

Does one size fit all? A critical approach to smart work in Korean government

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Introduction



"It's okay. I can telecommute."

Smart work is a ubiquitous working system that enables people to work regardless of time and place

Research Question

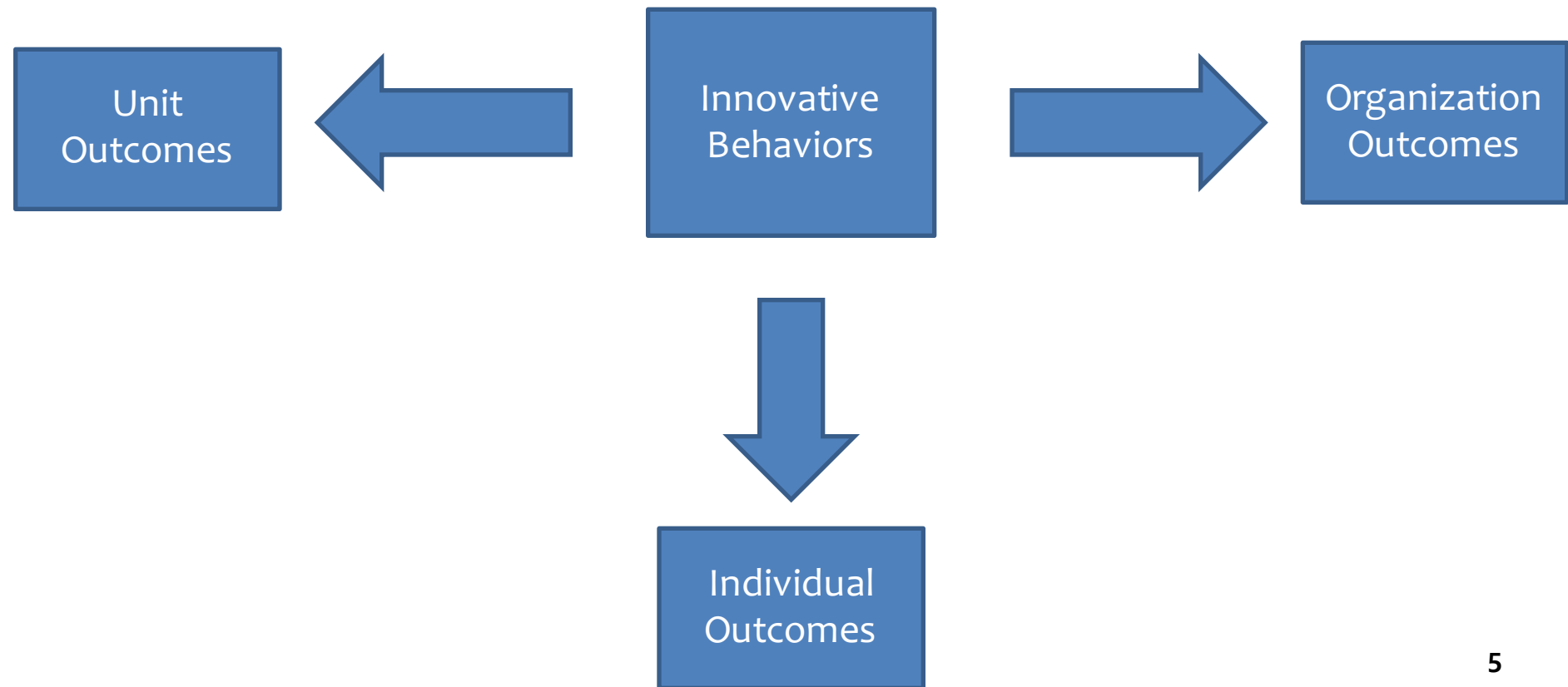


What does it mean?

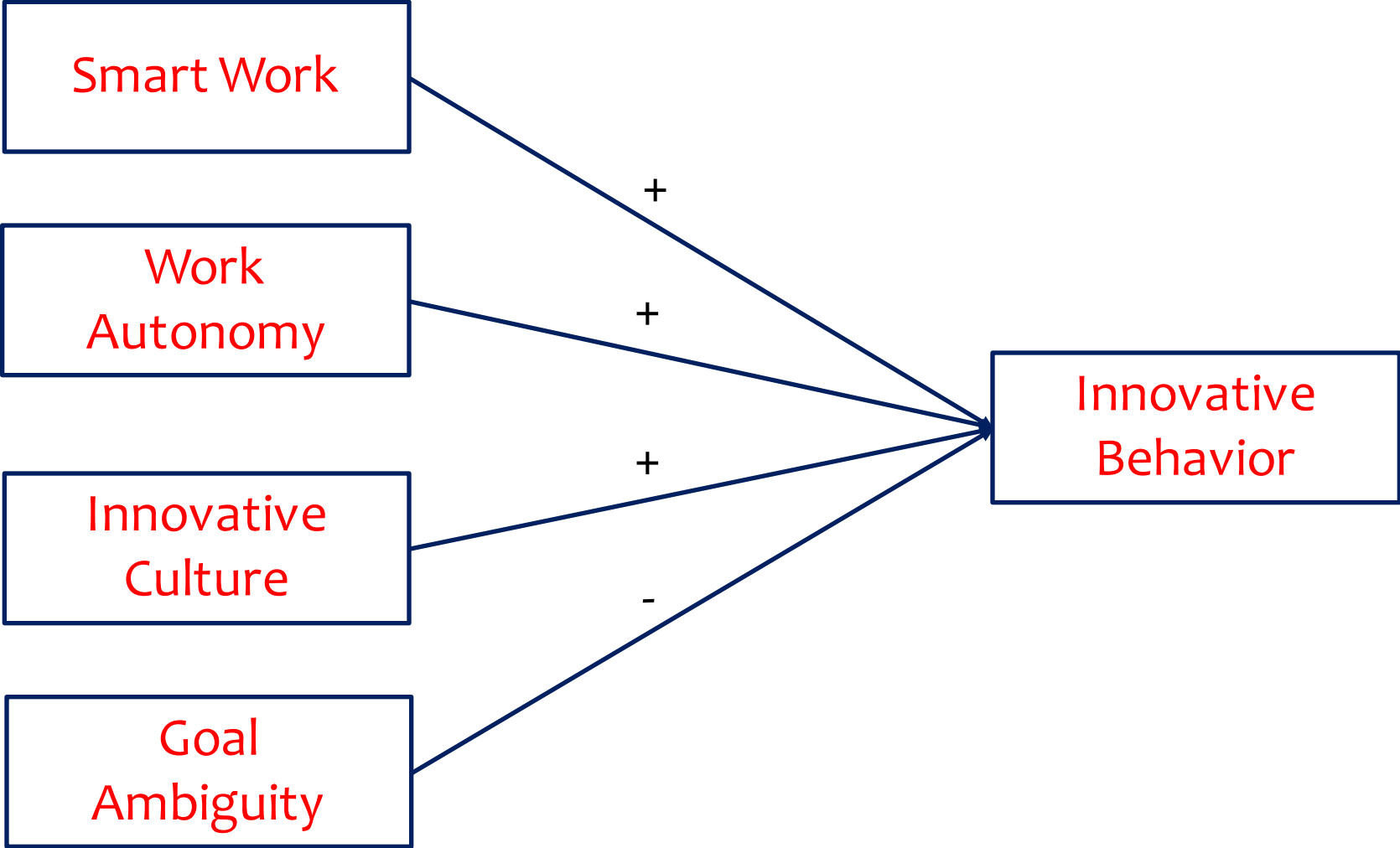
Investigating the impacts of smart work
in innovative behaviors

Why Innovative Behaviors?

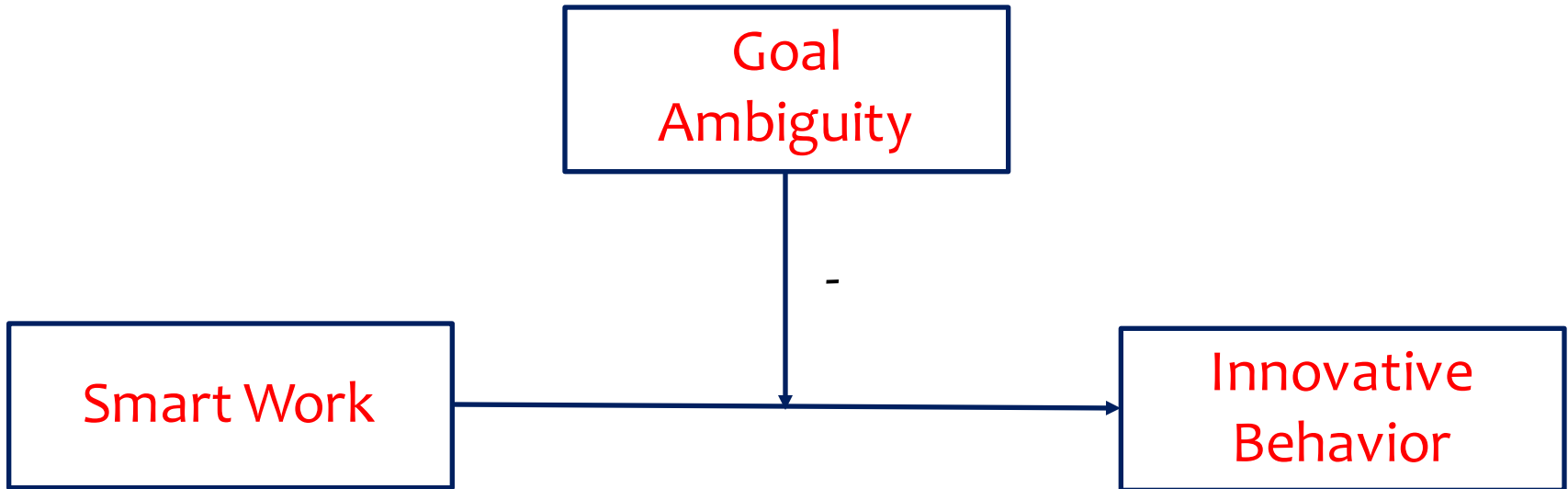
Innovative behavior: an individual's intentional adoption and use of new ideas and procedures



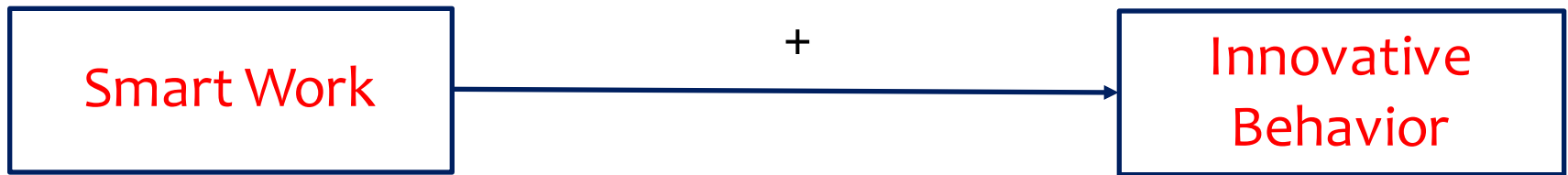
Conceptual Framework



Conceptual Framework



Smart Work and Innovative Behavior



Smart Work and Innovative Behavior

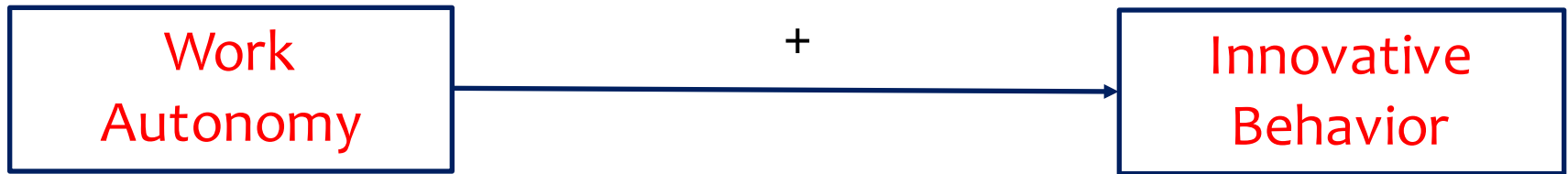
Firms with larger proportions of telecommuting employees also exhibited the greatest innovation and financial and relational performance

(MartínezSánchez, Pérez-Pérez, de-Luis-Carnicer, & Vela-Jiménez, 2007; Martínez-Sánchez, Pérez-Pérez, Vela-Jiménez, & de-Luis-Carnicer, 2008; Allen, Golden, & Shockley, 2015)

Telework → Better Satisfaction → Innovation

(Martínez-Sánchez, Pérez-Pérez, De-Luis-Carnicer, & Vela-Jinénez, 2007)

Work Autonomy and Innovative Behavior



Work autonomy refers how much individuals are free from constraints to make work-related decisions (Breugh, 1999; Aube, Rousseau, & Mori, 2007)

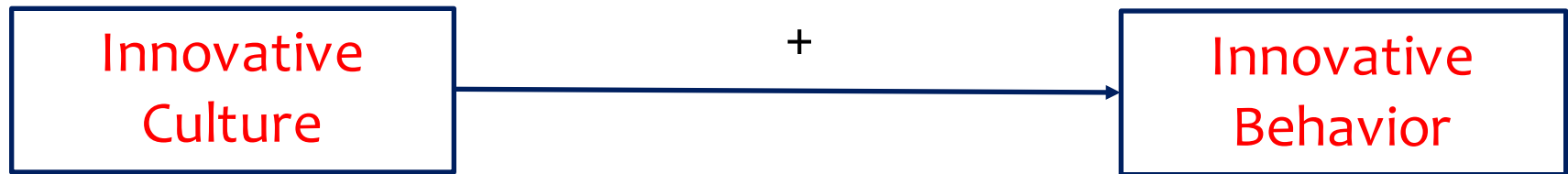
Work autonomy and Innovative Behavior

Job autonomy has frequently been identified as one of the major antecedents of employee creativity

(Chang, Huang & Choi, 2012; Battistelli, Montani & Odoardi, 2013)

Such an autonomy or freedom may permit employees to engage in ‘trial and error’ and find more efficient and effective ways of doing their work (Ramamoorthy, Flood, Slattery & Sardesai, 2005, p.144)

Innovative Culture and Innovative Behavior



Innovative organizational culture and climate are important contextual factors influencing individuals' creativity (Tesluk, Farr, & Klein, 1997)

Innovative culture and Innovative Behavior

“A critical way in which organizational factors can support the creativity and innovation process is by focusing attention on opportunities and the need for new ideas, products, processes, or solutions” (Kanter, 1988; Mumford & Gustafson, 1988; Tesluk, Farr, & Klein, 1997)

“Environment itself and interactions among departments can create positive effects on knowledge and resource exchange, product innovation, and value creation” (Yu, Yu, & Yu, 2013)

Innovative Culture and Innovative Behavior



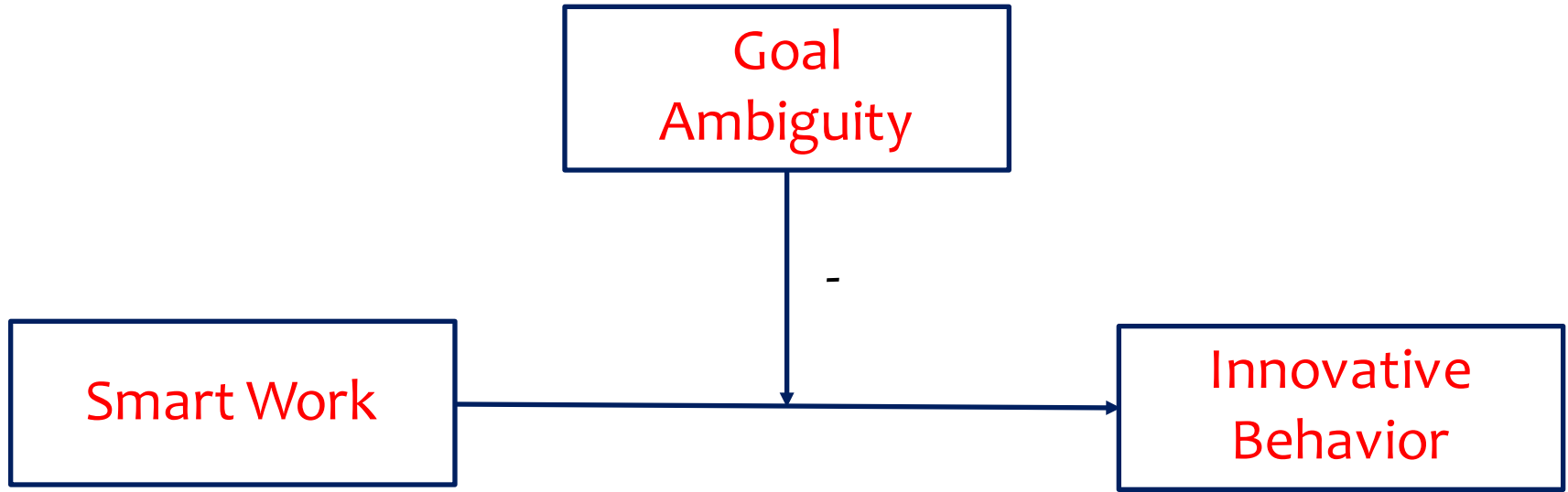
Organizational goal ambiguity refers to the extent to which an organizational goal or set of goals allows leeway for interpretation, when the organizational goal represents the desired future state of the organization (Chun & Rainey, 2005)

Organizational Goal Ambiguity and Innovative Behavior

Task ambiguity causes problem in planning, specification, and measurement, evaluation of behavior and performance (Cannon, Achrol, Gundlach, 2000),

These factors are closely related with innovative behaviors

Moderating Effects of Goal Ambiguity



Negative moderating effects of goal ambiguity between smart work and innovative behavior

When individuals have high self-efficacy, individuals have confidence in their capabilities, which results in high performance

However, when performance is ambiguous, self-efficacy is negatively related with performance (Schmidt & DeShon, 2010)

Since the positive relationship between telecommuter's self-efficacy and work outcome is found (Raghuram, Wiesenfeld, Garud, 2001), applying the result above and assuming the moderating effect of goal ambiguity in the current study can be appropriate

Data and Variables

Cognition Survey of Public Life (CSPL) 2017

- **Target: General public officials from central and local governments**
- **Sampling method: Stratified random sampling**
- **Conducted by Korea Institute of Public Administration (04.24.2017~12.08.2017)**

Data and Variables

Dependent Variable

Variable Name	Questionnaires (1= strongly disagree ~ 5= strongly agree)	Cronbach's α
Innovative Behavior	<ol style="list-style-type: none">1. I try to create/apply innovative task performance method2. I develop new ideas to solve problems occurring during work	$\alpha = .89$

Data and Variables

Independent Variables

Variable Name	Questionnaires (1= strongly disagree ~ 5= strongly agree)	Cronbach's α
Smart Work	How often do you use the following Smart Works in a week? (1=none, 2=once, 3=2-3times, 4=4 or more times) 1. Smart Work Center 2. Telecommuting 3. Mobile Working 4. Video Conference	$\alpha = .27$
Innovative Culture	1. Our organization emphasizes creativity/innovation/challenge 2. In order to solve new challenges, our organization emphasizes employee's intuition/insight, growth/resource acquisition	$\alpha = .86$
Work Autonomy	1. I have a choice in the way/procedures of task performance 2. I can control the speed/deadline of task performance 3. I can decide the order/priority of task performance	$\alpha = .83$
Goal Ambiguity	1. I am clearly aware of our organization's goal 2. In our organization, priorities between organizational goals are clear 3. Organizational goals provide clear guidelines for performance 4. I am clearly aware of how organizational goals are related with assigned task	$\alpha = .90$

Data and Variables

Control Variables

Variable Name	Questionnaires
Gender	① Male ② Female
Current Education	① High school graduate ② Vocational/technical school graduate ③ Bachelor's degree ④ Master's degree ⑤ Doctoral degree
Age	① 20's ② 30's ③ 40's ④ 50's or above
Current Rank	① 1 st grade ② 2 nd grade ③ 3 rd grade ④ 4 th grade ⑤ 5 th grade ⑥ 6 th grade ⑦ 7 th grade ⑧ 8 th grade ⑨ 9 th grade
Competitive Exam	① Open Competitive Employment ② Career-based competitive Employment ③ Others

Basic Statistics and Correlation Coefficients

Table 1. Basic Statistics and Correlation Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Innovative Behavior	1.000									
(2) Smart Work Experience	0.093	1.000								
(3) Goal Ambiguity	-0.377	-0.071	1.000							
(4) Work Autonomy	0.295	0.065	-0.359	1.000						
(5) Innovative Culture	0.333	0.060	-0.542	0.331	1.000					
(6) Female	-0.188	-0.031 ⁺	0.141	-0.088	-0.115	1.000				
(7) Age	0.260	0.069	-0.210	0.162	0.195	-0.260	1.000			
(8) Education Level	0.091	0.101	-0.036	-0.022 ⁺	-0.043	-0.060	0.066	1.000		
(9) Current Rank	-0.194	-0.185	0.150	-0.115	-0.055	0.220	-0.486	-0.295	1.000	
(10) Competitive Exam	-0.043	-0.019 ⁺	0.048	-0.011 ⁺	-0.032 ⁺	-0.055	-0.047	-0.062	-0.077	1.000
Mean	3.430	1.251	10.528	3.165	3.253	0.351	2.722	3.128	5.980	0.807
Std. Dev.	0.712	0.352	2.698	0.746	0.803	0.477	0.879	0.677	1.162	0.395
Min	1	1	4	1	1	0	1	1	2	0
Max	5	3	20	5	5	1	4	5	9	1

Observation: 3,117

+ not significant at 95% confidence level

Results

VARIABLES	(1) Coefficient	(2) Coefficient
Smart Work Experience	0.079** (0.031)	0.605*** (0.061)
Goal Ambiguity	-0.058*** (0.005)	0.004 (0.011)
Smart Work Experience x Goal Ambiguity		-0.053*** (0.007)
Work Autonomy	0.163*** (0.016)	0.188*** (0.016)
Innovative Culture	0.177*** (0.017)	0.190*** (0.017)
Female	-0.130*** (0.024)	-0.106*** (0.024)
Age	0.086*** (0.015)	0.049*** (0.014)
Education Level	0.065*** (0.017)	0.036** (0.016)
Current Rank	-0.029** (0.012)	-0.068*** (0.010)
Competitive Exam	-0.031 (0.028)	-0.026 (0.029)
Constant	2.655*** (0.172)	2.332*** (0.182)
Observations	3,116	3,117
R-squared	0.309	0.574

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Results

VARIABLES	Smart Work Experience < Average	Smart Work Experience > Average
	Coefficient	Coefficient
Smart Work Experience	-0.021 (-0.003)	0.199*** (0.080)
Goal Ambiguity	-0.055*** (-0.213)	-0.064*** (-0.241)
Work Autonomy	0.155*** (0.163)	0.186*** (0.187)
Innovative Culture	0.168*** (0.189)	0.201*** (0.220)
female	-0.113*** (-0.075)	-0.177*** (-0.114)
Age	0.083*** (0.103)	0.087*** (0.102)
Education Level	0.063*** (0.059)	0.074** (0.072)
Current Rank	-0.036*** (-0.057)	-0.014 (-0.022)
Competitive Exam	-0.064* (-0.034)	0.046 (0.025)
Constant	2.874*** (.)	2.171*** (.)
Observations	2,267	849
R-squared	0.280	0.376

Normalized beta coefficients in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Conclusion and Discussion

Innovative behavior as a key to organizational success

Smart work, goal ambiguity, work autonomy, and innovative culture as determinants of innovative behavior

Conclusion and Discussion



Smart work no longer brings positive impacts when goals are ambiguous