excellence (House, 2000, p. 30)." A country or region that has a higher score in performance orientation is more performance oriented (Javidan, 2000).

Future Orientation: "The extent to which members of a society or an organization engage in future-oriented behaviors such as planning and investing in the future (House, 2000, p. 30)."

Human Orientation: "The degree to which a collective encourages, or group relies on social norms, rules, and procedures to alleviate unpredictability of future events (House, 2000, p. 30)."

From the previous description, it can be noted that there are many differences between Hofstede's model and that of the GLOBE project in terms of the core assumption, measurements, and understanding of each dimension.

One difference between Hofstede's study and the GLOBE study is present in data collection. Hofstede successfully collected more than 116,000 surveys at the workforce level (employees) within a multinational corporation (IBM) across 72 countries and regions. The GLOBE study evaluated culture at the management level (17,000 managers) from three industries (food industry, finance industry, and telecommunication industry), organizations (951 organizations), and society (62 cultures) (Shi & Wang, 2011).

Also, the Hofstede and GLOBE Models hold different understandings on the conceptualization of values. In measuring cultural dimensions, Hofstede preferred using “values as the desired”, which was defined as what people actually and personally desire, while the GLOBE model used “values as the desirable”, which referred to what people ideally pursue (Hofstede, 2010). In other words, Hofstede perceived that values rooted in culture determine practices, whereas the GLOBE model believed that both values and practices presented different cultural dimensions (Maseland & Hoorn, 2009). This difference is present in both the measurement questionnaire and research results. For example, Hofstede had questions asking only how respondents perceive their personal desire, while the GLOBE had questions related to both what practices were done in the organizations and society and how people considered these practices (Hofstede, 2010).

In terms of cultural dimensions, the differences between the Hofstede Model and the GLOBE Model are really obvious. Hofstede (2010) argued that grounded on his cultural model, GLOBE created four more dimensions. And they kept power distance and uncertainty avoidance, and relabeled long-term orientation to future orientation. In terms of the correlations among variables, Hofstede’s cultural dimensions were designed to measure the national culture rather than any organizations or individuals (Minkov & Hofstede, 2011), while the GLOBE presented cultural dimensions at both the organizational and societal level (House, 2000).

It is not deniable that the GLOBE study was heavily influenced by Hofstede’s studies. Hofstede (2006) argued that the GLOBE study showed substantial likeness with his studies. To date, the Hofstede model has been tested to be reliable by several studies (Brochner, 1994; Merkin, 2006; Shackleton & Ali, 1990), and it has been adopted as part of the foundation in many relevant studies (Verbeke, 2000). Compared to the Hofstede model, the GLOBE study is more recent and lacks substantial and comprehensive analysis done by other researchers. Therefore, the Hofstede model is more theoretically and statically sophisticated than the GLOBE study.

Even though there are many differences and similarities between the Hofstede model and the GLOBE model, Minkov and Hofstede (2011) pointed out that the two approaches to measure a particular construct were not comparable,

particularly since all of the measured constructs were not material objects. This present study uses both two mentioned culture models to build hypotheses and illustrate the relationship between job resources and work engagement in different cultural backgrounds. The following section will present the nine hypotheses that are built on the previous studies and theories discussed.

Hypotheses

Plenty of research studies conducted in different countries such as Spain (Llorens, Bakker, Schaufeli, & Salanova, 2006), the Netherlands (Xanthopoulou et al., 2009a), and India (Chaudhary, Rangnekar, & Barua, 2010) have indicated that the job characteristics of autonomy, performance feedback, development opportunities, and task variety were positively related to work engagement. According to Hofstede (1980b) and House et al. (2000), culture has an influence at the workplace. Specifically, different cultural dimensions affect how job resources (e.g. performance feedback, autonomy, development opportunities, and task varieties) affect work engagement.

Performance Feedback

Performance feedback is defined as “the actions taken by (an) external agent(s) to provide information regarding some aspect(s) of one’s task performance” (Kluger & DeNisi, 1996, p. 255). Feedback significantly influences learning and achievement because it narrows the gap between current performance and expected goals (Hattie & Timperley, 2007). Similarly, when applied to the workplace, if employees are given more feedback on their performance, they are supposed to have a better understanding of their job and better performance as a result. In many of the existing studies, performance feedback, as a part of job resources, is proved to be positively correlated with work engagement in different industries (e.g. insurance, mining and education) and in different countries (e.g. the Netherlands, Germany, and South Africa) (Demerouti, Bakker, Nachreiner, et al., 2001; Rothmann & Joubert, 2007; Saks, 2006; Schaufeli & Bakker, 2004). For example, in a sample of 374 employees in the human service industry in Germany, performance feedback was found to be positively correlated with work engagement and identification (Demerouti, Bakker, Nachreiner, et al., 2001). Another study among 102 Canadian employees came to the same conclusion (Saks, 2006). Thus, applying the results of the existing studies to this study, it is expected that the data collected in this research will be consistent with that of the previous studies.

H1: The relationship between performance feedback and work engagement is significant and positive.

As discussed before, people in different culture have different expectations of

their leaders and organizations at the workplace (House, 2000). The expectation on performance feedback at the workplace is not an exception. According to both the GLOBE project and the Hofstede culture models, for example, in societies that have high scores in uncertainty avoidance, people are less likely to take risks because risks are unpredictable uncertainties. At the workplace, employees in high uncertainty avoidance cultures have a stronger desire to have knowledge concerning management expectations so as to avoid insupportable behaviors, punishments, and the possibility of unemployment. To avoid all these risks, performance feedback is an excellent chance for employees to eliminate the gap between their job performance and management expectations (Kluger & DeNisi, 1996). The more performance feedback employees receive, the better understanding employees hold on their jobs, consequently leading to a higher devotion and engagement in their work. Thus, the hypothesis of this study is that uncertainty avoidance positively moderates the relationship of performance feedback to work engagement.

H1a: The positive relationship between performance feedback and work engagement in societies that score higher in the uncertainty avoidance index is stronger than the relationship in societies that score lower in the uncertainty avoidance index.

Further, performance orientation is another cultural dimension that probably affects employees' perception of performance feedback and results in a change in work engagement. According to Javidan (2000) and Hofstede (1980b), in societies that highly value performance orientation, managers encourage any improvements in work performance, and employees are expected to pursue excellent performance. Performance feedback helps employees keep track of their progress. If employees' performance deviated from management expectations, they can obtain this deviation through performance feedback and then correct their mistakes. Therefore, in a performance-oriented society, performance feedback is considered as a valuable source for people to keep improving in performance. On the other hand, in a low performance orientation society, people value societal relationships more than they do tasks. If employees are given any feedback on performance, they tend to consider feedback as judgmental (Javidan, 2000). They believe that the feedback is evaluated based on their relationship with the evaluator instead of on the real performance at the workplace. Thus, they feel uncomfortable with performance feedback most of the time. According to the previous explanation, it is

hypothesized that performance orientation positively moderates the relationship between performance feedback and work engagement.

H1b: The positive relationship between performance feedback and work engagement in societies that score higher in the performance orientation index is stronger than the relationship in societies that score lower in the performance orientation index.

Autonomy

Autonomy is defined as the process of self-control and self-determination (Ryan, 1991). Applied to the workplace, it refers to the degree to which an individual can self-decide his own behaviors within an organization. In the JD-R model, autonomy is viewed as one of the variables in job resources. Many studies on the relationship of job resources to work engagement indicated that autonomy enhanced work engagement (Bakker et al., 2003; Saks, 2006; Salanova, Agut, & Peiro, 2005). For instance, a study among 477 customer services employees from the Netherlands indicated that lack of autonomy probably led to an increase in job pressure and then a reduction in work engagement (Bakker et al., 2003). Another study testing the organizational resources and work engagement from 114 service units suggested that an increase in job autonomy could enhance work engagement. Regardless of cultural impacts, this study hypothesizes that autonomy is positively correlated with work engagement (Salanova et al., 2005). Based on the previous studies, it is proposed that autonomy has a positive correlation with work engagement.

H2: The relationship between autonomy and work engagement is significant and positive.

Concerning the influence of culture, according to the GLOBE model and Hofstede model, it can be expected that employees in different cultures have different demands on autonomy at the workplace. There are limited studies illustrating the role of culture in affecting work engagement. For example, a cross-cultural research showed that autonomy had a stronger influence on job satisfaction in India, where the power distance score was relatively higher than that in the United States and Australia, where the power distance scores were relatively lower (Decarlo & Agarwal, 1999). In high power distance societies, people tend to show more respect towards seniority, power, and authority. It is very

necessary for subordinates and young people to obey orders from leaders and seniority. In turn, leaders and seniority take the responsibility to help and support the young and junior groups. Autonomy allows individuals to input their own thoughts and ideas instead of strictly following what supervisors demand. Thus, in high power distance societies, supervisors do not expect employees to have lots of self-control in their jobs and, in turn, employees look forward to explicit orders and comprehensive consideration from their leaders. If too much autonomy is given in such cultures, both managers and employees will feel upset and uncomfortable. Managers have a sense of losing power, since they do not have close control of their subordinates' behaviors. Meanwhile, employees feel lost because their supervisors do not provide sufficient consideration and care. Thus, based on the previous understanding, a hypothesis has been formulated in which power distance serves as a moderator in the relationship between autonomy and work engagement.

H2a: The positive relationship between autonomy and work engagement in societies that score higher in the power distance index is weaker than the relationship in societies that score lower in the power distance index.

Uncertainty avoidance is another possible cultural dimension that influences the relationship between autonomy and work engagement. Managements in high uncertainty avoidance societies have low tolerance of uncertainties and potential risks, and thus they will set up explicit orders and rules to regulate employees' behaviors and create predictability (Luque & Javidan, 2000). On the other hand, people in lower uncertainty avoidance societies tend to interact with each other in a more informal way, and they are less concerned about the documentations, potential risks, and changes (Hofstede & Bond, 1984). Shane (1993) suggested that societies that accept uncertainty were more innovative than societies that strongly avoid uncertainty. In task performing, without lots of restrictions from explicit rules and straightforward instructions, employees in low uncertainty avoidance societies enjoy having more autonomy --- more room to input their personal insights, resulting in a higher possibility of breaking regular ways of thinking and being more creative. Also, Barr and Glynn (2004) held that in strategy setting, high uncertainty avoidance societies had a higher tendency to prefer having controllability than did low uncertainty avoidance societies. Autonomy, then, is more welcomed in lower uncertainty avoidance societies than it is in high uncertainty avoidance societies. According to the previous reasoning, it is hypothesized that uncertainty avoidance moderates the

relationship between autonomy and work engagement.

H2b: The positive relationship between autonomy and work engagement in societies that score higher in the uncertainty avoidance index is weaker than the relationship in societies that score lower in the uncertainty avoidance index.

With respect to institutional collectivism, it also possibly has an effect on the relationship of autonomy with work engagement. According to the GLOBE study, in high institutional collectivism societies, an individual is labeled as “an interdependent part of a group”, while in high institutional individualism societies, an individual is viewed as “an independent and autonomous part of a group” (Gelfand et al., 2000, p. 454). Erez (1994) argued that individualist societies placed more emphasis on designing individualized jobs to ensure that individual employees gained meaningful experience and responsibilities through an enhancement in autonomy and job variety. Gelfand et al. (2000) further argued that individualistic societies cared more about autonomy and independence because they placed individual goals prior to group goals. Thus, autonomy is more preferable in individualistic societies than in collectivistic societies. This study hypothesizes that institutional collectivism plays as a moderator in the relationship between autonomy and work engagement.

H2c: The positive relationship between autonomy and work engagement in societies that score lower in the institutional collectivism index is stronger than the relationship in societies that score higher in the institutional collectivism index.

According to the GLOBE, assertiveness oriented societies are characterized as placing a high value on taking initiative and a high desire to dominate the environment (Hartog, 2000). Bekker, Croon, Balkom, and Vermees (2008) stated that assertiveness had a huge contribution to the relationship between autonomy and connectedness. Bekker (1993) also proved that compared to women, men were more likely to show their autonomous personality. House argued that assertiveness was a cultural dimension that develops from Hofstede’s masculinity, in which men are more assertive than are women (Hartog, 2000). Employees in high assertiveness societies enjoy having autonomy because autonomy provides them much more self-control and initiative on their own jobs. Thus, it is hypothesized that the relationship between autonomy and work engagement will be moderated by the extent to which a society is assertiveness oriented.

H2d: The positive relationship between autonomy and work engagement in societies that score higher in the assertiveness index is stronger than the relationship in societies that score lower in the assertiveness index.

Performance orientation is the last, but not the least, culture dimension that possibly affects the relationship of autonomy with work engagement. If a society is performance oriented depends on the degree to which the society encourages innovation and performance improvements (Javidan, 2000). A high performance oriented society places high value on taking initiatives, encouraging assertiveness, and rewarding high performance (Javidan, 2000). Zhou (1998) argued that in high performance orientation societies, because employees were concerned more about their work performance and involvement at work, they were more likely to have a positive reaction to a highly autonomous condition. If autonomy is given to employees in low performance orientation societies, they will not have as high a positive reaction as employees in high performance orientation societies because these less performance oriented employees value quality of life more than high work performance and innovation. Thus, performance orientation is also predicted to moderate the relationship between autonomy and work engagement.

H2e: The positive relationship between autonomy and work engagement in societies that score higher in the performance orientation index is stronger than the relationship in societies that score lower in the performance orientation index.

Development Opportunities

Development opportunities, a variable in job resources, were proved to be positively associated with work engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Schaufeli, Bakker, and Van Rhenen (2009) demonstrated in a study among management in telecommuting companies that the variable named opportunities to learn and to develop as well as the other two variables –social support and performance feedback- had a positive influence on work engagement. Another research study among 163 employees in an electrical engineering and electronics company in the Netherlands also indicated that opportunities for professional development had a positive effect on enhancing employees' work engagement (Xanthopoulou et al., 2009a). Regardless of culture, it is assumed that development opportunities are positively correlated with work engagement.

H3: The relationship between development opportunities and work engagement is significant and positive.

When taking culture into consideration, it is expected that power distance is a possible cultural dimension that influences this relationship. Hofstede (1980b) asserted that employees in low power distance contexts demanded justification when organizational resources were distributed. Carl et al. (2000) found that high power distance societies usually localized their information and limited the mobility of resources (e.g. skills and knowledge), while low power distance societies were more likely to share these resources and information. In other words, people in low power distance societies have higher demands of knowledge, skill, and information than do people in high power distance societies. Development opportunities are actually sources that help employees enhance skills, knowledge, and information. It is, therefore, hypothesized that people in societies that have different scores in power distance are expected to have different needs for development opportunities, and these needs will differentiate the degree of work engagement.

H3a: The relationship between development opportunities and work engagement in societies that score lower in power distance are stronger than the relationship in societies that score higher in power distance.

Also, performance orientation is predicted to moderate the relationship of development opportunities with work engagement. According to the GLOBE, in high performance orientation societies, people highly value good performance, high standards, and innovations (Javidan, 2000). Generally, development opportunities such as training and promotion are great sources through which employees can improve their skills, knowledge, and experience to advance high quality performance and innovations. Employees in high performance orientation societies are expected to emphasize more the importance of development opportunities than are employees from low performance orientation societies. Consequently, performance orientation is assumed to moderate the relationship between development opportunities and work engagement.

H3b: The relationship between development opportunities and work engagement in societies that score higher in performance orientation are stronger than the

relationship in societies that score lower in performance orientation.

Task Variety

Task variety refers to the degree to which a job contains various skills, creativity, and personalized ideas. Many scholars view task variety to be a part of job resources. A recent study among 25,555 Finish dentists showed that task variety helped enhance work engagement (Hakanen, Schaufeli, & Ahola, 2008). Also, Salanova and Schaufeli (2008), testing a sample from the Netherlands and Spain, argued that task variety was positively correlated with work engagement, leading to an increased possibility of proactive behaviors at the workplace. Even though many of these studies tested this relationship in western countries, it is expected that regardless of culture, this relationship still exists in a globalized setting.

H4: The relationship between task variety and work engagement is significant and positive.

Power distance is expected to moderate the relationship between task variety and work engagement. Erez (2010) argued that job enrichment especially motivated employees in the United States, which scored low in both collectivism and power distance, than it did employees in Japan, which scored high in both collectivism and power distance. According to Carl et al. (2000) and Hofstede and Bond (1984), high power distance societies have more hierarchical interpersonal relationships at the workplace since they are more likely to show respect to the seniority, authority, and power. Compared to high power distance societies, low power distance societies have more flexible relationships among employees. Similarly, organizations in high power distance societies probably favor organizational structures that have more hierarchical levels and are more structured instead of flat ones. In these highly hierarchical organizations, people are more likely to prefer having a clear and specific labor division, which probably leads to a decrease in task variety. On the other hand, organizational flexibility in terms of structure helps promote variety in tasks since employees probably do not have very specific job descriptions. Then, if employees in high power distance societies are given sufficient variety in tasks, they won't enjoy this variety as much as employees in low power distance societies do.

H4a: *The relationship between task variety and work engagement in societies that*

score higher in the power distance index is weaker than the relationship in societies that score lower in the power distance index.

However, since there are limited numbers of studies on the effects of cultural dimensions on the relationship between task variety and work engagement, this study failed to build any hypothesis. However, this will be considered as exploratory and will be tested when analyzing data.

Methodology

This section will present information on the research methods, participants, and measures. The data used in this paper were collected and provided by Dr. Elaine Farndale, assistant professor in the Department of Labor Studies and Employment Relations at the Pennsylvania State University. Originally, these data were used in a study by Farndale (2011) titled “A study of the link between performance management and employee in western multinational corporations operating across India and China”. The qualitative data had a very limited description on the effects of culture, especially on the effects of a particular cultural dimension. Since this study is designed to test the moderating effects of cultural dimensions, it was decided to use data that were collected through online questionnaires only.

Procedure & Participants

To better illustrate the data itself, this section will present the work carried out by Dr. Farndale, including the process of questionnaire design and data collection. Before the formal data collection, a pilot study was conducted to test the wording and feasibility of the online survey from January to March 2009. Eleven employees from different companies completed the draft online questionnaire (3 in India, 3 in the UK, 3 in China, and 2 in Hong Kong). Via telephone, the research group contacted each of these 11 employees to inquire about their experience of finishing the online survey (e.g. language, time taken, and clarity). Also, researchers who have experiences in conducting cross-cultural studies were asked to make suggestions on the survey. According to all comments received from respondents and scholars, the research group revised the draft online survey and finalized a new one.

Because the original study conducted by Dr. Elaine Farndale (2011) was designed to include performance management, employee engagement, work climate (resources at both job-level and organization-level), and demands, the minimum requirement for participating in this survey was that employees must have been through no less than once the performance management process and be able to read and complete independently a questionnaire in English online. Employees from four corporations (GKN, AkzoNobel, RetailCo, InsureCo) located in four areas (the UK, China, India, and the Netherlands) were invited by email to complete the online questionnaire. These invited employees were given 14 days

to finish this survey, and they received an email reminder of the questionnaire after the first seven days of the survey. In total, 1,268 emails were sent out, and 964 questionnaires were successfully collected. The total response rate is approximately 76%. The response rate in India, China, the UK, and the Netherlands was, respectively, 68%, 89%, 61%, and 78%.

Sometimes, respondents did not complete the whole questionnaire so that the data was not sufficient enough to test the study hypothesis. In such cases, all these uncompleted data were deleted from the whole data set. As a result, except for the uncompleted data, 877 responses were used in this paper (306 in India, 274 in China, 175 in the UK, 122 in the Netherlands). According to the frequency table shown below, among the total 877 respondents, 697 are male and 521 are at levels of middle or senior management. Also, most respondents are of ages ranging from 30 to 39 years.

Measures

Job Resources

This paper evaluated four variables in job resources (performance feedback, autonomy, development opportunities, and task variety). *Performance feedback* was measured with five items developed from the questionnaire designed by Patterson et al. (2005). Respondents were asked about “the extent to which they believe that their work and the work of others are noticed and evaluated” (Farndale, 2011, p. 18). This measure uses a five-point Likert scale from 1 (Strongly disagree) to 5 (Strongly agree). An example question is “people usually receive feedback on the quality of work they have done”. *Autonomy* was measured with five items developed also from Patterson et al. (2005). This measure evaluates “the extent to which employees consider management is giving them freedom to make their own work-related decisions” (Farndale, 2011, p. 18). Respondents were asked to use a five-point Likert scale, ranging from 1 (Strongly disagree) to 5 (Strongly agree) to answer questions such as “line managers let people make their own decisions much of the time”. *Development opportunities* was measured with nine items developed from Veldhoven and Dorenbosch (2008) and Dorenbosch (2009). Respondents were asked about “the extent to which they feel their job leads to personal learning, achievement and growth, including career opportunities and reward” (Farndale, 2011, p. 18). This is a five-point Likert scale, ranging from 1 (Strongly disagree) to 5 (Strongly agree). Example questions are “I learn new things in my work” “My job offers me opportunities for personal growth and development”, and “My work gives me the feeling that I can achieve something”. *Task variety* was measured with a four-item scale developed from Veldhoven and Dorenbosch (2008) and Dorenbosch (2009). Employees were asked “the extent to which they believe their work is varied and requires personal creativity” (Farndale, 2011, p. 18) by using a four-point scale from 1 (Never) to 4 (Always).

Culture

Four countries (India, China, the UK, and the Netherlands) were measured with the GLOBE cultural measures developed by House (2000) and the Hofstede Model (Hofstede & Bond, 1984). Instead of re-evaluating cultural characteristics of the four countries with first-hand data, cultural dimension scores, from both

models, of the following cultural dimensions: power distance, uncertainty avoidance, institutional collectivism, assertiveness, and performance orientation were directly used. Table 2 below shows the GLOBE's and Hofstede's scores of four countries: India, China, the UK, and the Netherlands.

Work Engagement

Work Engagement was measured with a 17-item Likert scale developed by Schaufeli et al. (2006). Respondents were asked "how energized they feel about their work, how absorbed they are, and how much they are dedicated to their job" (Farndale, 2011, p. 18). Example questions are "I am proud of the work that I do" and "I am immersed in my work". All items were scored on a seven-point scale from 1 (never) to 7 (always).

Findings

This section will present the statistical steps taken in SPSS, including descriptive statistics and multiple regression tests.

Descriptive Statistics

Before testing the hypotheses, a correlation test was run among all the cultural variables in SPSS. Table 3 shows the means, standard deviations, and correlations among all the cultural variables in the GLOBE model and Hofstede's model. As can be seen in Table 3, some of the cultural variables were highly correlated with other each. For instance, in the Hofstede model, individualism and collectivism was highly correlated with power distance ($\beta=-0.927$, $p<0.001$) and long-term orientation ($\beta=-0.960$, $p<0.001$). Also, masculinity was -0.937 ($p<0.001$) correlated with uncertainty avoidance. In the GLOBE model, the correlations between collectivism and performance orientation ($\beta=0.949$, $p<0.001$), and the one between assertiveness and power distance ($\beta=-0.751$, $p<0.001$) were both much higher than 0.7. The high correlations between culture variables are probably caused by the insufficient variances of data that include only four countries. Since highly correlated variables would have very similar effects on expected relationships, the researcher was not able to test all hypotheses. This study, then, tested hypotheses that involved power distance or uncertainty avoidance as measured by the Hofstede model. The hypotheses to be tested in this study are listed below:

H1: The relationship between performance feedback and work engagement is significantly positive.

H1a: The positive relationship between performance feedback and work engagement in societies that score higher in the uncertainty avoidance index is stronger than the relationship in societies that score lower in the uncertain avoidance index.

H2: The relationship between autonomy and work engagement is significantly positive.

H2a: The positive relationship between autonomy and work engagement in societies that score higher in the power distance index is weaker than the

relationship in societies that score lower in the power distance index.

H2b: The positive relationship between autonomy and work engagement in societies that score higher in the uncertainty avoidance index is weaker than the relationship in societies that score lower in the uncertainty avoidance index.

H3: The relationship between development opportunities and work engagement is significantly positive.

H3a: The relationship between development opportunities and work engagement in societies that score lower in power distance is stronger than the relationship in societies that score higher in power distance.

H4: The relationship between task variety and work engagement is significantly positive.

H4a: The relationship between task variety and work engagement in societies that score higher in the power distance index is weaker than the relationship in societies that score lower in the power distance index.

After taking this decision, the researcher decided to rerun the correlation analysis. Table 4 demonstrates the means, standard deviations, and correlations between all variables, including control variables, independent variables, moderators, and dependent variables. Also, the table shows that the internal consistencies of the measure used in this study had Cronbach's alpha coefficients higher than 0.7, showing good reliability. All variables were correlated with each other, and none of them were higher than 0.7.

Multiple Regression Analysis

According to previous studies and the hypotheses in this study, job resources including performance feedback, autonomy, development opportunities, and task variety were expected to be positively associated with work engagement. To test these hypotheses, hierarchical multiple regression models for each hypothesis were built, which included all control variables in Model 1 and each job resource in Model 2. Work engagement served as dependent variable in the equation. Also, according to hypotheses, a moderating effect of cultural dimensions (power distance and uncertainty avoidance) was expected. To test the impacts of cultural dimensions, two models named Model 3 and Model 4 were created. In Model 3, to test the pure impacts of cultural dimensions on work engagement, control variables and cultural dimensions were entered only. In Model 4, all variables, including control variables, job resource variable, cultural dimensions, cultural dimension and its interaction terms with relevant job resources (e.g. uncertainty avoidance * performance feedback) were entered. The predicted two-way interaction effects were tested in five separate hierarchical multiple regression tests for each cultural dimension hypothesis. Results are present below.

As can be seen in Table 5, 7, 10, and 12 (See Appendix 1), four hypotheses involving job resources were supported. Specifically, performance feedback ($\beta=0.188$, $p<0.001$), autonomy ($\beta=0.064$, $p<0.1$), development opportunities ($\beta=0.445$, $p<0.001$), and task variety ($\beta=0.367$, $p<0.001$) were positively and significantly associated with work engagement. In this case, then, hypothesis 1, 2, 3, and 4 were supported.

In terms of the effect of cultural dimensions, how power distance and uncertainty avoidance influenced the relationship of each job resources with work engagement were analyzed respectively.

As can be seen in Table 6, the interaction term of performance feedback with uncertainty avoidance was not significant ($\beta=-0.193$, $p>0.1$), which means that hypothesis 1a was not supported by the data. However, Model 3 in Table 6 indicates that uncertainty avoidance was tested to have a positive influence on work engagement ($\beta=0.061$, $p<0.1$). In other words, work engagement varies between uncertainty avoidance cultures, but this variance is not explained by performance feedback.

In Table 8, the significance level of the interaction term in Model 4 was not sufficient to validate hypothesis 2a. The moderating effect of power distance on relationship between autonomy and work engagement was not found in this study. Meanwhile, power distance in Model 3 demonstrated a positive standardized coefficient ($\beta=0.145$) and a very high significant level ($p<0.001$). This means that despite the effects of autonomy, power distance has an impact on work engagement.

Table 9 shows the multiple regression test result of hypothesis 2b, which expects a moderating effect of uncertainty avoidance on the relationship between autonomy and work engagement. Model 4 in Table 9 shows that the result supports the hypothesis ($\beta=-0.695$, $p<0.05$). To further explore the effects of uncertainty avoidance, the effect of the interaction term between uncertainty avoidance and autonomy on work engagement was plotted (see Figure 1). As can be seen from figure1, uncertainty avoidance weakens the positive relationship between autonomy and work engagement. In other words, in low uncertainty avoidance cultures, autonomy has a positive impact on work engagement, supporting hypothesis 2b.

Hypothesis 3a in Model 4 shown in Table 11 was examined. The table indicates that the interaction term between power distance and development opportunities has a positive effect on the relationship of development opportunities and work engagement ($\beta=0.325$, $p<0.1$). This result is completely the opposite of hypothesis 3a. Hypothesis 3a is therefore not supported. However, similar to Model 3 in Table 6, power distance in Model 3 of Table 11 also shows a significant effect on work engagement. In other words, work engagement varies between power distance cultures, but this variance is not explained by development opportunities.

Hypothesis 4a was examined in Model 4 of Table 13. According to the result, the interaction term between power distance and task variety was not significant ($\beta=-0.170$, $p>0.1$), which means that hypothesis 4a was not supported. However, power distance in Model 4 had a significant and positive standardized coefficient ($\beta=0.313$, $p<0.5$). Meanwhile, power distance in Model 3 demonstrated a strong influence on work engagement ($\beta=0.145$, $p<0.001$). It is suggested then that power distance probably serves as another independent variable, rather than as a moderator, in the relationship between task variety and work engagement.

Last but not the least, an exploratory multiple regression model was run to test if uncertainty avoidance moderates the relationship of task variety with work engagement (See Table 14). Unfortunately, it was not found to have a significant result on either the interaction term ($\beta=-0.023$, $p>0.1$) or uncertainty avoidance ($\beta=0.055$, $p>0.1$) in Model 4. Even though uncertainty avoidance did not have a moderating effect in this study, it had an impact on work engagement since in Model 3 it had 0.061 standardized coefficients, which was significant ($p<0.1$). According to this result, it is suggested that uncertainty avoidance does influence work engagement, but more studies are needed on how the influence works.

Discussion

Until now, there have been extensive studies investigating the positive relationship between job resources and work engagement across occupations in different countries. Unlike many of the previous studies, this study examined this positive relationship in an international context. It is expected that culture moderates this positive relationship. To test the hypotheses, a sample of 877 responses from four countries (China, India, the UK, and the Netherlands) was analyzed.

As expected, performance feedback, autonomy, development opportunities, and task variety are positively related with work engagement. If employees, no matter which country they are from, are given more performance feedback, autonomy, development opportunities, or task variety, they will become more engaged at work. These results are consistent with many previous relevant studies that show that job resources help enhance work engagement (Bakker et al., 2003; Hakanen, Schaufeli, et al., 2008; Saks, 2006; Xanthopoulou et al., 2007).

Limited by insufficient variance of the data, hypotheses involving only two cultural dimensions were tested: power distance and uncertainty avoidance. After statistically analyzing the data, four significant findings were discovered.

One is that uncertainty avoidance moderates the relationship between autonomy and work engagement. Employees in low uncertainty avoidance society are more engaged at work when they are given more autonomy, compared to employees in a high uncertainty avoidance society. This result is similar to what Stankiewicz and Moczulska (2012) argued: that high uncertainty avoidance blocked the development of work engagement. They believed that employees in low uncertainty avoidance cultures would get engaged at work first if they were given more autonomy. However, unlike Stankiewicz and Moczulska's study that lacks concrete data, the findings of this study are supported with data from four countries. From this point, this is a unique study to statistically explore the relationship autonomy, uncertainty avoidance, and work engagement, and therefore is the benchmark for future research. Further studies are recommended to examine if this conclusion is also valid in other high and low uncertainty avoidance cultures.

A surprising finding is that power distance does not positively moderate the relationship between development opportunities and work engagement. This is

not consistent with other previous empirical or theoretical studies. For example, Farh, Hackett, and Liang (2007) were convinced that the relationship between organizational support and work outcomes was stronger in low power distance cultures than in high power distance cultures. Also, it theoretically contradicts what Hofstede (1980b) defined as power distance. One possible explanation to this result is the unequal amount of responses from high and low power distance society in this study's data. This might lead to a weak representation of low power distance societies. However, if the statistical result is reliable, further studies are suggested on how power distance influences the relationship between development opportunities and work engagement in other high and low power distance contexts.

It was also found that even though power distance does not moderate the relationship between task variety and work engagement, it probably influences this relationship as another independent variable. As can be seen in Table 13, power distance had a significant impact on work engagement (Model 3: $\beta=0.145$, $p<0.001$; Model 4: $\beta=0.313$, $p<0.05$). It is therefore suggested that along with task variety, power distance is positively associated with work engagement. This is congruent with previous studies. For example, Aycan et al. (2000) suggested that power distance led to changes in task variety by the mediator of employees' proactivity. Another study among 170 employees in Northern Malaysia indicated that task variety was more welcomed by employees in high power distance contexts, leading to an increase in supervision effectiveness (Desa, 2011). It is therefore reasonable to conclude that both power distance and task variety influenced work engagement; however, further studies are encouraged to examine how these relationships work globally.

Last but not least, both power distance and uncertainty avoidance are found to have an impact on work engagement. In other words, how people conceptualize authority and tolerate uncertainty varies their degree of engagement at work. There are some similar studies on proving the influences of uncertainty avoidance and power distance on people's attitudes and behaviors at workplace. For example, a previous study among 175 employees working in a public agency in the United States proved that power distance and uncertainty avoidance were positively associated with organizational commitment (Clugston, Howell, & Dorfman, 2000). Later, Euwema, Wendt, and Emmerik (2007) considered that power distance moderated the relationship between directive leadership and organizational citizenship behaviors. Also, Garcia-Cabrera and Farcia-Soto (2011) concluded in their studies among 831 top managers from multinational

corporations that uncertainty avoidance was associated with organizational commitment. Some studies on work engagement have argued that organizational commitment and organizational citizenship behaviors were significantly and positively related with work engagement (Babcock-Roberson & Strickland, 2010; Hallberg & Shaufeli, 2006). This finding is consistent with previous studies; however, more studies to test the validity of these findings in other cultural contexts are strongly recommended.

Conclusion

This study addresses the argument of how job resources influence work engagement by focusing on the moderating effect of culture. Power distance and uncertainty avoidance are predicted to moderate the positive relationship between job resources and work engagement. Based on the statistical analysis, four findings have surfaced. First, uncertainty avoidance moderates the relationship between autonomy and work engagement. Second, power distance does not moderate the relationship between development opportunities and work engagement. Third, the findings suggest that along with task variety, power distance influences work engagement. Fourth, power distance and uncertainty avoidance have positive impacts on work engagement.

The limitations to this study are as follows: One is that the data lacks sufficient variance. The data was collected from only four countries that did not sufficiently contribute to the variance among cultural dimensions. Therefore, due to the high correlations among the cultural variables, only two cultural dimensions -power distance and uncertainty avoidance-were tested. Future studies on relevant topics are encouraged to collect data from more different countries or regions. Another limitation of this study is that more than 60% of the respondents who are from China and India which, according to Hofstede model, score relatively high in power distance and low in uncertainty avoidance. In short, this study probably does not have sufficient representative respondents from lower power distance societies or high uncertainty avoidance societies. This might lead to a failure to prove the expected hypotheses that involve power distance and uncertainty avoidance. The third limitation of this study is that with regards to measure of performance feedback, it focused only on frequency of performance feedback and failed to measure types and channels of performance feedback. As a result of this limitation, this study failed to prove that power distance moderates the relationship between autonomy or development opportunities and work engagement, but only found that power distance has an impact on work engagement. Also, since the online survey was in English in all four countries, including China where English is not the official language, this probably led to a limit of the survey being fully completed by some of the invited participants who did not know English well enough. As the methodology discussed, all invited participants were at the professional level or managerial level, and the business language of the participated corporation was English, and so it was decided to use English in the survey.

Also, when analyzing the moderation effect of culture, the researcher assigned a country-level culture score to individuals from that country, instead of evaluating individual conceptualizations of culture. This method assumes that respondents from the same country share a homogenous understanding of the national culture, leading to a failure to ignore the characteristics of individual respondents and their subcultures. Some researchers have argued that people from different communities or groups within the country hold different ideas on culture (Dolan, Martin-Prius, Diez-Pinol, Martinez-Fierro, & Fernandez-Alles, 2004; Huo & Randall, 1991; Jones, 2007). This is then one of the limitations of this study. Futures studies on relevant topics are encouraged to take subcultures into consideration when designing research.

This study used multiple regression tests to examine hypotheses, and only one hypothesis is supported by the data. One of the reasons why there are many non-significant results in the multiple regression tests can be due to multicollinearity. Additionally, the multiple regression tests were designed based on the assumption that cultural variable (power distance and uncertainty avoidance) and work engagement have a linear relationship. If this assumption is not appropriate, future studies are suggested to use less constrained equations to address relevant issues.

All in all, this is a unique study contributing to the research on how culture, specifically power distance and uncertainty avoidance, influence work engagement. Future studies can address the limitations and explore this field with more interesting findings.

Appendices

Appendix A. The Profiles of Respondents

Table 1. The Profiles of Respondents (Total Respondents=877)

	Total (%)	India (%)	China (%)	UK (%)	Netherlands (%)
Valid Responses	100	34.9	31.2	20.0	13.9
Grade					
Manual worker	1.9	0	2.6	5.1	0.8
Administrative	9.0	5.6	11.7	12	7.4
Professional/ Technical	29.6	16.7	38.3	37.7	31.1
Middle management	50.1	63.1	42.3	36.6	54.1
Senior management	9.4	14.7	5.1	8.6	6.6
Gender					
Male	79.5	90.2	62.0	90.9	75.4
Female	20.5	9.8	38.0	9.1	24.6
Age					
Under 20	0.5	0.3	0	1.1	0.8
20-29 years	21.8	17.6	40.5	12.0	4.1
30-39 years	40.0	50.0	46.4	21.1	27.9
40-49 years	23.8	23.2	12.4	36.0	33.6
50 or more years	13.9	8.9	0.8	29.7	33.6

Note: all data were adopted from Dr. Farndale (2011).

Appendix B. Scores of Four Countries in GLOBE Model and Hofstede Model

Table 2. Scores of Four Countries in GLOBE Model and Hofstede Model

Theory	Dimensions	China	India	U.K	Netherlands
<i>Hofstede Model</i>	<i>Power Distance</i>	80	77	35	38
	<i>Uncertainty Avoidance</i>	30	40	35	53
	<i>Individualism & Collectivism</i>	20	48	89	80
	<i>Masculinity</i>	66	56	66	14
	<i>Long-term Orientation</i>	118	61	25	44
<i>GLOBE Model</i>	<i>Power Distance</i>	5.04	5.47	5.15	4.11
	<i>Uncertainty Avoidance</i>	4.94	4.15	4.65	4.70
	<i>Institutional Collectivism</i>	4.77	4.38	4.27	4.46
	<i>Assertiveness</i>	3.76	3.73	4.15	4.32
	<i>Performance Orientation</i>	4.45	4.25	4.08	4.32

Note: Scores in Hofstede Model were collected from Hofstede (2001) and House et al. (2000)

Appendix C. Mean, Standard Deviation, and Correlation Tables

Table 3. Mean, Standard Deviation, and Correlations of All Culture Variables (N=877)

Theory	Dimensions	Mean	Standard Deviation	1	2	3	4	5	6	7	8	9	10
Hofstede Model	1. Power Distance	64.131	20.031										
	2. Uncertainty Avoidance	37.686	7.379	-.459***									
	3. Masculinity	55.278	17.216	.418***	-.937***								
	4. Individualism & Collectivism	51.885	26.618	-.927***	.578***	-.415***							
	5. Long-term Orientation	69.260	35.314	.784***	-.591***	.348***	-.960***						
GLOBE Model	6. Power Distance	5.083	.431	.542***	-.533***	.767***	-.297***	.070					
	7. Uncertainty Avoidance	4.573	.329	-.150***	-.410***	.099***	-.231***	.490***	-.553***				
	8. Performance Orientation	4.288	.132	.652***	-.246***	-.042	-.847***	.922***	-.253***	.496***			
	9. Collectivism	4.491	.196	.581***	-.489***	.181***	-.840***	.957***	-.207***	.689***	.949***		
	10. Assertiveness	3.905	.231	-.961***	.564***	-.602	.834***	-.654***	-.751***	.268***	-.438***	-.408***	

Note: ***p< 0.001, **p<0.01. Cronbach's α is in parenthesis () along the diagonal

Table 4. Mean, Standard Deviation, Reliabilities, and Correlations of All Variables (N=877)

Variables	Mean	Standard Deviation	1	2	3	4	5	6	7	8	9	10
1. Job grade	3.560	.855										
2. Gender	1.210	.404	-.243***									
3. Age	3.290	.974	.221***	-.227***								
4. Performance Feedback	3.438	.671	.107***	.035	.021	(0.719)						
5. Autonomy	3.167	.614	.077	-.042	.146***	.118***	(0.723)					
6. Development Opportunities	3.493	.669	.065	.019	-.111***	.410***	.147***	(0.900)				
7. Task Variety	2.865	.597	.115***	-.092**	.163***	.069	.092**	0.296***	(0.803)			
8. Power Distance	64.131	20.031	.101**	.111***	-.435***	.057	-.243***	.107***	-.102**			
9. Uncertainty Avoidance	37.687	7.379	.145***	-.120***	.336***	-.016	.123***	-.040	.113***	-.459***		
10. Work Engagement	5.191	.845	.224***	-.147***	.175***	.204***	.096**	.432***	.401***	.069	.129***	(0.932)

Note: ***p< 0.001, **p<0.01. Cronbach's α is in parenthesis () along the diagonal

Appendix D. Multiple Regression Tables

Table 5. H1. Results of Regression Analysis on Work Engagement

	Model 1	Model 2
Job grade	.179 ^{***}	.156 ^{***}
Gender	-.077 [*]	-.090 ^{**}
Age	.118 ^{***}	.116 ^{***}
Performance feedback		.188 ^{***}
R2	.072	.107
Δ R2		.035
Adjusted R2	.069	.103
F	22.578 ^{***}	26.050 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 6. H1a. Results of Regression Analysis on Work Engagement

	Model 1	Model 2	Model 3	Model 4
Job grade	.179 ^{***}	.156 ^{***}	.175 ^{***}	.150 ^{***}
Gender	-.077 [*]	-.090 ^{**}	-.075 [*]	-.087 ^{**}
Age	.118 ^{***}	.116 ^{***}	.099 ^{**}	.097 ^{**}
Performance feedback		.188 ^{***}		.324 ⁺
Uncertainty Avoidance			.061 ⁺	.206
Performance feedback * Uncertainty avoidance				-.193
R2	.072	.107	.075	.111
Δ R2		.035	.003	.004
Adjusted R2	.069	.103	.071	.105
F	22.578 ^{***}	26.050 ^{***}	17.751 ^{***}	18.159 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 7. H2. Results of Regression Analysis on Work Engagement

	Model 1	Model 2
Job grade	.179 ^{***}	.176 ^{***}
Gender	-.077 [*]	-.077 [*]
Age	.118 ^{***}	.109 [*]
Autonomy		.064 ⁺
R2	.072	.076
Δ R2		.004
Adjusted R2	.069	.072
F	22.578 ^{***}	17.921 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 8. H2a. Results of Regression Analysis on Work Engagement

	Model 1	Model 2	Model 3	Model 4
Job grade	.179 ^{***}	.176 ^{***}	.147 ^{***}	.139 ^{***}
Gender	-.077 [*]	-.077 [*]	-.085 [*]	-.086 [*]
Age	.118 ^{***}	.109 [*]	.186 ^{***}	.183 ^{***}
Autonomy		.064 ⁺		.039
Power distance			.145 ^{***}	.073
Autonomy * Power distance				.100
R2	.072	.076	.088	.097
Δ R2		.004	.016	.021
Adjusted R2	.069	.072	.084	.091
F	22.578 ^{***}	17.921 ^{***}	21.051 ^{***}	15.571 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 9. H2b. Results of Regression Analysis on Work Engagement

	Model 1	Model 2	Model 3	Model 4
Job grade	.179 ^{***}	.176 ^{***}	.175 ^{***}	.170 ^{***}
Gender	-.077 [*]	-.077 [*]	-.075 [*]	-.066 ⁺
Age	.118 ^{***}	.109 [*]	.099 ^{**}	.092 ^{**}
Autonomy		.064 ⁺		.512 ^{**}
Uncertainty avoidance			.061 ⁺	.528 ^{**}
Autonomy * Uncertainty avoidance				-.695 [*]
R2	.072	.076	.075	.085
Δ R2		.004	.003	.009
Adjusted R2	.069	.072	.071	.078
F	22.578 ^{***}	17.921 ^{***}	17.751 ^{***}	13.406 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 10. H3. Results of Regression Analysis on Work Engagement

	Model 1	Model 2
Job grade	.179 ^{***}	.136 ^{***}
Gender	-.077 [*]	-.083 ^{**}
Age	.118 ^{***}	.175 ^{***}
Development opportunities		.445 ^{***}
R2	.072	.266
Δ R2		.194
Adjusted R2	.069	.262
F	22.578 ^{***}	78.866 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 11. H3a. Results of Regression Analysis on Work Engagement

	Model 1	Model 2	Model 3	Model 4
Job grade	.179 ^{***}	.136 ^{***}	.147 ^{***}	.119 ^{***}
Gender	-.077 [*]	-.083 ^{**}	-.085 [*]	-.089 ^{**}
Age	.118 ^{***}	.175 ^{***}	.186 ^{***}	.224 ^{***}
Development opportunities		.445 ^{***}		.275 ^{**}
Power distance			.145 ^{***}	-.142
Development opportunities * Power distance				.325 ⁺
R2	.072	.266	.088	.279
Δ R2		.194	.016	.013
Adjusted R2	.069	.262	.084	.274
F	22.578 ^{***}	78.866 ^{***}	21.051 ^{***}	56.202 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 12. H4. Results of Regression Analysis on Work Engagement

	Model 1	Model 2
Job grade	.179 ^{***}	.152 ^{***}
Gender	-.077 [*]	-.061 ⁺
Age	.118 ^{***}	.068 [*]
Task variety		.367 ^{***}
R2	.072	.202
Δ R2		.130
Adjusted R2	.069	.199
F	22.578 ^{***}	55.241 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Table 13. H4a. Results of Regression Analysis on Work Engagement

	Model 1	Model 2	Model 3	Model 4
Job grade	.179 ^{***}	.152 ^{***}	.147 ^{***}	.111 ^{***}
Gender	-.077 [*]	-.061 ⁺	-.085 [*]	-.072 [*]
Age	.118 ^{***}	.068 [*]	.186 ^{***}	.144 ^{***}
Task variety		.367 ^{***}		.473 ^{***}
Power distance			.145 ^{***}	.313 [*]
Task variety * Power distance				-.170
R2	.072	.202	.088	.224
Δ R2		.130	.016	.022
Adjusted R2	.069	.199	.084	.219
F	22.578 ^{***}	55.241 ^{***}	21.051 ^{***}	41.937 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

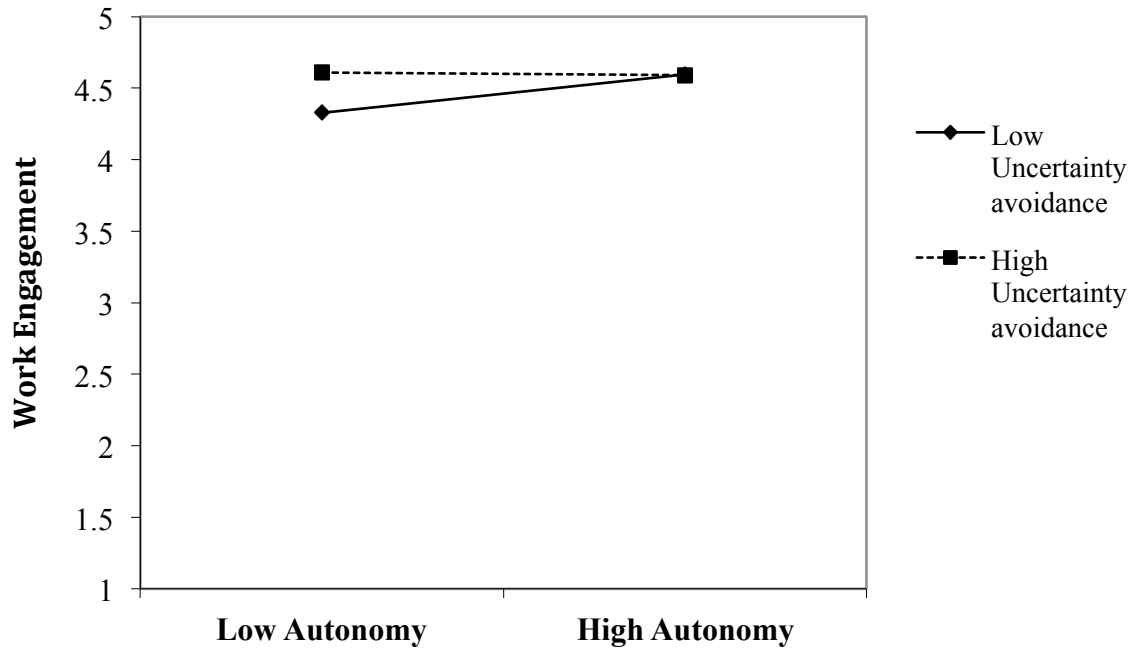
Table 14. Results of Regression Analysis on Work Engagement

	Model 1	Model 2	Model 3	Model 4
Job grade	.179 ^{***}	.152 ^{***}	.175 ^{***}	.149 ^{***}
Gender	-.077 [*]	-.061 ⁺	-.075 [*]	-.060 ⁺
Age	.118 ^{***}	.068 [*]	.099 ^{**}	.056 ⁺
Task variety		.367 ^{***}		.380 [*]
Uncertainty Avoidance			.061 ⁺	.055
Task variety * Uncertainty Avoidance				-.023
R2	.072	.202	.075	.204
Δ R2		.130	.003	.002
Adjusted R2	.069	.199	.071	.198
F	22.578 ^{***}	55.241 ^{***}	11.778 ^{***}	37.065 ^{***}

N=877, *** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .1$

Appendix E. Effect of the Interaction Term between Uncertainty Avoidance and Autonomy on Work Engagement Figure

Figure 1. Effect of the Interaction Term between Uncertainty Avoidance and Autonomy on Work Engagement



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