

**Empowering leadership: Balancing self-determination and accountability for motivation**

David O'Donoghue & Lisa van der Werff\*

\*Irish Institute of Digital Business, DCU Business School, Dublin City University

Please cite as:

O'Donoghue, D., & van der Werff, L. (2021). Empowering leadership: balancing self-determination and accountability for motivation. *Personnel Review*. Online First Publication

## **Abstract**

### *Purpose*

This study set out to investigate the role of self-determination and accountability in the relationship between empowering leadership, motivation and performance.

### *Design/Methodology/Approach*

Data were collected from 172 participants working in an international software development organization. Hypotheses were tested in PROCESS using the Preacher and Hayes (2008) bootstrapping method.

### *Findings*

Results indicate that empowering leadership played a significant role satisfying basic psychological needs. As expected, the satisfaction of needs is related to autonomous motivation. Crucially, perceived accountability was also positively related to autonomous motivation.

### *Research Limitations*

The cross-sectional design of our study limits our ability to rule out the possibility of reverse causation.

### *Practical Implications*

The results suggest that traditional management practices such as accountability can be successfully utilized in conjunction with self-determination theory without undermining autonomous motivation. Our study highlights two key opportunities for HR professionals. Specifically, by equipping managers with the skills to display empowering leadership behaviors, and by communicating organizational values and individual job meaning to enhance identified forms of motivation, HR can fully realize the benefits of autonomous employee motivation.

### *Originality/value*

This paper offers valuable insight into how leaders can balance the satisfaction of basic psychological needs with accountability to influence autonomous motivation in employees. The model presented demonstrates the potential of empowering leadership in achieving this balance and highlights the importance of identified motivation as a powerful correlate of work performance.

**Keywords:** self-determination theory; empowering leadership; autonomy; accountability; motivation

## **Introduction**

In order to generate motivation in a fast-paced, complex and dynamic environment, HR professionals in many technology organizations are creating initiatives focused on employee autonomy. In organizations such as these, employees are required to deal with abstract concepts, think, analyse and problem-solve (Lawler and Worley, 2011). The prevailing assumption in academia and industry is that autonomy can help employees with these issues. In particular, Self-Determination Theory (SDT) states that satisfaction of our basic psychological needs, the need for Autonomy, Competence and Relatedness, is a critical element for the generation of effective and sustainable motivation (Ryan and Deci, 2000). Gagné and Deci (2005) highlighted that supporting autonomy in the work environment generates motivation that is superior for complex tasks that require problem-solving, cognitive flexibility and conceptual understanding. SDT seems to suggest that autonomy is exactly the right approach for motivating employees within technology organizations.

The concept of autonomy is central to a variety of prominent debates in the HRM literature from employee motivation to job quality (van Hoorn, 2018). However, autonomy can be a difficult concept to fully realize and even individuals with an open mind can have significant difficulty overcoming institutional rigidities embedded by experiences of more traditional environments (Dokko, Wilk and Rothard, 2009). In many situations, staff perceive an introduction of autonomy as an introduction of greater responsibility without additional benefits and can be cynical of efforts to empower them (Tannenbaum, Mathieu, Salas and Cohen, 2012). Moreover, autonomy and the implied need for shared-leadership can be difficult to realise because in the popular mind, leadership is singular (Bligh, Pearce and Kohles, 2006; O'Toole, Galbraith and Lawler, 2002). These issues suggest that HR managers may find it challenging to implement autonomy-based initiatives.

The SDT literature asserts that autonomy means experiencing choice or having a sense of volition about your work. It does not mean independence or staff freedom (Gagné and Deci, 2005; Ryan and Deci, 2000). However, common misinterpretation of the term autonomy has led to a perception that autonomy requires employees to feel independent from their organization and organizational leaders. Using this interpretation of autonomy, some studies warn of a negative impact of autonomy in the workplace including meta analytic evidence of a negative relationship with competitive performance (De Waal, 2008). Evidence suggests that job autonomy can be associated with increased costs and concerns for HRM due to a reduction in opportunities for monitoring and control (van Hoorn, 2018). Similarly, De Waal (2008) warns that staff freedom can result in disorder and confusion if not backed up with appropriate coordination.

More research is needed to provide guidance to HR professionals on autonomy within the workplace. Existing literature suggests that certain HRM practices (e.g. high-involvement practices; Shin and Bae, 2018) are related to increases in employee autonomy. Furthermore, a manager's autonomy supportive behaviors can have a positive effect on basic needs satisfaction (Baard, Deci and Ryan, 2004) and incentives play a critical role in influencing motivation (Cerasoli, Nicklin and Ford, 2014; Kuvaas, Buch, Gagné, Dysvik, and Forest, 2016). As such, HR are in an optimal position to influence job autonomy either directly through specific HR practices or more indirectly through the training of line managers and design of reward systems. The literature provides some guidelines on the application of SDT practices in the workplace but calls for further empirical data to support and elaborate on these (Deci, Olafsen and Ryan, 2017). Importantly, the HRM literature suggests that leaders play a vital role as the real life representatives of HR policies and practices and as such, leadership behaviour is a crucial mechanism through which HRM can impact outcomes including follower motivation (Schopman, Kalshoven and Boon, 2017; Wright and Nishii, 2004).

This paper seeks to address some key questions regarding SDT and its impact on people in a modern work environment. Using a cross-sectional survey design in an international technology organization, our study investigates the relationships between empowering leadership, accountability, need satisfaction, autonomous motivation and individual work performance. Our study contributes to the current literature in three key ways. First, we provide one of the first empirical investigations of the relationship between empowering leadership and need satisfaction. Second, we investigate the dual mediating mechanisms of need satisfaction and accountability and explore the role of both variables in driving autonomous motivation in the workplace. In doing so, we highlight a key opportunity through which HRM can resolve the dilemma regarding the potential benefits (increased motivation and performance) and pitfalls (lack of monitoring and control) of job autonomy. Specifically, if HR professionals can prepare line managers in their organization to enact empowering leadership behaviors, this is likely to encourage a combination of autonomy and order as suggested by (De Waal, 2008), and to be the key to implementing autonomy in practice. Our study demonstrates that it is possible for HRM to design a workplace environment that will encourage accountability alongside the support of self-determination to positive effect.

Finally, this study lends further support to a growing literature that argues that identified motivation may be a particularly powerful and practical means to impacting employee performance. Given it is most likely beyond the remit of any HR professional or organization to ensure that every job is inherently interesting and enjoyable at all times, identified motivation offers an alternative route to enhancing autonomous motivation and capturing its performance and well-being related benefits. Specifically, by communicating and emphasising the values of their organization and the importance and meaning of individual roles, HR professionals can have considerable influence over employee motivation. Previous empirical literature suggests that employee perceptions that HR practices impact motivation are likely to have wide ranging benefits, in addition to those captured in the present study,

including organizational commitment and reduced turnover (Kehoe and Wright, 2013; Meglich, Valentine and Eesley, 2019).

## **Literature review**

### *Empowering Leadership*

Empowering individuals or teams by allowing them to self-manage is not enough by itself. Employees need leadership support to work autonomously (Amundsen and Martinsen, 2014). In a meta-analysis of 30 years of research on the concepts of self-management (Stewart, Courtright and Manz, 2011), the authors found that the interplay between self-management and external leadership was critical. In particular, empowering leadership was a crucial force that influenced self-management (Stewart et al., 2011) and multiple facets of job performance (Martin, Liao and Campbell, 2013). Arnold, Arad, Rhoades and Drasgow (2000) defined, tested and verified five categories of behavior necessary for effective empowering leadership. These behaviors are leading by example, participative decision making, coaching, sharing information with the team and showing concern for the members of the team. The sub-facets of empowering leadership have been tested, verified and used in multiple studies that demonstrate empowering leadership's positive impact on employee attitudes, extra-role behaviors and team performance (e.g., Dewettinck and van Amejide, 2011).

Interestingly, some literature refers to difficulties implementing empowerment initiatives within organizations. Many organizations assume that empowerment is desired by all and that everybody has the same ability to accept these new responsibilities (Zhang and Bartol, 2010). In reality however, individuals have different capabilities and priorities, and some may not be ready for empowerment or have a desire to be autonomous. Empowerment is a matter of degree and not an absolute (Ford and Fottler, 1995). Other studies show that resistance to the granting of autonomy and power sharing with employees stems from an ingrained schema

associated with the employee's role (Labianca, Gray and Brass, 2000). Also, managers with a high need for control and recognition can find it difficult to share power with employees (Forrester, 2000). As such, organizations should proceed thoughtfully when implementing empowerment initiatives.

### *Self Determination Theory*

Motivation refers to the form, intensity and duration of human activation that determines the energy, direction and persistence of human intention (Pinder, 2008). As a theory of motivation, SDT postulates that motivation has a variety of forms or types which are dependent upon the satisfaction of three basic and universal psychological needs that transverse cultures (Deci and Ryan, 2008; Deci and Ryan, 2014; Hofer and Busch, 2011, Ryan and Deci, 2000). In the same way that a plant needs water and sunshine, people must satisfy their basic psychological needs to thrive and grow (Ryan, 1995). The need for autonomy, concerns the need for choice and feeling like the initiator or agent of one's actions. The need for competence denotes the ability to skilfully master challenges in one's environment and to attain chosen outcomes (Gagné and Deci, 2005). Finally, the need for relatedness concerns a need for mutual respect and reliance with others and interpersonal acceptance and closeness (Baard et al., 2004; Hofer and Busch, 2011).

When the three psychological needs are satisfied, individuals experience intrinsic motivation which is an autonomous expression of the individual (Ryan, 1995). Humans are intrinsically motivated for activities that interest them, are optimally challenging or have the appeal of novelty. However, humans are capable of yielding personal choice to do less enjoyable activities that are good for the collective. Learning the norms and behaviors necessary for coexistence is called internalisation (Gagné and Deci, 2014) and is crucial for the integration of an individual into a larger society where it is beneficial to follow social laws and rules and

doing uninteresting tasks is often required (Joussemet, Koestner, Lekes and Houliort, 2004; Ryan, 1995).

SDT recognises that extrinsic motivation, or motivation to engage in tasks that are not inherently enjoyable and interesting, can take multiple forms: (1) external motivation, in which individuals feel forced to engage in activity because others provide rewards or punishments based on the level of engagement in a task; (2) introjected motivation, in which behavior is engaged in to feel worthy, avoid shame or avoid guilt. With introjection, a regulation has been partially internalised, but not accepted as one's own and is experienced as a controlling pressure; (3) identified motivation, in which behavior is more self-endorsed and viewed as important and in line with one's closely held values (Gagné and Deci, 2005; Van den Broeck, Ferris, Chang and Rosen, 2016). Intrinsic motivation is considered the most autonomous form of motivation. However, when an extrinsic behavior is viewed as important and in line with one's closely held values and identity, psychological internalisation allows it to be integrated with the sense of self to the extent that the locus of causality can be perceived as internal and the behavior as autonomous (Black and Deci, 2000). For this reason, within SDT, intrinsic motivation and identified motivation can be coupled into a broader construct known as autonomous motivation. Both external motivation and introjected motivation are considered to be controlled behaviors and together, form the construct known as controlled motivation.

SDT proposes that a focus on autonomous motivation is a worthwhile exercise in the work domain, as the benefits include in-role and extra-role job performance; creativity; cognitive flexibility; work-related attitudes; and psychological well-being (Baard et al., 2004; Gagné and Deci, 2005). SDT does recognise that controlled motivation may offer a short-term advantage regarding performance for mundane jobs and tasks, but even here, autonomous motivation offers real advantages such as job satisfaction, well-being, attendance and lower



turn-over (Gagné and Deci, 2005). Research suggests that leader behaviors that facilitate the generation of basic psychological needs satisfaction in the workplace include inviting participation, sharing knowledge, active listening, acknowledging initiative, minimizing coercive controls and providing non-judgemental feedback (Stone, Deci and Ryan; 2009).

## **Hypothesis Development**

The empowerment literature also acknowledges the role leadership behavior plays generating increased perceptions of competence and self-determination (e.g., Mathieu, Gilson and Ruddy, 2006). Arnold et. al (2000) defined five critical empowering leadership behaviors: leading by example, participative decision making, coaching, sharing information with the team and showing concern for the members of the team. These five categories have clear parallels with the basic SDT needs. For instance, coaching individuals is likely to support competence while showing concern for and interacting with the individual or team is likely to support feelings of relatedness. Meanwhile, participative decision making provides experiences of choice whereas informing the individual of key data points provides information for autonomous decision making. As such, we would expect that empowering leadership is likely to have a positive relationship with follower need satisfaction. Furthermore, as SDT argues, when people experience the satisfaction of the basic psychological needs, they are more autonomously motivated in terms of intrinsic motivation for tasks that are interesting or enjoyable, as well as identified motivation for tasks that are personally meaningful or important (Deci and Ryan, 2014; Gagné and Deci, 2005). Based on these assertions, we propose:

*H1. Empowering leadership has a positive relationship with autonomous motivation through needs satisfaction.*

## **Accountability**

An innate attribute of social systems is that they require guidelines, rules and norms to govern the behavior of individuals within the system (Frink and Klimoski, 2004). Frink and Klimoski (2004) propose accountability as a mechanism that can be useful in this regard by acting as an adhesive that binds social systems together. Accountability is defined as ‘being answerable to audiences for performing up to prescribed standards, thereby fulfilling obligations, duties, expectations and other charges’ (Schlenker, Britt, Penninton, Murphy, and Doherty, 1994, p. 634). When employees are accountable, they can be asked to explain and justify their decisions. However, holding people accountable is not enough, people must also perceive themselves to be accountable (Mero, Guidice and Werner, 2014). Mero et al. (2014) found that in a study of 109 heating and cooling system technicians, perceived accountability for task performance was positively related to task performance.

Accountability can be generated through two key channels: formal organizational practices (Mero, Guidice and Brownlee, 2007) such as objective setting, monitoring and employee evaluations; and, through informal methods such as cultural norms, social interactions within the group and loyalty to the group and its leader (Frink and Klimoski, 2004). The empowering leadership behaviors identified by Arnold et al, (2000) include informing and interacting with the team to explain company decisions and help individuals within the team to understand what is important for the company. Mero et al. (2014) describe how information conveyed within the work context or communicated through managerial behaviors triggers accountability.

While previous research has suggested that accountability creates an obligation to perform at acceptable levels (Frink and Klimoski, 2004), this study argues that autonomous motivation can also be an outcome of perceived accountability. The accountability literature contains references to the concept of an internal source of accountability (Erdogan, Sparrowe, Liden and Dunegan, 2004). With internal accountability, individuals perform behaviors because of

their commitment to the behavior and an internalisation of the expectations of a supportive leader (Erdogan et al., 2004). The SDT literature also provides some guidance on how autonomous motivation can be derived from accountability. Recent developments suggest that supportive leadership styles allow controlling behaviors such as offering tangible rewards for high performance to be perceived positively and enhance autonomous motivation (Fall and Roussel, 2014). Similarly, in their meta-analysis, Cerasoli et al. (2014) found that when external constraints are applied, they are not necessarily autonomy-thwarting because they can be introduced in an autonomy supportive fashion. Drawing on this work, we argue that empowering leadership can lead to an autonomy supporting form of accountability and so enhance autonomous motivation. Therefore, we propose:

*H2. Empowering leadership has a positive relationship with autonomous motivation through accountability.*

#### *Implications for individual work performance*

In employees with similar skill-sets and abilities, work related performance can differ significantly as a result of the form of motivation (Ryan and Deci, 2000). In a study on the effects of basic needs satisfaction and autonomy support carried out on 528 employees from a major investment banking firm, Baard et al. (2004) found a significant positive effect on employee task performance. However, in dynamic environments, effective performance while carrying out prescribed duties may not be enough to ensure the overall success of the organization (Griffin, Neal and Parker, 2007).

Technology organizations compete within dynamic environments where employee responsibilities are difficult to formalise and specify precisely and it is often difficult to distinguish between in-role and extra-role performance (Martin et al., 2013). Due to uncertainty caused by frequent change and a lack of predictability, work performance in

technology organizations relates to both in-role proficiency and the adaptive and proactive behaviors of employees (Griffin et al., 2007). The generation of autonomous motivation has been specifically shown to positively impact adaptive and proactive behaviors (e.g., Hortop, Wrosch and Gagné, 2013) and as such, will positively impact employee performance in a technology organization. Accordingly, we hypothesise:

*H3. Empowering Leadership has a positive serial indirect relationship with work performance through needs satisfaction and autonomous motivation.*

*H4. Empowering Leadership has a positive serial indirect relationship with work performance through accountability and autonomous motivation.*

*Insert Figure 1 about here*

## **Methodology**

### *Data collection and sample*

Data was collected from employees within the technology group of one of the world's largest online retail sites. The technology group employs over 1,700 people, dispersed across multiple development centres in Europe. Although multi-cultural, English is the official language of the company. Therefore, the English version of the online questionnaire was distributed by e-mail to all 1,700 members of the technology group. 172 usable responses were received, resulting in a response rate of 10%. 73% of the respondents were male, 26% female. 66% of respondents work in the company's primary and largest location. The remainder were distributed across smaller development centres. 68% of all respondents had a tenure of 2 years or less, reflecting the significant growth and change that the organization had experienced over the previous two years.

Comparison with the overall demographics of the organization indicated that this sample is largely representative of the total population in terms of gender and location. However, the low response rate did create a concern regarding non-response bias. Following Armstrong and Overton (1977), we grouped all successful responses from day one of the data collection window (n=66) and compared their characteristics with a group comprised of all responses from the fourteenth and final day of data collection (n=33). A series of independent sample *t*-tests showed no significant differences between early and late respondents.

### *Measures*

All measures used in this study have been adapted from pertinent prior studies.

*Empowering leadership.* A 15-item version of the Empowering Leadership Questionnaire (Arnold et al., 2000) was used to test the five dimensions of empowering leadership. These dimensions are: lead by example, participative decision making, coaching, informing and showing concern. All five dimensions were measured using 3-items each. Sample items include '(My Leader) encourages team members to express ideas'. A five-point response scale, where 1 = 'strongly disagree' and 5 = 'strongly agree' was used. The reliability test for each of the 5 empowering leader behaviors resulted in a Cronbach's alpha score ranging from .71 to .84 for the dimensions. For the final analysis, the 5 first order constructs were combined to form an overall empowering leadership score ( $\alpha = .92$ ).

*Basic Psychological Needs Satisfaction.* This study assessed basic psychological needs satisfaction at work using the 21-item scale from Ilardi, Leone, Kasser and Ryan (1993) and Deci et al. (2001). There are 7-items for autonomy, 6 items for competence, and 8 items for relatedness. A five-point response scale, where 1 = 'never true' and 5 = 'always true' was used. The Cronbach's alpha for the autonomy subscale was .75, competence was .73 and relatedness was .78. The Cronbach alpha score for the total need-satisfaction scale was .88.

*Work Motivation.* Employee work motivation was measured using an adapted 18-item version of the Multidimensional Work Motivation Scale (MWMS; Gagné et al., 2015). MWMS indicates that work motivation is represented via six first-order constructs. Social and material external regulations form a second-order construct, external regulation ( $\alpha = .77$ ), which in turn combines with introjected regulation to create a third-order construct otherwise known as controlled motivation ( $\alpha = .77$ ). Identified regulation combines with intrinsic motivation to create a second-order construct, autonomous motivation ( $\alpha = .84$ ). Using the following stem: ‘Why do you or would you put efforts into your current job?’, employees were asked to respond to items such as ‘Because it makes me feel proud of myself’ or ‘Because what I do in my work is exciting’. Responses were recorded on a Likert scale ranging from one (strongly disagree) to 5 (strongly agree).

*Perceived accountability for task performance.* This study utilises an adapted version of the 3-item scale developed by Mero et al. (2014) to assess an employee’s perception of accountability for task performance. The items were adjusted to reflect achieving ‘team goals’ rather than ‘unit goals’ to reflect the study context. The items were reported on a 5-point scale ranging from one (strongly disagree) to 5 (strongly agree). Mero et al. (2014) report reliabilities well above the desired 0.7 mark in two different studies ( $\alpha = .89$ ;  $\alpha = .91$ ). However, in this study, the scale achieved a reliability score of  $\alpha = .61$ . As Cronbach’s alpha is a function of the number of items in a scale (Cortina, 1993; Green, Lissitz and Mulaik, 1977), in this particular case, 0.61 surpasses the acceptable value of 0.6 for a scale with such a small number of items (Nunnally, 1978).

*Individual Work Performance.* This study utilises a 9-item measure of individual work role performance developed by Griffin et al. (2007). There are three dimensions to individual work performance measured by the scale. Proficiency (3 items;  $\alpha = .77$ ) measures the performance of role responsibilities that can be formalised. Adaptivity (3 items;  $\alpha = .72$ )

measures the extent to which an individual adapts to changes in work systems. Proactivity (3 items;  $\alpha = .88$ ) measures the extent to which an individual takes self-directed action to anticipate or initiate change in a work system. Employees were asked to report on the frequency of behaviors over the past month. The items were reported on a scale ranging from one (never) to 5 (a great deal). Example items are 'Ensured your tasks were completed properly' for proficiency, and 'Initiated better ways of doing your core tasks' for proactivity. The Cronbach's alpha obtained for the individual work performance scale was  $\alpha = .83$ .

*Control variables.* Demographic information was collected regarding respondents' gender, age, tenure and geographic location.

#### *Data analysis*

All data analysis was completed using SPSS version 23. Frequency and descriptive statistics were generated to perform an analysis of missing data, outliers and to outline details of the population tested. Scale reliability analysis was then performed on all scales and sub-scales. This information is displayed in Table 1 along with bivariate correlations. To compare the means of groups, an independent sample t-test was used with gender and one-way ANOVA was used on location and tenure. Means were compared to identify significant relationships between groups, demographic data and key variables. To calculate the serial mediation and indirect effects, we adopted the SPSS macro PROCESS (Hayes, 2013).

### **Results**

As displayed in Table 1, empowering leadership, basic needs satisfaction, perceived accountability and autonomous motivation all show significant positive correlations with individual work performance. Gender was the only control variable with a significant correlation to individual work performance. When the mean for gender was compared, females reported slightly higher individual work performance than did males (4.26 vs. 4.02),

$t(167) = -2.50, p < .05$ . Given that the gender performance differences discovered are small as is the strength of the bivariate correlation (Cohen, 1992), we decided against the inclusion of gender in subsequent analysis (Spector and Brannick, 2011). Multicollinearity variance inflation factor tests indicated no issues in our data.

*Insert Table 1 here*

To test for the indirect effects hypothesised, we conducted analysis with the PROCESS macro for SPSS (Hayes, 2013) using model 4 and 5000 bootstrap samples in line with Preacher and Hayes (2008). The bootstrapping analysis found that the direct relationship between empowering leadership on autonomous motivation was not significant ( $\beta = .05, p = > .05$ ). The analysis shows that basic needs satisfaction is a significant mediator, ( $\beta = .27, 95\% \text{ confidence interval (CI) } = 0.17 \text{ to } 0.39$ ). Perceived accountability is also a significant mediator ( $\beta = .08, 95\% \text{ confidence interval (CI) } = 0.03 \text{ to } 0.16$ ). This model explains 42% of the variance in autonomous motivation. Accordingly, Hypothesis 1 and 2 are supported.

Hypothesis 3 asserts a serial indirect relationship between empowering leadership and individual work performance through basic need satisfaction and autonomous motivation. We used PROCESS (Hayes, 2013) model 6 and the Preacher and Hayes (2008) bootstrapping approach to test for these serial mediation effects. The direct relationship between empowering leadership on individual work performance was not significant ( $\beta = .10, p = > .05$ ). However, the analysis did find evidence for serial mediation of the relationship via basic needs satisfaction and autonomous motivation ( $\beta = .04, 95\% \text{ CI } = 0.001 \text{ to } 0.082$ ) explaining 22% of the variance in individual work performance. Therefore, Hypothesis 3 is supported.

Finally, Hypothesis 4 also asserts a serial indirect relationship. This time from empowering leadership to individual work performance through perceived accountability and autonomous motivation. In this test, the direct relationship between empowering leadership and individual



work performance was significant ( $\beta = .15, p = < .05$ ). This analysis also verified that serial mediation was occurring through perceived accountability and autonomous motivation ( $\beta = .02, 95\% CI = 0.006 \text{ to } 0.047$ ) explaining 15% of the variance in individual work performance. Therefore, Hypothesis 4 is also supported.

#### *Post hoc analysis*

We conducted post hoc analysis to compare the effects of individual components of autonomous and controlled forms of motivation. When testing serial mediation of the relationship between empowering leadership and individual work performance through needs satisfaction and motivation, there was an interesting difference between identified and intrinsic motivation. With intrinsic motivation, there were no significant direct or indirect effects found ( $\beta = .01, 95\% CI = -0.029 \text{ to } 0.043$ ). However, with identified motivation there was a significant indirect effect found ( $\beta = .03, 95\% CI = 0.007 \text{ to } 0.065$ ).

#### **Discussion**

While the popularity of autonomy as a powerful motivating force in organizations continues to grow, empirical evidence of its impact has offered some conflicting results leading some to question the wisdom of autonomy in the absence of order (De Waal, 2008). In particular, the HRM literature has highlighted that the benefits in terms of efficiency and performance must be considered alongside the potential pitfalls of decreases in monitoring and control (van Hoorn, 2018). This study set out to investigate how autonomy and accountability can both play a role in the relationship between empowering leadership, motivation and work performance. Our results indicate that both variables act as mediating mechanisms in this relationship and we present significant indirect and serial mediation effects. We discuss below the implications of these results for the HRM, leadership, accountability and motivation literatures.

SDT articulates the importance of an autonomy supportive environment and the role of a leader's interpersonal style when executing managerial functions (Gagné and Deci, 2005; Ryan and Deci, 2000). Although not explicitly referenced within the SDT literature, empowering leadership, with its focus on participation, sharing information and coaching (Arnold et al., 2000), logically emerged as an appropriate leadership style for creating an autonomy supportive environment. Others have verified the positive impact of autonomy supportive environments on psychological needs satisfaction (Baard et al., 2004; Deci, Connell and Ryan, 1989) and referenced foundational links of empowering leadership to SDT (Amundsen and Martinsen, 2015). Furthermore, HRM literature has argued that high-involvement practices are associated with enhanced employee autonomy (Shin and Bae, 2018) and that high-commitment practices are related to intrinsic motivation (Schopman, Kalshoven and Boon, 2017). To the best of our knowledge, this is the first study to explore empowering leadership behaviors as a mechanism through which HR can strive to create an autonomy supportive environment and satisfy the three basic psychological needs..

Autonomy is frequently interpreted as meaning independence. Using this definition, the introduction of autonomy within a work environment implies a flatter organizational structure with the appropriate removal of layers of management. However, the SDT literature has frequently pointed out that autonomy means having a sense of volition about your work rather than independence (Gagné and Deci, 2005; Ryan and Deci, 2000). Our results imply that leadership is critical when creating an autonomy supportive environment that maintains intrinsic motivation and encourages the internalisation of extrinsic motivators. Therefore, HR managers that focus on employee independence and the creation of 'flat organizations' may be missing a critical component of what they are seeking to achieve. Equipping line managers with the appropriate skills is likely to allow HR professionals to realise the benefits of autonomy through autonomously motivated employees. In addition to enhancing employee motivation, the process of equipping line managers with empowering leadership skills is also

likely to provide a useful forum for further developing HR-line manager relationships which are critical to HR influence on a range of other employee outcomes (Kim, Su and Wright, 2018).

As postulated throughout the SDT literature, the data supported the view that basic psychological needs satisfaction creates autonomous motivation and thus work performance. Perhaps more significantly there was a relationship between empowering leadership, perceived accountability and autonomous motivation. Accountability's heritage is firmly established in more traditional and controlling management practices such as the use of external contingencies and the monitoring, scrutiny and evaluation of employees (Frink and Klimoski, 2004; Mero et al., 2007; Mero et al., 2014). This paper suggests that the perceived accountability generated by empowering leadership is likely to be interpreted positively and generate autonomous motivation. More specifically, external goals presented by an empowering leader will be interpreted as shared goals and internalized by employees (Erdogan et al., 2004), resulting in autonomous motivation. The implications of the findings in this paper are significant for HR managers and line managers that are largely unsure how to manage or monitor employees that have been granted increased levels of autonomy. Our results suggest that when it comes to applying appropriate HRM practices, it's not what you do, it's how you do it. Accountability that arises from an empowering leadership approach can be experienced as autonomy supportive rather than controlling.

A closer look at the components of autonomous motivation via regression analysis reveal another interesting insight. Perceived accountability explained greater variance with identified motivation compared to intrinsic motivation. This supports the concept of employees internalising external contingencies as a consequence of perceived accountability within a supportive environment and highlights the effectiveness of identified motivation, relative to intrinsic motivation. Results support the notion that although many technology

companies focus on intrinsic motivation by attempting to make work more interesting or fun, focusing on effective internalisation of extrinsic motivators may generate better solutions in the work domain.

Intrinsic motivation emerges from tasks that are interesting and enjoyable. Identified motivation emerges from less interesting tasks that are internalized to the extent that the task is perceived as important and valuable for personal goals (Gagné and Deci, 2005). Our results support previous evidence that work performance is more highly correlated to identified rather than intrinsic motivation (Gagné et al., 2015). Paths through identified motivation to work performance displayed stronger relationships with work performance than the equivalent paths through intrinsic motivation. In the work environment, there are often limited opportunities for HR to design every job in a way that will allow employees to experience intrinsic motivation by ensuring inherently interesting activity. Although a recommendation to focus on extrinsic forms of motivation may be a departure from previous HRM literature considering SDT (Minbaeva, 2008; Zhang, Long, Wu and Huang, 2015), identified motivation is a more autonomous form of extrinsic motivation than typically considered in the HRM literature. Identified motivation, driven by meaning, values and goals (Gagné and Deci, 2005), would appear to be a better target for HR managers wanting to generate motivation in their employees than either intrinsic or more controlled forms of extrinsic motivation.

### *Practical implications*

A critical finding regarding practical implementations of SDT is the importance of identified motivation. The HRM practices employed by many technology organizations grant elements of autonomy to the knowledge workers within their organizations. However, our research suggests a focus on intrinsic motivation may not be the most advantageous approach. By definition, as an external entity, it can be challenging for HR managers to generate intrinsic

motivation within others in the context of a work environment. This paper adds further support to the notion that HR managers may have a bigger impact on the creation of autonomous motivation, by focusing on the internalisation of external contingencies, otherwise known as identified motivation. This can then be supplemented with the maintenance of an individual's intrinsic motivation through the creation of an autonomy supportive environment.

From a practical perspective, this study guides HR professionals in technology organizations considering how best to create work environments that engage and satisfy their employees while providing business value and results. Arguably, no other industry has ever had to deal with speed, change, complexity and uncertainty to the level and extent that technology organizations do today. The fact that many modern organizations already emphasise autonomy suggests that some of the science behind SDT has crossed the bridge from academia to practice. HR professionals are now faced with difficult questions regarding how to implement the science. This paper indicates the following; 1) leadership is critical to creating and supporting autonomous motivation, 2) traditional practices such as accountability can be applied without undermining autonomous motivation, and 3) HR managers should focus on the creation of identified motivation and the maintenance of intrinsic motivation.

### *Limitations*

Possible concerns exist around the self-report nature of the performance measure used in this study. Line manager ratings typically have higher validity than self-reported performance scores (Hoffman, Nathan and Holden, 1991) and common-rater effects or self-report bias can produce artifactual covariance between independent and dependent variables as a consequence of the same employee scoring both variables (Podsakoff, MacKenzie, Lee and Podsakoff, 2003). Some consideration was given to seeking supervisor ratings. This would

have required the use of identifying information, compromising employee anonymity which was considered more valuable to the quality of the survey. Also, while developing the scale, Griffin et al., (2007) reported that the self-report version displayed better validity compared to a supervisor report version. They indicated that supervisor ratings showed higher-correlations than self-ratings and argued that supervisors struggled to differentiate among all the sub-dimensions of performance.

Self-report surveys are also prone to common rater effects including social desirability (Podsakoff et al., 2003). Technology organizations, such as the one utilized in this study, tend to market and promote their cultural attributes. Google's use of the term 'Googliness' to describe behaviors expected within its culture are a good example. Employees within this environment may feel pressure to respond to survey questions in a manner that demonstrates their 'Googliness'. For these reasons, respondents were made aware of the anonymous nature of the survey and the confidentiality of individual responses.

Perhaps the biggest limiting factor of the study is its cross-sectional design. Although the data represents interesting variation across employees, it represents a snapshot in time. As such, responses are prone to phenomena such as transient mood state (Podsakoff et al., 2003). A recent meta-analysis of 99 SDT studies highlighted that this is a broader concern within the SDT domain (Van den Broeck et al., 2016). We echo their call for more longitudinal research in the field.

### *Conclusion*

This paper highlights the potential of empowering leadership as an approach for balancing SDT need satisfaction and accountability in a modern organizational context. In line with SDT based literature, the findings of this study indicate that an environment that satisfies the basic psychological need for autonomy, competence and relatedness will enhance employee

autonomous motivation (Deci and Ryan, 2014; Gagné and Deci, 2005; Ryan and Deci, 2000).

In the context of this study, autonomous motivation was then shown to positively impact on work performance, including proactivity and adaptivity. This study indicates that leadership autonomy supportive behaviors within a modern organization resulted in positive organizational outcomes.

## References

- Amundsen, S. and Martinsen, Ø.L. 2015, "Linking empowering leadership to job satisfaction, work effort, and creativity: The role of self-leadership and psychological empowerment", *Journal of Leadership & Organizational Studies*, Vol. 22, No. 3, pp. 304-323.
- Amundsen, S. and Martinsen, Ø.L. 2014, "Empowering leadership: Construct clarification, conceptualization, and validation of a new scale", *The Leadership Quarterly*, Vol. 25, No. 3, pp. 487-511.
- Armstrong, J.S. and Overton, T.S. 1977, "Estimating nonresponse bias in mail surveys", *Journal of Marketing Research*, pp. 396-402.
- Arnold, J.A., Arad, S., Rhoades, J.A. and Drasgow, F. 2000, "The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors", *Journal of Organizational Behavior*, pp. 249-269.
- Baard, P.P., Deci, E.L. and Ryan, R.M. 2004, "Intrinsic Need Satisfaction: A Motivational Basis of Performance and Well-Being in Two Work Settings<sup>1</sup>", *Journal of Applied Social Psychology*, Vol. 34, No. 10, pp. 2045-2068.
- Black, A.E. and Deci, E.L. 2000, "The effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective", *Science education*, Vol. 84, No. 6, pp. 740-756.
- Bligh, M.C., Pearce, C.L. and Kohles, J.C. 2006, "The importance of self-and shared leadership in team based knowledge work: A meso-level model of leadership dynamics", *Journal of Managerial Psychology*, Vol. 21, No. 4, pp. 296-318.
- Cerasoli, C.P., Nicklin, J.M. and Ford, M.T. 2014, "Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis.", *Psychological bulletin*, Vol. 140, No. 4, pp. 980.
- Cohen, J. 1992, A power primer. *Psychological Bulletin*, Vol. 112, No. 1, pp. 155-159.
- Cohen, J., Cohen, P., West, S.G. and Aiken, L.S. 1983, *Applied multiple regression/correlation analysis for the behavioral sciences*, 2nd edn, Lawrence Erlbaum, Hillsdale, NJ.
- Cortina, J.M. 1993, "What is coefficient alpha? An examination of theory and applications.", *Journal of applied psychology*, Vol. 78, No. 1, pp. 98-104.



- De Waal, A.A. 2008, "The secret of high performance organizations", *Management Online Review*, April 2008.
- Deci, E.L., Connell, J.P. and Ryan, R.M. 1989, "Self-determination in a work organization.", *Journal of applied psychology*, Vol. 74, No. 4, pp. 580.
- Deci, E. L., Olafsen, A. H. and Ryan, R. M. 2017, "Self-determination theory in work organizations: The state of a science.", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 4, No. 1, pp. 19-43.
- Deci, E.L. and Ryan, R.M. 2008, "Facilitating optimal motivation and psychological well-being across life's domains.", *Canadian Psychology/Psychologie canadienne*, Vol. 49, No. 1, pp. 14.
- Deci, E.L. and Ryan, R.M. 2014, "The importance of universal psychological needs for understanding motivation in the workplace" in *The Oxford handbook of work engagement, motivation, and self-determination theory* Oxford University Press, USA, pp. 13-32.
- Deci, E.L., Ryan, R.M., Gagné, M., Leone, D.R., Usunov, J. and Kornazheva, B.P. 2001, "Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination", *Personality and Social Psychology Bulletin*, Vol. 27, No. 8, pp. 930-942.
- Dewettinck, K. and van Amejide, M. 2011, "Linking leadership empowerment behaviour to employee attitudes and behavioural intentions: Testing the mediating role of psychological empowerment", *Personnel Review*, Vol. 40, No. 3, pp. 284-305.
- Dokko, G., Wilk, S.L. and Rothbard, N.P. 2009, "Unpacking prior experience: How career history affects job performance", *Organization Science*, Vol. 20, No. 1, pp. 51-68.
- Erdogan, B., Sparrowe, R.T., Liden, R.C. and Dunegan, K.J. 2004, "Implications of organizational exchanges for accountability theory", *Human Resource Management Review*, Vol. 14, No. 1, pp. 19-45.
- Fall, A. and Roussel, P. 2014, "Compensation and Work Motivation: Self-Determination Theory and the Paradigm of Motivation through incentives" in *The Oxford Handbook of Work Engagement, Motivation, and Self-Determination Theory*, ed. M. Gagné, Oxford University Press, Oxford, pp. 199-217.
- Field, A. 2013, "Discovering statistics using IBM SPSS statistics" in Sage, , pp. 325.

- Ford, R.C. and Fottler, M.D. 1995, "Empowerment: A matter of degree", *The Academy of Management Executive*, Vol. 9, No. 3, pp. 21-29.
- Forrester, R. 2000, "Empowerment: Rejuvenating a potent idea", *The Academy of Management Executive*, Vol. 14, No. 3, pp. 67-80.
- Frink, D.D. and Klimoski, R.J. 2004, "Advancing accountability theory and practice: Introduction to the human resource management review special edition", *Human resource management review*, Vol. 14, No. 1, pp. 1-17.
- Gagné, M. 2003, "The role of autonomy support and autonomy orientation in prosocial behavior engagement", *Motivation and Emotion*, Vol. 27, No. 3, pp. 199-223.
- Gagné, M. and Deci, E.L. 2005, "Self-determination theory and work motivation", *Journal of Organizational Behavior*, Vol. 26, No. 4, pp. 331-362.
- Gagné, M. and Deci, E.L. 2014, "The History of Self-Determination Theory in Psychology and Management", *The Oxford handbook of work engagement, motivation, and self-determination theory*, pp. 1-12.
- Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspel, A.K., Bellerose, J., Benabou, C., Chemolli, E. and Güntert, S.T. 2015, "The multidimensional work motivation scale: Validation evidence in seven languages and nine countries", *European Journal of Work and Organizational Psychology*, Vol. 24, No. 2, pp. 178-196.
- Green, S.B., Lissitz, R.W. and Mulaik, S.A. 1977, "Limitations of coefficient alpha as an index of test unidimensionality<sup>1</sup>", *Educational and Psychological Measurement*, Vol. 37, No. 4, pp. 827-838.
- Griffin, M.A., Neal, A. and Parker, S.K. 2007, "A new model of work role performance: Positive behavior in uncertain and interdependent contexts", *Academy of management journal*, Vol. 50, No. 2, pp. 327-347.
- Hayes, A. F. 2013, "Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.", Guilford Publications.
- Hofer, J. and Busch, H. 2011, "Satisfying one's needs for competence and relatedness: Consequent domain-specific well-being depends on strength of implicit motives", *Personality and Social Psychology Bulletin*, Vol. 37, No. 9, pp. 1147-1158.

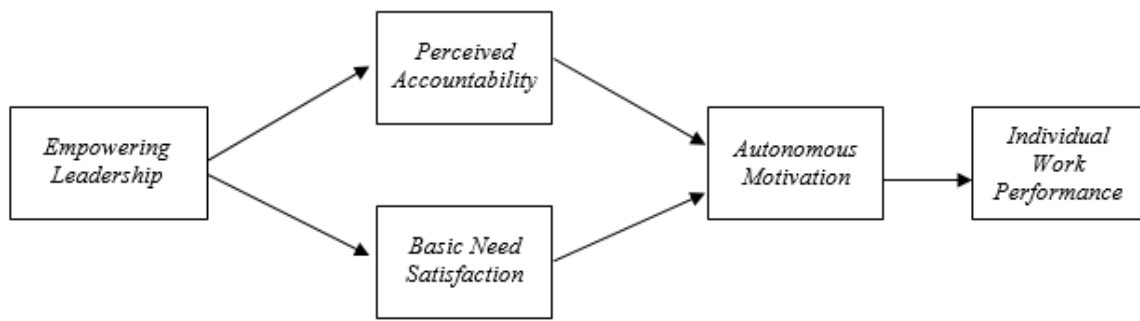
- Hoffman, C.C., Nathan, B.R. and Holden, L.M. 1991, "A comparison of validation criteria: objective versus subjective performance measures and self-versus supervisor ratings", *Personnel Psychology*, Vol. 44, No. 3, pp. 601-618.
- Hortop, E.G., Wrosch, C. and Gagné, M. 2013, "The why and how of goal pursuits: Effects of global autonomous motivation and perceived control on emotional well-being", *Motivation and Emotion*, Vol. 37, No. 4, pp. 675-687.
- Ilardi, B.C., Leone, D., Kasser, T. and Ryan, R.M. 1993, "Employee and Supervisor Ratings of Motivation: Main Effects and Discrepancies Associated with Job Satisfaction and Adjustment in a Factory Setting<sup>1</sup>", *Journal of Applied Social Psychology*, Vol. 23, No. 21, pp. 1789-1805.
- Joussemet, M., Koestner, R., Lekes, N. and Houliort, N. 2004, "Introducing uninteresting tasks to children: A comparison of the effects of rewards and autonomy support", *Journal of personality*, Vol. 72, No. 1, pp. 139-166.
- Kehoe, R.R. and Wright, P.M., 2013. "The impact of high-performance human resource practices on employees' attitudes and behaviors", *Journal of Management*, Vol. 39, No. 2, pp. 366-391.
- Kim, S., Su, Z.X. and Wright, P.M., 2018. "The "HR-line-connecting HRM system" and its effects on employee turnover", *Human Resource Management*, Vol. 57, No. 5, pp.1219-1231.
- Kuvaas, B., Buch, R., Gagné, M., Dysvik, A., and Forest, J. 2016, "Do you get what you pay for? Sales incentives and implications for motivation and changes in turnover intention and work effort.", *Motivation and Emotion*, Vol. 40, No. 5, pp. 667-680.
- Labianca, G., Gray, B. and Brass, D.J. 2000, "A grounded model of organizational schema change during empowerment", *Organization Science*, Vol. 11, No. 2, pp. 235-257.
- Lawler III, E.E. and Worley, C.G. 2011, *Built to Change: How to Achieve Sustained Organizational Effectiveness*, John Wiley & Sons.
- Martin, S.L., Liao, H. and Campbell, E.M. 2013, "Directive versus empowering leadership: A field experiment comparing impacts on task proficiency and proactivity", *Academy of Management Journal*, Vol. 56, No. 5, pp. 1372-1395.
- Mathieu, J.E., Gilson, L.L. and Ruddy, T.M. 2006, "Empowerment and team effectiveness: an empirical test of an integrated model.", *Journal of applied psychology*, Vol. 91, No. 1, pp. 97-108.

- McLaughlin, N. 2001, "Optimal marginality: Innovation and orthodoxy in Fromm's revision of psychoanalysis", *The Sociological Quarterly*, Vol. 42, No. 2, pp. 271-288.
- Meglich, P., Valentine, S. and Eesley, D., 2019. "Perceptions of supervisor competence, perceived employee mobility, and abusive supervision: Human capital and personnel investments as means for reducing maltreatment in the workplace", *Personnel Review*, Vol. 48, No. 3, pp. 691-706.
- Mero, N.P., Guidice, R.M. and Brownlee, A.L. 2007, "Accountability in a performance appraisal context: The effect of audience and form of accounting on rater response and behavior", *Journal of Management*, Vol. 33, No. 2, pp. 223-252.
- Mero, N.P., Guidice, R.M. and Werner, S. 2014, "A field study of the antecedents and performance consequences of perceived accountability", *Journal of Management*, Vol. 40, No. 6, pp. 1627-1652.
- Minbaeva, D.B., 2008. "HRM practices affecting extrinsic and intrinsic motivation of knowledge receivers and their effect on intra-MNC knowledge transfer", *International Business Review*, Vol. 17, No. 6, pp.703-713.
- Nunnally, J.C. 1978, *Psychometric theory*, McGraw-Hill, New York, NY.
- O'Toole, J., Galbraith, J. and Lawler, E.E. 2002, "When two (or more) heads are better than one: The promise and pitfalls of shared leadership", *California management review*, Vol. 44, No. 4, pp. 65-83.
- Pinder, C.C. 2008, *Work motivation in organizational behavior*. 2nd edn, Psychology Press, New York.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J. and Podsakoff, N.P. 2003, "Common method biases in behavioral research: a critical review of the literature and recommended remedies.", *Journal of applied psychology*, Vol. 88, No. 5, pp. 879.
- Preacher, K. J., and Hayes, A. F. 2008, "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models.", *Behavior research methods*, Vol. 40, No. 3, pp. 879-891.
- Ryan, R.M. 1995, "Psychological needs and the facilitation of integrative processes", *Journal of personality*, Vol. 63, No. 3, pp. 397-427.
- Ryan, R.M. and Deci, E.L. 2000, "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being.", *American psychologist*, Vol. 55, No. 1, pp. 68-78.

- Schlenker, B.R., Britt, T.W., Pennington, J., Murphy, R. and Doherty, K. 1994, "The triangle model of responsibility", *Psychological review*, Vol. 101, No. 4, pp. 632-652.
- Schopman, L.M., Kalshoven, K. and Boon, C., 2017. "When health care workers perceive high-commitment HRM will they be motivated to continue working in health care? It may depend on their supervisor and intrinsic motivation", *The International Journal of Human Resource Management*, Vol. 28, No. 4, pp. 657-677.
- Shin, S. J., Jeong, I. and Bae, J. 2018, "Do high-involvement HRM practices matter for worker creativity? A cross-level approach", *The International Journal of Human Resource Management*, vol 29, No. 2, pp. 260-285.
- Spector, P.E. and Brannick, M.T. 2011, "Methodological urban legends: The misuse of statistical control variables", *Organizational Research Methods*, Vol. 14, No. 2, pp. 287-305.
- Stewart, G.L., Courtright, S.H. and Manz, C.C. 2011, "Self-leadership: A multilevel review", *Journal of Management*, Vol. 37, No. 1, pp. 185-222.
- Stone, D.N., Deci, E.L. and Ryan, R.M. 2009, "Beyond talk: Creating autonomous motivation through self-determination theory", *Journal of General Management*, Vol. 34, No. 3, pp. 75-91.
- Tannenbaum, S.I., Mathieu, J.E., Salas, E. and Cohen, D. 2012, "Teams are changing: Are research and practice evolving fast enough?", *Industrial and Organizational Psychology*, Vol. 5, No. 1, pp. 2-24.
- Van den Broeck, A., Ferris, D.L., Chang, C. and Rosen, C.C. 2016, "A review of self-determination theory's basic psychological needs at work", *Journal of Management*, Vol. 42, No. 5, pp. 1195-1229.
- Van Hoorn, A., 2018. "How much does job autonomy vary across countries and other extra-organizational contexts?", *The International Journal of Human Resource Management*, Vol. 29, No. 2, pp. 420-463.
- Wright, P. M. and Nishii, L. 2004. "Strategic HRM and organizational behaviour: Integrating multiple level analysis", *CAHRS Paper*. Ithaca, NY: Cornell University.
- Zhang, X. and Bartol, K.M. 2010, "Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement", *Academy of management journal*, Vol. 53, No. 1, pp. 107-128.

Zhang, Y., Long, L., Wu, T.Y. and Huang, X., 2015. "When is pay for performance related to employee creativity in the Chinese context? The role of guanxi HRM practice, trust in management, and intrinsic motivation." *Journal of Organizational Behavior*, Vol. 36, No. 5, pp. 698-719.

**Figure 1.** Theoretical Model



**Table 1.** Correlations among the key variables of the study

	Mean	S.D.	1	2	3	4	5	6	7	8
1. Organizational Tenure	-	-	1							
2. Gender	-	-	-0.019	1						
3. Location	-	-	-.235**	-0.058	1					
4. Empowering leadership	3.74	0.68	-0.054	0.014	0.207**	(0.92)				
5. Basic needs satisfaction	3.72	0.50	-0.072	-0.050	0.149	0.506**	(0.88)			
6. Perceived accountability	3.09	0.76	-0.067	-0.043	0.136	0.282**	0.304**	(0.61)		
7. Autonomous Motivation	3.87	0.76	-0.121	0.013	0.187*	0.399**	0.598**	0.413**	(0.84)	
8. Individual work performance	4.09	0.55	-0.143	0.190*	0.063	0.296**	0.429**	0.223**	0.336**	(0.83)

*Note.* Cronbach's alphas for multi item variables are presented in parentheses on the diagonal.

\*  $p < .05$     \*\*  $p < .01$