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Employee Engagement Around the World: Predictors, Cultural Differences, and Business Outcomes

Amanda Munsterteiger
Seattle Pacific University

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Employee Engagement Around the World: Predictors, Cultural Differences, and Business Outcomes

Amanda Munsterteiger, M.A.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

In Industrial-Organizational Psychology

Seattle Pacific University

June 26, 2019

Approved by: Joey Collins, Psy.D. Assistant Professor, Industrial/Organizational Psychology Dissertation Chair

Reviewed by: Robert B. McKenna, Ph.D. Chair, Industrial/Organizational Psychology

Lynette Bikos, Ph.D. Professor, Clinical Psychology Committee Member

Kathleen Tangenberg, Ph.D. Dean, School of Psychology, Family & Community

Sam K. Young, Ph.D. Talent Management & Employee Engagement Sr. Manager Committee Member
Dedication

I would like to thank my parents, Jill and Kevin Munsterteiger, for their nonstop support, especially in my educational endeavors.
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Abstract

Employee engagement, the level of connection and enthusiasm an employee has with their organization, is a widely studied variable both empirically and practically within organizations. Despite the variable’s popularity, across the world employee engagement is moderately low. This may partially be due to the fact that a large majority of the research on employee engagement includes only Western samples, therefore limiting the external validity of the findings. The current study aimed to extend the cross-cultural employee engagement literature by using a robust sample that is composed of client-facing consultants at a tech company across 22 countries ($N = 5,579$). More specifically, this study explored how cultural dimensions affect what predicts employee engagement, and to what extent employee engagement is tied to business outcomes (i.e., overtime hours and chargeability attainment). The sample consisted of primarily males (81.16%), across a variety of career stages (analyst to executive). The median tenure of the sample was 2.15 years. The results of this study showed that of the predictors tested, leadership and task variety significantly impacted employee engagement. The relationship between leadership and engagement was very strong; as leadership increased one point, employee engagement increased by .61 points. Task variety also significantly predicted engagement, but in an unexpected way – as task variety increased, employee engagement decreased. Two cultural dimensions moderated to what extent a specific predictor impacted engagement. First, there was a significant cross-level interaction between uncertainty avoidance and task variety; as task variety and uncertainty avoidance
increased, engagement decreased. Second, there was a significant cross-level interaction between tenure and time orientation; engagement decreased as tenure and time orientation increased. Finally, regarding the business metrics tested, engagement was significantly and negatively related to both overtime hours and chargeability attainment. Three key pieces of guidance arose from the findings: (a) in order to increase employee engagement, leadership capabilities must be developed, (b) how many hours an employee works overtime should be monitored and reduced when possible, and (c) employee engagement strategies should be culturally specific since what impacts an employee’s engagement is partially explained by the culture they reside in.

*Keywords*: employee engagement, cross-culture, cultural dimensions, leadership
CHAPTER I

Introduction and Literature Review

Employee engagement has been a widely studied topic, both empirically by researchers and practically within organizations (Shuck & Wollard, 2010). As a construct, employee engagement has received a large amount of attention and has been linked to several important outcomes. However, for many organizations employee engagement has not increased in over a decade (Mann & Harter, 2016). Mann and Harter (2016) outline Gallup’s regular tracking of employee engagement, and since 2000 there has been little change in engagement metrics. Interestingly, in the United States, less than one-third of employees are engaged at work. This statistic is even more bleak when looking outside the United States - worldwide only 13% of employees are engaged at work. Why is engagement not increasing across organizations, and more alarmingly why is it so low across cultures?

Before analyzing engagement with a cultural lens, it is important to address why employee engagement even matters. Employee engagement has been linked to a variety of important consequences, such as employee performance, job attitudes, and business outcomes. Regarding employee performance, researchers have found relationships between engagement and in-role performance, extra-role performance, task performance, contextual performance, and composite business-unit performance (Christian, Garza, & Slaughter, 2011; Harter, Schmidt, & Hayes, 2002; Schaufeli, Taris, & Bakker, 2006). Additionally, there is empirical support for the relationships between employee engagement and other job attitudes, such as organizational commitment, and job satisfaction (Hallberg & Schaufeli, 2006; Llorens, Bakker, Schaufeli, & Salanova, 2007;
Schaufeli, & Bakker, 2004; Wefald, Reichard, & Serrano, 2011). Finally, engagement has linkages to business outcomes. In a meta-analysis spanning 1.4 million employees, Gallup found that employee engagement was linked to profitability, customer ratings, and a variety of other outcomes (Sorenson, 2013). Likewise, in a study conducted by Best Buy, it was found that increasing engagement by one-tenth of a point on a five-point rating scale could increase in-store yearly sales by over $100,000 (BlessingWhite, 2008). While this industry research is certainly impressive, very little peer reviewed research has been done on the linkage between engagement and business outcomes. Industry research can lack validity as it is profit-driven and lacks the opportunity for third-party validation. Peer reviewed research should be done in order to support these claims, as this study seeks to.

While the evidence stated above drives a compelling case for the need for employee engagement, the predictors of engagement must be studied in order to know how to increase it. Much research has been done on engagement predictors, but these studies include largely Westernized samples, therefore the research is limited in that much of it may only be applicable to Western employees. Gelfand, Leslie, and Fehr (2008) argued that while I-O psychologists oftentimes work in global organizations, they frequently use research from Western-dominated samples to guide their assumptions about the rest of the non-Western working world. How can an organization that operates globally or is non-Western based then increase employee engagement across the board, and therefore improve performance and business metrics, if the empirical literature only gives guidance for Western employees?
In order to study the cultural variations of employee engagement predictors, a variety of predictors are included in the current study. Some predictors (i.e., task variety and leadership) have had empirical support in Western contexts, and some are new and largely unexplored (i.e., travel demands and tenure). The purpose of testing previously studied engagement predictors is to check if these findings are consistent across non-Western samples. In this study, I attempted to evaluate some of the cross-cultural assumptions about employee engagement to learn further about the cultural variations of this construct. Two major hypotheses are presented in this study. First, I tested whether cultural dimensions (i.e., uncertainty avoidance, power distance, and time orientation) moderated the relationship between a variety of predictors (i.e., tenure, leadership, task variety, and travel demands) and employee engagement. Second, I analyzed the connection between employee engagement and two potential business outcomes (i.e., overtime hours and chargeability attainment).

In this literature review I will first discuss the definition and theoretical framework of employee engagement. Second, I will compare and contrast constructs that are related to engagement. Third, I will examine the cultural variations of engagement and theoretical reasonings for why engagement may vary across cultures. Fourth, I will define the other focal constructs to be tested and the interrelation among these constructs. Finally, I will present my hypotheses and integrated research model.

**Employee Engagement Theory and Definition**

**Employee Engagement Definition**

Employee engagement became a widely studied construct starting in the early 1990s. Kahn (1990) presented one of the first definitions of employee engagement: the
physical, emotional, and cognitive connection one has for their job. Since then, many other definitions have emerged. For example, Macey, Schneider, Barbera, and Young (2009) defined engagement in a similar manner, but also included behavior as a fourth dimension. They formally defined the construct as a focused energy that an employee directs towards organizational goals. In a similar manner, in their literature review Shuck and Wollard (2010) defined the construct as “an individual employee’s cognitive, emotional, and behavioral state directed toward desired organizational outcomes” (p. 103).

For the purpose of this study, engagement was defined as “the levels of enthusiasm and connection employees have with their organization” (Culture Amp, n.d.). More specifically, employee engagement was measured according to four factors often cited in engagement definitions: (a) emotional attachment to the organization, (b) likelihood to recommend the organization to others, (c) job motivation, and (d) job commitment (Culture Amp, n.d.). This definition was chosen due it’s similarity to other peer-reviewed definitions, and additionally due to the archival nature of the data and how it represents the engagement measure used. See Table 1 below for research examples supporting these factors.
Table 1

<table>
<thead>
<tr>
<th>Engagement Factor in Current Study</th>
<th>Research Supporting Engagement Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional attachment to the organization</td>
<td>Macey &amp; Schneider, 2008; O’Reilly &amp; Chatman, 1986</td>
</tr>
<tr>
<td>Likelihood to recommend the organization to others</td>
<td>Also known as Employee Net Promoter Score. McPherson, n.d.-a</td>
</tr>
<tr>
<td>Job motivation</td>
<td>Colbert, Mount, Harter, Witt, &amp; Barrick, 2004; Schaufeli, Salanova, González-Romá, &amp; Bakker, 2002</td>
</tr>
<tr>
<td>Job commitment</td>
<td>Meyer, Becker, &amp; Vandenbergh, 2004; O’Reilly &amp; Chatman, 1986; Wellins &amp; Concelman, 2005</td>
</tr>
</tbody>
</table>

**Employee Engagement Theory**

In his seminal article on employee engagement Kahn (1990) set out to study how psychologically present employees are during given moments on the job. He believed that throughout one's role it can vary how much one's cognitive, emotional, and physical self is present and immersed in one's work. Kahn's engagement theory emerged from Goffman's (1961) theory on job attachment and detachment. According to Goffman, as employees begin to reduce the separation between the role and their personal selves their job attachment increases, and vice versa. Kahn added to this theory by integrating principles from both Alderfer (1972) and Maslow (1954), which describe that humans need self-employment and self-expression in their work selves in order to strive. Additionally, Kahn used Hackman and Oldham’s (1980) theoretical framework of job design to guide theory about how the characteristics of tasks and workers interrelate.

Kahn's (1990) two principle premises included: (a) that psychological experiences drive attitudes and behaviors (Hackman & Oldham, 1980), and that (b) individual, group, and organizational factors interact and simultaneously impact employee experiences.
(Alderfer, 1985). After studying engagement theory more concretely, Kahn concluded that three major factors impact employee engagement: safety, meaningfulness, and availability. These factors are all influenced by the work environment as well as the employee.

Today, a variety of employee engagement theories exist, and from them there are a few major arguing points among researchers. First, Shuck and Wollard (2010) describe that researchers question whether engagement is a personal decision or organizationally determined. In turn, does this mean that employee engagement is best studied on the individual or organizational level? Second, researchers disagree on whether there are various types of engagement, or whether it can be measured as one general construct (Shuck & Wollard, 2010). For example, Macey and Schneider (2008) as well as Saks (2006) identified three distinct types of employee engagement: cognitive engagement, behavioral engagement, and emotional engagement. Contrarily, many studies only measure engagement as a general factor (e.g., Czarnowsky, 2008; Harter et al., 2002).

Finally, engagement has been viewed as a state, trait, and behavior, as well as some combination of those three (Macey & Schneider, 2008). Macey and Schneider (2008) describe that the state-like form usually involves variables such as attachment, mood, commitment, and involvement. The behavior-like form is usually measured in terms of performance, which can be examined as either effort or specific behaviors (e.g., leaving the organization). Finally, the dispositional form of engagement is usually described in terms of positive affect. In the engagement literature, the variable is often referred to in terms of both affective state and performance all within the same study. If measuring only the behaviors, trait-like side, or the state-like side a large chunk of what
engagement truly embodies may be missed. The four-part measurement of engagement that is presented in the current study seeks to measure all three forms of engagement: perceived behaviors, traits, and states. See Figure 1.

![Four-Part Definition](image)

*Figure 1. Connection between four-part definition and forms of engagement.*

**Constructs Similar to Employee Engagement**

Researchers have voiced concerns about the connection between employee engagement to other similar constructs and question if it truly stands alone as a distinct variable (e.g., Buckingham & Coffman, 1999). Employee engagement has empirical connections to variables such as job satisfaction, work engagement, workaholism, job involvement, and job embeddedness. Before investing in initiatives that require time, money, and additional resources, organizations should be sure to understand the differences among these related constructs so that they choose to invest in the one that best matches the organization’s current needs.
Job Satisfaction

Harter et al. (2002) defined employee engagement as “an individual’s involvement and satisfaction with as well as enthusiasm for work” (p. 269), thus Harter et al. incorporated job satisfaction directly in employee engagement’s definition. The key differentiator between job satisfaction and engagement is that engagement assumes satisfaction, whereas being satisfied may not always lead to engagement. Harter et al. (2002) further explained that satisfaction derives from one’s basic needs being met, but Kahn (1990) described that engagement happens when employees are emotionally connected and motivated by their work. In an empirical study Christian et al. (2011) found that employee engagement has significant discriminant validity from job satisfaction.

Work Engagement

Work engagement and employee engagement are so similar that it can be easy to miss the distinction between the two, as many researchers refer to these interchangeably. Schaufeli et al. (2002) defined work engagement as a state of mind at work that is both fulfilling and positive, and is characterized by absorption, vigor, and dedication. The theory of work engagement derives from burnout literature and is viewed as the opposite of burnout (Schaufeli et al., 2002). Schaufeli (2013) described that work engagement is concerned with how an employee psychologically relates to their specific work duties, whereas employee engagement also considers this but more broadly considers how one also interacts with their organization. While their theoretical underpinnings are different, little or no published research has been done on the discriminant validity between the two. By studying employee engagement rather than work engagement, I hope to be able
to provide guidance on increasing engagement both with one’s organization and with one’s assigned tasks.

**Workaholism**

Bakker, Schaufeli, Leiter, and Teris (2008) defined workaholism as being an excessively hard worker who is unwilling to disengage from work. While workaholism and engagement share some similar features, engaged workers are not compulsively driven, and they view work as fun and are not addicted to it (Bakker et al., 2008; Schaufeli et al., 2001).

**Job Involvement**

Lawler and Hall (1970) defined job involvement as how much one’s job impacts one’s self-image. Likewise, French and Kahn (1962) defined it as the extent at which one’s self-worth is determined by how one perceives his or her job performance level. While viewed as similar to employee engagement, using a confirmatory factor analysis and inspections of latent intercorrelations, Hallberg and Schaufeli (2006) found that employee engagement is empirically distinct from job involvement. These researchers proposed that job involvement and employee engagement reflect two of the three major factors of work attachment. Additionally, Christian et al. (2011) found that engagement has significant discriminant validity from job involvement.

**Job Embeddedness**

Finally, job embeddedness shares theoretical similarities to engagement (Halbesleben & Wheeler, 2008). It can be defined as “the combined forces that keep a person from leaving his or her job” (Yao, Lee, Mitchell, Burton, & Sablynski, 2004, p. 159). Halbesleben and Wheeler (2008) used a confirmatory factor analysis and a
usefulness analysis to find that job embeddedness and employee engagement are distinct constructs that share unique variance with two factors: intention to leave and in-role performance.

Further theoretical and empirical work should be done to differentiate employee engagement from the variables listed above. In the current study I chose to focus on employee engagement over the other related constructs because it (a) is a broader construct than some noted above, (b) has been previously studied in connection to a wide variety of business outcomes, and (c) is measured bi-annually at the current study’s target organization, thus is already a high business priority.

**Cultural Variations of Employee Engagement**

There is a strong need for research in the field of I-O psychology to be cross-culturally evaluated (Gelfand et al., 2008). The current literature almost always relies on Western samples. Looking at articles from 2014-2017 in a leading journal, *Psychological Science*, Rad, Martingano, and Ginges (2018) found that 94.15% of these articles only included Western samples. By using research that heavily relies on Western samples, best practices are communicated to practitioners that may only be truly applicable to Western cultures (Brough et al., 2013), which may result in global organizations wasting time and resources on ineffective employee engagement initiatives.

Fortunately, a few researchers have begun to pave the way for cross-cultural employee engagement research. As one example, Farndale and Murrer (2015) studied the impact of job resources on employee engagement, as moderated by country culture. They found that in Mexico, the Netherlands, and the United States the level of job resources all impacted employee engagement, but to differing extents. As a second example,
Garczynski, Waldrop, Rupprecht, and Grawitch (2013) studied the relationship between self-concept differentiation and employee engagement across cultures. They found that the level of self-differentiation did impact employee engagement in American participants, but not in Indian participants.

It is important to be clear as to how culture is defined in this study, since it can be confused with company culture, rather than country/national culture. While company culture is an important variable to consider, country culture is a distinctly different variable and in this study I solely addressed country culture. Country culture is defined as “the collective programming of the mind which distinguishes the members of one human group from another” (Hofstede, 1980, p. 25). This implies that although culture can predict individual behaviors, it is a phenomenon across three higher levels: group, organizational, and societal (Ng, Sorenson, & Yim, 2009).

Theoretical Cultural Frameworks

Arguably the most popular theoretical framework of culture was created by Hofstede, Hofstede, and Minkov (2010). Their framework includes six cultural dimensions: power distance, uncertainty avoidance, individualism, masculinity versus femininity, indulgence, and time orientation. Other examples of cultural frameworks include Hall’s (1976) and Trompennars’ (1993). In this study I focused on three of Hofstede and colleague’s six dimensions, and how each predictor included in this study may be affected by one of these dimensions. While all six dimensions explain important variability across cultures, these three were chosen as they most logically connect to the predictors in the current study.
Uncertainty avoidance. Uncertainty avoidance examines a culture's comfort level with change, specifically regarding uncertainty and ambiguity (Hofstede, 1983). For example, do people in a specific culture prefer tradition and stability, or are they consistently evolving? Cultures that have a high uncertainty avoidance are rarely tolerant of new ideas or deviant people (Hofstede, 1984). Contrarily, cultures that have a low uncertainty avoidance have employees that are usually more relaxed on the job, more tolerant of breaking established norms, and enjoy innovation (Hofstede, 1984; Hofstede, 1997). According to Hofstede (1984), “the fundamental issue addressed by this dimension is how a society reacts on the fact that time only runs one way and that the future is unknown: whether it tries to control the future or to let it happen” (p. 83).

In this study I hypothesized that uncertainty avoidance may impact an employee’s value of travel and task variety. For those in cultures that have high uncertainty avoidance, employees may be less comfortable with high task variety and traveling often for work. Instead, they may value established norms, routines, and work task consistency. Traveling for work includes new job sites, new tasks, and new faces, which may make employees within these types of culture unsettled. Contrarily, those in cultures with low uncertainty avoidance may enjoy change and therefore be more engaged at work through frequent travel and a high variety of job tasks.

Power distance. This dimension analyzes a culture’s view on whether power (whether that be in a business setting, family system, etc.) should be distributed equally or unequally (Hofstede, 1983). According to Hofstede, those who are less powerful within a system are more likely to accept unequal power distribution when in a high-power distance culture. Contrarily, those of low status in a low-power distance culture are
likely to be unsatisfied with a rigid, hierarchical power system. The underlying core concern within this dimension is how those within a culture deal with established power inequalities among one another (1983).

In this study I hypothesized that power distance may have an impact on how one perceives and values leadership within the organization. Employees whose cultures have a low power-distance may put less of an emphasis on a leadership, since working equally towards a group goal is second nature. Therefore, leadership would not be a strong predictor of employee engagement. Contrarily, those in high-power distance cultures may be more appreciative of a stronger leadership direction, thus leadership may be a strong predictor of employee engagement.

Long-term versus short-term orientation. According to Hofstede (1991), this cultural dimension analyzes whether members of a culture actively plan for the future and are long-term oriented, or whether they rarely plan far ahead and are more short-term oriented. More specifically, this dimension is concerned with how a culture views past actions as predictive of current challenges. Those who are more short-term oriented are likely to hold on to traditions and the status quo as it is reliable and unwavering. Contrarily, those in cultures that are long-term oriented are quick to adapt and problem-solve as they are more strategically focused on what is to come rather than what is happening now.

In this study I hypothesized that this cultural dimension may have an impact on how strongly tenure affects employee engagement. Those in cultures that are long-term oriented may place less of an emphasis on tenure than those in short-term oriented cultures. Long-term oriented employees may feel the need to adapt and plan for the long-
run, rather than stick with an organization due to the stability of the current situation. In contrast, tenure for those in short-term oriented cultures may have a high impact on employee engagement, since employees do not actively foresee a long-term plan that may involve potential employment at a variety of organizations.

**Other Focal Constructs**

**Predictors of Employee Engagement**

In the current study four predictors were tested in relation to employee engagement and their cultural dimensions: task variety, tenure, leadership, and travel demands. These predictors were chosen because two have been previously studied in Western samples (i.e., task variety and leadership), and two have been largely unexplored as direct predictors (i.e., travel demands and tenure). The purpose of testing previously studied engagement predictors is to see if they are consistent across non-Western samples. By additionally including new, potential predictors I aim to expand the employee engagement literature.

**Task variety.** Task variety refers to the extent to which a job requires one to do a broad range of tasks (Morgeson & Humphrey, 2006). In research, task variety is oftentimes lumped under the general category of “job resources” which have been consistently found to be related to employee engagement (see Bakker, 2011; Bakker & Demerouti, 2007). Other examples of job resources include autonomy, performance feedback, and learning opportunities (Bakker, 2011). Few published studies have studied task variety solely as a predictor of engagement, as I aimed to in the current study.

Maden-Eyiusta (2016) studied the relationship between task variety and proactive job behaviors and found that this relationship is significantly mediated by engagement.
These findings imply that in order to increase engagement and proactivity, organizations should focus on providing greater levels of task variety. Likewise, Zaniboni, Truxillo, Fraccaroli, McCune, and Bertolino (2014) found that task variety has a significant relationship with engagement, and is moderated by age, such that task variety was more influential on one's employee engagement for younger rather than older workers.

Task variety not only affects employee engagement, but other workplace behaviors as well, such as counterproductive work behaviors (CWBs). CWBs are harmful behaviors that are intended to target an organization or coworkers in a negative manner (Spector & Fox, 2010). Morf, Feierabend, and Staffelbach (2017) reported that when task variety was consistently low workers engaged in more CWBs, and that these behaviors increased in frequency over time. These findings further imply that having low task variety can have hazardous implications for an organization, and thus organizations should work to increase task variety when possible.

**Tenure.** Job tenure can be defined as the length of time that one has worked at their organization. Organizations strive to reduce turnover as it is costly, thus increasing average tenure across an organization is ideal. In psychological studies tenure is often studied as only either a covariate or moderator of engagement.

van der Westhuizen and Bezuidenhout (2017) found that tenure was a significant moderator of the relationship between organizational support and work engagement, such that engagement was strongest when organizational support was high, and tenure was high. Additionally, Sibiya, Buitendach, Kanengoni and Bobata (2014) studied employees in a South African communication technology firm and found that engagement predicted turnover intentions, thus directly impacting tenure.
As a final example, in a study on the effects of workplace flexibility on engagement, researchers found that engagement may eventually lead to longer tenure (Richman, Civian, Shannon, Hill, & Brennan, 2008). While this relationship studied by Richman et al. (2008) is interesting, in the current study I examined whether job tenure directly impacts employee engagement.

**Leadership.** Leaders are critical contributors to the quality of the work experience of their employees. There are a variety of leadership styles, such as transformational, transactional, and laissez-faire, all which have their own advantages and disadvantages (Judge & Piccolo, 2004). The current literature supports leadership as a significant predictor of engagement. For example, in a study on daily engagement fluctuations, researchers found that when leaders demonstrated transformational leadership behaviors and contingent reward behaviors followers’ engagement increased (Breevaart et al., 2014). Likewise, Tims, Bakker, and Xanthopoulou (2011) also studied daily levels of engagement and found that transformational leadership behaviors led to increases in followers’ engagement. The five leadership items used in the current study represent a variety of leadership styles. See Table 2 below for their suggested theoretical mappings.
Table 2  
*Mapping Leadership Survey Items to Leadership Styles*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Leadership Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>The leader of my area / region / global function effectively communicates</td>
<td>Transactional leadership</td>
</tr>
<tr>
<td>information I need to be made aware of.</td>
<td></td>
</tr>
<tr>
<td>The leader of my area / region / global function ensures that I have the</td>
<td>Transactional leadership</td>
</tr>
<tr>
<td>support I need to meet client needs (internal or external).</td>
<td></td>
</tr>
<tr>
<td>The leader of my area / region / global function demonstrates actions that</td>
<td>Transformational leadership:</td>
</tr>
<tr>
<td>match their words.</td>
<td>idealized influence</td>
</tr>
<tr>
<td>The leader of my area / region / global function inspires me to do my best</td>
<td>Transformational leadership:</td>
</tr>
<tr>
<td>work.</td>
<td>inspirational motivation</td>
</tr>
<tr>
<td>The leader of my area / region / global function genuinely cares about my</td>
<td>Transformational leadership:</td>
</tr>
<tr>
<td>wellbeing.</td>
<td>individualized consideration</td>
</tr>
</tbody>
</table>

All items in Table 2 were mapped to either transformational or transactional leadership behaviors. According to Judge and Piccolo (2004), "Transformational leaders offer a purpose that transcends short-term goals and focuses on higher order intrinsic needs. Transactional leaders, in contrast, focus on the proper exchange of resources" (p. 755). Transactional leadership consists of three factors: management by exception active, management by exception passive, and contingent reward (Judge & Piccolo, 2004). Transformational leadership consists of four factors: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Judge & Piccolo, 2004). Transactional leadership is essentially a building block for transformational leadership; without transactional leadership behaviors, a leader may not be able to successfully carry out transformational leadership behaviors (Avolio, 2010). By combining both transactional and transformational leadership behaviors into a single measure, a wider range of leadership behaviors were assessed.
In regard to leadership theory, Bass and Avolio (1990) hypothesized that leaders may play a part in followers’ engagement if they are able to help followers identify with and feel passionate about their work. Serrano and Reichard (2011) more specifically theorized four pathways in which leaders can increase their followers’ employee engagement: (a) supporting employees, (b) enhancing personal resources, (c) creating meaningful work, and (d) recognizing and rewarding supportive coworker relations. Through these mechanisms’ leaders can play a crucial part in employees’ engagement, which in this study I aimed to study as a predictor of engagement.

**Travel demands.** As companies continue to globalize, business travel has become a more frequent employee demand. Traveling for work purposes can be taxing on employees since oftentimes it includes staying in a hotel, being away from family, navigating a new city, a poor diet due to eating out, and air or car travel. Unfortunately, this resource drain potentially leads to burnout (Niessen, Müller, Hommelhoff, & Westman, 2018). Niessen and colleagues (2018) studied the impact of travel on employee engagement and found that frequent travel led to decreases in both employee engagement and relationship satisfaction, as well as an increase in emotional exhaustion.

Although not directly studying travel, Richman et al. (2008) found that unsupportive work-life policies led to decreases in employee engagement. Süß and Sayah (2013) theorized that travel may play an impact on engagement due to the way it integrates work and private life into one cohesive experience. When unable to separate the two spheres of life, employees may begin to feel unengaged and burnt out. The current study sample is composed of technological consultants, many whom travel 80% or more of the work week to a client site via air travel or car. In this study I researched
the impact of number of travel days on employee engagement, as moderated by the cultural dimension of uncertainty avoidance.

**Business Outcomes of Employee Engagement**

While the topic of employee engagement has risen in popularity over the years, both empirically and in organizations, it is important to continue to question if employee engagement even matters. Can researchers connect engagement to business outcomes, employee satisfaction, or other important metrics? Thus far, there is compelling evidence that it does matter. In the previous section I outlined empirical research linking engagement to outcomes such as employee performance, organizational commitment, job satisfaction, daily financial returns, and in-store sales (BlessingWhite, 2008; Christian et al., 2011; Hallberg & Schaufeli, 2006; Llorens et al., 2007; Schaufeli, & Bakker, 2004; Sorenson, 2013; Wefald et al., 2011).

In the current study I aimed to expand the literature on outcomes of engagement by testing two new potential outcomes: overtime hours and chargeability attainment. The client-facing consultants used in this sample oftentimes work more than the traditional 40 hours a week and are additionally held to high client chargeability targets (above 80%). The questions being asked in this study are “Are those who are engaged putting in more or less overtime hours?” and “Does employee engagement impact whether or not one meets their chargeability target?”

In a study on occupational therapists, Paulsen et al. (2014) found that work engagement was highest for therapists who worked less than forty hours a week (among other contributing factors). Beyond that study, very little empirical research has been done on the connection between employee engagement and overtime hours or
chargeability attainment. In the current study it was hypothesized that employee engagement and chargeability attainment will be positively related, and that employee engagement and overtime hours will be negatively related.

**Hypotheses and Model**

Two major hypotheses are presented in this study. First, the cultural variation (moderation) of the predictor-engagement relationship was tested. Second, the connection between engagement and business outcomes was analyzed.

- **Hypothesis 1**: The relationships between the predictors (i.e., task variety, tenure, travel demands, leadership) and employee engagement will be significantly moderated by specific cultural dimensions. See Figure 2 below.
  - **Hypothesis 1a**: The relationship between tenure and employee engagement will be moderated by the country cultural dimension of time orientation, such that those in long-term orientation cultures will be more engaged when their tenure is low. Contrarily, those in short-term orientation cultures will be more engaged when their tenure is high.
  - **Hypothesis 1b**: The relationship between leadership and employee engagement will be moderated by the country cultural dimension of power-distance, such that leadership will most strongly predict engagement in cultures that have a high power-distance.
  - **Hypothesis 1c**: The relationship between task variety and employee engagement will be moderated by the country cultural dimension of uncertainty avoidance, such that in cultures that have low uncertainty avoidance employee engagement will be strongest when task variety is high.
Likewise, employees in cultures that have high uncertainty avoidance will have stronger engagement when task variety is low.

- **Hypothesis 1d**: The relationship between quantity of travel days and employee engagement will be moderated by the country cultural dimension of uncertainty avoidance, such that in countries that have high uncertainty avoidance, employee engagement will be strongest when number of travel days is low.

- **Hypothesis 2**: Outcomes of engagement. See Figure 2 below.

  - **Hypothesis 2a**: Employee engagement and number of overtime hours will be negatively related.

  - **Hypothesis 2b**: Those that are highly engaged will more frequently meet their personalized chargeability target.
**Hyp 1: Predictors and Moderators of Engagement**

- Time Orientation
- Tenure → Emp. Engagement
- Power Distance
- Leadership → Emp. Engagement
- Uncertainty Avoidance
- Task Variety → Emp. Engagement
- Uncertainty Avoidance
- Travel Demand → Emp. Engagement

**Hyp 2: Outcomes of Engagement**

- Emp. Engagement → Overtime Hours
- Emp. Engagement → Chargeability Attainment

*Figure 2. Research models.*
CHAPTER II

Method

Participants and Sampling

A global technology consulting and advisory organization granted me access to their employee engagement survey among other data sources for use in my dissertation. The organization has offices in more than 20 countries, thus making it a great source for cross-cultural data. Four sources of data were used: the twice-annual employee survey, people data (e.g., demographics), work breakdown structure (WBS) data, and cultural dimension score data provided by Hofstede et al. (2010). Employees gave informed consent when participating in the survey. The privacy notice provided in the survey explicitly noted that employee responses would inform rigorous analytics around engagement and retention. I contacted the Legal department and Chief Human Resources Officer who both granted me permission to use the data for academic purposes.

Employee demographics. The engagement survey had a 72% completion rate. 6,828 employees completed the survey version released in April of 2018. In the current study I specifically focused on client-facing consultants due to their chargeability metrics, therefore of the 6,828 participants in the engagement survey, 1,249 were removed from this study due to either being an internal employee with no chargeability target or having missing data issues, leaving a total N size of 5,579. Employees were invited to participate via multiple emails. No incentives were offered, but the organization routinely encourages participation as the results are highly valued. The survey responses were confidential, and employee demographic data were gathered. See Table 3 for a summary of the sample’s demographics.
Table 3  
*Demographics of Study Sample*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Total Sample</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>4,528</td>
<td>81.16</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>1,051</td>
<td>18.84</td>
</tr>
<tr>
<td>Stage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyst</td>
<td></td>
<td>2,216</td>
<td>39.72</td>
</tr>
<tr>
<td>Consultant</td>
<td></td>
<td>1,795</td>
<td>32.17</td>
</tr>
<tr>
<td>Manager</td>
<td></td>
<td>1,216</td>
<td>21.80</td>
</tr>
<tr>
<td>Director</td>
<td></td>
<td>324</td>
<td>5.81</td>
</tr>
<tr>
<td>Executive</td>
<td></td>
<td>28</td>
<td>0.50</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td></td>
<td>3.57 years</td>
<td></td>
</tr>
<tr>
<td>$SD$</td>
<td></td>
<td>3.79 years</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>2.15 years</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td>191</td>
<td>3.42</td>
</tr>
<tr>
<td>Austria</td>
<td></td>
<td>71</td>
<td>1.27</td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td>79</td>
<td>1.42</td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td>602</td>
<td>10.79</td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td>235</td>
<td>4.21</td>
</tr>
<tr>
<td>China</td>
<td></td>
<td>125</td>
<td>2.24</td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
<td>42</td>
<td>0.75</td>
</tr>
<tr>
<td>Finland</td>
<td></td>
<td>31</td>
<td>0.56</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td>270</td>
<td>4.84</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td>371</td>
<td>6.65</td>
</tr>
<tr>
<td>Hong Kong</td>
<td></td>
<td>11</td>
<td>0.20</td>
</tr>
<tr>
<td>Italy</td>
<td></td>
<td>640</td>
<td>11.47</td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td>262</td>
<td>4.70</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td>34</td>
<td>0.61</td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td>301</td>
<td>5.40</td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td>63</td>
<td>1.13</td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td>142</td>
<td>2.55</td>
</tr>
<tr>
<td>Spain</td>
<td></td>
<td>404</td>
<td>7.24</td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td>69</td>
<td>1.24</td>
</tr>
<tr>
<td>Switzerland</td>
<td></td>
<td>120</td>
<td>2.15</td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td>320</td>
<td>5.74</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td>1,196</td>
<td>21.44</td>
</tr>
</tbody>
</table>
**Survey administration.** Data for the engagement survey was collected in April of 2018. All employees were emailed by Culture Amp with instructions and a unique link to the survey. Culture Amp is an organization that specializes in employee feedback collection and analysis that the target organization has a contract with. The survey was to be taken on employees’ personal work computers or mobile devices. Reminder emails were sent by executives, as well as the HR department throughout the survey period. After the survey closed, executives thanked employees via email for their participation. Results for the survey are always made public to all employees at the aggregate level. The official company-wide report for this survey was released via email in May of 2018.

The engagement survey consisted of 36 questions, across eight subjects: career advisee experience, career adviser experience, brand, role experience, leadership experience, engagement, action, and capability group experience. All subjects were filled out by employees except for the career adviser section; this section consisted of five questions and was only filled out by employees who were career advisers (usually manager and above levels). Participants were informed that the survey should take five minutes on average to complete if no optional qualitative comments were added. No items were marked as “required to complete” in order to submit the survey. Data was officially collected by Culture Amp. Raw data was then released to an analytics Senior Manager at the study’s target organization. The data were then analyzed and a company-wide report out was created.

**Sample Size, Power, and Precision**

In order to confirm that this is an adequate sample size, G*Power version 3.1.9.4 was used (Cohen, 1992; Faul, Erdfelder, Lang, & Buchner, 2007). A test for the
minimum sample size needed to detect a small effect size \( (f^2 = .02) \) at .95 power \((\alpha = .05)\) with four parameters in the model was conducted. Results indicated a sample size of \( N = 934 \) participants was required, well below the \( N = 5,579 \) present in the current study.

**Measures and Data Sources**

While participants in this study only took one survey, two other data sources (an employee information database and a time and expense reporting database) were used to collect information on these participants, such as demographics and chargeability metrics. The way in which each variable was theoretically conceptualized is described in their respective sections in the literature review above.

**Employee engagement.** The engagement survey measured employee engagement through five items that map on to four factors. See Table 4 below.

<table>
<thead>
<tr>
<th>Employee Engagement Item</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am proud to work for [organization].</td>
<td>Emotional Attachment to the Organization</td>
</tr>
<tr>
<td>I would recommend [organization] as a great place to work.</td>
<td>Likelihood to Recommend the Organization to Others</td>
</tr>
<tr>
<td>[Organization] motivates me to go beyond what I would in a similar role elsewhere.</td>
<td>Job Motivation</td>
</tr>
<tr>
<td>I rarely think about looking for a job at another company.</td>
<td>Job Commitment</td>
</tr>
<tr>
<td>I see myself still working at [organization] in two years' time.</td>
<td>Job Commitment</td>
</tr>
</tbody>
</table>

These engagements items were designed by Culture Amp. This study’s target organization elected to use these specific items since they are similarly used by other organization’s that work with Culture Amp, thus allowing the company industry benchmarking data. In terms of the validity of these five items, studies have found this set
to be predictive of attrition (Culture Amp, 2017), employee reviews of the organization on Glassdoor (McPherson, n.d.-b), and organizational share price growth (McPherson, n.d.-c), among other factors. A reliability analysis of these five engagement items in the current study’s dataset found the internal consistency to be $\alpha = .911$. Removing any item from this scale would lower the internal consistency to between .886 and .896.

Employees ranked their sentiment on these questions using a Likert scale from one to five ranging from “strongly disagree” to “strongly agree.” No items required reverse scoring. An individualized summed score of the five items was used in the current study to assess individual’s employee engagement levels.

**Leadership.** To measure the leadership experience variable five items were included in the engagement survey. One of these items was derived from Culture Amp’s database, and the other four were created internally to address the target organization’s data interests. A reliability analysis of these five leadership items in the current study’s dataset found the internal consistency to be $\alpha = .919$. Removing any item from this scale would lower the internal consistency to between .896 and .908.

Similar to employee engagement, employees ranked their sentiment on these questions using a one to five Likert scale and no items required reverse scoring. A summed score of the five items was used in the current study to assess individual’s experiences with their leaders.

**Cultural dimensions.** The country culture dimension scores for uncertainty avoidance, power distance, and time orientation were provided through research done by Hofstede et al. (2010). Permission was obtained for using their data in the current study. Each dimension score ranges from 0-100. For clarity, a score of 100 on the power
distance scale would indicate that country has a high-power distance and operates in a strongly hierarchical manner. A score of 100 on the time orientation scale would indicate that country has a strong long-term orientation, rather than short-term orientation. A score of 100 on the uncertainty avoidance scale would indicate that country is highly avoidant of uncertainty. Each individual in this study will be assigned their cultural dimension scores based on the country they reside in.

**Chargeable time and expenses.** All employees at the target organization track their hours, expenses, work locations, etc. per payroll requirements. The data presented in this study represents data from 2018.

- **Task variety** is a predictor in the current study, and it was measured through the number of WBS codes that an employee charges to. Each distinct project an employee works on has a different code associate with it. Training hours additionally have their own code. A total number of codes that each respective employee charged to over the specified time period was used to represent that employee’s level of task variety.

- The total number of **days that an employee is required to travel** for work is a predictor in this study. In this data source, the number of days that an employee charges a per diem is the indicator of number of days away from one’s local office.

- **Chargeability attainment** is being tested as an outcome of employee engagement in the present study. Chargeable time can be defined as the percent of time employees have recorded to revenue-generating activities (e.g., working on client projects). It is reported as a percentage of total available employee time.
throughout a fiscal year. Each client-facing employee has a chargeability target based on a variety of factors, such as their role, location, and level. The current data source includes what employees’ actual recorded chargeability percentage is as well as their target. For this study, a percentage of attainment of chargeability will be used. For example, if an employee has an 80% chargeability target, but only records 76% chargeability that fiscal year, then their chargeability attainment would be 95%.

- Finally, the total number of hours an employee works overtime is tested in relation to employee engagement in this study.

**Demographics.** Data on employee tenure, career stage, country location, and gender were gathered through a secure software system. Similar to above, this was not a survey employees took for this study, but rather data points extracted from the system. The demographics included in this study represent employee data from the time of the engagement survey.

**CHAPTER III**

**Results**

**Data Cleaning and Assumption Testing**

The dataset was first cleansed and then all relevant assumptions for partial correlations and hierarchical linear modeling were tested. The dataset was cleansed by first removing all non-client facing employees as they had no chargeability metrics and this study is focused on external consultants. Next, all cases with any missing data points were removed; there were few cases with missing data and the sample size was large so
multiple imputation was not applied. Since all independent variables had meaningful zero points no centering was done and raw metrics were used.

Four of the hypotheses in this study required testing via hierarchical linear modeling (HLM). The assumptions of HLM include normal distribution and homoscedasticity (Field, 2010). The variables tested in relation to these hypotheses include: employee engagement, tenure, travel demands, task variety, leadership, uncertainty avoidance, power distance, and time orientation. Similar to above, a Kolmogorov-Smirnov test found that the normal distribution was violated on all of the eight variables ($p < .001$). Additionally, the variables of tenure, travel, and task variety violated the assumption of homoscedasticity. Although many assumptions were violated, there is no non-parametric test for HLM therefore standard HLM testing was used.

Two of the hypotheses in this study require a partial correlation testing. The assumptions of this test include: normal distribution, linearity, absence of outliers, and homoscedasticity (Field, 2010). The variables included in these hypotheses (i.e., employee engagement, overtime hours, and chargeability attainment) were tested for these four assumptions. Results showed that many assumptions were violated among all three variables. Using a Kolmogorov-Smirnov test, the normal distribution assumption was violated for all three variables ($p < .001$). A large number of outliers were found among the variables of overtime hours and chargeability attainment. Additionally, the assumption of homoscedasticity was violated for overtime hours and chargeability. Due to these violations, it was decided that a non-parametric partial correlation test would be used for the specified hypotheses.
Descriptive and Correlational Tables

In order to better understand the data, descriptives were calculated for all focal variables, and a correlational matrix between all variables was computed. See Tables 5 and 6 below.

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Variable Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.04</td>
</tr>
<tr>
<td>Leadership</td>
<td>5</td>
</tr>
<tr>
<td>Travel Demand</td>
<td>0</td>
</tr>
<tr>
<td>Task Variety</td>
<td>0</td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>8</td>
</tr>
<tr>
<td>Power Distance</td>
<td>11</td>
</tr>
<tr>
<td>Time Orientation</td>
<td>21</td>
</tr>
<tr>
<td>Engagement</td>
<td>5</td>
</tr>
<tr>
<td>Chargeability Attainment</td>
<td>0</td>
</tr>
<tr>
<td>Overtime Hours</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 6
*Pearson Correlations Between Focal Variables*

<table>
<thead>
<tr>
<th></th>
<th>Tenure</th>
<th>Overtime Hours</th>
<th>Travel Demand</th>
<th>Task Variety</th>
<th>Uncertainty Avoidance</th>
<th>Power Distance</th>
<th>Time Orientation</th>
<th>Leadership</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overtime Hours</td>
<td></td>
<td>-.042**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel Demand</td>
<td>.022</td>
<td>.065**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Variety</td>
<td>.105**</td>
<td>.052**</td>
<td>.015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertainty Avoidance</td>
<td>.044**</td>
<td>.078**</td>
<td>-.185**</td>
<td>-.142**</td>
<td>.323**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Distance</td>
<td>-.054**</td>
<td>.022</td>
<td>-.269**</td>
<td>-.142**</td>
<td>.323**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Orientation</td>
<td>-.096**</td>
<td>.021</td>
<td>-.050**</td>
<td>.076**</td>
<td>.329**</td>
<td>.235**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td>-.153**</td>
<td>-.042**</td>
<td>.031*</td>
<td>-.015</td>
<td>-.135**</td>
<td>-.025</td>
<td>-.133**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>-.177**</td>
<td>-.033*</td>
<td>.004</td>
<td>-.057**</td>
<td>-.061**</td>
<td>.037**</td>
<td>-.119**</td>
<td>.687**</td>
<td></td>
</tr>
<tr>
<td>Chargeability Attainment</td>
<td>.099**</td>
<td>.272**</td>
<td>.050**</td>
<td>-.080**</td>
<td>.047**</td>
<td>.090**</td>
<td>-.055**</td>
<td>-.075**</td>
<td>-.074**</td>
</tr>
</tbody>
</table>

*Note.* * indicates correlation is significant at the 0.05 level (2-tailed). ** indicates correlation is significant at the 0.01 level (2-tailed).
Hypothesis Testing

Due to the nested nature of the data, the statistical package HLM 7.0 was used to analyze hypotheses 1a-1d (Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2016). There were 5,579 individuals (i.e., Level 1) nested within 22 countries (i.e., Level 2). Within each Level 2 variable, the number of Level 1 individuals ranged from 11 to 1,196. Data were estimated using restricted maximum likelihood and an unstructured covariance matrix. Based on McCoach’s (2010) recommendations, the models for all HLM hypotheses were built sequentially in the following four steps: (a) empty model, (b) unconditional model, (c) random coefficients model, and (d) full model. Each model was sequentially analyzed by checking (a) the strength of the regression weights, (b) the change in within-group and between-group variance being accounted for, and (c) the additional variance remaining to be explained.

The first model tested for each hypothesis was empty, with only employee engagement inserted as a dependent variable. As no predictors were added to the model, this model applies to all hypotheses from 1a to 1d. The intraclass correlation was calculated as 0.04, meaning that 4% of the variance in employee engagement is between cultures, and the rest (96%) is within cultures. The final, full models for each hypothesis are presented in their respective sections below.

Hypothesis 1a: tenure and time orientation. The full model for this hypothesis included tenure entered as a Level 1 variable. Tenure was also aggregated by culture and entered as a Level 2 variable. Additionally, the variable of time orientation was entered as a Level 2 variable. I allowed the variance components for both intercepts and slopes to vary. The equation for the mixed model is as follows:
After controlling for tenure and time orientation, the results indicated that the average engagement score was 22.20 (p < .001). Controlling for tenure, as time orientation increased by one point, employee engagement decreased by .03 points (p = .035). Additionally, there was a cross-level interaction between tenure and time orientation, impacting the slope of the tenure-engagement relationship (p = .025).

Relative to the empty model, the full model explained 11% of the between-groups variability in engagement, and 4% of the within-group variability. See Tables 7 and 8 below for the full model summary and random effects.

Table 7

**Hypothesis 1a Full Model Summary**

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-ratio</th>
<th>Approx. d.f.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For INTRCPT1, $\beta_0$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, $\gamma_{00}$</td>
<td>22.204995</td>
<td>1.261429</td>
<td>17.603</td>
<td>19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>TIMEORI, $\gamma_{01}$</td>
<td>-0.029218</td>
<td>0.012902</td>
<td>-2.265</td>
<td>19</td>
<td>0.035</td>
</tr>
<tr>
<td>TENUREME, $\gamma_{02}$</td>
<td>-0.401537</td>
<td>0.244880</td>
<td>-1.640</td>
<td>19</td>
<td>0.118</td>
</tr>
<tr>
<td>For TENUREYE slope, $\beta_1$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, $\gamma_{10}$</td>
<td>-0.601362</td>
<td>0.246749</td>
<td>-2.437</td>
<td>19</td>
<td>0.025</td>
</tr>
<tr>
<td>TIMEORI, $\gamma_{11}$</td>
<td>0.002507</td>
<td>0.002292</td>
<td>1.093</td>
<td>19</td>
<td>0.288</td>
</tr>
<tr>
<td>TENUREME, $\gamma_{12}$</td>
<td>0.065846</td>
<td>0.048506</td>
<td>1.357</td>
<td>19</td>
<td>0.191</td>
</tr>
</tbody>
</table>

Table 8

**Hypothesis 1a Random Effects**

<table>
<thead>
<tr>
<th>Random Effects (Var. Components)</th>
<th>Variance</th>
<th>Approx. d.f.</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance in culture means ($\tau_{oo}$)</td>
<td>0.95</td>
<td>19</td>
<td>125.57 (p &lt; .001)</td>
</tr>
<tr>
<td>Variance in tenure slope ($\tau_{11}$)</td>
<td>0.02</td>
<td>19</td>
<td>75.23 (p &lt; .001)</td>
</tr>
<tr>
<td>Variance within cultures ($\sigma^2$)</td>
<td>17.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18.86</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Hypothesis 1b: leadership and power distance.** The full model for this hypothesis included leadership entered as a Level 1 variable. Leadership was also aggregated by culture and entered as a Level 2 variable. Additionally, the cultural dimension of power distance was entered as a Level 2 variable. I allowed the variance components for both intercepts and slopes to vary. The equation for the mixed model is as follows:

\[ \text{ENGAGETO}_{ij} = \gamma_{00} + \gamma_{01} \times \text{POWERD}_j + \gamma_{02} \times \text{LEADMN}_j + \gamma_{10} \times \text{LEADERSH}_{ij} + \gamma_{12} \times \text{LEADERSH}_{ij} \times \text{POWERD}_j + \gamma_{11} \times \text{LEADERSH}_{ij} \times \text{LEADERSH}_{ij} + u_{0j} + u_{ij} \times \text{LEADERSH}_{ij} + r_{ij} \]

When controlling for leadership and power distance, the average engagement score was 6.76, which is exceedingly low \((p = .016)\). Controlling for power distance, as leadership increased one point, employee engagement increased by .61 points \((p < .001)\). Average leadership across a culture had an impact as well; as average leadership increased one point, engagement decreased .05 points \((p = .003)\). Power distance, a Level 2 variable, did not yield significant findings. Relative to the empty model, the full model explained 44% of the between-groups variability in engagement, and 47% of the within-group variability. See Tables 9 and 10 below for the full model summary and random effects.

**Table 9**

**Hypothesis 1b Full Model Summary**

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-ratio</th>
<th>Approx. d.f.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For INTRCPT1, ( \beta_0 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, ( \gamma_{00} )</td>
<td>6.758694</td>
<td>2.568101</td>
<td>2.632</td>
<td>19</td>
<td>0.016</td>
</tr>
<tr>
<td>POWERD, ( \gamma_{01} )</td>
<td>0.010557</td>
<td>0.007971</td>
<td>1.324</td>
<td>19</td>
<td>0.201</td>
</tr>
<tr>
<td>LEADMN, ( \gamma_{02} )</td>
<td>0.614301</td>
<td>0.136822</td>
<td>4.490</td>
<td>19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>For LEADERSH slope, ( \beta_i )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, ( \gamma_{10} )</td>
<td>-0.197616</td>
<td>0.278721</td>
<td>-0.709</td>
<td>19</td>
<td>0.487</td>
</tr>
<tr>
<td>POWERD, ( \gamma_{11} )</td>
<td>0.000126</td>
<td>0.000969</td>
<td>0.130</td>
<td>19</td>
<td>0.898</td>
</tr>
<tr>
<td>LEADMN, ( \gamma_{12} )</td>
<td>0.049043</td>
<td>0.014697</td>
<td>3.337</td>
<td>19</td>
<td>0.003</td>
</tr>
</tbody>
</table>
Table 10

Hypothesis 1b Random Effects

<table>
<thead>
<tr>
<th>Random Effects (Var. Components)</th>
<th>Variance</th>
<th>Approx. d.f.</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance in culture means ($\tau_{oo}$)</td>
<td>0.48</td>
<td>19</td>
<td>162.38 ($p &lt; .001$)</td>
</tr>
<tr>
<td>Variance in leadership slope ($\tau_{11}$)</td>
<td>0.00</td>
<td>19</td>
<td>48.70 ($p &lt; .001$)</td>
</tr>
<tr>
<td>Variance within cultures ($\sigma^2$)</td>
<td>9.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10.42</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis 1c: task variety and uncertainty avoidance.** The full model for this hypothesis included task variety as a Level 1 variable. Task variety was also aggregated by culture and entered as a Level 2 variable. Additionally, the cultural dimension of uncertainty avoidance was entered as a Level 2 variable. I allowed the variance components for both intercepts and slopes to vary. The equation for the mixed model is as follows:

\[
ENGAGETO_{ij} = \gamma_{00} + \gamma_{01}^{\ast}UNCERAVO_{j} + \gamma_{02}^{\ast}WBSMEAN_{j} + \gamma_{10}^{\ast}WBSCODES_{ij} + \gamma_{11}^{\ast}UNCERAVO_{j}^{\ast}WBSCODES_{ij} + \gamma_{12}^{\ast}WBSMEAN_{j}^{\ast}WBSCODES_{ij} + u_{0j} + u_{1j}^{\ast}WBSCODES_{ij} + r_{ij}
\]

When controlling for uncertainty avoidance and task variety, the average engagement score was 20.13 ($p < .001$). There was a cross-level interaction between task variety and uncertainty avoidance, impacting the slope of the task variety-engagement relationship ($p = .004$). Relative to the empty model, the full model explained 11% of the between-groups variability in engagement, and 0.3% of the within-group variability. See Tables 11 and 12 below for the full model summary and random effects.
Table 11

*Hypothesis 1c Full Model Summary*

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-ratio</th>
<th>Approx. d.f.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For INTRCPT1, $\beta_0$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, $\gamma_{00}$</td>
<td>20.131798</td>
<td>0.669574</td>
<td>30.067</td>
<td>19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>UNCERAVO, $\gamma_{01}$</td>
<td>-0.017195</td>
<td>0.009944</td>
<td>-1.729</td>
<td>19</td>
<td>0.100</td>
</tr>
<tr>
<td>WBSMEAN, $\gamma_{02}$</td>
<td>-0.047419</td>
<td>0.050401</td>
<td>-0.941</td>
<td>19</td>
<td>0.359</td>
</tr>
<tr>
<td>For WSCODES slope, $\beta_i$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, $\gamma_{10}$</td>
<td>-0.096262</td>
<td>0.029751</td>
<td>-3.236</td>
<td>19</td>
<td>0.004</td>
</tr>
<tr>
<td>UNCERAVO, $\gamma_{11}$</td>
<td>0.000958</td>
<td>0.000430</td>
<td>2.226</td>
<td>19</td>
<td>0.038</td>
</tr>
<tr>
<td>WBSMEAN, $\gamma_{12}$</td>
<td>0.001289</td>
<td>0.001741</td>
<td>0.740</td>
<td>19</td>
<td>0.468</td>
</tr>
</tbody>
</table>

Table 12

*Hypothesis 1c Random Effects*

<table>
<thead>
<tr>
<th>Random Effects (Var. Components)</th>
<th>Variance</th>
<th>Approx. d.f.</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance in culture means ($\tau_{oo}$)</td>
<td>0.96</td>
<td>19</td>
<td>123.45 ($p &lt; .001$)</td>
</tr>
<tr>
<td>Variance in task variety slope ($\tau_{11}$)</td>
<td>0.00</td>
<td>19</td>
<td>24.67 ($p = .17$)</td>
</tr>
<tr>
<td>Variance within cultures ($\sigma^2$)</td>
<td>18.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Hypothesis 1d: travel demands and uncertainty avoidance.* The full model for this hypothesis included travel demands entered as a Level 1 variable. Travel demands was also aggregated by culture and entered as a Level 2 variable. Additionally, the cultural dimension of uncertainty avoidance was entered as a Level 2 variable. I allowed the variance components for both intercepts and slopes to vary. The equation for the mixed model is as follows:

$$ENGAGETO_{ij} = \gamma_{00} + \gamma_{01}^{*}UNCERAVO_{i} + \gamma_{02}^{*}TRAVELME_{i} + \gamma_{10}^{*}TRAVELDA_{ij} + \gamma_{1}^{*}UNCERAVO_{i}^{*}TRAVELDA_{ij} + \gamma_{12}^{*}TRAVELME_{i}^{*}TRAVELDA_{ij} + u_{0j} + u_{1j}^{*}TRAVELDA_{ij} + r_{ij}$$

Controlling for travel demands and uncertainty avoidance, the average engagement score was 19.21 ($p < .001$). No slopes or intercepts were significant,
indicating travel demands and uncertainty avoidance as non-significant predictors of employee engagement. Relative to the empty model, the full model explained 2.3% of the between-groups variability in engagement, and 0.26% of the within-group variability. See Tables 13 and 14 below for the full model summary and random effects.

Table 13

Hypothesis 1d Full Model Summary

<table>
<thead>
<tr>
<th>Fixed Effect</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-ratio</th>
<th>Approx. d.f.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For INTRCPT1, $\beta_0$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, $\gamma_{00}$</td>
<td>19.213628</td>
<td>0.606260</td>
<td>31.692</td>
<td>19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>UNCERAVO, $\gamma_{01}$</td>
<td>-0.011105</td>
<td>0.009466</td>
<td>-1.173</td>
<td>19</td>
<td>0.255</td>
</tr>
<tr>
<td>TRAVELME, $\gamma_{02}$</td>
<td>-0.001755</td>
<td>0.010947</td>
<td>-0.160</td>
<td>19</td>
<td>0.874</td>
</tr>
<tr>
<td>For TRAVELDA slope, $\beta_1$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTRCPT2, $\gamma_{10}$</td>
<td>0.003745</td>
<td>0.011052</td>
<td>0.339</td>
<td>19</td>
<td>0.738</td>
</tr>
<tr>
<td>UNCERAVO, $\gamma_{11}$</td>
<td>-0.000038</td>
<td>0.000198</td>
<td>-0.190</td>
<td>19</td>
<td>0.851</td>
</tr>
<tr>
<td>TRAVELME, $\gamma_{12}$</td>
<td>-0.000067</td>
<td>0.000132</td>
<td>-0.508</td>
<td>19</td>
<td>0.618</td>
</tr>
</tbody>
</table>

Table 14

Hypothesis 1d Random Effects

<table>
<thead>
<tr>
<th>Random Effects (Var. Components)</th>
<th>Variance</th>
<th>Approx. d.f.</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variance in culture means ($\tau_{00}$)</td>
<td>0.88</td>
<td>19</td>
<td>81.75 ($p &lt; .001$)</td>
</tr>
<tr>
<td>Variance in travel slope ($\tau_{11}$)</td>
<td>0.00</td>
<td>19</td>
<td>21.46 ($p = .06$)</td>
</tr>
<tr>
<td>Variance within cultures ($\sigma^2$)</td>
<td>18.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis 2a: overtime hours.** The relationship between overtime hours and employee engagement while controlling for career level was tested using a non-parametric partial correlation. A significant and negative relationship between overtime hours and engagement was found ($r(5576) = -0.053, p < .001$), indicating that as overtime hours increased employee engagement decreased.

**Hypothesis 2b: chargeability attainment.** Likewise, the relationship between chargeability attainment and employee engagement while controlling for career level was
tested using a non-parametric partial correlation. A significant, negative relationship between chargeability attainment and engagement was found ($r(5576) = -0.071, p < .001$), indicating that as chargeability attainment increased employee engagement decreased, contrary to the original hypothesis.

**Post-Hoc Analyses**

Since all six hypotheses involved predicting employee engagement in some manner, I thought it would be interesting to regress engagement on the six independent variables tested: tenure, task variety, travel demand, leadership, overtime hours, and chargeability attainment. Results indicated a significant total effect for the full model ($F(6, 5572) = 856.79, p < .001, R^2 = .48$). Examining the individual predictors further, tenure ($t = -6.74, p < .001$), task variety ($t = -4.19, p < .001$), and leadership ($t = 68.89, p < .001$) were all significant predictors in the model, but overtime hours, travel demand, and chargeability attainment were not.

It was surprising to find a negative relationship between chargeability attainment and employee engagement, therefore, I decided to additionally test for a curvilinear relationship between these variables. I theorized that as employees began to reach their chargeability target, and therefore reach 100% attainment, their employee engagement would increase. After reaching that target, I theorized that employee engagement would decrease since this likely signified that they were being over worked. Controlling for career level, I tested this post hoc hypothesis and found a significant curvilinear relationship ($r^2 = .009, p = .001; F = 17.274, p > .001$). The change in $r^2$ from the linear model to curvilinear model was .002 ($p = .001$). Once again, I was surprised by the results. After plotting the results, I found that as employees approached their personalized
chargeability targets their engagement decreased. Employee engagement did not begin to rise again until approximately 200% chargeability attainment. It should be noted that while 200% attainment seems absurdly high, some managers have a low target (e.g., approximately 20%) so that they can spend increased time managing others.
Summary of Findings

Predictors. Of the four predictors that were analyzed, leadership most strongly predicted employee engagement over any other variable. Task variety also significantly predicted engagement, but in an unexpected way – as task variety increased, employee engagement decreased. Contrary to the original hypotheses, travel demand and tenure both did not predict employee engagement in their respective models.

There is strong support in the literature for leadership as a predictor of employee engagement (e.g., Breevaart et al., 2014; Tims et al., 2011). The leadership measure used in the current study was created by the target organization. To understand the theoretical basis for the leadership measure used in this study see Table 2. Previous research has more specifically studied the leadership-engagement relationship by testing how different leadership styles impact engagement (e.g., Breevaart et al., 2014; Tims et al., 2011).

Previous research supports a positive relationship between task variety and engagement (e.g., Maden-Eyiusta, 2016; Zaniboni et al., 2014), thus the analysis from this study that indicates a negative relationship instead is surprising. In the limitations section I further discuss how the operationalization of task variety in the current study may have impacted this relationship.

Travel demand and tenure were chosen to be included in this study as they were largely untested predictors of engagement. Evidence is scarce on whether these variables have predicted engagement in other studies, although they did not in the current study.
Cultural dimensions. In two of the models a cultural dimension significantly moderated the relationship between the predictor and employee engagement. There was a significant cross-level interaction between uncertainty avoidance and task variety in relation to engagement. As task variety and uncertainty avoidance increased, engagement decreased. This finding is consistent with the theory, since cultures that have a high uncertainty avoidance are rarely tolerant of new ideas or processes (Hofstede, 1984).

Additionally, there was a significant cross-level interaction between tenure and time orientation in relation to employee engagement. As tenure and time orientation increased (i.e., time orientation became more long-term oriented) engagement decreased. This is consistent with the direction of the original hypothesis. High tenure may lead to lower engagement in those that are in long-term oriented cultures because these employees are quick to adapt and problem-solve, and therefore are not as hesitant to change employers frequently. Contrarily, short-term oriented cultures value traditions and the status quo as it is reliable and unwavering, therefore as tenure increases in these cultures, so does engagement.

Power distance did not significantly moderate the relationship between leadership and employee engagement. Given leadership's strong relationship with engagement it is interesting that power distance did not significantly moderate this relationship. It is possible that across cultures leadership predicts engagement equally, leading to few cultural differences in general in this relationship (regardless of what the specific cultural dimension being tested is).

Uncertainty avoidance did not impact the relationship between travel demand and engagement. The relationship between travel demand and engagement was small and
non-significant, so it is unsurprising uncertainty avoidance did not moderate this already weak relationship. All four of the moderation models in this study (hypotheses 1a-1d) have not been tested in previous, published research and merit further study.

**Business outcomes.** Employee engagement was significantly related to both business metric variables (i.e., overtime hours and chargeability attainment). Scarce current research exists on these relationships, although there is considerable research connecting engagement to other key business metrics. Confirming the direction of the original hypothesis, as overtime hours increased, employee engagement decreased. Contrarily, it was hypothesized that as chargeability attainment increased so would engagement, but instead the results showed a negative relationship between these two variables. While these business metric relationships are interesting, both of these analyses yielded very small (yet significant) effect sizes, questioning whether the small impact of employee engagement on these metrics merits the expenses for employee engagement initiatives.

**Theoretical Implications**

The results presented in this study impact the theoretical understanding of employee engagement, leadership, country cultural dimensions, among other constructs. Regarding employee engagement theory, this study found that as task variety increased, engagement decreased, contrary to what was hypothesized. In their job characteristics model, Hackman and Oldham (1980) state that the type of task one does greatly impacts an employee’s motivation and satisfaction. In order to increase challenge and motivation, task variety should be increased. While this study did not analyze motivation as a specific variable, it is interesting that a negative relationship was found between task variety and
engagement, contrary to job design theory. It is possible that for those employees that had high task variety, other key factors of job design theory were missing, such as task significance, task identity, or task autonomy (Hackman & Oldham, 1980).

In regard to employee engagement, Kahn (1990) stated in his original employee engagement theory that individual, group, and organizational factors interact and simultaneously impact engagement. This study included individual level variables, as well as country-level variables, but did not measure any group or organizational level factors. By adding variables on all these levels some of the relationships in this study could have been analyzed in more detail and greater added to the theoretical understanding of this construct.

This study’s greatest contribution to employee engagement theory was the hierarchical and nested analysis of employees within cultures. As stated above, it is important to analyze employee engagement on a variety of levels, and few studies thus far have looked at this variable in relation to the culture they reside in. Two of the three country cultural dimensions included in this study had a significant moderating effect in their respective models (i.e., uncertainty avoidance and time orientation). These findings provide greater context to Hofstede and colleagues’ (2010) cultural framework.

Power distance did not have a significant moderating effect on the relationship between leadership and engagement. While this finding does question the validity of power distance as a theoretical construct, it does not prove it to be an unsubstantiated factor. It could be that power distance impacts variables other than leadership. For example, as seen in Table 6, power distance is significantly correlated with time orientation, engagement, chargeability attainment, tenure, travel demand, and task
variety. In this study, the predictors were matched to cultural dimensions that at the time made the most logical sense. More work could be done to map cultural dimensions to a variety of predictors of engagement, as very little research today has been published on this.

**Practical Implications**

The results of this study render some practical guidance for organizations. First, leadership had a very strong impact on employee engagement, regardless of power distance within the culture. If employee engagement within an organization is low, leadership should be one of the first variables analyzed. When investing in leadership training, it is advised that management is trained specifically on transformational leadership behaviors. This study did not specifically analyze which leadership styles are most effective in which specific cultures, but Avolio (2010) summarizes that across cultures transformational leadership is generally more effective than others. In summary, by investing in initiatives that work to increase leadership performance, employee engagement will certainly follow suit.

Second, requiring employees to work overtime impacts engagement. While in some situations this can be difficult to avoid, it is important to monitor which employees are working a significant number of hours and to try to better spread out their workload across time or throughout the department. Additionally, chargeability attainment impacted employee engagement. By holding employees to high client chargeable standards, employees may frequently stress out about missing their target, or be overworked. Whenever possible, a more flexible system of chargeability standards should be used.
Finally, having a culture specific employee engagement strategy is key. Due to the robust and diverse sample, this study found that which variables predicted employee engagement differed across cultures. For example, cultures that are high on uncertainty avoidance did not value high task variety as much as other cultures. By having one global human resources strategy (usually created by a Westernized team), an organization may be inadvertently investing in inefficient employee engagement initiatives. It is important for organizations to do culture-specific studies to gain a broader understanding of what that culture values in relation to engagement, and then act on those findings. Not only should this guidance be applied to employee engagement, but all people related initiatives within the organization.

Limitations

Four principal threats to the validity of this study have been identified: ambiguity about the direction of the causal inferences, inadequate explications of constructs, type one error potential, and violated statistical assumptions (Shadish, Cook, & Campbell, 2002).

The internal validity of this study is weakened due to the ambiguity of the direction of the causal inferences presented (Shadish et al., 2002). The research design of this study was non-experimental because of the archival nature of the data. Due to this, it is difficult to say whether the independent variables are causing the dependent variables or vice versa. Additionally, a third variable could be affecting both the independent and dependent variables. For example, one hypothesis examined if overtime hours predicted employee engagement. The results of this hypothesis indicated that as overtime hours increased employee engagement decreased. It may be that a high number of overtime
hours causes low employee engagement, but the contrary may also be true. It is plausible that high employee engagement leads one to be more productive, and therefore reduces the number of overtime hours needed. Since a causal research design was not applied, it is difficult to say which of these two explanations are true, or whether neither or both are.

A threat to the construct validity of this study is the inadequate explications of some of the constructs presented (Shadish et al., 2002). A handful of the constructs included in this study, such as time orientation and power distance, were operationalized in a robust manner that allowed for accurate inferences of that construct. Contrarily, other variables, such as task variety and leadership, may not have been operationalized in as strong of a manner. For example, task variety was measured by analyzing how many projects (i.e., WBS codes) an employee charged to in a fiscal year. It was then implied that a larger number of projects equates to higher task variety, but this may not always be the case. For example, an employee who charged to only one project may have had a variety of informal roles on that project and used a variety of skills during that time. Contrarily, an employee who rather charged to five projects during that same year may have held the same project role on all five projects, thus actually leading to low task variety, although their task variety would have been measured as higher than the employee in the first example. In hindsight, WBS codes may have been a better way to simply measure project quantity and were not an accurate proxy for task variety. Summarily, by having weakened construct validity, it is more difficult to claim that the constructs measured were embodied in a reliable manner.

There were two major threats to the statistical conclusion validity of this study: type one error and violated assumptions of statistical tests (Shadish et al., 2002). The
power in this study was very high \((N = 5,579)\) and greatly exceeded the suggested sample size needed in order to detect even a small effect size \((N = 934)\). Due to exceedingly high power, type one error is a potential threat. For example, the relationship between overtime hours and employee engagement was significant \((p < .001)\), but the correlation was very small \((r = -0.05)\). The target organization may feel they can derive value from this significant relationship since it shows that as overtime hours increases, employee engagement decreases. In reality, the effect of that relationship is so small that it may not yield much practical value \((r^2 = .0025)\). If the target organization were to act on this finding, they may waste valuable time and resources on an initiative that leads to little improvement.

As discussed above, a variety of statistical assumptions were violated on almost all variables (e.g., normal distribution, homoscedasticity, linearity). For the hypotheses tested via partial correlations, a non-parametric version of the test was used, thus correcting for this issue. For the hypotheses tested via HLM, no non-parametric version of this test was available, therefore weakening the statistical conclusion validity of the study and leading to less meaningful interpretations of the statistical results.

**Future Research Directions**

Contrary to the hypotheses, not all of the predictors presented in this study were significantly moderated by cultural dimensions. While this is true, it is important to continue to explore the relationships between a wide variety of predictors and their cultural moderations in relation to employee engagement, as well as other people centric outcomes. Organizations will continue to diversify and expand globally, thus the need for culturally-centric employee engagement strategies will increase. As stated numerous
times thus far, by simply applying a Westernized engagement strategy to employees across the globe, organizations may miss the mark on improving engagement, and thus other business metrics. Further work can be done on culturally validating the already known predictors of employee engagement, and work can also be done on testing new, unexplored predictors of engagement in relation to culture.

Not only is it important to culturally validate engagement predictors, but as baby boomers leave the workplace and millennials begin to have a larger presence, understanding employee engagement across age groups will also be important. The principal question is how can we better understand the unique attributes of our people, and deliver in ways that increase employee engagement not only for our Western baby boomers, but all types of diverse employees worldwide?

Finally, it is important to continue to connect employee engagement to key business metrics to merit the worth of employee engagement. While some may believe engagement is important regardless of whether it increases revenue, decreases attrition, etc. not all business leaders may agree. By connecting engagement to business metrics that matter to a variety of stakeholders, the buy-in and adoption of employee engagement initiatives will improve.

In summary, this study analyzed the predictors of employee engagement, how engagement may vary across cultures, and the business metrics engagement is related to. Three key pieces of guidance arose from the findings: (a) in order to increase employee engagement, leadership capabilities must be developed, (b) how many hours an employee works overtime should be monitored and reduced when possible, and (c) employee
engagement strategies should be culturally specific, as what impacts an employee’s engagement is partially explained by the culture they reside in.
References


