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# Role of social connectivity and job engagement in positive change: Evidence from the Middle East

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# Role of social connectivity and job engagement in positive change: Evidence from the Middle East

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**Role of social connectivity and job engagement in positive change: Evidence from the Middle East**

Taking a positive perspective, the study aims to investigate change in a Middle-Eastern financial services firm. Using various workplace fun activities (business, sports, arts) the firm implemented a year-long positive business initiative with the aim of building positive social connections among employees from 16 different nationalities. Using data from 221 employees who participated in this initiative, the study empirically examines the role of social connectivity and job engagement in positive change. The main findings can be summed up as follows: (1) a higher level of social connectivity significantly predicts an increase in cognitive, emotional, and physical engagement; (2) an increase in cognitive, emotional, and physical engagement significantly predicts performance; and (3) significant indirect effects support the mediating roles of cognitive and physical engagement in the relation between social connectivity and performance. The theoretical and practical implications of these findings are also discussed.

Keywords: positive change; social connectivity; job engagement; Middle East

## Introduction

The origin of positive organizational change can be traced to positive organizational scholarship, which refers to the investigation into the positive outcomes, practices, attributes, and changes that occur in organizations and among their members (Cameron & McNaughtan, 2014). The four connotations of positive change include (a) focusing on positively deviant performance, (b) examining the factors influencing the adoption of a positive perspective, (c) impact of virtuousness, and (d) effects of an affirmative bias (Cameron & McNaughtan, 2014).

By adopting a positive perspective, obstacles and challenges are reinterpreted as strength-building experiences and opportunities for positive change rather than as problems or tragedies (Cameron, 2008; Gittell, Cameron, Lim, & Rivas, 2006). Assuming an affirmative bias is the second connotation of positive change. This assumption is explained through the broaden-and-build theory of positive emotions proposed by Fredrickson (2003). She suggests that positivity helps unlock and elevate resources in both individuals and teams in such a way that their capabilities are broadened and their capacities or resources are built and strengthened (Fredrickson, 2009).

Studies examining positive change have focused on the development and effects related to virtuousness (Bright, Cameron, & Caza, 2006). This has a eudaimonic assumption, which suggests that there is an inclination among all human systems to achieve the highest aspiration (Cameron, 2008). The last connotation focuses on positively deviant performance, which involves investigating outcomes that exceed expected performance (Cameron & Lavine, 2006).

In this study we examine change in a Middle Eastern financial services firm that implemented various positive practices. By practices we mean recurrent, materially bound, and situated activities of a particular unit or organization (Orlikowski, 2002). Research indicates that organizations where positive practices are implemented show improvements in terms of their profitability, productivity, customer satisfaction, and employee retention (Cameron & McNaughtan, 2014). Positive practices like providing compassionate support, forgiving mistakes, expressing gratitude, showing kindness, and fostering meaningfulness and positive relational ties lead to enhanced performance (Cameron, 2008; Cameron, Bright, & Caza, 2004; Gittell et al. 2006).

Literature suggests different attributes and practices for positive change. Some examples of these include building psychological strengths, virtuousness, showing social concern, investing in positive relationships, managing energy, and job crafting (Avey, Wernsing, & Luthans, 2008; Cameron & McNaughtan, 2014). A four-year-long study at a dangerous nuclear-polluted site is an example of practicing virtuousness for change (Cameron & Lavine, 2006). Practicing virtuousness (forgiveness, compassion, optimism, trustworthiness) leads to positive performance outcomes (Cameron et al., 2011). Both grateful and hopeful individuals were found to be responsible toward other members of their organization, showing social concern (Andersson, Giacalone, & Jurkiewicz, 2007).

When leaders adopt positive practices for change, significant outcomes can be produced (Cameron & McNaughtan, 2014). Research on organizational healing suggests that after a harmful experience the leader may help an organization recover and strengthen by nurturing high-quality connections, fostering compassion, and enhancing the healing process (Powley & Piderit, 2008). Individuals who energized

others performed higher than even those who played a central role in the network. Thus, energy, interacting, connecting, and networking were identified as important factors that improve performance (Baker, Cross, & Parker, 2004; Malik & Maclntosh, 2015).

The expectation of being accepted or being treated like a family (Balkundi & Harrison, 2006; Okhuysen, 2001) affects the behavior of organization actors (Maciel & Camargo, 2016). Literature suggests that social connectivity tends to energize individuals (Dutton & Heaphy, 2003), facilitate organizational learning and growth (Dutton and Ragin, 2006), encourage collaboration (Aarrestad, Brøndbo, & Carlsen, 2015), and positively impact innovative work behavior (Akgun Oya, Halit, & Busra, 2016) and work engagement (Bakker & Bal, 2010; Freeney & Fellenz, 2013). Though many mechanisms tend to facilitate positive change, the current study examines the role of social connectivity and job engagement in the context of the RACE initiative. This is because social connectivity is a pervasive form of social capital and represents positive deviance (Baker & Dutton, 2007).

***RACE: The positive change initiative***

Following the global financial crisis, there was an urgent need for change at the focal organization. The management team developed a positive change initiative named 'RACE,' which involved various sports, arts, cultural, and everyday business activities, intended to enhance the level of engagement and social connectivity among members of the organization. On the basis of the success of the initiative, which generated a positively deviant performance, we decided to examine the nuances of such a positive change.

In this study, we adopt a positive perspective by focusing attention on the generative processes associated with positive change. Research related to 'positive organizational scholarship' suggests that adopting a positive lens helps in interpreting challenges and obstacles as strength-building experiences and opportunities rather than perceiving them as problems or tragedies (Cameron, 2008; Gittell, et. al., 2006). While the employees of the organization's competitors were being laid off, the leaders of this organization decided not to follow suit. Instead, they designed the RACE initiative, including workplace fun activities, to capture the hearts of their employees. The organization's leaders reinterpreted the challenging situation posed by the financial crisis as an opportunity to build social connectivity and engage their employees by giving them happy moments at work. The positive practices implemented through the RACE initiative focused on building employees' connectivity. It was noted that employees who participated in various activities tend to have higher levels of social connectivity and engagement in their job.

In this study, we assume an affirmative bias, another connotation of positive change. This assumption has been explained by Fredrickson (2003) through the broaden-and-build theory of positive emotions. Research indicates that positivity helps unlock resources in individuals and teams, so that capabilities are broadened and capacities or resources are built and strengthened (Fredrickson, 2009). During the various RACE events, employees expressed and experienced various positive emotions. They were also presented with opportunities to build physical, psychological, and social resources. By being exposed to positive change through the RACE initiative, the employees could experience an amplifying effect resulting in the expansion of their social resources.

While developing the RACE initiative, leaders tend to integrate this factor for positive change. The participating employees shared a common motto to challenge their limits and pursue excellence. A genuine desire to achieve the utmost was evident among all the participating employees across events. The natural human inclination toward the positive creates an opportunity to investigate the factors that explain and enable positive change.

The RACE initiative leads to positively deviant performance, another key factor in studying positive change. Positively deviant performance is about investigating outcomes that exceed expected performance (Cameron & Lavine, 2006). During the grand finale address, the leaders announced that the RACE initiative led to a double-digit growth in all the key performance indicators. In this study, we propose that employees who participated in the RACE initiative had an opportunity to form social connections and enhance their job engagement. This would have resulted in an increase in performance.

## ***Theory and hypotheses***

The study, unlike others that focus on the traditional measurement of social network analysis, explores the importance of social connections in the workplace (Baker, 2000; Hanneman & Ridlle, 2011; Kadushin, 2012).

### *Social connections*

'Human relations at the workplace affecting performance' has been a long-discussed topic in the fields of psychology (Walton, Cohen, Cwir, & Spencer, 2012), economics (Bandiera, Barankay, & Rasul 2009), sociology (Mayo, 1933; Roethlisberger & Dickson, 1939; Roy, 1952), and other behavioral sciences. To accomplish tasks at any

firm, it is imperative that the employees collaborate to reach their goals collectively. Employees interact and form connections in pursuing the same goal. Social connections are dynamic, living tissues that exist in the interaction between two people, involving mutual awareness (Dutton & Heaphy, 2003). The time spent to form connections may be minimal, as in the case of a short interaction, or it may prove to be lengthy. Regardless of the duration of the connection, what matters is its quality or, in other words, its worthiness. These connections tend to be of positive orientation (Baker & Dutton, 2007; Stephens, Heaphy, & Dutton, 2011).

There are a few reasons why social connections are formed in any organization. First, all human beings have an urge to belong (Baumeister & Leary, 1995; Maslow, 1968). This need to belong or to search for a connection is focused on the primary need for security and the avoidance of loneliness, isolation, and anguish (Castano, 2013). In the context of the organization, this need to belong is reflected in activities of social inclusion and acceptance (Maciel & Camargo, 2016).

Many relational theories explain the mechanism and relevance of the formation and sustainability of these social connections in an organization, stating that human growth and development occurs along with other factors, rather than in isolation (Miller & Stiver, 1997). Organizational research on exchange theory emphasizes the resource exchange between people (Homans, 1974). Trust and social support lead to positive outcomes for the organization. The positive, mutually developmental experience of being in social connections is emphasized in the literature (Stephens et al., 2011).

Various capacities are developed on the basis of these social connections. Individuals tend to experience and express a variety of emotions as a result of their

social connections. Their ability to withstand the strain and bend in various situations is also enhanced. Further, individuals open up to new ideas with a high level of connectivity. These three capacities build stronger social connections that tend to be generative and beneficial (Stephens et al., 2011). By being a part of these connections, individuals experience a sense of vitality, positive regard, and mutuality. They also tend to participate actively and engage in social connections leading to a movement in and through the connection (Dutton & Heaphy, 2003).

The mental processing of information about others shapes the thoughts on them and the plausible connection formation (Gibson, 1979). This cognition leads to improved actions. Mental processes like other-awareness, impression-formation, and perspective taking are pathways to form social connections (Stephens et al., 2011). In maintaining the social order and tackling everyday social problems in organizations, emotional aspects of connections also play a vital role. Literature suggests that positive emotions, emotional contagion, and empathy are pathways to form connections (Stephens et al., 2011). Additionally, the behavioral mechanisms of trust, respectful engagement, task enabling, and play contribute significantly in forming social connections (Stephens et al., 2011). Opportunities and support provided by the organization further help employees to connect at all levels.

Research also suggests the significant impact of social connections at work on performance. Experimental studies indicate that brief interactions with others can improve working memory performance (Ybarra et al., 2008), task-related help (Venkataramani & Dalal, 2007), career transitions (Ibarra, 2003), and recovery from illness (Lilius et al., 2008). Social connections at work may also affect individuals' immune, cardiovascular, and neuroendocrine systems (Heaphy & Dutton, 2008). Studies have also revealed the impact of social connections on psychological safety

and trust. This leads to increased learning from failures (Brueller, & Carmeli, 2011; Carmeli, 2009; Carmeli, Brueller, & Dutton, 2009; Carmeli & Gittell, 2009). Social connections therefore tend to be useful in the context of organizational change. Thus, the review of literature prompts us to suggest the following:

*Hypothesis 1: Higher social connections lead to better performance.*

*Job engagement*

'Role theory' (Goffman, 1951, 1961), suggests that people differ in terms of their attachments to and absorption in their roles. Kahn (1990, p. 700) originally described engagement as 'the simultaneous employment and expression of a person's "preferred self" in task behaviors that promote connections to work and others, personal presence (physical, cognitive, and emotional) and active, full performances.' Engagement implies devoting one's complete self—in terms of physical, cognitive, and emotional energies—to active work roles. Highly engaged employees are found to be psychologically present, attentive, connected, and focused on their role performances. When they are open to themselves and connected to others, engaged employees bring their whole selves to their roles (Kahn, 1992). The investment of physical, emotional, and behavioral energies is exhibited through one's behavior as a function of engagement.

Schaufeli and Bakker (2003, p. 74) conceptualize engagement as a 'positive, fulfilling, work-related state of mind characterized by a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual or behavior.' Another view of engagement is investing the 'hands, head, and heart' in

performing one's work role (Ashforth & Humphrey, 1995, p. 110). Highly engaged employees invest their physical, emotional, and cognitive energies simultaneously.

Drawing from Kahn's original work, Rich, Lepine, and Crawford (2010, p. 619) described job engagement as 'a multidimensional motivational concept reflecting the simultaneous investment of an individual's physical, cognitive and emotional energy in active, full work performance,' thereby distinguishing it from the related constructs of job involvement and job satisfaction (Rich et al., 2010; Rothbard & Patil, 2011).

Using Kahn's conceptualization has some benefits: First, it addresses the real attitude, behavior, and cognition of individuals in their work roles, rather than their antecedents (e.g., as measured by Gallup's work force audit). Second, unlike other conceptualizations of engagement, which considers it to be the opposite of burnout, this is unique. Third, it is consistent with the suggestions proposed by Kelman (1958) and Campbell (1963), which support a joint investment of physical, emotional, and cognitive energies for better performance.

*Dimensions of engagement*

*Physical:* Employees invest and express themselves in their work roles (Kahn, 1990), exerting physical and mental effort. The main elements of physical engagement are time duration commitment, intensity or force exerted, and direction (Campbell & Pritchard, 1976; Hackman & Oldham, 1980). Effort as time spent is merely reflective of one's role presence and not of one's engagement. Thus, it is also important to consider how hard the individual was trying to accomplish a task (Kanfer, 1990), as this is reflective of the

employee's intensity of investing personal resources in his or her work role. Effort measured as intensity is significantly related to performance (Brown & Leigh, 1996).

*Cognitive:* Cognitive engagement comprises two components: attention and absorption (Rothbard, 2001). Attention is the amount of time one spends thinking about the role task, while absorption is the level of engrossment or intensity of focus on the role task. Other than one's work, there are multiple tasks seeking one's attention, and each individual controls the allocation of his or her cognitive resources (March & Olsen, 1976). Kahn (1990, 1992) describes individuals as being cognitively engaged when they allocate sufficient attention to a work task, despite competition from other sources for this limited resource (Kanfer & Ackerman, 1989). Absorption is a pervasive and persistent state of concentration and focus that resembles intrinsic motivation, which is the desire to associate with an activity for its sake (Deci & Ryan, 1985; Rothbard, 2001). Self-regulation is a cognitive process that transforms motivational force into behavior and performance and can be linked to absorption and attention (Kanfer, 1990). Accordingly, individuals regulate their efforts across on-task and off-task activities. The component of self-regulation helps one to engage in the cognitive thought process by paying attention to and being absorbed in his or her work roles.

*Emotional:* Kahn (1990, 1992) proposed that individuals be engaged in their roles and exhibit the investment of personal energies and emotions. An individual's emotional experience at work results from feelings of enthusiasm, pride, and hostility and can be positive or negative (Watson, Clark, & Tellegen, 1988; Watson, Weise, Vaidya, & Tellegen, 1999). Employees experiencing

positive affect are enthusiastic, active, and energized to engage in their work roles, while those experiencing negative affect are distressed, sluggish, dull, and disengaged (Watson & Tellegen, 1985). Both positive and negative affects are independent dispositions, rather than the opposite ends of a scale (Barrett & Russell, 1998; Watson, et al., 1999). Research has shown that individuals' emotions influence their job attitudes (Wallbott & Scherer, 1989). Thus, we may conclude that a consideration of cognitive and physical engagement is not complete unless it also takes into account the emotional aspect.

*Social connections and job engagement*

Extant literature perceives organizational support as a significant antecedent for job engagement. When employees are given an opportunity to interact and form connections, they perceive their organization to be supportive. In addition, according to Kahn's (1990) observation, a supportive environment fosters caring and honest relationships, which in turn provides employees a sense of psychological safety that is necessary to engage in their work roles. Further, being a part of social connections might help individuals develop psychological availability—the sense of having physical, emotional, or physiological resources to personally engage in their jobs (Kahn, 1990). Thus, as more resources are exchanged in an organization, the perception of availability might cause them to become more engaged in their work roles.

Research implies that social connections are positive dyadic interactions at work, marked by a sense of mutuality, vitality, and positive regard (Dutton & Heaphy, 2003). Positive interrelations at work tend to play a significant role in engagement (Baker and Dutton, 2007). When employees have opportunities to form relational ties,

a variety of emotions are expressed and experienced over these connections. Employees who experience positive emotions, especially gratitude, might experience enhanced emotional engagement in their work roles, as they are thankful to each other for the day-to-day help received. Additionally, having relational ties with other members of the organization tends to build one's capacity to be resilient and stay connected. This might further motivate employees to be cognitively and physically engaged in their work roles. Individuals' awareness of others in their organization creates impressions about them (Stephens et al., 2011). This might cause employees to invest their cognitive energy at work, remaining focused and absorbed in their day-to-day activities. From the above argument explaining the social connection–engagement relationship, we hypothesize the following:

*Hypothesis 2a: Higher social connections lead to higher physical engagement.*

*Hypothesis 2b: Higher social connections lead to higher cognitive engagement.*

*Hypothesis 2c: Higher social connections lead to higher emotional engagement.*

*Job engagement and performance*

The concept of engagement reflects human agency; hence, we focus on the behavioral conceptualization of performance. Highly engaged employees execute their assigned work roles with physical energy, cognitive vigilance, and emotional connection (Ashforth & Humphrey, 1995; Kahn, 1990), while disengaged employees withhold their energies from translating to task activity, acting in ways that are more robotic,

passive, and detached (Kahn, 1990). Physical energies allow workers to leverage extra effort and time for better performance (Kahn, 1990), thereby investing more of themselves into the attainment of organizational goals; thus, hard work tends to be associated with better performance (Brown & Leigh, 1996). Cognitive energies also contribute to organizational goals, promoting behavior that is more attentive and focused (Kahn, 1990). A reduction in cognitive energy investment is expected to decrease performance (Weick & Roberts, 1993). Emotional energy also relates to performance outcomes, as it promotes positive interpersonal connections among coworkers (Ashforth & Humphrey, 1995) and helps employees to meet the emotional demands of their jobs.

Engaged employees invest their physical, emotional, and cognitive energy in performing tasks more meticulously (Borman & Motowidlo, 1993; Kahn, 1990; Rich et al., 2010). They work with greater intensity for a longer period, pay more attention to details, and are focused, in addition to being more emotionally connected to their tasks. Investing their whole self in their work roles facilitates superior in-role and extra-role performances by employees (Christian, Garza, & Slaughter, 2011; Rich et al., 2010; Saks, 2006), which logically leads to a positive impact of engagement on financial turnover (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Harter, Schmidt, and Hayes (2002) discovered a positive relation between engagement and unit-level performance (e.g., customer satisfaction, production, profitability, employee turnover). Therefore, we expect that all three aspects of engagement will be associated with better performance:

*Hypothesis 3a: Higher physical engagement leads to better performance.*

*Hypothesis 3b: Higher cognitive engagement leads to better performance.*

*Hypothesis 3c: Higher emotional engagement leads to better performance.*

*Mediating role of job engagement in social connectivity and performance*

On the basis of the above review of literature, we argue that employees with relational resources will exhibit greater physical, emotional, and cognitive engagement in their work roles leading to enhanced performance. According to the Job Demands–Resources Model, work engagement has a positive impact on job performance. Employees who are engaged and perform well are able to create their own resources, which then foster engagement again, over time creating a positive gain spiral (Bakker & Demerouti, 2008). Thus, on the basis of the available literature, we propose a model (see figure 1) in which physical, emotional, and cognitive engagement mediates the relationship between social connections and performance. Prior research indicates a positive relationship between social connections and performance (Baker, Cross, & Parker, 2003; Cross, Baker & Parker, 2002). In this study, we argue that engagement plays a significant mediating role in explaining this relationship.

*Hypothesis 4a: Physical engagement mediates the relationship between social connections and performance.*

*Hypothesis 4b: Cognitive engagement mediates the relationship between social connections and performance.*

*Hypothesis 4c: Emotional engagement mediates the relationship between social connections and performance.*

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Insert Figure 1 about here

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## Methods

### *Participants and procedure*

Our questionnaire-based data were collected from employees of a multinational financial services firm located in the United Arab Emirates. At the time of data collection, all the employees had participated in a positive business initiative called 'RACE,' which involved various sports, arts, cultural, and everyday business activities, intended to enhance social connectivity and employee engagement.

Before administering the questionnaire, the heads of 99 UAE-based branch offices of the firm were informed about the objectives of the study and how it would be undertaken; they were assured of the absolute confidentiality of the responses and the participants. With the help of these branch heads, the survey was conducted during work hours. Participants provided their informed consent. Of the 954 people invited to participate in the study, 221 employees completed the questionnaire, yielding a response rate of 23.26%.

Our sample comprised 80.9% males and 19.1% females. The mean age of the respondents was 30.9 years, and their organizational tenure ranged from one to seven years, with an average of 3.87 years. Concerning education, all the respondents were at least high school graduates. While all of the respondents were based in the UAE, the sample was international, with 16 home countries represented.

### *Measures*

Individual respondents—all employees of the firm—were asked to self-assess their social connectivity, cognitive engagement, physical engagement, emotional

engagement, and performance. A prefix, ‘Since the introduction of RACE,’ was added to all the study items to provide a time frame and make the context clearer to the employees. Responses were collected using a seven-point Likert scale, with the following categories: 1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neutral, 5=somewhat agree, 6=agree, and 7=strongly agree.

*Social connectivity*

A measure for social connectivity was developed using the positive relationships at work theory (Baker & Dutton, 2007; Carmeli, Brueller & Dutton, 2008; Dutton & Heaphy, 2003; Stephens et al., 2011) based on the organizational context. To determine the validity and reliability of the measure, a pilot test was conducted. A list of five scale items was prepared, which was distributed to three experts to assess the face validity; the experts comprised one professor in organizational behavior, one member of the RACE organizing committee, and one of the leaders of the organization. Sample items included, ‘I have formed positive connections with members of different branches,’ and ‘I have opportunities to connect with peers from different branches.’ After receiving the feedback, we pilot-tested the social connectivity measure by testing it on 50 employees who participated in the RACE initiative. Responses were collected on the basis of a seven-point Likert-type scale. The coefficient alpha for the pilot study was 0.79. The exploratory factor analysis, with Promax rotation, yielded a clear pattern matrix with all the items loading on a single factor.

As satisfactory results were found in the pilot test to determine the validity and reliability of the social connectivity measure, this measure was utilized in the final

study (n=221). The coefficient alpha for the final study was 0.81, with a clear pattern matrix in exploratory factor analysis with Promax rotation.

*Job engagement*

The self-rated version of the job engagement questionnaire (Richet al., 2010) was used to measure engagement. The job engagement questionnaire draws from various scales—cognitive engagement (Rothbard, 2001), physical engagement (Brown & Leigh, 1996), and emotional engagement (Russell & Barrett, 1999)—to measure the dimensions of job engagement and has been demonstrated to have reliability and construct validity (Rich et al., 2010). Three items each of cognitive, physical, and emotional engagement were adopted for this study. Sample items included: 'I am focused on my job' (cognitive engagement), 'I work with intensity on my job' (physical engagement), and 'I am enthusiastic in my job' (emotional engagement).

Exploratory factor analysis, with Promax rotation yielded a clear three-factor pattern, with the items all loading on the expected factors. Confirmatory factor analysis (CFA), using a maximum likelihood method, indicated adequate fit indices for the three-factor structure, with items loading significantly ($p$<0.001) on their respective dimensions; the standardized regression loadings ranged from 0.81 to 0.95 and all were highly significant ($p$<0.001). The model fit indices for the first-order CFA were $\chi^2$= 41.87, CFI = 0.98, TLI = 0.98, IFI = 0.99, RMSEA = 0.05, and SRMR = 0.03. The coefficient alpha was 0.85, .84 and .89, respectively, for emotional, cognitive, and physical engagement.

*Performance*

We adopted items developed by Welbourne, Johnson, and Erez (1998) to measure

individual employee performance. Sample items included: 'The quantity of work has improved,' 'The quality of work has improved,' and 'The timeliness of work has improved.' Exploratory factor analysis, with Promax rotation, yielded a clear single-factor. The Cronbach's α for the performance measure was 0.86.

*Controls*

The demographic control variables included in the study were employee age, gender, and work experience.

## Results

### *Descriptive statistics*

Means, standard deviations, reliability *α*s, and correlations among the variables are depicted in Table 1.

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Insert Table 1 about here

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### *Measurement Models*

Owing to the fact that the data were collected from a single source (i.e., the employees) at one point, we had to check for the potential of common method variance. We conducted Harman's single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), which is mostly used for this purpose. All items were first loaded on to one factor in an exploratory factor analysis to examine whether a single factor accounts for the majority of the covariance. We found that the first factor did not

account for the majority of the variance among the measures.

Further, in structural equation modeling, we also created an unmeasured latent factor, connecting all self-reported items to this latent factor and constraining all the paths from this latent factor to be equal. We squared the regression coefficients generated from this latent factor and observed that only 2.15% of the variance could be attributed to this unmeasured common factor. Furthermore, the relationship between the study variables was still highly significant ($p<0.001$) when this unmeasured latent factor was retained in the model. Combined with the assurances of confidentiality offered by one of the authors, who has strong credibility in the organization, this result implied that common method bias was not a substantial concern for this study. Thus, it is unlikely that the findings can be explained by common method variance.

To demonstrate the validity of the measures through composite reliability (CR), average variance extracted (AVE), and maximum shared variance (MSV), we conducted an analysis using CFA. Using threshold values for reliability, CR > 0.7; convergent validity, CR > AVE and AVE > 0.5; and discriminant validity, MSV < AVE (Hair, Black, Babin, Anderson, & Tatham, 2009), the reliability and validity of the study measures was established (see Table 2).

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Insert Table 2 about here

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Table 3 presents the CFA results from estimating the model shown in Figure 1. The five-factor model, including social connectivity, cognitive engagement, physical engagement, emotional engagement, and performance, demonstrated good fit

with the data, based on the $\chi^2$= 208.07, CFI=0.97, TLI=0.96, IFI= 0.98, RMSEA=0.05 and SRMR=0.05 values. We also tested four alternate models against this baseline and the fit indices support the use of the originally proposed five-factor model, providing evidence of construct distinctiveness among social connectivity, cognitive engagement, physical engagement, emotional engagement, and performance.

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Insert Table 3 about here

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***Tests of hypotheses***

To test Hypotheses 1, 2, and 3, we conducted structural equation modeling, and to test Hypothesis 4 we conducted a bootstrapped indirect effect (IE) analysis (Preacher & Hayes, 2008). All variance inflation factor (VIF) values were below standard cutoffs (i.e., VIF 1.34), which suggested that multicollinearity might not be an issue. The fit indices demonstrate goodness of model fit with the data, based on $\chi^2$=377.14, $p<0.01$, CFI=0.91, TLI=0.88, IFI= 0.92, RMSEA=0.09 values. Hypothesis 1 predicted that social connectivity would be positively and directly related to performance. Figure 2 presents the standardized path coefficients, and the results indicate a significant direct link from social connectivity to performance ($\beta = 0.36$, $p<0.001$).

Hypotheses 2a, 2b, and 2c predicted that social connectivity would be positively related to physical, cognitive, and emotional engagement, respectively. The results indicate significant positive links from social connectivity to physical engagement ($\beta = 0.44$, $p<0.001$), cognitive engagement ($\beta = 0.37$, $p<0.001$), and emotional engagement ($\beta = 0.70$, $p<0.001$). Thus, hypotheses 2a, 2b, and 2c are

supported by these findings. Hypotheses 3a, 3b, and 3c predicted that physical, cognitive, and emotional engagement, respectively, would be positively related to performance. As shown in Figure 2, physical engagement ($\beta$=.16, $p<0.05$), cognitive engagement ($\beta$=.22, $p<0.001$), and emotional engagement ($\beta$=.17, $p<0.05$) are all significantly related to performance. Therefore, though hypotheses 3a and 3c are moderately supported, hypothesis 3b is well supported by our findings.

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Insert Figure 2 about here

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To test hypotheses 4a, 4b, and 4c we specified social connectivity as the independent variable, physical, cognitive, and emotional engagement as the mediating variables (MVs), and performance as the dependent variable in a mediation analysis using the SPSS Process Model 4 (Hayes, 2013). A test was conducted to show that each of the three MVs reliably mediated the social connectivity and performance link. We estimated the IE and the mediation effect size (ES) of social connectivity on performance via, physical, cognitive, and emotional engagement. We accepted the IE as significant if its bias-corrected 95% CI (from 5,000 bootstraps resamples) excluded zero.

IEs of social connectivity on performance were observed via physical engagement (IE = 0.08; 95% CI: 0.02, 0.20; ES = .18), cognitive engagement (IE = 0.05; 95% CI: 0.01, 0.12; ES = .10), and emotional engagement (IE = 0.05; 95% CI: -0.00, 0.13; ES = .11) as mediators. The results reveal that physical and cognitive engagement significantly mediated the relationship between social connectivity and performance, supporting hypotheses 4a and 4b. However, emotional engagement did not support hypothesis 4c as the 95% confidence interval included a zero.

## Discussion

The study examined the role of the three dimensions of job engagement—that is, physical, cognitive, and emotional engagement—in the link between positive relationships at work and performance. Results suggested a positive relation between social connections and performance, significantly mediated by physical, cognitive, and emotional engagement. Further investigation into the nature of the mediation effect indicated that physical and cognitive engagement significantly mediate the social connection–performance link. These findings have both theoretical and practical implications. With respect to theoretical contribution the findings suggest that there is a need to revisit the social network theory with a view to explore the role of social connections in the workplace. For human resource practitioners, findings of the study suggest that social connection in the workplace has the potential to contribute significantly towards work being perceived as meaningful by employees, for providing a sense of appreciation, safety, and positive conditions at work. Thus, it is a potential tool in the hands of organizational actors.

In a recent study by Maciel and Camargo (2016), engagement was measured along physical, cognitive, and emotional dimensions. However, results suggested that cognitive engagement was influenced by intra-organizational social connections to protect oneself from isolation, anguish, and loneliness (Castano, 2013) unlike physical and emotional engagement. Our study, however, proves that there is a positive impact on physical and cognitive engagement. This collectivist tendency generates a sense of safety and belonging. The act of being welcomed and accepted by coworkers or being treated like a family by the organization (Balkundi & Harnson, 2006; Okhuysen, 2001) has a positive effect on employees.

The main contribution of this study is to suggest that engagement is not a factor restricted to the nature of the job or to demographic variables but to the role of social ties. This is also reflected in 'Social theory' (Granovetter, 1985). The findings of this study not only answer the call to investigate the potential mediating mechanisms underlying the social capital–performance relation, but also highlight the need to focus on developing social connections. The context of this study, with data collected soon after the completion of a year-long positive organizational initiative, suggests that social connections can be developed through consciously designed and implemented workplace programs that encourage employees to connect with members of their organization.

Informal settings, such as sports and arts-related events, may allow individuals to feel comfortable about expressing themselves. These act as local ties with the potential to positively impact an individual's behavior. This finds a reflection in the theoretical framework of the study. In a scenario such as the RACE initiative, employees have ongoing opportunities to form connections with members of their organization. The conversion of routine jobs into games may make employees more likely to engage, investing their physical, cognitive, and emotional energies into the tasks (Mollick & Rothbard, 2014). In this service-sector multinational enterprise, this process was reflected in the increase in core business performance indices at the branch level, including remittance count and foreign exchange margins, despite a very negative global environment for the sector. Our findings suggest that the formation of positive relational ties can be strengthened through positive business practices in the workplace.

Like all empirical research, our study is subject to some limitations. First, we considered data only for the period immediately following the RACE initiative,

meaning that we were unable to conduct a pre and post analysis to examine the impact of the positive business practices in developing social connections at work in greater detail. We have clear information regarding the improved outcome in terms of performance following RACE, based on access to both data on the main outcomes and interviews with senior managers; during this period, this financial-services company experienced growth and improvement despite the effects of the global financial crisis. However, our *post hoc* data collection regarding social connections and job engagement limits our ability to assert causality.

Also, owing to our study's cross-sectional nature, we cannot rule out the possibility of reverse causality, given that we gathered all our data at one time. For example, individuals who perceive their branch to be high performing may be more likely to develop social connections easily. However, to begin to address this issue, we reran our bootstrapped IE analysis in reverse order with performance predicting social connectivity through physical, cognitive, and emotional engagement. The 95% confidence intervals included zeros—they were [-.03-.29], [-.13-.35], and [-.25-.20], respectively—providing some support the causal direction of our model.

Despite these limitations, our findings not only contribute to both theory and practice by providing further support for the importance of developing positive relationships at work through positive business practices, but also demonstrate, empirically, that the previously unexplored mediating mechanism of job engagement underlies the social connection–performance link. Specifically, this study indicates that social connections are related to performance both directly and through the mediating role of job engagement. Finally, the study contributes to the goal of more comprehensively understanding the link between social connections and performance,

as well as its mediators in the context of a workplace comprising a highly multinational workforce.

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**Table 1. Descriptive Statistics and correlations matrix**

| | Mean | s.d. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| 1. Social connectivity | 5.63 | 1.08 | (.90) | | | | | | |
| 2. Cognitive Engagement | 6.02 | 1.02 | .27** | (.87) | | | | | |
| 3. Physical Engagement | 5.76 | 1.19 | .31** | .46** | (.92) | | | | |
| 4. Emotional Engagement | 6.09 | 1.10 | .25** | .63** | .51** | (.89) | | | |
| 5. Individual Performance | 5.40 | 1.28 | .38** | .42** | .45** | .44** | (.92) | | |
| 6. Gender | 1.19 | .39 | .08 | -.08 | -.02 | -.06 | -.00 | | |
| 7. Age | 30.9 | 3.80 | -.06 | .02 | .03 | .14* | .01 | .05 | |
| 8. Tenure | 3.87 | 1.73 | -.08 | .03 | -.08 | .05 | -.04 | -.01 | .45** |

Notes. n = 221. Reliability coffiecient for the scales are in parentheses along the diagonal. Gender: 1= male, 2= female. Tenure: denotes years.

** Correlations significant at the 0.01 level (2-tailed). $p < .01$ and* Correlation significant at the 0.05 level (2-tailed). $p < .05$

**Table 2. Discriminant validity**

| | CR | AVE | MSV |
|---|---|---|---|
| **SC** | 0.90 | 0.65 | 0.16 |
| **PE** | 0.92 | 0.80 | 0.28 |
| **CE** | 0.87 | 0.70 | 0.52 |
| **EmE** | 0.89 | 0.72 | 0.52 |
| **Perf** | 0.92 | 0.74 | 0.21 |

*Notes.* CR, Composite Reliability; AVE, Average Variance Extracted; MSV, Maximum Shared Variance; SC, social connectivity; PE, physical engagement; CE, cognitive engagement; EmE, emotional engagement; Perf, individual performance.

**Table 3. Comparison of measurement models.**

| Model | Factors | $\chi 2$ | *df* | $\Delta \chi 2$ | *CFI* | *TLI* | *RMSEA* | *CI* |
|---|---|---|---|---|---|---|---|---|
| Baseline | Five factors | 208.07 | 125 | | 0.97 | 0.96 | 0.05 | .04-.06 |
| Alternative Model 1 | Four factors. Combined SC and CE as one factor. | 628.43 | 129 | 420.36 | 0.83 | 0.77 | 0.13 | .12-.14 |
| Model 2 | Four factors. Combined SC and PE as one factor. | 725.09 | 129 | 517.02 | 0.80 | 0.73 | 0.14 | .13-.15 |
| Model 3 | Four factors. Combined SC and EmE as one factor. | 680.86 | 129 | 472.79 | 0.81 | 0.75 | 0.13 | .12-.15 |
| Model 4 | One factors. All combined. | 1701.60 | 135 | 61.32 | 0.41 | 0.42 | 0.22 | .21-.23 |

n = 221. SC, social connectivity; CE, cognitive engagement; PE, physical engagement; EmE, emotional engagement; CFI, comparative fit index; TLI, Tucker-Lewis fit index, RMSEA, root-mean-square error of approximation; 90% CI, 90% RMSEA confidence interval. All $\chi 2$ and $\Delta \chi 2$ values are $p < 0.001$. Delta values are differences of each of the alternative models with the hypothesized model.

**Figure 1. Conceptual model**

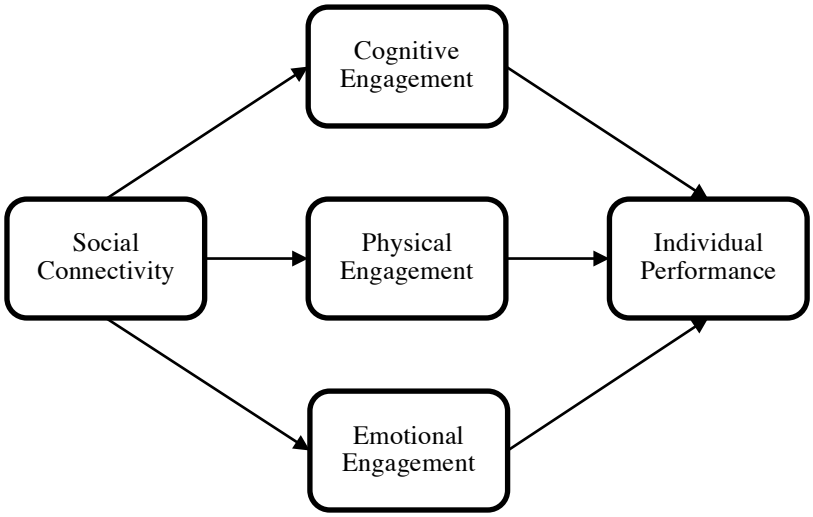


**Figure 2. Structural model**