

The Fusion of Art and Management in the Era of the 4th Industrial Revolution: Focusing on the Combined Effect of Artistic Competence and Entrepreneurship

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Abstract

The purpose of this study is to demonstrate the relationship between entrepreneurship and artistic competence as a factor influencing innovation and performance. More specifically, we analyzed the direct effect of artistic competence on innovation behavior and organizational commitment, analyzed the mediating effects of entrepreneurship between artistic competence and innovation behavior and organizational commitment, and then examined the combined effects of artistic competence and entrepreneurship. The results showed that the artistic competence had a direct influence on the innovation behavior, but did not directly affect the organizational commitment. In the analysis of the mediating effect of entrepreneurship, mediating effects were found to exist in all models. Especially, the relationship between artistic competence and organizational commitment, which had no relationship in direct relationship, was found to have a complete mediating effect by finding a significant indirect effect of simple and multiple. This shows that the artistic competence influences innovation behavior and organizational commitment through entrepreneurship. The combination effect analysis showed that there is a coupling effect between entrepreneurship and artistic competence.

Key words: Artistic competence, Entrepreneurship, Innovation behavior, Organizational commitment

1. Introduction

The creative and convergent society of the 4th Industrial Revolution era calls for creativity and innovation as a source of core competitiveness in enterprises. In response to these environmental demands, companies have been pursuing various efforts and initiatives to stimulate creativity and innovation.

With regard to creativity and innovation, the National Research Council(2003)[8] under the American Academy of Sciences has already submitted a report on “Beyond Productivity: Information, Technology, Innovation and Creativity”. The report categorizes the sources of creativity as scientific creativity, technical creativity, economic creativity, and cultural artistic creativity, and calls for interest in cultural and artistic creativity in the future[3].According to this creativity model, the key factor in creating future creativity and innovation can be found in the combination of management and artistic elements. In the meantime, there have been a lot

Article history:

Received (April 11, 2019), Review Result (May 8, 2019), Accepted (June 4, 2019)

of studies related to the combination of management and art, and its typical academic area is “artistic management”. Artistic management is a form of studying on management for art related organizations. Another area of the combined activity of management and art is “artistic intervention”. Artistic intervention is a practical field to introduce arts to enhance the efficiency and effectiveness of management of general companies, if artistic management is an academic field that studies management phenomenon for efficient and effective management of arts organization. Artistic intervention has been spreading widely in Europe, hoping that art professionals can help employees to enhance their artistic abilities and literacy through artistic experiences, and to create creativity for employees by performing arts activities with employees in corporations. There have been recent academic attempts to apply arts to management, and one of the representative concepts is “artistic competence”. Artistic competence is composed of artistic ability that enables artistic expression and artistic literacy centering on understanding of art. The artistic competence can be defined as the ability to acquire and utilize the necessary skills in each arts field, which includes creativity, capacity and expressiveness, imitation ability, reproduction ability, reality sense, aesthetic judgment, media analysis ability, sensitivity [2][5][7]. Research on artistic competence has been focused mainly on strengthening the artistic competence of learners in the field of education, and the introduction to business studies has been done recently and the number of studies is rare.

Based on the study background, this study examines the relationship between artistic competence, entrepreneurship, innovation, and organizational commitment. In addition, this study examines the combined effect of entrepreneurship and artistic competence on organizational commitment.

2. Previous studies and hypotheses

The logical models of research reports from NRC [8], and Taeksoo Choi [4] show the possibility that artistic competence is positively affecting entrepreneurship, innovation behavior and organizational commitment. As mentioned in these models, if productivity is based on innovation, innovation is based on creativity, creativity is based on experience and imagination, and if this source of imagination and experience is dependent on art, it can be said that artistic competence has a positive effect on innovation and performance.

Hypothesis 1) Artistic competence will have a positive impact on entrepreneurship.

Hypothesis 2) Artistic competence will have a positive impact on innovation behavior.

Hypothesis 3) Artistic competence will have a positive impact on organizational commitment.

Hypothesis 4) Entrepreneurship will have a mediating effect on the relationship between artistic competence and innovation behavior.

Hypothesis 5) Entrepreneurship will have a mediating effect on the relationship between artistic competence and organizational commitment.

Hypothesis 6) Artistic orientation, entrepreneurship, and innovation behaviors in the relationship between artistic competence and organizational commitment will have multiple mediating effects.

Hypothesis 7) The type of combination of artistic competence and entrepreneurship will change the size of organizational commitment.

3. Research method

This survey was conducted for employees from June 15 to July 15, 2017, using mail and mobile questionnaires. A total of 300 questionnaires were distributed. The total number of questionnaires collected was 231, of which 6 were excluded because of insincerity.

Artistic competence includes the components such as creativity, capacity and expressiveness, imitation ability, reproduction ability, reality sense, imagination, aesthetic judgment ability, emotional ability, and media competence [2][5][6]. Entrepreneurship is composed of innovativeness, aggressiveness, and risk-taking propensity on a individual level [1]. Innovation behavior is defined as the willingness of individuals to discover or create new ideas, and the tendency toward and effort to do so [9]. Organizational commitment is defined as emotional attachment to an organization, identification of individual and organizational goals and values, active involvement in organizational activities, and persistent organizational.

Reliability was secured by the combination reliability and Cronbach's alpha values of 0.8 or more. The convergence validity was obtained by showing the AVE value of more than 0.5, and the discriminant validity also was obtained as the AVE square root value of the constructs were all greater than the correlation coefficient between the constructs.

4. Results

The results of analyzing the relationship between artistic competence, entrepreneurship, innovation behavior, and organizational commitment are shown in Figure 1 and Table 1. As we can see, the artistic competence has a statistically significant effect on entrepreneurship and innovation behavior with a path coefficient of 0.465 ($p < 0.01$) and 0.392 ($p < 0.01$), respectively. This means that the higher the artistic competence, the greater the tendency of entrepreneurship and innovation behavior. On the other hand, in the case of organizational commitment, the artistic competence was not statistically significant ($p < 0.05$). This means that even if the artistic competence is high, the organizational commitment does not increase. These results support the results of Janggubo. Thus Hypothesis 1 and 2 were adopted, whereas Hypothesis 3 was rejected. Entrepreneurship was found to have a statistically significant impact on innovation behavior and organizational commitment, with path coefficients of 0.391 ($p < 0.01$) and 0.269 ($p < 0.01$), respectively.

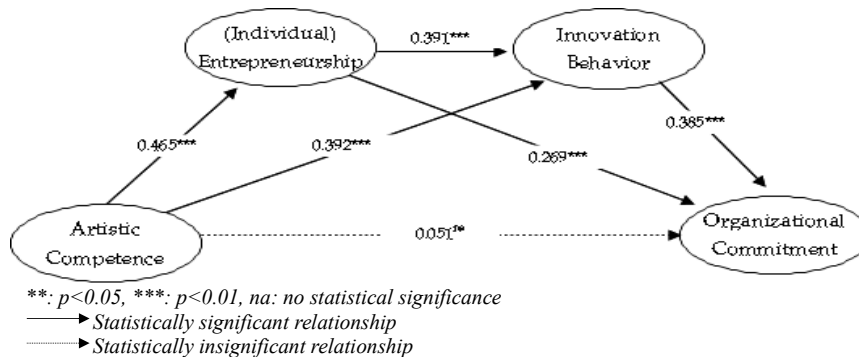


Figure 1. Analysis of the effect of artistic competence on entrepreneurship, innovation behavior and organizational commitment

Table 1. Direct effect, indirect effect and total effect

Effect	Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STERR))	P Values	Significance
Direct effect	H1. Artistic competence→ Entrepreneurship	0.465	0.471	0.047	9.833	0.000	○
	H2. Artistic competence→ Innovation behavior	0.392	0.392	0.058	6.756	0.000	○
	H3. Artistic competence→ Organizational commitment	0.051	0.052	0.096	0.526	0.599	×
	Entrepreneurship→Innovation behavior	0.391	0.392	0.060	6.466	0.000	○
	Entrepreneurship→ Organizational commitment	0.269	0.271	0.067	4.023	0.000	○
	Innovation behavior→ Organizational commitment	0.385	0.391	0.081	4.725	0.000	○
Indirect effect	H4. Artistic competence→ Entrepreneurship→ Innovation behavior	0.182	0.185	0.035	5.155	0.000	○
	H5. Artistic competence→ Entrepreneurship→ Organizational commitment	0.125	0.127	0.032	3.925	0.000	○
	Artistic competence→Innovation behavior →Organizational commitment	0.151	0.154	0.042	3.620	0.000	○
	H6. Artistic competence→ Entrepreneurship→ Innovation behavior→ Organizational commitment	0.070	0.072	0.021	3.259	0.001	○
Total effect	Artistic competence→Entrepreneurship	0.465	0.471	0.047	9.833	0.000	○
	Artistic competence→Innovation behavior	0.573	0.576	0.046	12.364	0.000	○
	Artistic competence→ Organizational commitment	0.396	0.404	0.075	5.280	0.000	○
	Entrepreneurship→Innovation behavior	0.391	0.392	0.060	6.466	0.000	○
	Entrepreneurship→ Organizational commitment	0.419	0.424	0.063	6.648	0.000	○
	Innovation behavior→ Organizational commitment	0.385	0.391	0.081	4.725	0.000	○

Note) Significance criterion: $p < 0.05$

[Table 1] shows indirect effects, total effects, and statistical significance as well as direct effects among these variables. Based on these results, the mediating effects between independent variables and outcome variables are as follows.

First, entrepreneurship between artistic competence and innovation behaviors has indirect effect 0.182 ($p < 0.01$), which has a statistically significant indirect effect and plays a role as a mediator. Therefore, Hypothesis 4 was adopted.

Next, in the relationship between artistic competence and organizational commitment, entrepreneurship played a role of mediator by showing an indirect effect of 0.125 ($p < 0.01$). Hypothesis 5 was also adopted. Hypothesis 6 was adopted because multiple mediated effects were observed as the dual indirect effect of entrepreneurship and innovative behavior in the relationship between artistic competence and organizational commitment was 0.070.

The total effect shown in Table 1 shows that although there is no direct relationship between artistic competence and organizational commitment, organizational commitment is affected by

artistic competence as a whole through the indirect effect of entrepreneurship and innovation behavior.

[Table 2] shows the results of analyzing the combined effects of artistic competence and entrepreneurship. As shown in the table, there is a statistically significant difference between Type 1 and Type 4 at the statistical level of $p < 0.05$.

These results show that organizational commitment is higher when both artistic competence and entrepreneurship is higher than when artistic competence and entrepreneurship are both lower. Therefore, Hypothesis 7 was adopted.

And although the type 3 is difficult to generalize because the number of observations is as small as 15, it shows an interesting possibility compared with the type 2. This demonstrates that artistic competence has a significant impact on outcome variables as much as entrepreneurship.

Table 2. Analysis of variance of the effect of combination of artistic competence and entrepreneurship on organizational commitment

ANOVA						
		Sum of Squares	df	Mean Square	F	Significance
Organizational commitment	SSE	16.755	3	5.585	14.339	.000
	SSM	85.690	220	.389	-	-
	SST	102.445	223	-	-	-
Organizational Commitment (Scheffe)						
Matrix of Entrepreneurship and Artistic competence			N	Subset of alpha = 0.05		
				1	2	
Type 1 Entrepreneurship(Low)/Artistic competence(Low)			53	2.82547	-	
Type 2 Entrepreneurship(High)/Artistic competence(Low)			66	3.20076	3.20076	
Type 3 Entrepreneurship(Low)/Artistic competence(High)			15	3.20000	3.20000	
Type 4 Entrepreneurship(High)/Artistic competence(High)			90	-	3.52917	
Level of Significance			-	.094	.177	

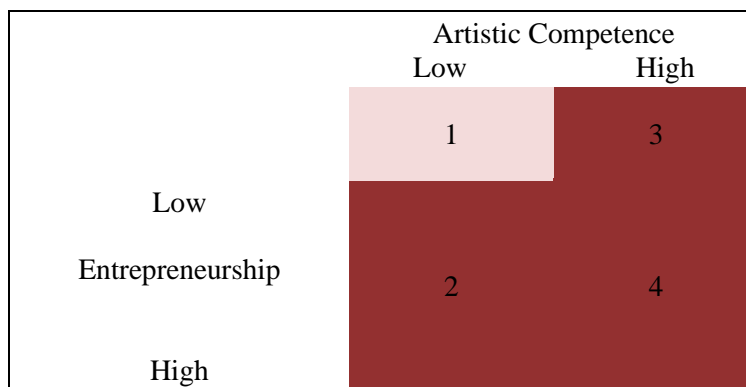


Figure 2. Combined effects of entrepreneurship and artistic competence on organizational commitment

5. Conclusion

In this study, we tried to demonstrate the creativity model that induces innovations that have been discussed only as a logical model. It is a big achievement of this study that it proved that the artistic side can double the innovation as well as the entrepreneurship that has led innovation in the field of business administration until now.

The greatest implication of this study is that it is expanding the academic theory of the field by demonstrating empirically the contribution of the artistic field which has been discussed logically. In addition, the great practical implications of this study are that it provides a foundation for a plan to strengthen the competitiveness of companies, presenting artistic aspects as a field that can create innovation in addition to entrepreneurship in the enterprise that emphasizes innovation.

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