The role of innovative work behaviour and knowledge-based dynamic capabilities in increasing the innovative performance of agricultural enterprises

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Electronic supplementary material

Supplementary Material S1
Supplementary Tables S1–S2
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Supplementary Material S1

VARIABLES

Entrepreneurial orientation (EO)

i) Innovativeness

EOI1   We actively introduce improvements and innovations in our business.

EOI2   Our business is creative in its methods of operation.

EOI3   Our business seeks out new ways to do things.

ii) Proactiveness

EOP4   We always try to take the initiative in every situation (e.g. against competitors, in projects when working with others).

EOP5   We excel at identifying opportunities.

EOP6   We initiate actions to which other organizations respond.

iii) Risk-taking

EORT7 The term 'risk taker' is considered a positive attribute for people in our business.

EORT8 People in our business are encouraged to take calculated risks with new ideas.

EORT9 Our business emphasizes both exploration and experimentation for opportunities.

Innovative work behavior (IWB)

1. How often do your subordinates pay attention to activities that are not part of their daily work?
2. How often do your subordinates care about how things can be improved?
3. How often do your subordinates look for new working methods, techniques, or tools?
4. How often do your subordinates generate original solutions to problems?
5. How often do your subordinates discover new approaches to performing tasks?
6. How often do your subordinates are evoked enthusiasm by innovation on your team?
7. How often do your subordinates try to persuade colleagues to support an innovative idea?
8. How often do your subordinates introduce innovative ideas into their workflows?
9. How often do your subordinates contribute to the implementation of new things?
10. How often do your subordinates make efforts to develop new things?

Innovative performance (IP)

IP1   Introduction of technologically new products developed by the company (totally or partially) into the market.

IP2   Frequency of replacement of old products with others that have undergone significant change.

IP3   Proportion of technologically new or improved products in the turnover of the company.

Knowledge-based dynamic capability (KBDC)

KBDC1   Our knowledge helps us to perceive environmental change before competitors

KBDC2   Our knowledge helps us to fully understand the impact of internal and external environment

KBDC3   Our knowledge helps us to sense the major potential opportunities and threats

KBDC4   Our knowledge helps us to make timely decisions to deal with strategic problems

KBDC5   Our knowledge helps us to remedy quickly to unsatisfactory customers

KBDC6   We can reconfigure our knowledge resources in time to address environmental change

KBDC7   Our strategic changes can be efficiently carried out

Table S1. Construct reliability and discriminant validity model

	Cronbach's alpha	rho_A	CR	AVE
EO	0.910	0.921	0.930	0.655
IP	0.891	0.895	0.932	0.821
IWB	0.959	0.968	0.964	0.727
KBDC	0.773	0.826	0.839	0.518

Discriminant validity

	Fornell-Larcker criterion				HTMT ratio			
	EO	IP	IWB	KBDC	EO	IP	IWB	KBDC
EO	0.810	–	–	–	–	–	–	–
IP	0.735	0.906	–	–	0.806	–	–	–
IWB	0.786	0.773	0.852	–	0.785	0.821	–	–
KBDC	0.764	0.783	0.841	0.720	0.864	0.855	0.917	–

CR – composite reliability; AVE – average variance extracted; EO – entrepreneurial orientation; IP – innovative performance; IWB – innovative work behavior; KBDC – knowledge-based dynamic capability ($P < 0.05$); HTMT – heterotrait--monotrait ratio

Diagonal elements are the square root of variance shared between the constructs and their measures (AVE); off-diagonal elements are the correlations among constructs; for discriminant validity, the diagonal elements should be larger than the off-diagonal elements
Source: Ringle et al. 2020

Table S2. Moderating effect of company size, tenure and KBDC

	Original sample	Sample mean	SD	*t*-statistics	*P*-values
Business size → IP	0.037	0.036	0.051	0.723	0.470
EO → IP	0.746	0.748	0.036	20.766	0.000
Moderating effect of business size → IP	−0.133	−0.136	0.066	2.015	0.044
Moderating effect tenure → IP	0.305	0.302	0.036	8.420	0.000
EO → IP	0.294	0.293	0.057	5.188	0.000
KBDC → IP	0.601	0.608	0.057	10.479	0.000
Moderating effect KBDC → IP	−0.031	−0.038	0.042	0.749	0.454

EO – entrepreneurial orientation; IP – innovative performance; IWB – innovative work behavior; KBDC – knowledge--based dynamic capability ($P < 0.05$)
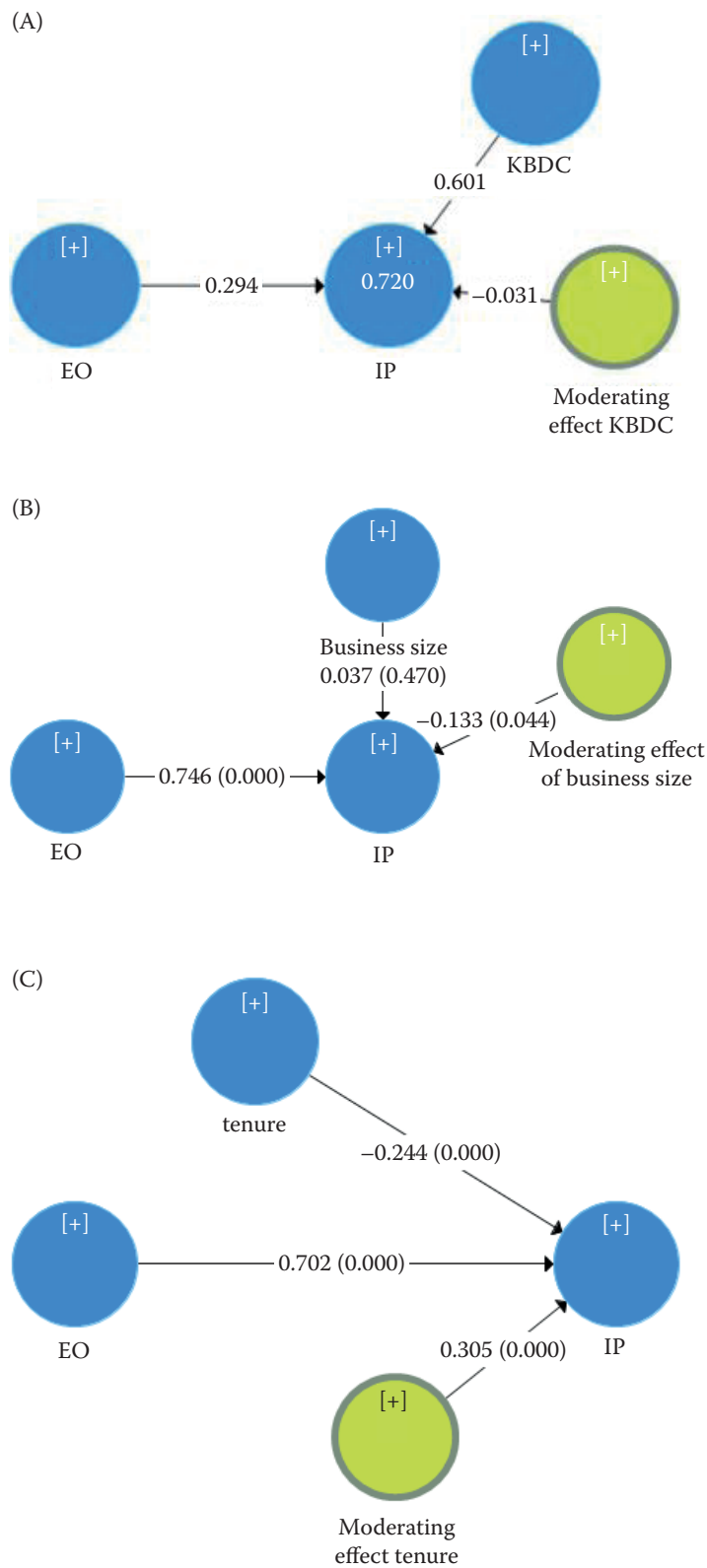Source: Own processing based on Smart Pls (version 3.3)

Figure S1. Moderating effect of A) KBDC; B) company size; C) of manager's tenure

EO – entrepreneurial orientation; IP – innovative performance; KBDC – knowledge-based dynamic capability ($P < 0.05$)
Source: Own processing based on Smart Pls (version 3.3)