

Factors Affecting Organizational Innovation of Universities - Focusing on Shared Vision, Student-Centered Value, Trust Culture, and Organizational Positivity

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Abstract

Any organization must innovate to adapt to change and move forward, and without such innovation, it will not develop and fall behind. Similarly, in the case of university organizations, without innovation, they will not be able to contribute not only to securing competitiveness but also to national development. Today, many organizations such as universities, corporations, and government agencies are striving to effectively cope with the changes required in a rapidly changing environment. In the process, many organizations are innovating. Therefore, it is necessary to analyze the factors that affect organizational innovation in universities and prepare measures for this. The decrease in university admission resources along with rapid social change is causing difficulties in university finances and management. As a result, universities are faced with the reality of having to innovate on their own. Hence, organizational innovation is required at the university level to keep up with the fourth industrial revolution. Thus, this study establishes vision sharing, values that prioritize students, a culture of trust, and organizational optimism as independent factors that can impact universities' organizational creativity and validates their impact on organizational innovation. Ultimately, the current study prepares a plan for organizational innovation in universities. To achieve the research purpose, data were collected from 118 responses through an online survey conducted from October to November 2021 targeting professors and staff at 4-year E-University in Gyeonggi-do. The design of this study is a descriptive research study. For the analysis method, frequency analysis and descriptive statistical analysis were performed. Additionally, correlation analysis was performed to examine the validity between variables and to confirm multicollinearity. Finally, multiple regression analysis was performed to verify the influence of independent variables on organizational innovation at universities. The analysis led to the exclusion of the trust culture variable as a factor impacting university organizational innovation. The remaining organizational positivity, student-centered values, and shared vision variables showed a positive influence on organizational innovation. The findings of this study suggest that altering member perceptions is crucial for university organizations to innovate. In particular, all university members must share a positive perception of the organization, educational goals for students, and the vision pursued by the university.

Keywords: university, organizational innovation, shared vision, student-centered values, trust culture, organizational positivity

1. Introduction

COVID-19 will be recorded as one of the greatest disasters in human history. Due to COVID-19, changes in politics, society, economy, and industry will accelerate in the period of human history, commonly referred to as the 4th industrial revolution. In particular, changes in universities are developing more rapidly. With the such rapid social change, organizational innovation in universities is necessary. Nevertheless, the reality of universities is losing momentum due to a decrease in the school-age population and frozen tuition for 13 years. To solve these difficulties in the finances and management of universities, the Ministry of Education has carried out a finance support project called the University Innovation Support Project since 2019.

Although universities have escaped the financial crisis to some extent through the University Innovation Support Project, they cannot rely solely on the Ministry of Education's financial support for university education management.

Along with overcoming the financial crisis, organizational innovation that fits the university's future goals and direction must be supported. However, university organizations are relatively calm compared to the corporations of society. In other words, it lacks the organizational innovation to cope with the crisis facing the university because it is far from the world. In the era of the fourth industrial revolution, innovation is required in university organizations just as the social and educational environment innovation centered on artificial intelligence and edu-tech.

To preemptively adapt to these changes, innovative actions of university members are required. The changing mindset and innovative behavior of the administrative organization can lead to changes in the faculty and student organizations as well. For the innovation pursued by universities to be successful, above all, it is necessary to prepare an organizational culture that can induce organizational innovation. The 7S of Pascale and Ahtos (1981) is a factor influencing the inducing organizational innovation (Pascale & Athos, 1981). The 7S are Share Value, Strategy, Structure, System, Staff, Leadership Style, and Management Skills.

Any organization must innovate to adapt to changes and move forward. Similarly, university organizations will not be able to secure competitiveness and contribute to national development without innovation (Dasgupta & Gupta, 2009; Achmad and Hendry 2019). As such, many organizations such as universities, corporations, and government agencies are trying to effectively cope with the changes required in the rapidly changing environment. In the process, many organizations are undergoing innovation. To effectively establish such organizational innovation, it is necessary to consider the organizational culture of the organization.

Hence, this study aims to identify the influence of vision sharing, student-centered values, trust culture, and organizational positivity as factors that affect organizational innovation in universities, and to prepare a plan to promote organizational innovation. The research questions for conducting these research objectives are as follows.

Research Questions 1. What is the level of the university's shared vision, student-centered values, trust culture, organizational positivity, and organizational innovation?

Research Question 2. What is the relationship between the shared vision of the university, student-centered values, trust culture, organizational positivity, and organizational innovation?

Research Question 3. What is the impact on the organizational innovation of universities?

2. Theoretical Background

2.1 Organizational Innovation

Innovation is classified into various types according to its target and analysis level. King (1990) classified innovation into organizational-level innovation and individual-level innovation. Individual-level innovation is distinguished from organizational-level innovation in that it focuses on roles related to the tasks each member is playing (Kim, Kim, & Lee, 2004; Farr & Ford, 1990; Janssen, 2000; Scott & Bruce, 1994). Farr and Ford (1990) conceptualized innovation developed or introduced and used by organizational members to perform their tasks as work role innovation, and task processing by introducing new and beneficial ideas to their task roles. It was defined as activities aimed at improving task performance results by radically changing methods, processes, and procedures. Scott and Bruce (1994) also found that innovative behavior, which refers to the activity of intentionally creating, introducing, and applying new ideas to help improve the performance of a group or organization in a similar task role or group, is a concept that best encompasses innovation at the individual level (Kim, Kim, & Lee, 2004; Janssen, 2000).

Members who form a high-quality team-member exchange relationship will be able to pursue changes related to their work by receiving new ideas or help from other members more easily than if they did not. Additionally, they will be willing to provide their ideas to help other colleagues or to improve the group's performance, and through this process, information about the practicality of the ideas will be provided easily and accurately. This behavioral exchange based on a mutually beneficial exchange relationship with colleagues will play an important role in promoting the innovative behavior of individual members.

Park Kyung-gyu and Lee In-seok (2000) show that in a situation where the paradigm of strategy-structure-system of Chandler (1962) is shifted to the paradigm of sense of purpose-process-people, innovative behavior is desperately needed from sharing a sense of purpose through a positive exchange. Beginning with the promise of innovation and highlighting the significance of peer relationships on behavior at work. One aspect of innovative work behavior, the creation of new and beneficial ideas, is often measured by the cooperative effort among colleagues. In particular, considering the work environment in which task-related interdependence is increasing, it is expected that the effect

of smooth relationships among colleagues on innovative work behavior will increase.

A task for successful innovation is to maintain the attention of members, and organizational culture can play an important role in the management of attention (Van de Ven, 1986). When the organizational culture or atmosphere supports innovation, it can induce the interest or action of members toward innovation. This has also been proven through empirical studies on innovation at the organizational level or group level (Abbey & Dickson, 1983; Siegel & Kaemmerer, 1978). Additionally, the psychological burden felt by employees for innovative work behavior will be reduced, and innovative work behavior will be promoted, in organizations where the perception that innovation is valuable in terms of innovation-related costs and that it is a task that must be accomplished at any cost is widely accepted.

2.2 Shared Vision

Shared values refer to very special principles or standards that guide the behavior or thinking of organizational members in a specific direction. For example, the values or ideology that members have in common, and the purpose of the organization's existence. To increase organizational innovation, it is necessary to continuously create and share new knowledge. In particular, sharing the vision established for developing the university with the members of the organization enhances the capabilities of the organization by exchanging and transferring ideas and knowledge among the members and contributes to the achievement of the vision pursued by the university organization. Shared values can be demonstrated by sharing the vision for the future direction of the university with the members of the organization. An organizational culture that recognizes and shares the vision of the university has a significant impact on organizational innovation.

2.3 Student-Centered Values

Another factor influencing organizational innovation is student-centered values. The student-centered value is more important in university organizations than in other organizations. The subject that should be taken into account first to achieve a university organization's innovativeness is the student, who is the consumer of higher education, and who is the most significant student among the three components of education (Xie, Wang, & Chen, 2017). Aiming for student-centered values in university education is not only for university education but also for profit-seeking educational institutions to operate educational institutions with student-centered values. In particular, while aiming for consumer-oriented education in university management, members of the university organization must understand that students are not only the subjects of education but also consumers and consumers of education. This understanding also affects the performance of actions for organizational innovation (Lee, 2018). Many universities are setting the 'student-centered-value' as an important innovation direction when conducting financial support projects for innovative education. In particular, to achieve organizational innovation in preparation for the fourth industrial revolution, the existing memorization, injection, or unilateral knowledge transfer education does not match the student-centered values.

2.4 Trust Culture

For the growth and survival of university organizations, the establishment of an excellent organizational culture is emerging as an essential element. Organizational culture has begun to spread around the world as it emerged as a new tool for business management in the 1980s. Pritchard (1990) also emphasized that trust is critical in managing an organization because it is an essential element in building an organization's team. According to Knovsky and Pugh (1994), interpersonal trust not only had a significant impact on job attitudes like job satisfaction, organizational commitment, and desire to leave the organization, but it also had a significant impact on organizational citizenship behavior and member job performance. Additionally, Tan and Tan, who studied the relationship between trust and organizational innovation behavior, revealed through empirical research that boss satisfaction and innovative behavior are caused by trust in the boss (Tan & Tan, 2000). As a result, when the trust formation between members of the organization or between the organization and its members is based, it has a positive effect on organizational innovation.

2.5 Organizational Positivity

Organizational positivity is a factor that influences the organizational innovation of universities. In a study on the effect of fairness on organizational commitment, job satisfaction, and organizational effectiveness, Jo Kuk-haeng (2001) confirmed that the higher the distribution fairness, the higher the job satisfaction. Park Jong-ju and Ryu Ji-won (2006) reported on a study on public officials' perception of organizational fairness.

It was confirmed that distribution fairness, procedural fairness, and interaction fairness all significantly affected job satisfaction and organizational commitment. Positive psychological capital is a psychological mechanism that leads

to positivity in any situation (Martin, et al., 1993). Simultaneously, optimism enables you to appear positive, hope enables you to accomplish your goals despite difficulties, and the ability to re-direct your goals by the circumstances, even when confronted with crises and adversity and become frustrated. Various studies are being conducted due to its high potential for development as resilience that allows it to return to its state or overcome it (Park, 2012; Ahn, 2013; Luthans, et al., 2007). Avey, Wernsing, and Luthans (2008) reported that positive psychological capital hurt cynicism and deviant behavior within an organization and positively affected organizational citizenship behavior and participation. Youssef and Luthans (2007) said that it also affects various performances such as employee satisfaction, commitment, and happiness. It can be inferred that positive psychological capital can affect teamwork competency by reducing conflicts among organizational members and encouraging active participation. To increase organizational innovation through prior research, it is important to increase positivity within the organization.

3. Research Method

3.1 Research Subject

The subjects of this study are professors and staff at the 4-year E-University located in Gyeonggi-do. For the sample used in this study, a systematic random sampling method was used in which students or teachers were selected as subjects in schools, such as attendance books. Systematic random sampling does not involve intentional behavior. The population is then organized in numerical order or a line from small to large, and samples are obtained at regular intervals. The effective number of samples used in this study was 118. The general characteristics of the study subjects are presented in Table 1. The subjects of this study were all professors and staff. The sampling method used for the study was a simple random sampling method in which all elements of the population had the same probability of being selected as a sample. University E has 205 professors and 125 staff. Additionally, to comply with research ethics standards such as personal information protection and prior consent in online surveys conducted by individuals, consent forms from research participants were collected and submitted in electronic file format during online surveys.

Table 1. General Characteristics of the Study Subjects (N=118)

Observational variable		Frequency	%
Sex	Male	72	61.0
	Female	46	39.0
Classification of professors and staff	Professors	76	64.4
	staff	42	35.6
Employment period	less than 5 years	49	41.5
	More than 5 years and less than 10 years	24	20.3
	More than 10 years and less than 15 years	12	10.2
	More than 15 to less than 20 years	12	10.2
Spot	more than 20 years	21	17.8
	full-time faculty	73	61.9
	non-full-time faculty	3	2.5
	full-time employee	17	14.4
	part-time employee	25	21.2

3.2 Measuring Tool

The measuring tool used in this study is the ‘University Innovation Capacity Assessment (UICA)’ tool, which was implemented in 2019 by Sungkyunkwan University Education and Future Research Institute. UICA is a nationwide survey tool conducted to diagnose university innovation capabilities by examining the organizational culture, climate, and organizational behavior of members at the university level (Bae et al., 2021; Karadag and Kalkan 2021). This study used the most recent survey data conducted in 2021. In this study, 118 responses were collected through an online survey conducted from October to November 2021.

In this study, 4 questions related to vision sharing, 5 questions related to student-centered values, 4 questions related to trust culture, 4 questions related to organizational positivity, and 5 questions related to organizational innovation were used for analysis. All variables were measured on a 4-point scale (1=not at all to 4=very much). The measurement items and reliability coefficients for each factor are presented in Table 2.

Table 2. Questionnaire Questions and Reliability Coefficients

variable		Question Content	Cronbach's α
Share vision	SV1	Our university has a clear and specific vision and educational goals.	.899
	SV2	Our university continuously delivers its vision and educational goals to its members through various activities and media.	
	SV3	Our university members share the university's vision and educational goals.	
	SV4	Our university members reflect the university's vision and educational goals in conducting educational activities and university administration.	
Student-centered values	SC1	Our university places student growth and development as the top priority for the university.	.900
	SC2	Our college members continually strive to understand the characteristics and needs of our students.	
	SC3	Our university members think about whether it is helpful to the students when they perform their assigned tasks.	
	SC4	Our university engages students as important members of the decision-making process.	
	SC5	Our university fully invests in departments and personnel supporting student growth and development.	
Trust Culture	TC1	I believe that each member of our university will do their job well.	.932
	TC2	I can trust and entrust important tasks to my colleagues.	
	TC3	Our college members will help me if I ask for help.	
	TC4	I believe that our university members will make decisions and actions that contribute to the development of the university.	
Organizational positivity	OP1	I believe that our university will continue to develop in the future.	.901
	OP2	I believe that our university can overcome any problems it faces.	
	OP3	Our university knows what to do to solve the problem at hand.	
	OP4	Our university knows how to make the most of the strengths and potential of the university and its members.	
Organizational innovation	OI1	Our university actively responds to environmental changes.	.900
	OI2	Our university has a strong will to innovate.	
	OI3	Our university values those who try to innovate.	
	OI4	Our university is run by people who drive innovation.	
	OI5	Our university members are constantly generating ideas for innovation.	
	OI6	Our university members take an active part in implementing innovation initiatives.	

3.3 Data Analysis

The data collected in this study were analyzed according to the research questions as follows using IBM SPSS 26 version.

First, the frequency and percentage were calculated to examine the general characteristics of the study subjects. Descriptive statistical analysis was performed to determine the mean, standard deviation, minimum, maximum, skewness, and kurtosis. In addition, Cronbach's α coefficient was calculated to check.

Second, correlation analysis was performed to confirm validity between variables, and tolerance limits and VIF were confirmed to secure multicollinearity.

Third, it is possible to identify which variable has the greatest influence on organizational innovation among vision sharing, student-centered value, trust culture, and organizational positivity that affects the organizational innovation of the university, and explain the organizational innovation of the university. Multiple regression analysis was performed to determine which model was the most suitable. In particular, to derive the most appropriate regression model among the independent variables affecting the organizational innovation of universities, the variables were selected by the stepwise selection method. The stepwise selection method involves testing the significance of each variable already present in the regression model and removing it if it is not significant before adding new variables to be included one at a time. Also, to increase the predictive power of the multiple regression equation, the correlation between the dependent variable and each independent variable should be high, and the correlation between the independent variables should be low. In other words, the tolerance and variance inflation factor (VIF) was calculated to check multicollinearity between independent variables. When both tolerance and VIF are close to 1, it is judged that there is no multicollinearity. In the case of VIF, if it is 10 or more, it is considered that to be multicollinearity. The maximum tolerance limit was 0.994 and the VIF was 6.106, confirming that the correlation between independent variables was not high enough to be a problem. That is, both tolerance and VIF met the basic assumptions for multiple regression analysis.

4. Results

4.1 Results of Descriptive Statistical Analysis of the University's Vision Sharing, Student-Centered Values, Trust Culture, Organizational Positivity, and Organizational Innovation Variables

Among independent variables, first, the overall average of shared vision was 44.28 (SD=16.98), and among the sub-items of shared vision, the average of SV1 questions was the highest at 47.97 (SD=15.50). Second, the overall average of student-centered values was 39.09 (SD=17.16), and among the sub-items of student-centered values, the averages of SC1 and SC3 were the highest at 43.05 (SD=17.27) and 43.05 (SD=15.38), respectively. The overall average of trust culture was 44.15 (SD=14.89), and among the sub-items of trust culture, the mean of the TC1 question was the highest at 46.10 (SD=14.90). Third, the overall average of organizational positivity was 41.87 (SD=17.51), and among the sub-items of organizational positivity, the average of OP1 questions was the highest at 44.24 (SD=17.51). Fourth, the overall average of organizational innovativeness was 36.70 (SD=18.16), and the averages of OI1 and OI2 among the sub-items of organizational innovation were the highest at 40.68 (SD=17.33) and 40.68 (SD=18.47), respectively.

Because of examining the normality of the main variables, the skewness was between -1.054 and 0.031, and the kurtosis was between -0.838 and 0.524. Because of examining skewness and kurtosis for major variables, Kline (2005) met the requirements for normal distribution because it did not exceed the reference absolute value of 3 and kurtosis did not exceed the reference absolute value of 8 or 10.

Table 3. The Average and Standard Deviation of Key Variables such as Shared Vision, Student-Centered Values, Trust Culture, Organizational Positivity, and Organizational Innovation (N=118)

variable	Min	Max	Mean	SD	Skewness		Kurtosis		
					Mean	SD	Mean	SD	
Share vision	SV1	0	60	47.97	15.501	-1.054	0.223	0.239	0.442
	SV2	0	60	44.58	16.623	-0.725	0.223	-0.418	0.442
	SV3	0	60	42.88	17.202	-0.694	0.223	-0.326	0.442
	SV4	0	60	41.69	18.596	-0.755	0.223	-0.319	0.442
	Total	0.00	60.00	44.28	16.98	-0.81	0.22	-0.21	0.44
Student-centered values	SC1	0	60	43.05	17.272	-0.788	0.223	-0.080	0.442
	SC2	0	60	42.20	16.699	-0.749	0.223	0.089	0.442
	SC3	0	60	43.05	15.387	-0.499	0.223	-0.454	0.442
	SC4	0	60	38.64	17.875	-0.377	0.223	-0.723	0.442
	SC5	0	60	28.47	18.565	0.031	0.223	-0.840	0.442
	Total	0.00	60.00	39.08	17.16	-0.48	0.22	-0.40	0.44
Trust culture	TC1	0	60	46.10	14.909	-0.816	0.223	0.129	0.442
	TC2	0	60	44.75	14.245	-0.670	0.223	0.277	0.442
	TC3	0	60	42.88	15.084	-0.489	0.223	-0.338	0.442
	TC4	0	60	42.88	15.309	-0.484	0.223	-0.437	0.442
	Total	0.00	60.00	44.15	14.89	-0.61	0.22	-0.09	0.44
Organizational positivity	OP1	0	60	44.24	17.512	-1.051	0.223	0.524	0.442
	OP2	0	60	43.73	16.527	-0.824	0.223	0.144	0.442
	OP3	0	60	42.03	17.224	-0.770	0.223	0.023	0.442
	OP4	0	60	37.46	18.774	-0.436	0.223	-0.693	0.442
	Total	0.00	60.00	41.87	17.51	-0.77	0.22	-0.00	0.44
Organizational innovation	OI1	0	60	40.68	17.332	-0.627	0.223	-0.243	0.442
	OI2	0	60	40.68	18.477	-0.796	0.223	-0.101	0.442
	OI3	0	60	33.73	18.983	-0.246	0.223	-0.825	0.442
	OI4	0	60	34.58	18.427	-0.165	0.223	-0.838	0.442
	OI5	0	60	35.25	18.430	-0.308	0.223	-0.711	0.442
	OI6	0	60	35.25	17.282	-0.246	0.223	-0.580	0.442
Total	0.00	60.00	36.70	18.16	-0.40	0.22	-0.55	0.44	

4.2 Correlation and Multicollinearity Verification Results among the Variables of University Vision Sharing, Student-Centered Value, Trust Culture, Organizational Positivity, and Organizational Innovation

Because of examining the correlations between 4 items related to vision sharing, 5 items related to student-centered values, 4 items related to trust culture, 4 items related to organizational positivity, and 5 items related to organizational innovation, which are the main variables of this study. As shown in Table 4.

The correlation coefficient indicates a strong positive association as a result of the analysis of the relationships between the sub-items of the university's vision sharing, student-centered value, trust culture, organizational positivity, and organizational innovation variables. In other words, it can be predicted that shared vision, student-centered values, trust culture, and organizational positivity show a close relationship with the increase in organizational innovation of universities. The tolerance limit was .591 and the variance inflation factor (VIF) was 1.692 as a result of measuring the magnitude and tolerance limit of the variance inflation factor of the independent variables to establish the multicollinearity between each variable. If the tolerance limit, which can be seen as an indicator of multicollinearity in regression analysis, is .1 or less and the variance expansion coefficient (VIF) is 10 or more, it is judged that there is a problem with multicollinearity. Therefore, the basic assumption of regression analysis in this study can be considered satisfied.

Table 4. Correlation between the Variables of Shared Vision, Student-Centered Values, Trust Culture, Organizational Positivity, and Organizational Innovation (N=118)

	SV1	SV2	SV3	SV4	SC1	SC2	SC3	SC4	SC5	TC1	TC2	TC3	TC4	OP1	OP2	OP3	OP4	OI1	OI2	OI3	OI4	OI5	OI6	
SV1	1																							
SV2	.773**	1																						
SV3	.721**	.838**	1																					
SV4	.676**	.738**	.797**	1																				
SC1	.713**	.654**	.672**	.622**	1																			
SC2	.605**	.653**	.644**	.615**	.771**	1																		
SC3	.514**	.546**	.548**	.519**	.659**	.759**	1																	
SC4	.545**	.642**	.613**	.614**	.634**	.663**	.724**	1																
SC5	.441**	.471**	.555**	.602**	.558**	.469**	.387**	.529**	1															
TC1	.468**	.424**	.384**	.468**	.538**	.632**	.619**	.519**	.392**	1														
TC2	.385**	.341**	.334**	.292**	.385**	.387**	.448**	.442**	.273**	.587**	1													
TC3	.354**	.424**	.429**	.482**	.478**	.490**	.522**	.509**	.400**	.636**	.540**	1												
TC4	.508**	.566**	.526**	.559**	.626**	.590**	.601**	.577**	.479**	.731**	.627**	.719**	1											
OP1	.567**	.544**	.595**	.629**	.748**	.611**	.548**	.576**	.635**	.647**	.412**	.549**	.668**	1										
OP2	.590**	.597**	.575**	.613**	.726**	.626**	.573**	.619**	.565**	.684**	.491**	.615**	.727**	.866**	1									
OP3	.694**	.636**	.695**	.704**	.772**	.626**	.583**	.553**	.587**	.564**	.378**	.477**	.691**	.765**	.814**	1								
OP4	.564**	.552**	.552**	.629**	.646**	.520**	.453**	.519**	.671**	.557**	.378**	.509**	.656**	.699**	.692**	.703**	1							
OI1	.565**	.559**	.636**	.643**	.644**	.574**	.556**	.599**	.577**	.513**	.347**	.424**	.585**	.700**	.659**	.728**	.583**	1						
OI2	.649**	.680**	.618**	.614**	.583**	.571**	.582**	.624**	.501**	.469**	.312**	.447**	.561**	.583**	.596**	.640**	.586**	.724**	1					
OI3	.566**	.612**	.663**	.641**	.685**	.605**	.523**	.620**	.676**	.511**	.351**	.565**	.627**	.677**	.664**	.698**	.742**	.678**	.695**	1				
OI4	.452**	.550**	.611**	.556**	.600**	.584**	.601**	.631**	.625**	.507**	.385**	.524**	.650**	.644**	.617**	.617**	.602**	.686**	.623**	.791**	1			
OI5	.528**	.629**	.626**	.632**	.626**	.612**	.606**	.624**	.678**	.567**	.412**	.542**	.655**	.688**	.687**	.677**	.726**	.642**	.672**	.823**	.799**	1		
OI6	.615**	.588**	.610**	.600**	.713**	.593**	.505**	.566**	.617**	.564**	.328**	.512**	.634**	.688**	.733**	.745**	.647**	.639**	.599**	.753**	.724**	.787**	1	

****p* < .001

4.3 Analysis of the Influence of University Vision Sharing, Student-Centered Values, Trust Culture, and Organizational Positivity on Organizational Innovation

The results of examining the statistical significance of the university's vision sharing, student-centered values, trust culture, and organizational positivity on organizational innovation are presented in Tables 5 and 6.

Table 5. ANOVA Results for Regression Model (N=118)

	Sum of squares	df	Mean square	F	p
Regression Model	23049.283	3	7683.094	141.129	.000 ^d
Residual	6206.179	114	54.440		
Total	29255.461	117			

$R^2(\text{adj. } R^2) = .788(.782)$

****p* < .001

In Table 5, since the significance probability for the regression model was .000, it was confirmed that the hypothesis was established that the university's vision sharing, student-centered value, trust culture, and organizational positivity affect organizational innovation. The value of R² is the explanatory power of the dependent variable being explained by the independent variable. In the table above, it can be said that the explanatory power of shared vision, student-centered values, trust culture, and organizational positivity to explain organizational innovation was 78.8%.

Table 6. Multiple Regression Analysis of Organizational Innovation (N=118)

Independent variable	Unstandardized regression coefficients		Standardized regression coefficients	t	p	Collinearity Statistics	
	B	Standard error	β			tolerance	VIF
(constant)	-4.318	2.162		-1.997	0.048		
Organizational positivity	0.430	0.077	0.430	5.560	0.000	0.311	3.217
student-centered values	0.401	0.093	0.361	4.328	0.000	0.267	3.741
Share vision	0.165	0.075	0.161	2.198	0.030	0.348	2.872

Because of multiple regression analyses on organizational innovation, it was confirmed that there was no multicollinearity with tolerance and VIF of 0.1 or more and less than 10, respectively. The impact of organizational positivity (p.001), student-centered value (p.001), and vision sharing (p.001) on organizational innovation omitting trust culture, among independent variables, was confirmed to be true after each path's significance was checked. Because of checking the non-standardization coefficients for significant variables, organizational positivity (B=.430), student-centered values (B=.401), and shared vision (B=.165) were all positive numbers, indicating organizational positivity and student-centeredness. It was found that the higher the recognition of shared values and vision, the higher the organizational innovation. Additionally, it was found that the influence of independent variables on organizational innovation was in the order of organizational positivity, student-centered values, and shared vision.

The regression equation showing the relationship with the independent variable explaining organizational innovation is as follows.

$$\text{Organizational innovation} = -4.318 + .430(\text{Organizational positivity}) + .401(\text{Student-centered values}) + .165(\text{shared vision})$$

In this equation, when .430, .401, and .165 are standardized for each variable, the regression coefficient of the regression equation is called the standardized regression coefficient. According to the derived regression equation, when organizational positivity, student-centered value, and shared vision are 0, the average of organizational innovation is -4.318, and when other independent variables are the same, when organizational positivity increases by 1 point, organizational innovativeness is averaged It can be predicted that if .430 points increases and student-centered value increases by 1 point, organizational innovation will increase by .401 points on average. Therefore, it can be seen that organizational positivity, student-centered values, and shared vision have a positive effect on organizational innovation. In other words, to promote organizational innovation, organizational positivity, student-centered values, and shared vision must be activated within the university organization.

5. Discussion

The current study establishes the shared vision, student-centered values, trust culture, and organizational positivity as independent variables affecting the organizational innovation of universities and verifies their influence.

First, looking at the results of research question 1 on the level of university vision sharing, student-centered values, trust culture, organizational positivity, and organizational innovation, among the independent variables, first, among the sub-items of vision sharing, 'our university is clear and has a specific vision and educational goals.' The average of the items was the highest. Second, among the sub-items of student-centered values, 'Our university places student growth and development as the top priority for the university' and 'Our university members help students when performing their assigned tasks. The average value of the items of 'I think whether this is the case or not' was found to be the highest. Third, among the sub-items of organizational positivity, the average of the item 'I believe that our university will continue to develop in the future' showed the highest average. Fourth, among the sub-items of organizational innovation, 'Our university actively responds to environmental changes' and 'Our university has a strong will for innovation' showed the highest average. Fifth, among the sub-items of the culture of trust, the average of the item's belief that each member of our university will do well in their assigned work was found to be the highest.

Second, looking at the results of research question 2 about the relationship between the shared vision of the university, student-centered values, trust culture, organizational positivity, and organizational innovation, analyzing the correlation between variables and sub-items shows a positive correlation.

Third, looking at the results of research question 3 on the effect on organizational innovation of universities, it was confirmed that the effects of organizational positivity, student-centered values, and vision sharing on organizational innovation, excluding trust culture, were valid among independent variables. Additionally, it was found that the influence of independent variables on organizational innovation was in the order of organizational positivity, student-centered values, and shared vision.

6. Conclusion

Based on the results of this study, the most important thing to increase the organizational innovation of a university is to raise organizational positivity, realize student-centered values, and create an organizational culture that shares a clear vision among members. Therefore, as a strategic direction for innovation in the university organization, we would like to discuss ways to promote organizational positivity, student-centered values, and shared vision as follows.

Many ideas must be developed and implemented to complete the organizational transformation of a university. Additionally, members should be given some degree of decision-making power related to problem-solving. When decision-making power is centralized, innovative ideas are inhibited (Russell & Russell, 1992). Sharing rights and resources helps develop and implement new ideas (Burns & Stalker, 1961; Thompson, 1965). This can be achieved through vision sharing, as shown in the results of this study.

Furthermore, it can encourage positive attitudes and actions toward innovative change by putting individual members in charge of leading the change, making change-related choices, and enabling control over resources (Russell, 1990). In other words, to induce innovative work behavior of voluntarily exploring, developing, and testing new ideas related to work, decision-making rights must be evenly distributed within the organization, and a culture of trust and a positive culture for the organization must be established.

The limitations and future tasks of this study are as follows.

First, the survey response rate in this study was low. Since it was not possible to confirm everything with 118 questionnaires, it is necessary to conduct an empirical analysis later by increasing the questionnaire response rate.

Second, there is the problem of generalization according to the limitations of the research subjects. Due to regional restrictions, the sample aim was restricted to the faculty and staff of a four-year university in Gyeonggi-do, making it unable to represent all of the organizational characteristics of the entire university. In the future, research targeting universities across the country should be conducted.

Third, it is necessary to explore additional predictive variables in addition to the shared vision, student-centered value, trust culture, and organizational positivity factors set in this study as predictive variables affecting the organizational innovation of universities.

References

- Adams, J. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267-299). New York: Academic Press. [https://doi.org/10.1016/S0065-2601\(08\)60108-2](https://doi.org/10.1016/S0065-2601(08)60108-2)
- Abbey, A., & Dickson, J. (1983). R & D Work Culture and Innovation in Semiconductors. *Academy of Management Journal*, 26(6), 362-368. <https://doi.org/10.2307/255984>
- Achmad, A., & Hendry, R. (2019). The relationship between university innovation ability and national economic growth based on multinational empirical analysis. *Asia-Pacific Journal of Educational Management Research*, 4(3), 43-54. <https://doi.org/10.21742/AJEMR.2019.4.3.05>
- Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The Journal of Applied Behavioral Science*, 44(1), 48-70. <https://doi.org/10.1177/0021886307311470>
- Bae Sang-hoon, Kwak Eun-ju, Han Song-i, Jo Seong-beom, Jo Eun-won, Hwang Su-jeong, Park Seon-hwa, Jeong Hyeon-seok & Jin Hye-won. (2021). *University Innovation Competency Assessment (UICA) report*. Seoul: Education and Future Research Institute.
- Byung-Jin Ahn. (2013). *The effect of supervisor's leadership style on organizational effectiveness and job performance: Focusing on positive psychological capital and teamwork* [Ph.D. thesis]. Dongguk University.
- Burns, T., & Stalker, G. M. (1961). *The Management of Innovation*. Tavistock, London.
- Chandler, A. D. (1962). *Strategy and Structure: Chapters in the History of American Enterprise*. MIT Press, Boston.

- Cho Kuk-haeng. (2001). *An Empirical Study on the Effects of Fairness on Organizational Commitment, Job Satisfaction, and Organizational Effectiveness* [Ph.D. thesis]. Hoseo University Graduate School, p.103.
- Dasgupta, M., & Gupta, R. K. (2009). Innovation in Organization: A Review of the Role of Organizational Learning and Knowledge Management. *Global Business Review*, 10(2), 203-224. <https://doi.org/10.1177/097215090901000205>
- Farr, F., & Ford, C. (1990) Individual Innovation. In: West, M. A., and Farr, J. L., (Eds.), *Innovation and Creativity at Work: Psychological and Organisational Strategies*. Wiley, Chichester.
- Il-Chun Kim, Jong-Woo Kim & Ji-Woo Lee. (2004). A Study on the Preceding Factors of Innovative Business Behavior. *Management Research*, 19(2), 284-296.
- Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behavior. *Journal of Occupational and Organizational Psychology*, 73(3), 287-302. <https://doi.org/10.1348/096317900167038>
- Karadağ Mehmet & Kalkan Ümit. (2021). Teaching application problems of religious culture and moral knowledge pre-service teachers (Case of TRNC). *Asia-Pacific Journal of Educational Management Research*, 6(2), 45-56. <https://doi.org/10.21742/AJEMR.2021.6.2.04>
- King, Gary. (1990). Representation through Legislative Redistricting: A Stochastic Model. *American Journal of Political Science*, 33, 787-824. <https://doi.org/10.2307/2111110>
- Konovsky, M. A., & Pugh, S. D. (1994). Citizenship behavior and social exchange. *Academy of management journal*, 37(3), 656-669. <https://doi.org/10.2307/256704>
- Kwon Hong Park. (2012). An Empirical Study on the Effect of Positive Psychological Capital on Creativity and Job Involvement of Small & Medium Company Employee. *Corporate Education Research*, 14(1), 115-132.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3), 541-572. <https://doi.org/10.1111/j.1744-6570.2007.00083.x>
- Martin, R. A., Kuiper, N. A., Olinger, L., & Dance, K. A. (1993). Humor, coping with stress, self-concept, and psychological well-being. *International Journal of Humor Research*, 6(1), 89-104. <https://doi.org/10.1515/humr.1993.6.1.89>
- Park Kyung-gyu & Lee In-seok. (2000). Focused on Innovative Behavior for a New Paradigm Shift in Business Management Following Corporate Globalization. *Human Resources Management Research*, 27(1), 59-85.
- Pascale, R. T., & Athos, A. G. (1981). *The Art of Japanese Management*. New York: Penguin. [https://doi.org/10.1016/0007-6813\(81\)90032-X](https://doi.org/10.1016/0007-6813(81)90032-X)
- Park Jong-ju & Ryu Ji-won (2006). A Study on the Effects of Perceived Organizational Justice on Organization Effectiveness and Public Service Quality in Public Organizations. *Local Government Research*, 10(1), 25-47.
- Robert D. Pritchard, Lawrence G. Weiss, Amie Hedley Goode, & Lauri A. Jensen. (1990). Measuring organizational productivity with proMES. *National productivity review*, 9(3), 257-271. <https://doi.org/10.1002/npr.4040090303>
- Russell, D. E. H. (1990). *Rape in Marriage*. Macmillan Press, New York.
- Russell, R. D., & Russell, C. J. (1992). An examination of the effects of organizational norms, organizational structure, and environmental uncertainty on entrepreneurial strategy. *Journal of Management*, 18(4), 639-656. <https://doi.org/10.1177/014920639201800403>
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37(3), 580-607. <https://doi.org/10.2307/256701>
- Shinmo Lee. (2018). The attitude of college students toward the 4th industrial revolution and the direction of future business education. *Proceedings of the 2018 Fall Conference of the Korean Management Education Association*, 2011, 11, 424-437.
- Siegel, S. M., & Kaemmerer, W. F. (1978). Measuring the perceived support for innovation in organizations. *Journal of Applied Psychology*, 63(5), 553-562. <https://doi.org/10.1037/0021-9010.63.5.553>
- Tan, H. H., & Tan, C. S. F. (2000). Toward the differentiation of trust in supervisor and trust in organization. *Genetic, Social, and General Psychology Monographs*, 126(2), 241-260.
- Thompson, V. A. (1965). Bureaucracy and Innovation. *Administrative Science Quarterly*, 10, 1-20.

<https://doi.org/10.2307/2391646>

Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace: The impact of hope, optimism, and resiliency. *Journal of Management*, 33(5), 774-800. <https://doi.org/10.1177/0149206307305562>

Van de Ven, A. H. (1986). Central problems in the management of innovation. *Management Science*, 32, 590-607. <https://doi.org/10.1287/mnsc.32.5.590>

Xie, Y., Wang, R., & Chen, L. (2017). Design and Implementation of the Auxiliary Teaching Platform in Colleges and Universities under the Hierarchical Teaching based on Web. *International Journal of u - and e - Service, Science and Technology, NADIA*, 10(1), 37-46, <http://dx.doi.org/10.14257/ijunnesst.2017.10.1.04>.

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