Employees' Social Networking Site Use Impact on Job Performance: Evidence from Pakistan

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Abstract:

This paper reinvestigates the impact of social networking site use by employees on job performance by conducting a methodological replication of Moqbel, Nevo, and Kock (2013) using samples (N=139) from Pakistan. In both studies, social networking site use has significant effects on organizational commitment and job satisfaction, and job satisfaction also has a significant impact on job performance and organizational commitment. In comparison with the U.S., we find that social networking site use in Pakistan has no significant impact on job performance through the mediating effect of job satisfaction, yet has a significant effect on organizational commitment and job satisfaction. In conclusion, although social networking site use does not have an impact on job performance per se, it does have significant effects on other work-related outcomes—job satisfaction and organizational commitment. Future studies are encouraged to methodologically replicate this study in several different countries to examine whether results hold and conceptually replicate this study by measuring presenteeism and work-life balance as mediators to see if the theorizing of the original study holds.

Keywords: Social Networking Site Use, Job Performance, Social Media, Methodological Replication

Introduction

A long-standing and important question for researchers and practitioners is how we can improve employee job performance (McCloy, Campbell, & Cudeck, 1994). It is commonly believed that job satisfaction and employee job performance are closely related (Bowling, 2007). Although it is still debatable whether job satisfaction leads to job performance or vice versa (Judge, Thoresen, Bono, & Patton, 2001), research demonstrates that satisfied employees tend to have improved job performance (Fisher, 2003). Hence, a common mantra is "a happy employee is a productive employee." This common belief is more enforced by the service-profit chain model (Heskett & Schlesinger, 1994), which posits that satisfied workers produce satisfied customers who, in turn, purchase more, leading to more profits. Thus, to improve employee performance, it may be beneficial to first focus on factors that enhance job satisfaction of employees leading to better job performance.

Evidence from the U.S. shows that the use of social networking sites by employees leads to higher job performance through the mediation of job satisfaction (Moqbel et al., 2013). This study provided a significant contribution because it provided evidence that social networking site use by organizational members leads to improved job performance through the mediation of job satisfaction. It also helped resolve the controversial debate on whether the use of social networking sites leads to a waste of time—presenteeism—or enhances job performance through the provision of work-life balance.

Although an ample body of literature investigates the impact of social media, little research has examined the variation in social networking sites' impact on work-related outcomes in different cultures. Therefore, it is essential to examine whether these findings hold in a culturally different country other than the U.S., high individualistic culture. According to (Hofstede, 1980) "individualism implies a loosely knit social framework in which people are supposed to take care of themselves and of their immediate families only, while collectivism is characterized by a tight social framework in which people distinguish between in-groups and out-groups; they expect their in-group (relatives, clan, organizations) to look after them, and in exchange for that they feel they owe absolute loyalty to it" (p. 45).

The majority of extant studies on information systems (IS) was conducted in the context of individualistic cultures, e.g., North America and Europe (McCoy, Galletta, & King, 2005). As the world is becoming increasingly globalized as a result of advances in IS, our understanding about the use of IS needs to extend to other cultures, e.g. collectivistic ones. Therefore, there is a clear need to investigate the use of IS from the view of the collectivistic culture. We, therefore, chose to use Pakistan in the context of our study. The reasons for the selection of Pakistan for replication in this study are twofold. First, it is a response to a call for more research in developing countries since they constitute the majority of the world's population (Walsham, Robey, & Sahay, 2007). Second, since we are aiming at investigating whether the results of the original study hold in a culturally different country, Pakistan is a good fit because it represents one of the highest collectivistic countries with a score of 41 in the individualism/collectivism cultural dimension (Hofstede, 1980) in comparison to the individualistic culture of the U.S., which represents the most individualistic country with a score of 80.

The purpose of this investigation was to replicate the Moqbel et al. (2013) approach in Pakistan, a high collectivistic culture. Specifically, we investigated whether social networking site use by employees leads to higher job performance via the mediation of job satisfaction.

Research Hypotheses

The main research question of the current study, which replicates that of Moqbel et al. (2013), was whether and under what conditions the use of social networking sites by organizational members can lead to improved job performance?

The original research hypotheses along with the results are illustrated in the research model in Figure 1.

Hypothesis 1: Organizational members' social networking site use intensity is positively associated with increased job performance.

Hypothesis 2: Organizational members' social networking site use intensity is positively associated with job satisfaction.

Hypothesis 3: Greater job satisfaction is positively associated with higher job performance.

Hypothesis 4: Job satisfaction is positively associated with organizational commitment.

Hypothesis 5: Organizational commitment is positively associated with job performance.

Hypothesis 6: Employees' social networking site use intensity is positively associated with organizational commitment.
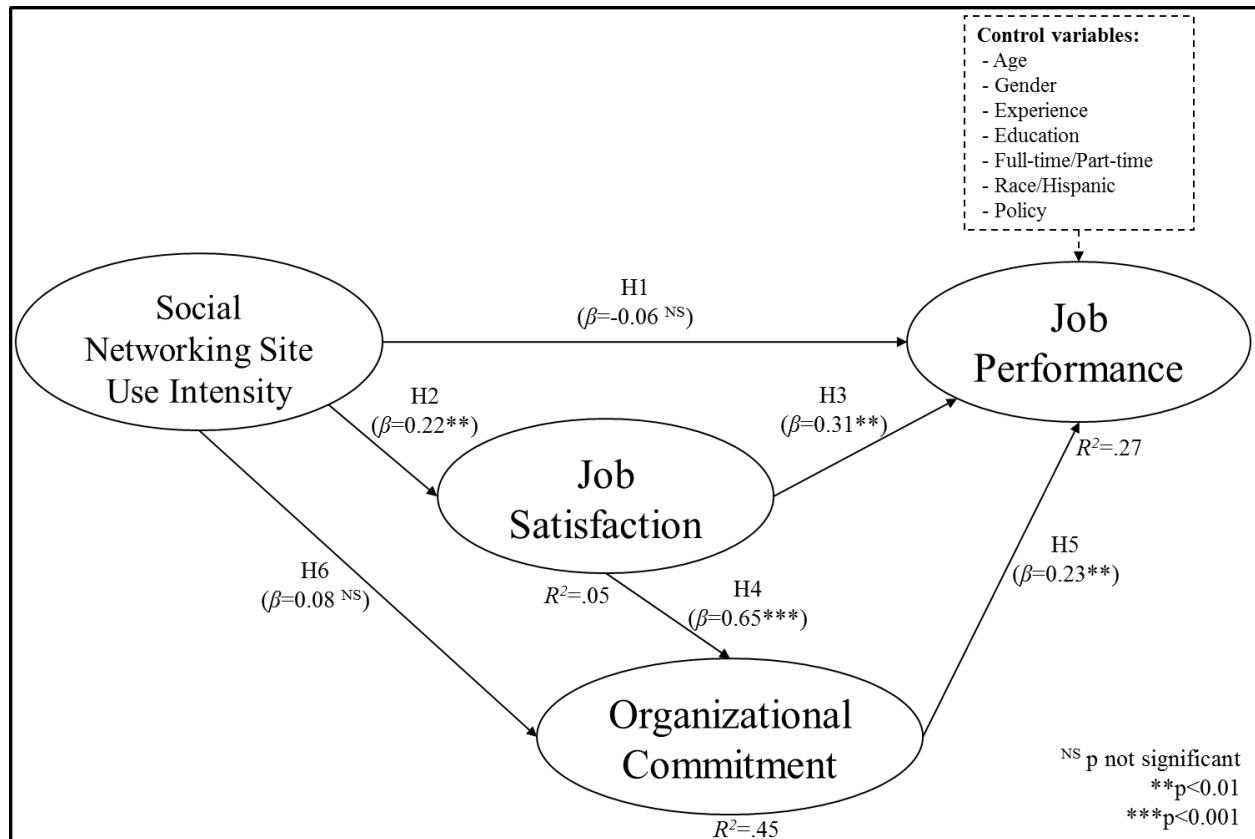

Figure 1. Research Hypotheses and Related Results

Research Method

The data for the current study was collected using a cross-sectional survey design. To measure the impact of social networking site use on job performance, the measures for social networking site use, job satisfaction, organizational commitment, and job performance were adopted from Moqbel et al. (2013) with the addition of "at the workplace" in the items for the social networking site use construct. The "at the workplace" wording was added in an attempt to narrow the use to the workplace rather than the general use. The measures are included in the Appendix of this paper.

A total of 200 questionnaires were administered among the different companies of Pakistan through personal visits, emails, and courier services. The survey instrument was in English only because there were no language barriers as English is widely used in Pakistan. Of the 150 completed questionnaires, only 139 were usable. 91 were male (66 percent) and 48 were female (35 percent) and the average age was 30 years (SD 6.6). In all, 98 percent (134) of the respondents were employed full-time and the average years of experience were 5 (SD 3.7).

Measurement Validation

In order to test the hypotheses, our research model was analyzed using variance-based structural equation modeling (SEM) partial least squared (PLS), a rigorous technique for analyzing the measurement and structural models simultaneously (Chin, 1998; Haenlein & Kaplan, 2004; Kock, 2010).

The software WarpPLS 5.0 was employed to produce estimates for validity and reliability of the measurement instrument, SEM analysis, and confirmatory factor analysis (Kock, 2014).

To assess the discriminant and convergent validity of the measures, a confirmatory factor analysis was conducted on the data. Obtained from the confirmatory factor analysis, standardized factor loadings are not rotated, and the cross-loadings are after an oblique rotation (Ehrenberg, 1976; Thompson, 2004). Table 1 shows that the factor loadings for all items are greater than the recommended threshold of 0.50 (Hair, Black, Babin, & Anderson, 2010; Kock, 2014), confirming that our measurement instrument has acceptable convergent validity (Hair et al., 2010).

To assess the internal consistency of the constructs, composite reliability and Cronbach's alphas were examined (shown in Table 1). Composite reliability tends to have higher coefficients than Cronbach's alpha because the former takes into consideration the items' varying loadings while the later forces the loadings to be equal (Peterson & Kim, 2013). Composite reliability coefficients exceeded the threshold value of 0.7 (Fornell & Larcker, 1981). Greater or equal to 0.6 Cronbach's alpha coefficients are acceptable when scales are used in a new culture (Nunnally, 1978), confirming that our measurement instrument has acceptable reliability.

Table 1. Loadings and Cross-loadings for Latent Variables							
	SNSUI	SAT	COM	PERF	P value	CR	CA
SNSUI1	(0.526)	0.164	0.084	-0.034	<0.001	0.775	0.652
SNSUI2	(0.569)	-0.036	-0.229	0.183	<0.001		
SNSUI3	(0.675)	0.014	0.059	0.096	<0.001		
SNSUI4	(0.701)	-0.228	0.068	-0.069	<0.001		
SNSUI5	(0.638)	0.055	-0.036	-0.149	<0.001		
SNSUI6	(0.507)	0.097	0.042	-0.017	<0.001		
SAT1	0.169	(0.639)	-0.246	0.013	<0.001	0.856	0.790
SAT2	0.020	(0.748)	-0.034	-0.013	<0.001		
SAT3	-0.135	(0.770)	-0.074	-0.028	<0.001		
SAT4	-0.034	(0.766)	0.214	-0.013	<0.001		
SAT5	0.008	(0.760)	0.100	0.043	<0.001		
COM1	-0.197	0.416	(0.605)	-0.062	<0.001	0.844	0.767
COM2	-0.082	0.012	(0.772)	0.082	<0.001		
COM3	0.091	-0.030	(0.842)	-0.037	<0.001		
COM4	0.075	-0.264	(0.746)	-0.025	<0.001		
COM5	0.080	-0.060	(0.624)	0.038	<0.001		
PERF1	-0.151	0.005	0.258	(0.722)	<0.001	0.8471	0.728
PERF2	-0.029	0.062	-0.015	(0.859)	<0.001		
PERF3	0.161	-0.069	-0.209	(0.831)	<0.001		

- PERF = Performance; COM = Commitment; SAT = Satisfaction; SNSUI = social networking site use intensity.
- Loadings are shown within parentheses; loadings are not rotated and cross-loadings are oblique-rotated.
- P values refer to loadings and were obtained through bootstrapping.
- CR = composite reliability coefficient for latent variable.
- CA = Cronbach's alpha coefficient for latent variable.

Discriminant validity was assessed by comparing the square roots of the average variance extracted (AVE) with the correlations between the constructs. Table 2 shows that the square roots of the AVEs for each construct —shown in parentheses—are greater than the correlations between constructs concluding that our measurement instrument has acceptable discriminant validity (Fornell & Larcker, 1981).

Table 2. Correlation between Latent Variables and Square Roots of AVEs				
	SNSUI	SAT	COM	PERF
SNSUI	**(0.607)**			
SAT	0.276	**(0.738)**		
COM	0.291	0.396	**(0.723)**	
PERF	0.026	0.179	0.203	**(0.806)**
- PERF = Performance; COM = Commitment; SAT = Satisfaction; SNSUI = social networking site use intensity - AVE = Average variance extracted. - Square roots of AVEs are shown on diagonal within parentheses				

To examine whether there is multicollinearity among our research model constructs, full collinearity values generated by WarpPLS 5.0, which are based on the variance inflation factors (VIFs), were assessed (Kline, 2005; Kock, 2014). Table 3 shows that VIF values for all variables were less than the suggested threshold of 5 (Hair et al., 2010), confirming that multicollinearity as a potential bias has been ruled out.

Table 3. Variance Inflation Factors for all Variables	
Social Networking Sit Use Intensity	1.185
Satisfaction	1.272
Organizational Commitment	1.317
Performance	1.088
Gender	1.032
Job Type	1.408
Experience	1.883
Age	2.075
Education	1.597
Policy	1.155
- Variance inflation factors (VIFs) obtained through a full collinearity test. - A VIF lower than 5 suggests no collinearity between a variable and other variables.	

Results

We used the PLS regression algorithm and the bootstrapping resampling method with 139 questionnaires to estimate the structural model. Figure 2 presents the results of the model estimation, including standardized path/beta coefficients, significance of the beta coefficients, and variance explained by the independent variables, R-squared (R^2).

The significant beta coefficients in Figure 2 indicate that all of our research model hypotheses were supported except for hypothesis 1—Organizational members' social networking site use intensity is positively associated with increased job performance. This shows that one more hypothesis was supported in the replicated model than in the original model: hypothesis 6— employees' social networking site use intensity is positively associated with organizational commitment. Approximately 11 percent of the variance in job performance was explained by this model in comparison to 27 percent variance explained in the original model.

Similar to the original study's findings, social networking site use intensity did not have a significant relationship with job performance ($\beta = -0.06$, NS), suggesting that social networking site use intensity does not have a direct effect on job performance. Social networking site use intensity had a significant positive relationship with job satisfaction ($\beta = 0.22$, $p < 0.01$), in accordance with the original study's results. Consistent with the original findings, job satisfaction was found to have a significant relationship with both organizational commitment ($\beta = 0.35$, $p < 0.001$) and job performance ($\beta = 0.12$, $p < 0.05$). Similarly, organizational commitment had a significant positive relationship with job performance ($\beta = 0.22$, $p < 0.001$).

Unlike the original findings, social networking site use intensity had a significant positive relationship with organizational commitment ($\beta = 0.20$, $p < 0.01$). In addition, the indirect relationship between social networking site use and organizational commitment via job satisfaction was found to be significant ($\beta =$

0.10, p < 0.05), indicating that job satisfaction has a partial mediating role on the relationship between social networking site use intensity and organizational commitment (Baron & Kenny, 1986; Preacher & Hayes, 2004).

Among all of the control variables included in the model with respect to job performance— age, gender, years of work experience, level of education, full-time or part-time employment, and whether the organization has a formal social networking site use policy—none had a significant effect on job performance, confirming that the results of our model hold regardless of the control variables listed above.

Inconsistent with the original study, there was no mediating effect of job satisfaction on the relationship between social networking site use and job performance (Preacher & Hayes, 2004). In other words, by applying the mediation test proposed by Preacher and Hayes (2004), which is based on the product of the beta coefficients and standard errors for the two indirect paths, the indirect relationship between social networking site use and job performance through job satisfaction was found to be non-significant (β = 0.033, p =0.21). On the other hand, organizational commitment had a statistically significant mediating effect, (β = 0.076, p < 0.05) on the relationship between job satisfaction and job performance.
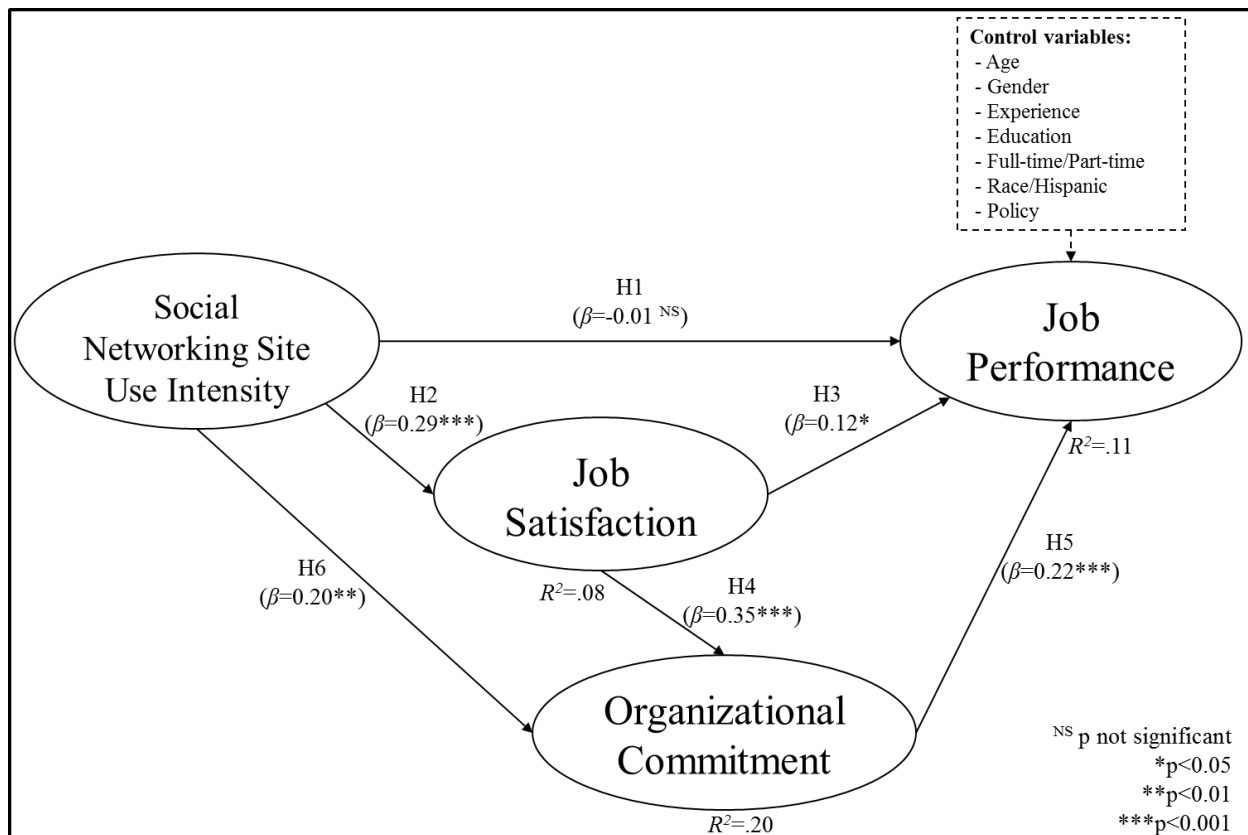

Figure 2. Research Hypotheses and Related Results

Model fit indices including Tenenhaus goodness of fit (GoF), average path coefficient (APC), average R-squared (ARS), and average variance inflation factor (AVIF) all meet the recommended guidelines (Kock, 2014). When attempting to use the bootstrapping resampling technique, which was used in the original study, the fit indices p-values tended to be less stable due to our small sample size (Nevitt & Hancock, 2001). Based on the recommendation by Kock (2014), we used stable resampling technique available in WarpPLS 5.0 software, which yielded more stable p-values. Therefore, although the beta coefficients of our fit indices did not change, the p-values are more stable. Applying the stable resampling technique suggested by Kock (2014) helped overcome the insignificant ARS. Thus, Table 4 suggests that the structural model has an adequate fit with the data.

Table 4. Model Fit Indices		
Fit index	**Value**	**Significance or acceptance level**
Tenenhaus GoF	0.324	Small >= 0.1, Medium >= 0.25, Large >= 0.36
APC	0.129	p<0.05
ARS	0.130	p<0.05
AVIF	1.401	Good if < 3.3

Discussion and Conclusion

Our findings, summarized in Table 5, suggest that the impact of social networking site use by employees on job performance varies between the United States and Pakistan. We replicated the finding that social networking site use by employees affects job performance (Moqbel et al., 2013), yet we conclude that social networking site use indeed positively affects job satisfaction and organizational commitment but not job performance. Our results are consistent with research in confirming the positive impact of social networking site use on job satisfaction, the positive effect of job satisfaction on organizational commitment and job performance, and the positive influence of organizational commitment on job performance.

There are two interesting and contrasting findings in this replication study. First, social networking site use did not have a significant effect on job performance even through the mediating effect of job satisfaction as was found in previous research (Moqbel et al., 2013). Second, social networking site use had a positive significant effect on organizational commitment. The lack of the significant mediating effect, partial or full (Baron & Kenny, 1986), of job satisfaction on the relationship between social networking site use and job performance may lead us to conclude that the use of social networking sites by employees has different effects in different countries. In Pakistan in particular, although use of social networking sites has a significant effect on job satisfaction and organizational commitment, it does not have a significant effect on job performance. It is possible that the type of social support engendered from the quality of friendships in social networking sites plays a role in job performance. While individuals from collectivistic cultures tend to have fewer skills in making new friends because their friendships tend to be intimate and life-long, people from individualistic cultures have better skills in making friendships or non-intimate acquaintances (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). Based on this logic, individuals from individualistic cultures will have a larger pool of social resources and supports that can be utilized to aid their job performance at the workplace. Nevertheless, more future research is needed to better understand the impact of social networking site use on job performance more broadly.

In terms of the practical implications of this study, our findings suggest that social networking site use by employees can improve employees' emotional attachment to their organizations, which can result in the intention to stay longer in the organization and be less likely to leave.

Limitation and Future Research

One of the limitations of this replication study is that the use of a social networking site use measure was restricted to the workplace. Although this modification helped pinpoint the context of the use to the workplace, this modification could perhaps be the reason for the differences in the results of both studies. In addition, although social networking site use loadings and reliability coefficients met the minimum requirements, they seem to be lower than the ones in the replicated study. These differences in social networking site use construct measurement might have had an impact on the different findings from the replicated research.

Future studies are encouraged to methodologically replicate this study in several different countries to examine whether these results hold. We encourage future research to conceptually replicate this study by measuring presenteeism and work-life balance as possible mediators between social networking site use and job performance and see if the theorizing of the original study is supported.

Table 5: Support for the Hypotheses Based on the Results		
Hypothesis	**Path Coefficient**	**Supported?**
H1. Social networking site use intensity is associated with job performance.	- 0.01 [NS]	No
H2. Social networking site use intensity is positively associated with job satisfaction.	0.29***	Yes
H3. Job satisfaction is positively associated with job performance.	0.12*	Yes
H4. Job satisfaction is positively associated with organizational commitment.	0.35***	Yes
H5. Organizational commitment is positively associated with job performance.	0.22**	Yes
H6. Social networking site use intensity is positively associated with organizational commitment.	0.20**	Yes
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; [NS] not statistically significant		

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Appendix A: Measurement Instrument

The questions below were answered on a Likert-type scale ranging from "1 = Very strongly disagree" to "5 = Very strongly agree."

Social Networking Site Use Intensity (SNSUI)
- SNSUI1: At work, my social networking sites' account/s are/is a part of my everyday activity.
- SNSUI2: At work, I am proud to tell people I'm on social networking sites.
- SNSUI3: At work, social networking sites have become part of my daily routine.
- SNSUI4: At work, I feel out of touch when I haven't logged onto social networking sites for a while.
- SNSUI5: At work, I feel I am part of the social networking sites community.
- SNSUI6: At work, I would be sorry if social networking sites shut down.

Job Satisfaction (SAT)
- SAT1: I am very satisfied with my current job.
- SAT2: My present job gives me internal satisfaction.
- SAT3: My job gives me a sense of fulfillment.
- SAT4: I am very pleased with my current job.
- SAT5: I will recommend this job to a friend if it is advertised /announced.

Organizational Commitment (COM)
- COM1: I would be very happy to spend the rest of my career with this organization.
- COM2: I feel a strong sense of belonging to my organization.
- COM3: I feel 'emotionally attached' to this organization.
- COM4: Even if it were to my advantage, I do not feel it would be right to leave my organization.
- COM5: I would feel guilty if I left my organization now.

Job Performance (PERF)
- PERF1: My performance in my current job is excellent.
- PERF2: I am very satisfied with my performance in my current job.
- PERF3: I am very happy with my performance in current job.

The additional questions below were not answered on a Likert-type scale.
- Gender: (Male/Female options were provided)
- Age
- Job Type: (Full-time/part-time)
- Years of Work Experience: (Leave Blank if not applicable)
- Education: (High School, 2-year college, 4-year college, Master, Doctorate)
- Policy: (whether the organization has a social networking site policy)

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