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Effect of Flow of Convergence Dance Performance on Performance Attitude and Viewing Intention of Technology Acceptance Model (TAM)

Tianyu Jia[1,a], Yong Wang[2], Nam-gyu Cho[3,b,*]

[1]Dance Department, Sangmyung University, Seoul, South Korea
[2]Institute of Cultural Policy, Sangmyung University, Seoul, South Korea
[3]Public Performance Arts Management Department, Sangmyung University, Seoul, South Korea
[a]1036373640@qq.com, [b]cng1222@hanmail.net
[*]Corresponding author

Abstract: *Recently, in the global performance world, in the digital age, works using convergence technology such as <Unexpected Bang Du>, <Ben Hur>, and <Man Made> are increasing. In this study, when convergence technology is applied to a dance performance, the audience's immersion (flow) can be increased, thereby reducing the reluctance to use new technology, increasing the perceived ease and perceived usefulness, and finally improving performance attitude and viewing. It was also expected to have a positive effect on the specific research method, an online survey on a 5-point scale was conducted for about two weeks from August 2020 targeting 304 consumers in the performance market. Exploratory factor analysis, reliability analysis, and correlation analysis were performed through the SPSS package, and confirmatory factor analysis and path analysis of model fit and convergent validity were performed through the AMOS package. The analysis results are as follows. Looking at each hypothesis, the pleasure of flow had a negative effect on perceived ease of use and a positive effect on perceived usefulness, but had no effect on performance attitude. Flow's attention had a positive effect on perceived ease of use and performance attitude, but had no effect on perceived usefulness. The telepresence of a flow depends on the perceived ease and usefulness, respectively.*

Keywords: *Dance performance, Convergence performance, Technology acceptance model*

1. Research Background and Necessity

Today's performing arts are rapidly changing by applying various means of expression and media beyond new artistic concepts, forms, and transformations. In particular, it is commonly used as the concept of cultural complex that encompasses consilience such as convergence, compounding, and integration in all areas, and presents a vision of “newness again”. As a cause, convergence through the use of technology while faithful to the genre characteristics of each field is possible only when creating a new spectacle performing arts by completely breaking away from the existing concept and thinking frame, but it is possible to create a new spectacle, performing arts limitations should not be overlooked. Although the convergence phenomenon is accelerating as we enter the digital age, convergence, fusion, crossover, and hybrid have already been used as terms with similar concepts in various fields including the art world. Since it has been used for a long time, it is necessary to organize the terminology. In addition, existing prior studies is limited to the simple case analysis of some works of convergence performances, or even when surveys are conducted on audiences to secure objectivity, they remain at the level of fact-finding. There is no study on the main factors of convergence performance and applying them to the dance field to understand the influence relationship between each variable. This seems to be because, unlike overseas, in the case of Korea, the introductory period for convergence performances was short and there were limitations in the research progress due to the lack of representative commercially successful cases. Therefore, the dance industry needs to develop more diverse convergence performances to induce audience participation and broaden genre boundaries and stagnant market size. On the way to the era of the 4th industrial revolution, if you do not show a new experimental spirit by sticking to the norms of on-the-ground and immediacy, which are the existing characteristics of performing arts, on the contrary, the creative expression ability may be reduced. At this time, there is the audience's reaction to the convergence performance that should be focused on. It is the variable ‘immersion’, which is the state of being super focused on the performance.

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2. Research Scope and Limitations

2.1 Research Scope

The scope of this study is theoretical, from the conceptual definition of convergence performance, to the main application techniques for convergence dance performance, the theory and compositional variables of flow, and the concepts, characteristics, and variables of the technology acceptance model. For the technology acceptance model, rational behavior theory (TRA) and planned behavior theory (TPB), which have conceptual similarities, were also examined. Previous studies have explored dance and performance-related topics using flow and technology acceptance model variables. As for the scope of collection of cases related to convergence performance, representative cases of convergence works including dance were analyzed. As for the collection route, academic materials were first looked at in RISS and Google Scala, and news articles, reports, and other websites extended to the site[1].

2.2 Limitations

This study examines consumer responses by assuming that the application of convergence technology, which is recently expanding in the performance market, is in the field of dance. However, the conceptual definition of convergence performance is not yet clear, and the understanding of the convergence performance is somewhat lowered by consumers as it has not taken root enough to be used on a daily basis in the performance world. This is because 48.7% of the negative answers that they do not know or do not know about convergence performances are more than double the number of positive answers that they know well (20.1%). There are some limitations in generalizing the research results in a situation where the understanding of convergence performances is insufficient[2]. Fortunately, there is no doubt about the convergence performance.

The point is that 85.9% of respondents answered yes to the possibility of being able to do this, overwhelmingly ahead of the number that answered no at 14.1%. Although this is still a transitional situation for convergence performances, it is highly likely to become an important trend in the performance world in the future, and the results of this study can be considered to partially represent this future-oriented direction.

3. Theoretical Background

3.1 Concept and Types of Convergence Performance

Convergence is an innovative term that combines fashion and complex (Naver Korean Dictionary), and is used in various fields in modern society. Convergence has been widely spread and activated not only in the fields of humanities, natural sciences, engineering, and sports, but also in the arts. As these diverse academic fields combine and converge, innovation is being created to create new technological fields that exert a synergistic effect.

The concept and type of convergence performance can be defined in which direction and to what extent the category of convergence.

There is a difference of opinion depending on whether the scope is put. In addition to the view that a convergence performance is a crossover with other genres, a case in which an existing performance is newly produced by introducing new technology and techniques is also called a convergence performance[8][9][10]. Although it is not called a convergence performance, it is clear that there has been a performance similar to that of a convergence performance for a long time.

3.2 Examples of Convergence Performances

3.2.1 Unknown Bang Du

Although the platform and database are insufficient in the performance market, it can be seen as an example of a convergence performance in which the local government produced and supported a work based on the cultural prototype of the region. In addition, this work had distinct characteristics or consciousness within the work and made full use of the cultural identity of Korea. As shown in Figure1, In addition, this work is meaningful in that it revitalized performances through digital mentoring education for personnel required for existing performances[1].

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Figure 1: Scene from the performance of "Bang du"

3.2.2 Man Made

The Man Made work is a work produced and performed by the National Dance Company under the Ministry of Culture, Sports and Tourism, and has enhanced audience immersion through VR. It is significant in that it maximized audience immersion by applying VR to the stage, not just a partial application of the VR experience. The technically difficult aspect of this work is artistic reinterpretation, and the technical aspect of this work is applied to the stage using VR[1][3]. As shown in Figure2, For example, a dancer who applies VR and dances in a virtual space is evaluated as harmonizing science and art by adding human beauty and artificial beauty by removing boundaries between real concepts such as wearing an HMD and directing[3].

Figure 2: "Man Made" performance scene

3.2.3 DAVE (Digital Amplified Video Engine)

The DAVE work, as an invitation to the International Contemporary Dance Festival[4], is a projection type work that grafts various images and music onto the dancer's body as a multimedia performance[5]. This work contributed to the elimination of the existing notion of using the body by directly projecting a projection onto the performer's body[2][5]. As shown in Figure 3, this work is evaluated as breaking down the real and virtual worlds by visually expressing the adjustment and reconstruction of the human body. In addition, this work is positively evaluated for visually creating a fantasy scene through the fusion of the performer's body and digital images[3].

Figure 3: Performance scene of "DAVE"

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3.2.4 Chameleon Group's "Net Congestion" Performance

Anna, Marie (2019) is the first VR interactive musical film in Korea, especially with visual special effects technology[6]. The performance was well-received by adding visual special effects and technology, featuring Anna (a former idol singer) and Marie (a humanoid singer) as the main characters (Naver Blog).

Cirque du Soleil VR's new work, Alegria: A Spark of Light, was produced with over 100 cameras and CG in 5K quality [9] to express a more immersive video[10]. As shown in Figur4, As such, it was said that the development of convergence technology helps people to enjoy world-class performances comfortably at home[5].

Figure 4: Part of Alegria VR video

The Chameleon Group's "Net Congestion" is a work that was filmed on three stages and four cameras and broadcast live on the Internet [2]. This performance had great significance in that it was attempted as an immersive performance, an audience-participating performance in which the audience directly directed the Internet-participating performance, and the actors improvised the performance while watching the screen script created by the audience [2].

4. Research Methods

4.1 Research Model and Hypothesis

In this study, to investigate the effect of audience flow on performance, satisfaction and viewing intention in a fusion dance performance, a research model was constructed based on previous studies and hypotheses were established accordingly. Accordingly, the proposed model and hypothesis of this study is shown.

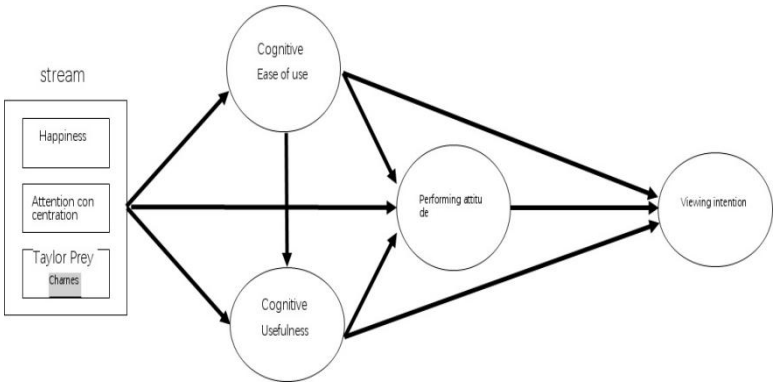

Figure 5: Research model

Specifically, it was assumed that if the flow was increased in the convergence dance performance, a positive relationship would be formed in which the ease and usefulness would increase and the willingness to accept the technology would be enhanced. In relation to this model setting, the flow is usually looking at how much focus is on specific content in various fields. As shown in Figure5, when used together with the technology acceptance model, online shopping mall entry[7] or application usage

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immersion[6], e-learning education[8] and games[5], interactive advertising[4] measures the immersion of the same digital cultural content, and there is a study[7] that measures the audience's flow even in general analog performances, even if it is not a technology acceptance model.

Therefore, even if the field changes to convergence dance performance, it is natural to infer that flow, which is a dependent variable, will have a positive effect on performance attitude and intention. I wanted to find out if I would get it.

5. Research Results

5.1 Demographics

Table 1: General characteristics of survey subjects

Question	Division	Number of people	Composition %
Gender	Other	91	29.9
	Female	213	70.1
Age	Teenager	8	2.6
	20's	204	67.1
	30's	47	15.5
	40's	36	11.8
	50's	7	2.3
	Over 60	2	0.7
Job	Student	178	58.6
	Office worker	14	4.6
	Self-employment	19	6.3
	Public official	10	3.3
	Profession	17	5.6
	Artist	39	12.8
	Housewife	9	3.0
	Etc	18	5.9
Education	Less than high school	26	8.6
	College enrollment/graduation	15	4.9
	4-year student/graduate	207	68.1
	Graduate school or higher	56	18.4
Monthly income	Less than 1 million won	180	59.2
	100-200 million won	41	13.5
	200-300 million won	33	10.9
	300-5 million won	32	10.5
	Over 500 million won	18	5.9
Marriage	Single	240	78.9
	Married	64	21.1
Region	Seoul	82	27.0
	Metropolitan area	60	19.7
	Fat	162	53.3
Sum		304	100

Looking at the demographics of the survey subjects <Table 1>, it can be seen that by gender, females accounted for 70.1%, which is significantly higher than males with 29.9%. 20's in age.

As shown in Table 1, it showed the highest ratio at 67.1%, followed by 15.5% in 30s, 11.8% in 40's.

Teenagers accounted for 2.6%, 50's 2.3%, and 60's and older, 0.7%, indicating that there are relatively many young people. By occupation, students showed the highest ratio at 58.6%, followed by artists 12.8%, self-employed 6.3%, the other 5.9%, professional, 5.6%, office worker 4.6%, civil servant 3.3%, and housewife 3%. This can be understood that the distribution centered on young people shown in the age group was mainly the student group. In terms of educational background, those who attended/graduated from a four-year system had the highest ratio at 68.1%, followed by those who attended graduate school or higher at 18.4%, those who graduated from high school or lower at 8.6%, and enrolled/graduated from a junior college at 4.9%. In terms of monthly income, those with less than 1 million won showed the highest ratio at 59.2%, followed by 13.5% to 2 million won, 10.9% to 2 to 3

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million won, 10.5% to 3 to 5 million won, and 5.9% to 5 million won or more. This indicates that the income is at a low level. This is thought to be due to the large distribution of young students. As for marriage, it can be seen that the number of unmarried people was 78.9%, which is much higher than that of married 21.1%. As for the region, the province showed the highest ratio with 53.3%, followed by Seoul with 27% and the metropolitan area with 19.7%, indicating that there are many residents in the provinces.

5.2 Exploratory Factor Analysis

Exploratory factor analysis and item reliability analysis were performed before confirming the influence relationship between variables. First of all, the purpose of factor analysis is to check whether the variables used are composed of detailed factors with similar concepts. It is considered that the measured variable is valid only when it meets the minimum values of 0.5 and 0.4 or more. In the process of validation, factors that do not meet these criteria are removed except in special cases. Reliability analysis of an item examines whether the questionnaire subject is given a consistent answer, and the reliability coefficient (Cronbach α) is identified for each item group for variables that have been validated through factor analysis. As shown in Table2-4, in this case, if the minimum standard value of 0.6 or higher is met, the reliability is considered to be normal. However, if the reliability of the relevant variable is greatly reduced due to a specific item, it is common to remove the item.

In this study, an exploratory factor analysis was conducted only on flow, which is an independent variable composed of three subvariables, and analyzed as a principal component using the varimax orthogonal method. In the case of flow, the factor loading of pleasure question 4, attention question 5, and telepresence question 5 was lower than the standard value.

Table 2: KMO and Bartlett sphericity test results of flow

KMO (Kaiser-Meyer-Olkin) of standardization adequacy measure		.929
Bartlett's sphericity test	Approximate chi-square	3350.077
	Degrees of freedom	66
	Significance Probability	.000

Table 3: Flow commonality result

Division	Early	Extraction
Pleasure 1	1.000	.837
Fun 2	1.000	.848
Fun 3	1.000	.870
Fun 5	1.000	.707
Attention 1	1.000	.723
Attention 2	1.000	.827
Attention 3	1.000	.847
Attention 4	1.000	.786
Telepresence 1	1.000	.767
Telepresence 2	1.000	.843
Telepresence 3	1.000	.878
Telepresence 4	1.000	.774

Unlike flow, the perceived ease of use, perceived usefulness, performance, attitude, and viewing intention composed of a single concept without sub-variables were replaced with the confirmatory factor analysis process without exploratory factor analysis. In the reliability analysis, as in the flow, all the variables met the standard and there was no removal, and the perceived ease of use was 0.814, the perceived usefulness was 0.857, the performance attitude was 0.885, and the viewing intention was 0.931, so there was no problem in the reliability configuration.

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Table 4: Rotated component matrix result of flow

Concept: flow	Ingredient					
	1	2	3	Eigenvalues	Dispersion%	Reliability Cronbach α
Pleasure 1	.839	.248	.267			
Fun 2	.814	.278	.329			
Fun 3	.851	.259	.282			
Fun 5	.727	.252	.338	3.501	29.174	.924
Attention 1	.232	.340	.744			
Attention 2	.447	.318	.725			
Attention 3	.371	.362	.760			
Attention 4	.433	.316	.706	2.910	24.247	.911
Telepresence 1	.313	.759	.304			
Telepresence 2	.202	.864	.236			
Telepresence 3	.239	.854	.301			
Telepresence 4	.329	.725	.375	3.294	27.453	.921

5.3 Correlation Analysis

Next, correlation analysis of Person was performed to investigate the correlation between variables. Based on the two-sided test, both showed a statistically significant relationship, indicating that when one variable is improved, the comparable variable is also improved in a linear relationship. Among them, perceived ease and pleasure (r =.429), perceived ease and attention (r =.575), perceived ease and viewing intention (r =.532) were general numbers from 0.4 to 0.5.

As shown in Table5 showed a quasi-correlation, and all other variables were slightly higher in the range of 0.6-0.7.

Table 5: Person correlation analysis result

Division	Joy	Attention	Telepresence	Perceived Ease	Perceived usefulness	Performance attitude	Intention to visit
Joy	1	.766**	.628**	.429**	.672**	.687**	.662**
Attention		1	.776**	.575**	.756**	.795**	.703**
Telepresence			1	.659**	.774**	.712**	.660**
Perceived Ease				1	.717**	.653**	.532**
Perceived usefulness					1	.794**	.760**
Performance attitude						1	.775**
Intention to visit							1

*p<0.05,**p<0.01,***p<0.001

5.4 Confirmatory Factor Analysis

For secondary validation of variables, confirmatory factor analysis was performed using the SPSS raw data. As shown in Table 6, we looked at the convergent validity, a concept that examines the degree of concordance between observed variables to measure latent variables. Among the C.R. (Critical Ratio) values of all variables exceeded ±1.96, the standardized lambda (λ) value of each variable came out above the minimum standard value of 0.5 (between 0.7 and 0.9).

The variance extraction value (AVE) was more than 0.5 (between 0.6 and 0.8).

A value of 0.7 or higher was derived (between 0.8 and 0.9). Therefore, all latent variables met the standard values at a desirable level, so there was no abnormality in concentration validity.

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Table 6: Concentrated validity results

Division	Non-standardized factor	Standardization factor	S.E.	C.R.	AVE	Concept Reliability
Pleasure -> Pleasure 1	1	0.859	-	-		
Pleasure -> Pleasure 2	1.050	0.927	.046	22.984		
Pleasure -> Pleasure 3	1.038	0.922	.046	22.746		
Pleasure -> Pleasure 5	.897	0.764	.055	16.273	0.809	0.944
Attention -> Attention 1	1	0.741	-	-		
Attention -> Attention 2	1.203	0.897	.074	16.224		
Attention -> Attention 3	1.235	0.906	.075	16.406		
Attention -> Attention 4	1.122	0.858	.073	15.429	0.770	0.930
Telepresence 1	1	0.829	-	-		
Telepresence 2	1.063	0.861	.057	18.525	0.787	0.937
Telepresence 3	1.110	0.915	.054	20.436		
Telepresence 4	.971	0.852	.053	18.215		
Perceived Ease1	1	0.843	-	-		
Perceived Ease 2	.977	0.734	.071	13.771		
Perceived Ease of Use3	.891	0.725	.066	13.552	0.613	0.825
Perceived usefulness1	1	0.798	-	-		
Perceived usefulness2	1.183	0.83	.071	16.639		
Perceived usefulness3	1.023	0.825	.062	16.504	0.734	0.892
Performance attitude 1	1	0.882	-	-		
Performance attitude 2	.866	0.717	.057	15.103		
Performance attitude 3	.887	0.804	.049	18.269		
Performance attitude 4	.930	0.843	.047	19.960	0.720	0.910
Intention to view 1	1	0.885	-	-		
Intention to view 2	.925	0.873	.044	21.088		
Intention to view 3	.911	0.885	.042	21.676		
Intention 4	.950	0.883	.044	21.576	0.859	0.961

Next, as shown in Table7, a model fit test was performed prior to hypothesis testing. As a result, first, the CMIN/P value did not satisfy the significance probability. However, considering the nature of χ^2 that p returns to 0.000 when the number of samples increases, it is difficult to discuss the overall model fit only with the inadequacy of the relevant indicator. Except for the fact that GFI (. 822) and NFI (. 897) are slightly below the reference values, all other indices are at desirable levels (CFI, IFI, RMR) or acceptable values.

(RMSEA, HOELTER), it was found that there was no significant abnormality in the fit of this structural equation model.

Table 7: Model fit results

Indices	Reference value	Result	Judgment
CMIN/P	p>0.05	805.049/0.00	Incongruity
CMIN/DF	≦3	2.896	Fitness
GFI	≧0.9	.822	Inadequate
CFI	≧0.9	.929	Fitness
NFI	≧0.9	.897	Inadequate
IFI	≧0.9	.930	Fitness
RMR	≦0.05	.034	Fitness
RMSEA	≦0.05 0.05 to 0.1 (acceptable)	.079	Accept
HOELTER	≧200 75 ≤ 200 (acceptable)	127	Accept

5.5 Path Analysis

After confirming that there is no abnormality in the variable composition and research model, setting through confirmatory factor analysis and model fit verification, path analysis is performed to

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determine whether the hypotheses presented in this study are accepted or not <Figure 6> was carried out as.

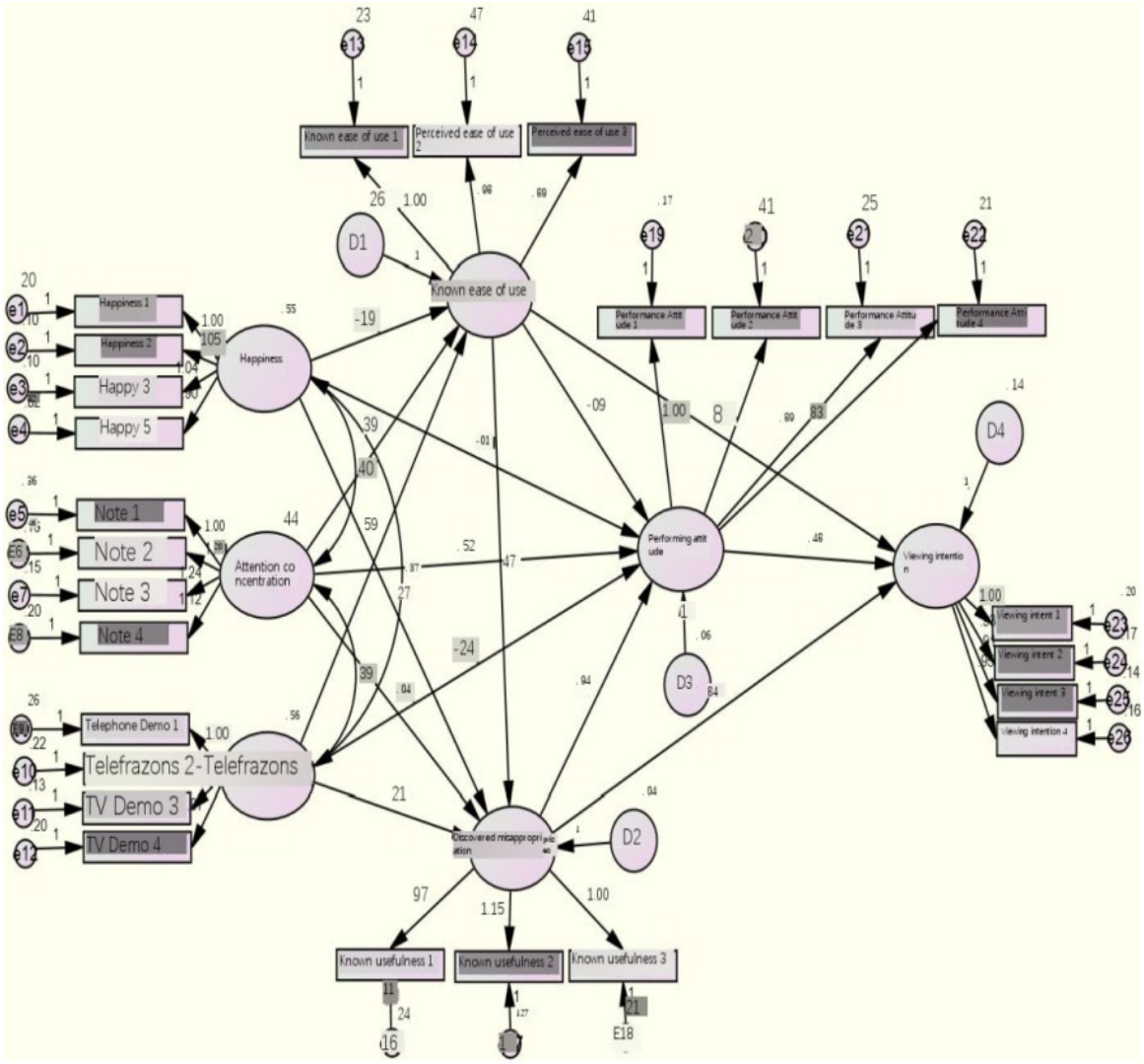

Figure 6: Path analysis result

As shown in Figure 6, in the path analysis, each hypothesis is finally accepted or rejected by determining whether the C.R. (Critical Ratio) value exceeds ±1.96 and the significance level (p) satisfies 0.05 or less. As a result of the analysis, 3 out of 15 hypotheses were rejected and 12 were accepted.

As shown in Table 8, in detail, by variable, when the pleasure of flow was used as an independent variable, it had a negative effect on perceived usefulness and a positive effect on perceived usefulness, but had no effect on performance attitude. Flow's attention had a positive effect on perceived ease and performance attitude, but had no effect on perceived usefulness. Flow's telepresence had a positive effect on perceived ease and usefulness, respectively, and performance attitude had a negative influence.

In the case of perceived ease of use, it had a positive effect on perceived usefulness, a negative effect on viewing intention, and no relationship with performance attitude. In the case of perceived usefulness, it had a positive effect on both performance attitude and viewing intention. Lastly, in the case of performance attitude, it was found that it had a positive effect on the intention to watch.

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Table 8: Hypothesis test result of research model

Theory			Non-standard Hwagyesu	Standardization Coefficient	S.E.	C.R.	P
H1-1. Pleasure	->	Perceived ease of use	-.190	-.185	.095	-1.995	*
H1-2. Pleasure	->	Perceived usefulness	.274	.301	.056	4.886	***
H1-3. Pleasure	->	Performance attitude	-.009	-.009	.104	-.087	.930
H2-1. Attention	->	Perceived ease of use	.388	.339	.136	2.852	**
H2-2. Attention	->	Perceived usefulness	.035	.034	.080	.439	.660
H2-3. Attention	->	Performance attitude	.518	.448	.104	4.970	***
H3-1. Telepresence	->	Perceived ease of use	.593	.583	.094	6.318	***
H3-2. Telepresence	->	Perceived usefulness	.215	.238	.062	3.442	***
H3-3. Telepresence	->	Performance attitude	-.243	-.237	.093	-2.622	**
H4-1. Perceived ease	->	Perceived usefulness	.470	.529	.060	7.889	***
H4-2. Perceived ease	->	performance attitude	-.087	-.086	.148	-.586	.558
H4-3. Perceived ease	->	Intention of viewing	-.357	-.342	.118	-3.030	**
H5-1. Perceived usefulness	->	Performance attitude	.944	.831	.264	3.584	***
H5-2. Perceived usefulness	->	Intention of viewing	.839	.713	.231	3.624	***
H6. Performance attitude	->	Intention of viewing	.481	.465	.140	3.448	***

*p<0.05,**p<0.01,***p<0.001

6. Conclusion

This study examines the effect of newly developed and applied technology on the immersion, ease and usefulness of the performance audience, and the performance attitude and viewing intention for the revitalization of convergence dance performance. In this regard, after constructing the relevant variables, exploratory factor analysis, correlation analysis, confirmatory factor analysis, and finally a path analysis were performed. The hypothesis test results derived from this are as follows.

The first hypothesis, the pleasure of flow, had a negatively significant effect on perceived ease. This means that the higher the audience's perception of novelty factors such as different mood, pleasure, fun, and surprise of new discovery, the lower the perceived ease factor such as convenience, familiarity, and low effort required.

The second hypothesis, the pleasure of flow, was found to have a significant positive effect on perceived usefulness. This means that as the above pleasure attributes increases, perceived usefulness factors such as the effective service provision, usefulness in my life, and accurate delivery of performance content also rise.

The third hypothesis, the pleasure of flow, had no effect on performance attitude.

The fourth hypothesis, flow's attention, had a significant positive effect on perceived ease. This means that the perceived ease factor increases as the attention factor such as free mood, deep immersion, and intense immersion increases.

The fifth hypothesis, flow's attention, had no effect on perceived usefulness.

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The sixth hypothesis, flow's attention, had a significant positive effect on the performance attitude. This means that the higher the concentration factor, the higher the performance attitude factor.

The seventh hypothesis, flow's telepresence, is positively related to perceived ease.

It feels like returning from a trip. As telepresence factors such as creating and disappearing a world, feeling that I exist in the world in the performance, and feeling that my mind is immersed in the world in the performance. It means that perceived ease of use increases.

The eighth hypothesis, the telepresence of flow, had a significant positive effect on perceived usefulness. This means that the higher the telepresence factor, the higher the perceived usefulness factor.

The ninth hypothesis, the telepresence of flow, had a negatively significant effect on the performance attitude. This means that the higher the telepresence factor, the lower the performance attitude.

Perceived ease of use, the tenth hypothesis, had a statistically significant effect on perceived usefulness. This means that the higher the perceived usefulness factor, the higher the perceived usefulness.

The eleventh hypothesis, perceived ease, had no effect on performance attitude. Perceived ease, the twelfth hypothesis, had a negatively significant effect on viewing intention inflicted. This means that the higher the perceived ease factor, the lower the viewing intention factor.

The thirteenth hypothesis, perceived usefulness, had a statistically significant effect on performance attitude. This means that the higher the perceived usefulness factor, the higher the performance attitude factor.

The fourteenth hypothesis, perceived usefulness, had a significant positive effect on viewing intention. As before, this means that the higher the perceived usefulness factor, the higher the viewing intention factor.

The fifteenth hypothesis, performance attitude, had a significant positive effect on audience intention. This means that the higher the performance attitude factor, the higher the audience intention factor. Summarizing these results, this study has great significance in that it confirmed certain positive effects of flow on convergence dance performances. At this time, it was found that attention and telepresence exert a higher influence than the pleasure factor even in the flow. Therefore, it can be seen that when it is operated in a form that matches the essential components of a dance work, it can be seen that it can be naturally immersed.

In other words, through this study, it was confirmed that some of the flow variables increase the performance attitude and viewing intention of the convergence dance performance. It was found that similar results were obtained from the study. These results imply that it is necessary to actively discover factors that enhance the audience's flow in audience development for the activation of convergence dance performances. For example, if it is a VR convergence dance performance, it can be a way to turn off the cell phone during the viewing time to create an environment so that you can focus on wearing a headset and watching VR content. If it is a dance performance in the form of a hologram or media façade, the secret to immersion may be to block even small lights to maintain mystery and fantasy. One way is to eliminate the intermission by not holding the performance time too long in the first place, and to adjust the feeling of travel to another dimension from the beginning to the end of the performance so that it does not cease.

Recognizing the use of technology, it is also necessary to be careful about the intervention of artificial and sudden convergence technology that goes against the flow of the play. As a way to avoid this and improve immersion naturally, for example, in a happy and romantic scene, such as the moment when the main characters fall in love, like in the musical <Paramoor>, drones surrounding them illuminate colorful and warm-colored lights to make it feel like a human being. It's like making the water feel like it's floating in the clouds. That is, appropriate tech in the form of the performance theme and genre, the time and event. You need to use Noology.

However, the management of these flow variables indicates that it is necessary to plan the convergence dance performance in advance in order to attract the audience. This can require a lot of effort compared to the preparation and planning of analog performances, so it can be a difficult choice for the performance planner. Nevertheless, the convergence dance performance has the potential to further promote the immersion and emotion of the audience, so it is expected to contribute to

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revitalizing the stagnant dance performance market. Therefore, even if it seems somewhat heterogeneous and complex, attempts to combine science and technology with the dance genre are continuously necessary, and the importance of related research is expected to expand.

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About the Author

[1]Tianyu Jia, Master student of Dance Department of Sangmyung University, South Korea; Graduated from Beijing Dance Academy, China.

[2]Yong Wang, Post-doctoral candidate at the Institute of Cultural Policy, Sangmyung University, South Korea ; Public performance Art management major, economics major, double doctoral degree.

[3]Nam-gyu Cho, Dean of Public Performance Arts Management Department; Director of Cultural Policy Institute, Sangmyung University, Korea. President of Korean Dancers Association.*