Discussing the Moderating Role of Innovation Atmosphere between Change and Performance

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Abstract: School education to face fewer children, should not only how to cause student's interest of studying and excite students' capability for promote educational quality but also it will be the objective of educational. So, the organization of school has to change for the fierce environment. And the school can still found that advantageous market different from others schools, which can provide difference service for students. Innovation, it is can to plays a role of different service in school. This study explores the relationship between organization change and school operation efficiency, used the survey to the student as the interviewees in university. And the study while used the innovative atmosphere, to explore the results from organization change and school operation effect. Results indicated that school change had a positively effect on operation efficiency, and also found that the innovation atmosphere will be a moderator role between the school change and operation efficiency.
Keywords: Innovation Atmosphere, Change, Performance.

INTRODUCTION

Due to unconstrained education strategies, numerous colleges and universities facing the phenomenon of fewer children, resulting in high homogeneity of schools in service education to fierce compete with each other. In order to make the universities can to sustainable, to actively seeking for different service to create the advantage.

At present, that only one strategy that is to find theirs characteristics of these universities themselves, can to continue to be maintained operation or exceeded others.

The change of the school, is a tendency that meets the needs of modern students. Many studies to confirm that if school change can to have a significant impact on the effectiveness of schools Tu [1], Huang [2]. Innovation, is a new concept, of improving school governance effectiveness.

Innovation is a new concept, used in the university industry. With the development of innovative activities, universities can difference their provision of teaching services. Not only attract students' interest, and had an opportunities to improve teachers' teaching, but also can increase the effectiveness of universities. However, the innovation plays the key role to differentiated management from universities.

Based on the aforementioned research motivation, this study chooses the theme of school organizational change, the aims of study are:
- Exploring the impact of university change on performance.
- This study use an atmosphere of innovation as a moderating role to explore whether there is a moderating effect between university change and performance.

LITERATURE REVIEW

Fidler [3] argues that, school change refers to changes in the internal context of schools to promote schools to achieve their school education goals more effectively. Leslie[4] argue that, the success of school organizational change, the implementation of the organizational change strategy must be systematic and connected, through the actual study and investigation, that inferred to the direction of organizational change in the school should have the following:

- To develop a culture and context that to support changes in school organization.
- To develop and communicate the common vision of the development of the school organization.
- To plan and provide the resources needed to organize the change in the school.
- To support and assist the professional development of school organization members.
- To monitor and review the process of promoting

organizational change in the school.
- To continue to give support to school organization members.

For innovation, Schumpeter [5] defined innovation as an economic point of view: "It is a concept, applying the concepts of invention and discovery to economic development." Drucker [6] considered organizational innovation as a "process" and an organized, systematic and rational work. Damanpour [7] argues that innovation can be adopted by a number of indicators as a natural or organizational outward-purchasing activity within an organization that covers equipment, systems, policies, programs, processes, products and services. Wycoff [8] pointed that, the innovation is the ability to plan changes to gain access to new opportunities.

Robbins [9] argues that innovation should be a new concept that can be applied to initiate or promote a product, process, or service. Therefore, organizational innovation should include product innovation, new production process technologies, new structures, management systems, new programs and management solution.

The development of organizational innovation activities, nothing more than to enhance organizational effectiveness. Robbins and DeCenzo [10] point out that performance is the degree to which an organization can achieve its goals effectively in a given period of time. Mondy *et al*. [11] Efficacy is the degree, to which the process will yield results.

Weber (1971) constructs
- Strong leadership of the curriculum.
- High expectations of students.
- Well weather
- To emphasis on reading.
- Alphabetic writing.
- Individual teaching.
- Carefully assess student progress; measure school effectiveness.

Chance (1991) to measure the effectiveness of the school
- Strong teaching leadership.
- High expectations of students.
- A positive and orderly learning environment.
- Emphasis on teaching activities.
- Regular assessment of student learning outcomes and other five variables.

For school effectiveness, Reid *et al*. [12] argue that, it can be divided into eleven areas: school leadership, school administration, school atmosphere, discipline, teachers and teaching, curriculum, student learning, reading, and caring for students, school building and school size.

Due to the organizational change can enhance the learning experience of employee work [13]. Organizational change is an important factor in success, managers, facilitators and actors must learn from each other. School reorganization will positively affect school performance [1,2]. However, due to some research had tested result propose the organizational innovation atmosphere for school effectiveness, there is a significant positive correlation; but did not more to explore the causal relationship of them. Therefore, it is necessary to add the innovation atmosphere to the research mode so as to explore the effect of the innovation on universities' performance.

Concept Structure and Hypothesis Propose
Based on the review of relevant literature above, this study is propose the research concept based on the three constructs of university change, innovation atmosphere and effectiveness. As shown in Figure 1, this research model develops the research hypotheses described below.

H1: University change will be had a positively to affect performance.
H2: The role of innovation atmosphere will had a significant moderating effect between university change and efficiency.
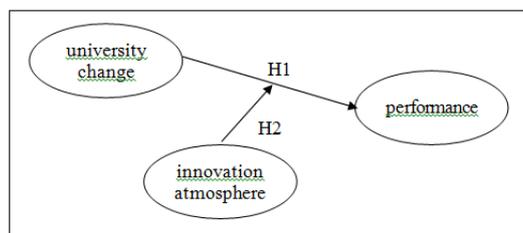

Fig-1: Research model

ANALYSIS
Description
In this study, 400 questionnaires were issued. And the 343 questionnaires were validating collected, the effective recovery rate was 86%.

FACTOR ANALYSIS
This study adopt factor analysis before empirical. The results distinguish two factors:

Factor 1

Named software change, six items were consist of "The university has established a perfect evaluation system to teacher", "the information is transparent", "enhance teacher ability to apply the network technology", "teachers take a gradual approach to explain the course", " teachers grouping different teams to promote teachers' learning growth", " teachers and students have established a vision of common development ".

Factor 2

Named hardware change, four items consist of "the university's administrative units and the overall organization function are working well ", "university has timely elimination of old replacement of equipment ", "university has timely maintenance of the equipment ", "university has made full use of the internet to communicate messages from staff and students".

For the research hypothesis, the research is re-proposed as follows:

H1: University change will be had a positively to affect performance.

H2a: The role of innovation atmosphere will had a significant moderating effect between software change and efficiency.

H2b: The role of innovation atmosphere will had a significant moderating effect between hardware change and efficiency.

Reliability Test

The α values of two constructs university change and performance are 0.70 and 0.81, respectively. These reliability value had obtained the accept level Hair *et al* [14].

MODEL ANALYSIS

The analysis result shown the indicators value are RMR=0.05、CFI=0.55、GFI=0.90、AGFI=0.83、RMSEA=0.13, of them values the RMSEA had need modify, thus, the model to deleted three items respectively, which that were the item no.2 from software change and items no.1 and no.5 from hardware change. Revalidation model validity values were: RMR=0.03、CFI=0.97、GRI=0.97、AGFI=0.93、RMSEA=0.07; and reached the threshold level.

In validity, CR for university change and performance were 0.73 and 0.83, respectively, while university change AVE was 0.59 and performance 0.50. In the model, the highest value is hardware change, that standardized β was 0.90. In efficacy construct, the "continuous improvement of teacher's professional knowledge" β standardized (0.81) was the highest. Following were "teachers teaching seriously"(β=0.76) and "students performed well in off-campus competitions" (β=0.72).

The empirical evidence shows that the university change had a positively and significant to affects performance (Table 4).

Table-1: The empirical indicators of model

	Variables	Standardized B	*t*-Value
University Change	Software Change	0.60	---
	Hardware Change	0.90	9.57
Performance	Communicate With Parents	Deleted	
	Learning Style	0.62	10.59
	Teaching Seriously	0.76	12.91
	Excellent Competition	0.72	---
	Teacher Professional	0.81	13.64
	Teaching Resource	Deleted	
	Parents Agree	Deleted	
	Remedial Teaching	Deleted	
	Instant Dynamic	0.60	10.29

Moderating Effect

According to the results as shown in Table 2, software changes had a positive and significant impact on performance (p <0.01), the adjusted regression explanatory power is 0.22. When added the innovation atmosphere as a moderator variable, it also had a significant effect (p <0.01) between software change and performance, and an adjusted explanatory power value of 0.36 for performance, in addition, its shown the explanatory power was increase 14% than before. Therefore, it shows that the innovation atmosphere has

the effect of moderator between software change and performance. This result makes H2a was supported.

Addition, the atmosphere of innovation between the hardware changes and performance, whether is to moderate the effect, also to tested. Tested found that hardware changes had a positive and significant impact on performance (p <0.01), the adjusted regression explanatory power is 0.46. Also added the role of innovation atmosphere as a moderator variable, it also had a significant effect (p <0.01) between hardware change and performance, and an

adjusted explanatory power value of 0.53 for performance, in addition, its shown the explanatory power was increase 14% than before. The increase in explanatory power shows that the innovation atmosphere has a moderator effect between hardware changes and performance (Table 3). The H2b also obtain supported.

Table-2: The software change moderator effect of innovation atmosphere

	β	t-value
software change	0.47	9.87**
innovation atmosphere	0.68	17.18**
software change * innovation atmosphere	0.60	
R^2	0.36	
Ad R^2	0.36	
F	195.17	
P	0.000	

Table-3: The hardware change moderator effect of innovation atmosphere

	β	t-value
hardware change	0.68	16.96**
innovation atmosphere	0.68	17.18**
hardware change * innovation atmosphere	0.73	
R^2	0.53	
Ad R^2	0.53	
F	379.64	
P	0.000	

DISCUSSIONS

In the present study, to empirical university changes have a positive and significant impact on performance. Moreover, the atmosphere of innovation has also had a moderator effect between software changes and hardware changes and performance. The results show, that universities in order to increase their competitiveness, excepting to the internal organization to change, and need to focus on the development of innovative related activities, its innovative results will be increase the universities' operating performance; it will also be a differentiated features to fierce competition for universities' environment.

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