

SELECTIVE STATUS REPORTING IN INFORMATION SYSTEMS PROJECTS: A DYADIC-LEVEL INVESTIGATION¹

By: Charalambos L. Iacovou
Schools of Business
Wake Forest University
7659 Reynolda Station
Winston-Salem, NC 27109
U.S.A.
charles.iacovou@mba.wfu.edu

Ronald L. Thompson
Schools of Business
Wake Forest University
7659 Reynolda Station
Winston-Salem, NC 27109
U.S.A.
ron.thompson@mba.wfu.edu

H. Jeff Smith
Farmer School of Business
Miami University
311 Upham
Oxford, OH 45056
U.S.A.
jeff.smith@muohio.edu

Appendix A

Constructs and Measures

Table A1. Formative Constructs

Item	Mean	Standard Deviation	Weight	Item Wording
OB (Optimistic Biasing)				
When providing project updates to the project executive, how often did you find that you had to: [1 = virtually never; 7 = very frequently]				
OB1	2.49	1.48	.48	Understate project problems?
OB2	2.44	1.54	.63	Overstate project achievements?
PB (Pessimistic Biasing)				
When providing project updates to the project executive, how often did you find that you had to: [1 = virtually never; 7 = very frequently]				
PB1	2.37	1.54	.60	Overstate project problems?
PB2	2.10	1.32	.55	Understate project achievements?

Table A2. Reflective Constructs					
Item	Mean	Standard Deviation	Weight	Loading	Item Wording
TE (Trust in Executive)					
TE1	5.05	1.68	.42	.90	To what extent did you have confidence and trust in your project executive regarding his/her general fairness? [1 = had little confidence/trust; 7 = had complete confidence/trust]
TE2	5.09	1.80	.35	.81	How free did you feel to discuss with the project executive the problems and difficulties you had in this project without jeopardizing your position or having it “held against you” later? [1 = very cautious; 7 = completely free]
TE3	4.84	1.49	.39	.87	Project executives at times must make decisions that seem to be against the interests of their project managers. If this were to happen to you in this project, how much trust did you have that the project executive’s decision was justified by other considerations? [1 = felt very distrustful; 7 = trust completely]
EK (Executive’s Knowledge)					
EK1	4.17	1.77	.34	.82	To what extent could the project executive distinguish between effective and ineffective systems development actions in the project? [1 = not at all; 7 = to a great extent]
EK2	4.36	1.86	.41	.93	Please indicate your level of agreement with the following statement: “The project executive had a solid understanding of the systems development process.” [1 = strongly disagree; 7 = strongly agree]
EK3	4.02	1.90	.37	.92	Please indicate your level of agreement with the following statement: “The project executive had considerable knowledge about how to build and implement systems.” [1 = strongly disagree; 7 = strongly agree]
EC (Executive’s Communication Quality)					
To what extent do you feel that the communication you received from your project executive was:					
EC1	4.72	1.53	.20	.83	Untimely 1 2 3 4 5 6 7 Timely
EC2	5.15	1.42	.23	.91	Inaccurate 1 2 3 4 5 6 7 Accurate
EC3	4.73	1.52	.23	.91	Inadequate 1 2 3 4 5 6 7 Adequate
EC4	4.72	1.54	.23	.91	Incomplete 1 2 3 4 5 6 7 Complete
EC5	5.34	1.50	.23	.87	Not credible 1 2 3 4 5 6 7 Credible
EP (Executive’s Power)					
RP1	4.23	2.01	.58	.88	In general, how much did you feel that the project executive could do to further your career? [1 = very little; 7 = a great deal]
RP2	5.01	1.73	.56	.87	How much weight would the project executive’s recommendation have in any decision that would affect your professional standing? [1 = no weight at all; 7 = a lot of weight]
RA1	4.83	1.47	N/A	N/A	How often was your project executive successful in overcoming restrictions in getting you the things you needed in your job in this project (such as equipment, personnel, budgets, etc.)? [1 = never successful; 7 = always successful]

Table A2. Reflective Constructs (Continued)

Item	Mean	Standard Deviation	Weight	Loading	Item Wording
TO (Task Outcomes)					
Relative to other comparable IS projects, how did your most recently completed project rate on each of the following: [1 = extremely low; 7 = extremely high]					
TO1	4.83	1.28	.23	.76	Efficiency of operations
TO2	4.86	1.58	.18	.75	Adherence to schedules
TO3	5.02	1.54	.16	.65	Adherence to budgets
TO4	5.39	1.78	.18	.73	Amount of produced work
TO5	5.49	1.15	.21	.75	Quality of produced work
TO6	4.91	1.41	.18	.61	Effectiveness of interactions with consultants
TO7	5.59	1.23	.22	.84	Ability to meet its goals
RQ (Reporting Quality to Executive)					
To what extent do you believe that the communication you provided to your project executive regarding the project status was:					
RQ1	5.88	1.10	.22	.76	Untimely 1 2 3 4 5 6 7 Timely
RQ2	5.86	1.15	.23	.88	Inaccurate 1 2 3 4 5 6 7 Accurate
RQ3	5.77	1.20	.24	.89	Inadequate 1 2 3 4 5 6 7 Adequate
RQ4	5.66	1.26	.25	.88	Incomplete 1 2 3 4 5 6 7 Complete
RQ5	6.04	1.18	.23	.86	Not credible 1 2 3 4 5 6 7 Credible

Note: RP1 and RP2 are indicators for the Relative Power (RP) dimension of Executive's Power. RA1 is the single indicator for the Resource Access (RA) dimension of Executive's Power.

Table A3. Controls

Item	Mean	Standard Deviation	Weight	Loading	Item Wording
UN (Project Uncertainty)					
How much do you disagree or agree with each of the following statements about your most recently completed project? [1 = strongly disagree; 4 = neither disagree nor agree; 7 = strongly agree]					
UN1	4.96	1.74	.15	.63	Requirements fluctuated quite a bit in earlier phases of the project.
UN2	4.18	1.87	.21	.70	Requirements fluctuated quite a bit in later phases of the project.
UN3	3.81	1.85	.31	.82	Requirements identified at the beginning of the project were quite often different from those existing at the end.
UN4	4.07	1.75	.22	.78	Users of the system differed a great deal among themselves in the requirements to be met by it.
UN5	4.55	1.73	.23	.77	A lot of effort had to be spent in reconciling the requirements of various users of this system.
UN6	3.67	1.70	.25	.66	It was difficult to customize the system to one set of users without reducing support to other users.

Table A3. Controls					
Item	Mean	Standard Deviation	Weight	Loading	Item Wording
CL (Project Control)					
Please rate your level of agreement with the following statements regarding the project team. [1 = strongly disagree; 4 = neither disagree nor agree; 7 = strongly agree]					
CL1	5.24	1.41	.42	.79	Project team members actively participated in the definition of project goals and schedules.
CL2	5.52	1.46	.46	.77	Every effort was made to keep project team turnover at a minimum.
CL3	5.80	1.28	.16	.51	The project team met frequently.
CL4	5.90	1.16	.34	.71	Project team members were kept informed about major decisions concerning the project.
FR (Frequency of Reporting)					
[1 = strongly disagree; 7 = strongly agree]					
FR1	5.89	1.36	.47	.84	During a typical month, I frequently communicated project status information to the project executive.
FR2	6.16	1.42	.34	.72	I rarely provided status reports to the project executive. [Reversed]
FR3	6.06	1.37	.44	.82	The project executive received regular updates from me about the status of the project.
IM (Project Importance)					
If, for some reason, the project had not been completed, what impact would this have had on the users in terms of the following? [= no impact; 4 = some impact; 7 = large impact]					
IM1	4.77	1.86			Customer relations
IM2	4.24	1.80			Financial health
IM3	5.33	1.70			Reputation of information systems department
IM4	5.20	1.48			Organizational efficiency
IM5	4.92	1.58			Organizational image
IM6	3.02	1.84			The survival of the organization
IM7	3.72	1.83			Reputation of the users
IM8	4.40	1.84			Ability to carry out operations
IM9	4.01	1.89			Profitability
IM10	3.20	1.97			Market share
IM11	3.73	2.09			Competitive position

Note: The Project Uncertainty measures were adopted from Nidumolu (1995, p. 215); the Project Control items were adopted from Barki et al. (2001, p. 62). The Frequency of Reporting items were adapted from Roberts and O'Reilly (1974a, 1974b). The Project Importance measures were adopted from Barki et al. (2001); as recommended, the scores on the individual items were summed into a composite score.

Table A4. Formative Control Construct		
Item	Weight	Item Wording
SZ (Project Size – Control Factor)		
SZ1	.81	Budget – see Table 3 for categories used
SZ2	.43	Person months of effort

Appendix B

Assessing Common Method Bias

We followed the statistical approach described by Liang et al. (2007) to assess common method bias using PLS. As noted by Liang et al. (p. 87), “if the method factor loadings are insignificant and the indicators’ substantive variances are substantially greater than their method variances, we can conclude that common method bias is unlikely to be a serious concern.” Table B1 shows each construct, the indicators for each construct, the substantive factor loading, the substantive factor loading squared, the method factor loading, and the method factor loading squared. The results revealed that only 4 (out of 29) of the method factor loadings were statistically significant, and the indicators’ substantive variances (average of 0.676) are substantially greater than their method variances (average of 0.021). From this, we conclude that common method bias is unlikely to be a serious concern in this study.

Table B1. Common Method Bias Analysis

Construct	Indicator	Substantive Factor Loading (R1)	R1 ²	Method Factor Loading (R2)	R2 ²
Optimistic Biasing	OB1	0.920**	0.846	0.041	0.002
	OB2	0.876**	0.767	-0.040	0.002
Pessimistic Biasing	PB1	0.876**	0.767	0.021	0.000
	PB2	0.856**	0.733	-0.021	0.000
Task Outcomes	TO1	0.728**	0.530	0.040	0.002
	TO2	0.793**	0.629	-0.061	0.004
	TO3	0.311**	0.097	-0.732*	0.536
	TO4	0.812**	0.659	-0.107**	0.011
	TO5	0.731**	0.534	0.038	0.001
	TO6	0.543**	0.295	0.092	0.008
	TO7	0.136**	0.018	0.090	0.006
Report Quality	RQ1	0.766**	0.587	-0.017	0.000
	RQ2	0.898**	0.806	-0.017	0.000
	RQ3	0.909**	0.826	-0.033	0.001
	RQ4	0.857**	0.734	0.036	0.001
	RQ5	0.840**	0.706	0.029	0.001
Executive’s Knowledge	EK1	0.808**	0.653	0.013	0.000
	EK2	0.908**	0.824	0.040	0.002
	EK3	0.955**	0.912	-0.052*	0.003
Trust in Executive	TE1	0.875**	0.766	0.025	0.001
	TE2	0.855**	0.731	-0.057	0.003
	TE3	0.850**	0.723	0.027	0.001
Executive’s Communication	EC1	0.863**	0.745	-0.036	0.001
	EC2	0.900**	0.810	0.011	0.000
	EC3	0.929**	0.863	-0.032	0.001
	EC4	0.926**	0.857	-0.024	0.001
	EC5	0.805**	0.648	0.081*	0.007
Executive’s Power – Relative Power	RP1	0.865**	0.748	0.031	0.001
	RP2	0.890**	0.792	-0.031	0.001
Average		0.803	0.676	-0.023	0.021

*p < .05; **p < .01