ENTERPRISE SYSTEM IMPLEMENTATION AND EMPLOYEE JOB PERFORMANCE: UNDERSTANDING THE ROLE OF ADVICE NETWORKS

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Appendix A

Survey Instrument

Age (in years):
Gender: Male ☐   Female ☐
Amount of time worked for <<company>> in years: _____
Amount of computer experience you have in years: _____

Conscientiousness (1 = not at all, 7 = to a very large extent)
I do things according to a plan.
I make plans and stick to them.
I waste my time (R).
I pay attention to details.
I do things in a half-way manner (R).
I find it difficult to get down to work (R).
I get chores done right away.
I am always prepared.
I shirk my duties (R).

Computer self-efficacy (1 = strongly disagree, 7 = strongly agree)
I could complete a job or task using a computer…
     …If there was no one around to tell me what to do as I go.
     …If I could call someone for help if I got stuck.
     …If I had a lot of time to complete the job for which the software was provided.

Job satisfaction (1 = completely dissatisfied, 7 = completely satisfied)
All in all, how satisfied are you with the persons in your work group?
All in all, how satisfied are you with your supervisor?
All in all, how satisfied are you with your job?
All in all, how satisfied are you with this organization, compared to most?
Considering your skills and the effort you put into your work, how satisfied are you with your pay?
How satisfied do you feel with the progress you have made in this organization up to now?
How satisfied do you feel with your chance for getting ahead in this organization in the future?

Advice networks (in each case, the lead-in text was followed by a roster)
Unitary advice lead-in text: In general, how often do you contact or are contacted by the persons listed below for work-related advice. Please leave the row blank if you do not interact with that person at all.

Workflow advice lead-in text: In general, how often do you contact or are contacted by the persons listed below for advice related to the workflow and business processes in <<ES module name>>. Please leave the row blank if you do not interact with that person at all.

Software advice lead-in text: In general, how often do you contact or are contacted by the persons listed below for advice related to the software in <<ES module name>>. Please leave the row blank if you do not interact with that person at all.

|	I contact this person…					This person contacts me…				
	Many times a day	Once a day	Once a week	Once a month	Less than once a month	Many times a day	Once a day	Once a week	Once a month	Less than once a month
Name 1*	5	4	3	2	1	5	4	3	2	1
Name 2	5	4	3	2	1	5	4	3	2	1
…	…					…				
Name N	5	4	3	2	1	5	4	3	2	1

Job performance (1 = needs much improvement, 7 = excellent)
Note: The following items were not present on the survey instruments, instead they were filled out by a supervisor for each employee at the time of the employee's annual evaluation.
1. Quantity of work output.
2. Quality of work output.
3. Accuracy of work.
4. Liaising well with suppliers.

Appendix B

Example of Workflow Get-Advice Versus Software Get-Advice Subnetworks ▬▬
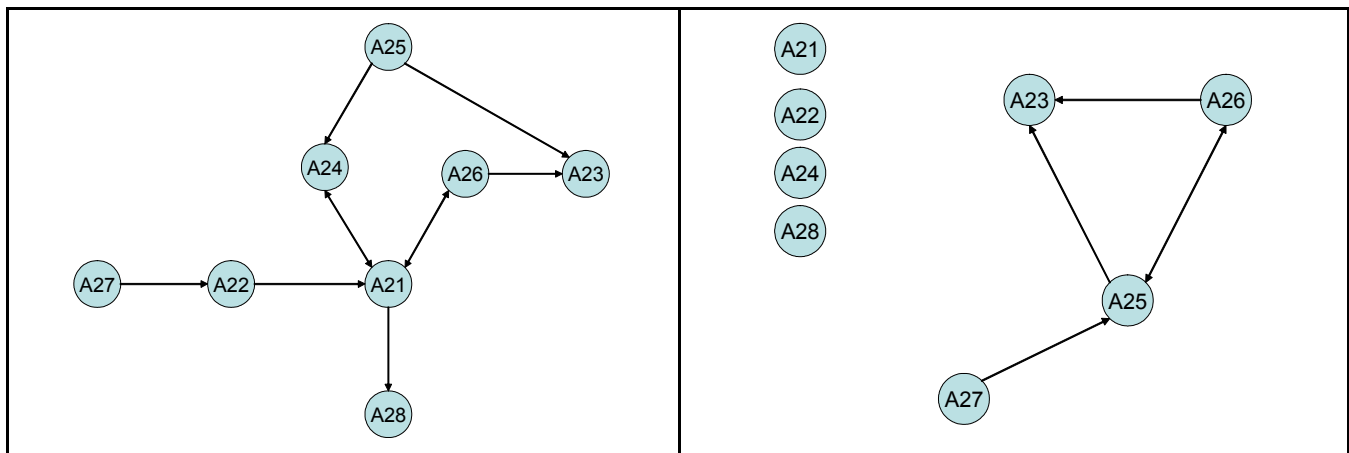
Note: The subnetwork shown is from a single product line. It was chosen at random. Similar patterns of differences among get- and give-advice networks were found across all product lines.

Appendix C

Baseline Models

In order to establish a baseline understanding of the prediction of job performance by the various individual characteristics and advice networks, we used the pre-implementation data including control variables, and general get- and give-advice eigenvector centralities. The results of the hierarchical regression analysis examining the effects of the control variables and advice networks on pre-implementation job performance are shown in Table C1. The control variables accounted for 17 percent of the variance in job performance. When the advice constructs were added, only conscientiousness and job satisfaction were significant among the control variables, and both advice constructs were significant, accounting for 25 percent of the variance in job performance.

Table C1. Predicting Pre-Implementation Job Performance		
	Block 1	Block 2
R^2	.17	.25
ΔR^2	.17***	.08**
Adjusted-R^2	.12	.19
Control Variables:		
Gender	.02	.01
Organizational tenure	.13*	.07
Conscientiousness	.29***	.23***
Extraversion	.17**	.05
Job satisfaction	.30***	.23***
Advice:		
Get-advice (general work-related)		.19**
Give-advice (general work-related)		.15*

Notes:
1. $*p < .05$; $**p < .01$; $***p < .001$.
2. Shaded areas are not applicable.
3. Significance of is based on an F-test.

In order to provide a related yet distinct empirical baseline for the comparison of the nuanced treatment of advice, we tested models using three different unitary eigenvector centrality measures of post-implementation advice. These unitary (not disaggregated) measures of advice are based on traditional views of advice. Together, these unitary metrics provide baseline benchmarks against which models using the nuanced conceptualizations of advice and their interactions can be compared. Table C2 presents the pre-implementation baseline results. Model 1 is based on total contact with others; model 2 is based on a linear combination of workflow get- and give-advice; and model 3 is based on a linear combination of workflow and software get- and give-advice. The results showed that the unitary conceptualizations of post-implementation advice had modest effects on post-implementation job performance, with each of the different models explaining about 20 percent of the variance.

Table C2. Predicting Post-Implementation Job Performance	Model 1	Model 2	Model 3
R^2	.19	.20	.21
Adjusted-R^2	.12	.13	.14
Control Variables:			
Gender	.02	.02	.01
Organizational tenure	.02	.01	.00
Conscientiousness	.16*	.18**	.17**
Pre-implementation job performance	.19**	.20***	.17**
Post-implementation job satisfaction	.17**	.17**	.16**
Pre-Implementation Effect:			
Unitary advice	.05	.04	.03
Post-Implementation Effect:			
Unitary advice[1]	.16*	.17**	.20**

Notes:

1. This construct was operationalized based on overall work-related advice. The pattern was identical when a linear combination of get- and give-advice was used.

2. *p < .05; **p < .01; ***p < .001.