Review of: "Enhancing Small and Medium Enterprises' Performance through Social Media Integration: Embedding the Diffusion of Innovation Theory in the Technology-Organization-Environment Framework"

Benjamin Ohene Kwapong Baffoe

Potential competing interests: No potential competing interests to declare.

The manuscript titled “Enhancing Small and Medium Enterprises' Performance through Social Media Integration: Embedding the Diffusion of Innovation Theory in the Technology-Organization-Environment Framework” is a worthy paper. Many recommendations have been given for improvement, so I would not touch on the other areas of the manuscript, but I will focus on the methodology aspect.

Please find my comments below:

[Comments on the survey and PLS-SEM analysis:]

1. Survey assessment

- Were there any university review board approvals or permissions given for the questionnaire developed? It is essential to indicate and support that with a reference for ethical reasons.
- What platform was used in the data collection? This should be stated. In a nutshell, any software or platform that aided the author to achieve his or her goal in the study should be stated and credited, with the right version attributed.
- For an objective sampling calculation, it is recommended that you use the G*power assessment. Please see Hair JF, Hult GTM, Ringle CM, Sarstedt M (2014) A primer on partial least squares structural equation modeling (PLS-SEM). Sage, Thousand Oaks, CA
- Although the missing value was addressed, the author failed to check for outliers in the data. It is important to check for outliers prior to the assessment of the data.
- Moreso, it is important to state the software used in the data screening and pre-analysis.

[Pre-analysis of PLS-SEM results:]

1. An unobserved heterogeneity test was not done. It is very important as the data obtained are from different sets of respondents (male and female), and testing for unobserved heterogeneity prevents the data from being seen as homogenous. I recommend you refer to these papers:

- Hair, Jr., J.F., Sarstedt, M., Matthews, L.M. and Ringle, C.M. (2016), "Identifying and treating unobserved

heterogeneity with FIMIX-PLS: part I – method", *European Business Review*, Vol. 28 No. 1, pp. 63-76. https://doi.org/10.1108/EBR-09-2015-0094 and

- Matthews, L.M., Sarstedt, M., Hair, J.F. and Ringle, C.M. (2016), "Identifying and treating unobserved heterogeneity with FIMIX-PLS: Part II – A case study", *European Business Review*, Vol. 28 No. 2, pp. 208-224. https://doi.org/10.1108/EBR-09-2015-0095

2. For assessing the measurement model

   - It will be very essential to have a table indicating all your factor loadings and why some of the indicators were removed and others were obtained. A reason for that should be stated using relevant works of literature.
   - Please base the significance assessment (for both the measurement and structure indicators) on the bootstrap confidence intervals (Bca) instead of the only p-value. See Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017) A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 2nd Edition, Sage Publications Inc., Thousand Oaks, CA. for more details.

3. For assessing the structural model

   - In PLS-SEM, we do not check for model fit. Please, see *"Henseler et al. (2014) assessed the efficacy of the standardized root mean square residual (SRMR), a model fit measure well known from CB-SEM, which has previously not been applied in a PLS-SEM context. The SRMR is defined as the root mean square discrepancy between the observed correlations and the model-implied correlations. Because the SRMR is an absolute measure of fit, a value of zero indicates perfect fit. When applying CB-SEM, a value less than 0.08 is generally considered a good fit (Hu & Bentler, 1998). But this threshold is likely too low for PLS-SEM. The reason is that the discrepancy between the observed correlations and the model-implied correlations plays different roles in CB-SEM and PLS-SEM. Whereas the CB-SEM algorithm aims at minimizing the discrepancy, in PLS-SEM, the discrepancy results from the model estimation, whose aim is to maximize the explained variance of the endogenous construct(s). That is, minimizing the discrepancy is the target criterion of CB-SEM, whereas this is not the case in PLS-SEM. As an alternative model fit measure, researchers may use the root mean square residual covariance (RMStheta), which follows the same logic as SRMR but relies on covariances. The criterion was introduced by Lohmöller (1989) but has not been explored by PLS-SEM researchers until recently. Initial simulation results suggest a (conservative) threshold value for RMStheta of 0.12. That is, RMStheta values below 0.12 indicate a well-fitting model, whereas higher values indicate a lack of fit (Henseler et al., 2014)." In that regard,* reporting the RMSE, LM, and Q^2 to predict relevance adheres to the guidelines given for PLS-SEM. See Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017) A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 2nd Edition, Sage Publications Inc., Thousand Oaks, CA. for more details.

4. Adding an IPMA would be great for managerial decision purposes. I advise using a table and diagram describing which indicators had good performance and importance and which had the least relevance. I recommend you use a table to represent both performance and importance.

For all tables, it is important to add a note indicating the setting and threshold used in the analysis. See a snapshot attached for your perusal.

I wish the authors well.

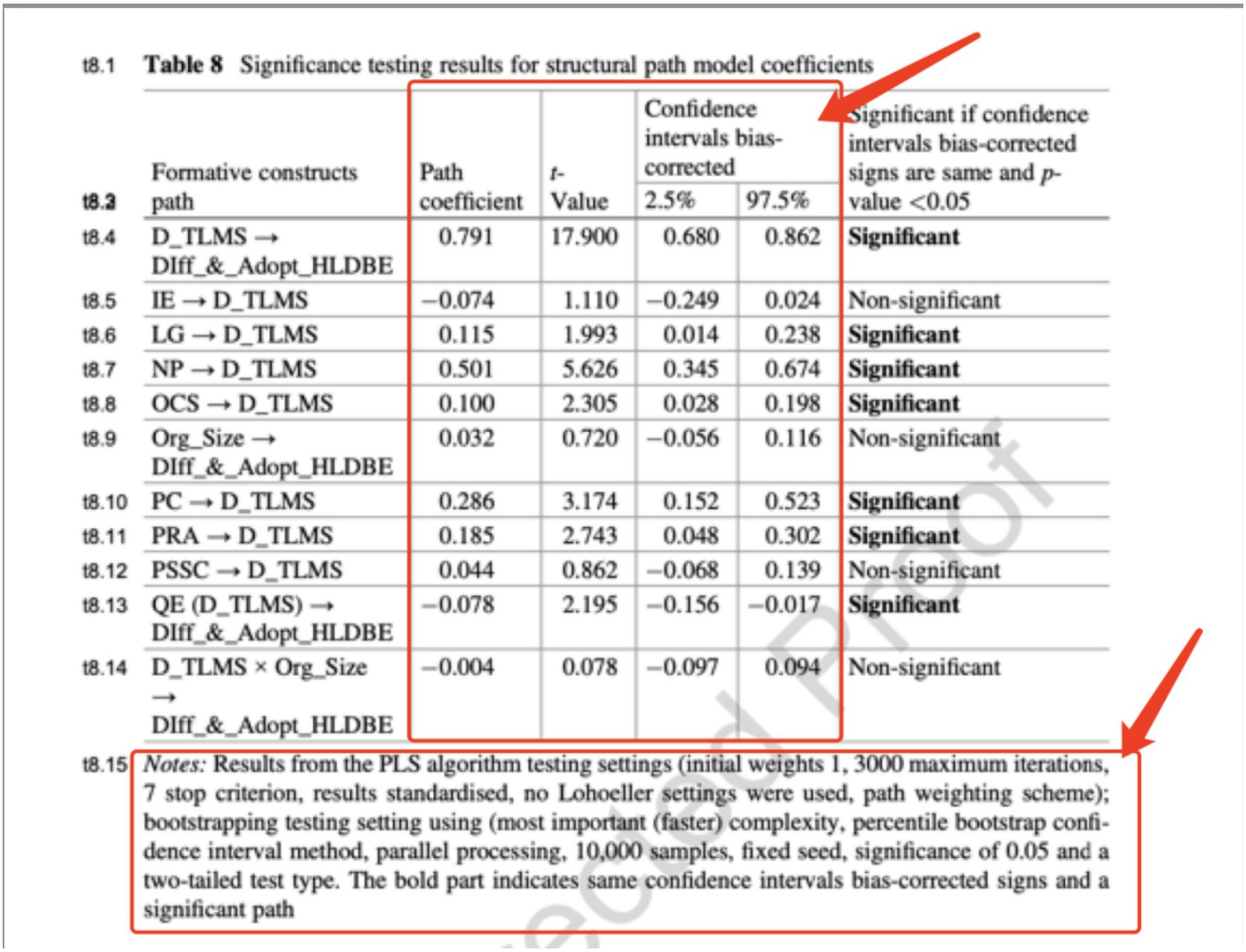

Table 8 Significance testing results for structural path model coefficients

Formative constructs path	Path coefficient	*t*-Value	Confidence intervals bias-corrected		Significant if confidence intervals bias-corrected signs are same and *p*-value <0.05
			2.5%	97.5%	
D_TLMS → DIff_&_Adopt_HLDBE	0.791	17.900	0.680	0.862	**Significant**
IE → D_TLMS	−0.074	1.110	−0.249	0.024	Non-significant
LG → D_TLMS	0.115	1.993	0.014	0.238	**Significant**
NP → D_TLMS	0.501	5.626	0.345	0.674	**Significant**
OCS → D_TLMS	0.100	2.305	0.028	0.198	**Significant**
Org_Size → DIff_&_Adopt_HLDBE	0.032	0.720	−0.056	0.116	Non-significant
PC → D_TLMS	0.286	3.174	0.152	0.523	**Significant**
PRA → D_TLMS	0.185	2.743	0.048	0.302	**Significant**
PSSC → D_TLMS	0.044	0.862	−0.068	0.139	Non-significant
QE (D_TLMS) → DIff_&_Adopt_HLDBE	−0.078	2.195	−0.156	−0.017	**Significant**
D_TLMS × Org_Size → DIff_&_Adopt_HLDBE	−0.004	0.078	−0.097	0.094	Non-significant

Notes: Results from the PLS algorithm testing settings (initial weights 1, 3000 maximum iterations, 7 stop criterion, results standardised, no Lohoeller settings were used, path weighting scheme); bootstrapping testing setting using (most important (faster) complexity, percentile bootstrap confidence interval method, parallel processing, 10,000 samples, fixed seed, significance of 0.05 and a two-tailed test type. The bold part indicates same confidence intervals bias-corrected signs and a significant path

Peer Review Proof