

A Study on the Moderating Effects of Learning Capabilities on the Types of Strategic Alliance and Performance-Resource Based View

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Abstract. The purpose of this study is to analyze the moderating effects of learning capabilities on the type of strategic alliance and performance. To analyze this objective, this study reviews various literatures and developed a research model. To examine the research model, we collected data from international companies.

Keywords: Type of alliance, performance, learning capabilities

1 Introduction

The purpose of this study is to set up a conceptual model and hypotheses about the moderating effects on the learning capabilities of the type of alliance and performance to analyze target companies.

2 Hypothesis

<H 1> Dynamic capabilities will have a positive impact on the type of pre-competitive alliance and performance.

<H 2> Absorptive capabilities will have a positive impact on the type of competitive alliance and performance.

<H 3> Organizational capabilities will have a positive impact on the type of pro-competitive alliance and performance.

<H 4> Greater absorptive capabilities will have more positive impact on the type of non-competitive alliance and performance.

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3 Data Collection and Measurements

From a total of 152 questionnaires, 109 questionnaires were collected. Among the responses excluding uncertain responses, a total of 94 responses were eventually considered.

Table 1. Survey Items

Construct	Items	References
Type of alliance	Pre-competitive alliance Competitive alliance Pro-competitive alliance Non-competitive alliance	Yoshino and Fagan(2003)
Learning capabilities	Dynamic capabilities Organizational capabilities Absorptive capabilities	Davenport (1998), Akgun (2009) Cohen and Levintahl(1990)
Performance	Alliance performance	Das and Teng(2003)

Table 2. Reliability and Factor Analysis for Type of Alliance

Construct	Pre-competitive	Competitive	Procompetitive	Noncompetitive	Cronbach's Alpha
1	0.739	0.202	0.096	0.351	0.752
2	0.732	0.418	0.041	0.230	
3	-0.131	0.737	0.053	0.130	0.786
4	0.388	0.767	0.128	-.0129	
5	0.112	0.112	0.715	0.217	0.753
6	0.212	0.310	0.723	0.310	
7	0.132	0.226	0.019	0.893	0.888
8	0.307	0.114	0.195	0.890	
Eigen Variance	1.730 18.128	1.493 15.826	1.762 18.321	1.885 18.812	

Construct 1: joint technology development for hetero industries
 Construct 2: technology transfer for hetero industries
 Construct 3: cross licensing
 Construct 4: utilization of patent pool
 Construct 5: Market expansion through partnership distribution
 Construct 6: Acquisition of raw materials and resourcing
 Construct 7: co- research
 Construct 8: co-investment

Table 3. Reliability and Factor Analysis for Learning Capabilities

Construct	Organi	Dynam	Absorp	Cronbach's
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	zation	ic	tive	Alpha
Knowledge diffusion through job rotation system	0.874	0.281	0.107	0.805
Level of inter-department cooperation system	0.818	0.175	-0.112	
New knowledge acceptance	0.152	0.812	0.036	0.812
Sensitivity to environmental changes	0.196	0.759	0.385	
Adaptation of external environment	0.011	0.702	0.236	0.809
Understanding of new knowledge	0.118	0.117	0.815	
Solving problems using new information and knowledge	0.256	0.210	0.821	0.802
Employee training on new knowledge	0.370	0.140	0.802	
Eigen value	5.817	3.045	1.599	
Variance	41.01	57.54	70.00	

Table 4. Reliability and Factor Analysis for Performance

Construct	Alliance Performance	Cronbach's Alpha
Degree of new technology development	0.785	0.812
Number of new product development	0.825	
Effectiveness of saving cost	0.788	
Eigen value	3.045	
Variance	57.54	

4 Results

As shown in <tables 5-8>, it can be seen that the moderating effect of learning capabilities it can be seen significantly affected the types of alliance and performance. Therefore hypotheses 1 to 4 were all supported.

Table 5. Analysis for Regression: moderating effect for pre-competitive alliance and performance

Variables	Model 1		Model 2		Model 3		Model 4	
	β	t	β	t	β	t	β	t
Constant				.034		2.212		2.130
Pre	.294**	15.461	.294**	16.287	.294**	16.656	.296**	16.699
pre*d			.805***	49.253	1.096**	50.223	1.110**	50.887
Pre*o					0.063	1.205	.055	.988
pre*a							.347**	1.452
F	138.5		124.4		98.2		70.5	
R2	.872		.872		.876		.912	

Adjust R2	.872	.872	.812	.904
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*p<0.1 **p<0.05 ***p<0.01
d:dynamic, o: organizational, a:absorptive

Table 6. Analysis for Regression: moderating effect for competitive alliance and performance

Variables	Model 1		Model 2		Model 3		Model 4	
	β	t	β	t	β	t	β	t
Constant				.024		1.121		1.130
com	.194*	12.061	.194*	13.287	.190*	14.016	.196**	16.669
com*d			.805	9.256	1.097	0.223	.110	.887
com*o					.163	.025	.085	.088
com*a							.287*	2.788
F	188.5		164.4		120.5		99.0	
R2	.922		.912		.887		.910	
Adjust R2	.910		.902		.856		.908	

*p<0.1 **p<0.05 ***p<0.01
d:dynamic, o: organizational, a:absorptive

Table 7. Analysis for Regression: moderating effect for pro-competitive alliance and performance

Variables	Model 1		Model 2		Model 3		Model 4	
	β	t	β	t	β	t	β	t
Constant				.023		1.325		1.130
pro	.103*	7.461	.294*	8.287	.306*	8.656	.296*	8.669
pro*d			.160	9.156	.996	20.223	1.122	30.087
pro*o					.187*	1.125	.085*	0.988
pro*a							.247	1.132
F	120.5		90.4		67.1		58.4	
R2	.934		.940		.941		.942	
Adjust R2	.931		.938		.936		.940	

*p<0.1 **p<0.05 ***p<0.01
d:dynamic, o: organizational, a:absorptive

Table 8. Analysis for Regression: moderating effect for non-competitive alliance and performance

Variables	Model 1		Model 2		Model 3		Model 4	
	β	t	β	t	β	t	β	t
Constant				.023		1.021		1.230
non	0.93*	5.161	.184*	9.287	.192*	10.051	.296*	8.699
non*d			.160	9.1546	1.096	27.233	1.099	28.569
non*o					.163*	1.110	.099*	2.988
non*a							.287**	10.312
F	200.5		136.4		120.1		89.4	
R2	.834		.840		.901		.912	
Adjust R2	.831		.838		.906		.910	

*p<0.1 **p<0.05 ***p<0.01
d:dynamic, o: organizational, a:absorptive

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