

# Quadrant Model of Change Management at Vocational High School in West Java

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**Abstract**—The various challenges facing schools from society in general and the demands from policy and education stakeholders require schools to adapt a management with a focus on changes in key components of the school. All components of education in schools need to be managed efficiently and effectively so schools can continue to adapt to change. The purpose of this study is to analyze the quadrant model of change management at Vocational High School (VHS) in West Java. Using the survey and quantitative approach, the research was conducted at 61 VHS in 27 regencies/cities in West Java, with representative sample of 183 teachers. The data were analyzed by descriptive, SEM-PLS, and quadrant analyses. It is found that the readiness for change is already high, that means the schools, principals, and teachers are ready for change. The support from external and from principal in managing the change is also high. Nevertheless, the aspects of preservation, diversity and homogeneity, and capacity of fund, facilities, and time, are relatively low. The quadrant model of all variables plots the positions of each dimension in each quadrant related to the focus of the action or strategy being performed: sustained, adjusted, repaired, and improved.

**Keywords**—change management; quadrant model; vocational high school

## I. INTRODUCTION

Various national education policies and programs will be successfully implemented if supported by a range of resources with global competitiveness. Global competitiveness is needed in facing various challenges and opportunities as a result of globalization in various aspects, especially in education. Indonesian people who are competitive can be formed through an educational process that meets the demands and expectations of users or managers of educational services [1]. The development of education, starting from the primary, secondary and higher education levels, has led to widespread concern in the community today, especially if faced with a prolonged multidimensional crisis. The community also hopes for certainty about how this nation will face global competition. The various social and economic indicators have also shown that the position of this nation is increasingly lagging behind other nations in global competition. Education seeks a way out together with the community to mobilize efforts to resolve the nation's problems. Educational institutions must be able to improve their academic quality amid limited resources and lack of environmental attention and support.

These conditions are the background of the need for transformation in educational institutions in the current era of global competition. The idea of placing secondary education as a pioneer of national change has actually been going on for a long time. Again and again educational policy makers are faced with choices between educational equity or the development of centers of excellence. Regarding the development of secondary and higher education, it was stated that, development in organizations in general can be seen as a planned change in people's behavior, processes in the organizational environment to improve the effectiveness and efficiency of institutions in achieving their goals [2].

The role of secondary school institutions, especially Vocational High Schools (VHS), in preparing the nation's competitiveness across the era of global competition is very urgent. In general, education in this country has been left behind, even alienated from the needs and realities of social, economic and cultural society. Vocational high schools require autonomy and independence to be able to recover their role from the ivory tower and are directly involved as agents of change in changing society. Positioning VHS in the best schools requires fundamental changes so that they have better competitive situation. An educational institution must have a strategic intent. To make it happen, the institutional transformation is needed that is more complex than just organizational development [3]. Educational institutions are institutions that are built by collegial academic communities, and uphold academic values to educate the nation. Making fundamental changes to produce academic, social and economic values is a key word in the transformation of an educational institution. This institutional transformation includes alignment or redesign of strategies, structures, systems, stakeholders relation, staff, skills (competence), leadership style, and shared value [4]. This institutional transformation effort is expected to revitalize the role of educational institutions in order to be able to play an optimal role in realizing academic excellence for education, for industrial relevance, for contribution for new knowledge, and for empowerment [5].

Various challenges faced by schools from the general public and the demands of education policies and customers require schools to adapt through a management with a focus on a variety of important components in the school. All components of education in schools need to be managed

efficiently and effectively so that schools can continue to adapt to change. Various components of education, ranging from the level of individuals, groups, organizations and leaders, need to make changes in accordance with the demands and developments of the times. The application of management changes can be done through restructuring, mergers and acquisitions, cultural changes, and the development of information technology in the education and school environment [6]. This study focuses on the determinants of change management that cover the causes of change, resistance to change, and adaptation strategies to changes that occur. The purpose of this study is to analyze the quadrant model of change management at VHS in West Java.

## II. LITERATURE REVIEW

### A. Change Management

Change is a sure thing to happen, including in the organizational context. Change occurs because the one who runs the organization is human, and humans keep changing. Often said one thing that is sure to happen in the world is change. Change in general is making things happen. In organizations, change can occur in a small scope, about something small, and these small changes occur continuously. This change is called first order change or often also called continuous improvement [7]. There is also a large change in size, namely multi-dimensional changes in an organization. This change is called a second order change or referred to as dramatic change. This does not mean that if an organization implements implementing first order change, the organization does not need to implement a second order change. Nor does it mean that if an organization implements a second order change, the organization does not need to apply first order change. Both types of change need to be implemented. Organizational leaders must be observant and sensitive to the factors that cause the need to make changes.

Changes to the internal and external environment of the organization require change management to survive and succeed in a highly competitive competition environment and in developing a sustainable organizational environment. With deregulation related to globalization, rapid advances in technology-based innovation, increased knowledge-based workforce, and a shift in social and demographic trends, the main task of management at present is leadership in managing organizational change [8].

The concept or construct of organizational change and change management has not been known before the 1970s, because leaders or managers of an organization are relatively less concerned about the external environment, including consumers, competitors, or the market [9]. Basically, change management is a discipline that guides how to prepare, facilitate, and support individuals to succeed in adopting change to drive organizational success and output. Change management is a discipline that can be applied to various types of organizational change [10]. Change management can be either a process or competency. As a process, effective change management follows an iterative process and uses a number of integrated tools to drive success in change. As a competency for leaders, change management is a number of skills that

enable change and create strategic capabilities to improve organizational effectiveness [11].

Change management is the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers [12]. Change management is the application of a structured process and set of tools for leading the people side of change to achieve a desired business outcome [11]. Change is a feature of organizational life, which includes the operational and strategic levels so that the organization needs to have the ability and can identify these capabilities in the future, as well as ways to manage these needed changes [13]. In this case, organizational change and change management cannot be separated from organizational strategy, or vice versa [14]. Given the importance of organizational change and change management, management is in desperate need of managerial skills [15].

Measurement of change management can be started from the level of individuals, groups, and organizations. There is a model called the Prosci ADKAR Model, which is an acronym of awareness, desire, knowledge, ability and reinforcement [11]. A conceptual framework for change management as a process involves seven main activities: recognition and start, diagnosis, plan, implement, sustain change, leading and managing the people issues, and learning [16]. In relation to the context of change, a model is formulated in the form of a kaleidoscope of changes which are features or contextual aspects that need to be considered in deciding a change: Time, Scope, Preservation, Diversity vs. Homogeneity, Capability, Capacity, Readiness for Change, and Power [17].

### B. Resistance and Adaptation to Change

Making changes is an attempt to take advantage of opportunities to achieve success. Therefore, making changes contains risks, namely the existence of resistance to change. The resistance to change is a dangerous act in an environment full of intense competition [18]. There are seven reasons why people are resistant to change [19], namely: Procrastination, Lack of motivation, Fear of failure, Fear of the unknown, Fear of loss, Dislike the initiator of change, and Lack of communication. Six ways have been formulated to overcome resistance to change [20]: education and communication, participation, facilities and supports, negotiation, manipulation and co-optation, and coercion.

## III. RESEARCH METHOD

This study is a quantitative approach by utilizing questionnaires as the main instrument of data collection. The data were analyzed by deceptive analysis to describe various characteristics of the variables studied. The verification analysis for hypothesis testing of this research was Structural Equation Modeling Partial Least Square (SEM-PLS). To enrich the study, the analysis of SARI (Sustained, Adjusted, Repaired, and Improved) quadrant model as a synthesis or combination of descriptive and verification analyses was also conducted. This research was conducted at 61 VHS in 27 regencies/cities in West Java, with representative sample of 183 teachers.

In the model, the change management is the latent exogenous variable that has 10 manifest variables, i.e. Time

(X1), Scope (X2), Preservation (X3), Diversity vs. Homogeneity (X4), Capability (X5), Capacity (X6), Readiness for Change (X7), Power (X8), Resistance (X9), and Adaptation (X10). Each manifest variable has several measurable indicators.

**IV. RESULTS**

The descriptive analysis describes the average performance of each manifest variable, showing that all manifest variables are categorized as moderately high (range = 3.000 – 4.000 from lowest = 1.000 and highest = 5.000). The manifest variables of time, adaptation, power, readiness for change, and resistance are higher than average score, while preservation, scope, capability, capacity, and diversity and homogeneity are lower than average score.

The hypothesis testing using SEM-PLS using the outer model or measurement model includes the value of outer loading (valid when outer loading > 0.5 and ideally outer loading > 0.7). These outer loadings represent the absolute contribution of each manifest variable (dimension or indicator) in reflecting its latent variables. The results show that all manifest variables have a path loading/coefficient > 0.50 that indicates that each manifest variable is significantly capable of reflecting latent variables of change management at VHS in West Java.

SARI Quadrant Model Analysis can be used as a synthesis of descriptive analysis and verification analysis (SEM-PLS), to map each dimension of each variable, so that one action or strategy can be taken to be sustained, adjusted, repaired, and improved. The strategy mapping of SARI Quadrant Model is presented in Table I.

TABLE I. STRATEGY MAPPING OF SARI QUADRANT MODEL

Manifest Variables	Ave. Perf.	Outer Loadings	Cat.	Quad.	Action/Strategy
X_1	3.752	0.626	HL	Q2	Adjusted
X_2	3.303	0.775	LH	Q4	Improved
X_3	3.317	0.721	LL	Q3	Repaired
X_4	2.931	0.623	LL	Q3	Repaired
X_5	3.266	0.740	LH	Q4	Improved
X_6	3.230	0.675	LL	Q3	Repaired
X_7	3.404	0.793	HH	Q1	Sustained
X_8	3.563	0.732	HH	Q1	Sustained
X_9	3.342	0.767	LH	Q4	Improved
X_10	3.577	0.782	HH	Q1	Sustained
<b>Change Management</b>	3.368	0.723			

Ave. Perf. = Average Performance; Cat.= Category; Quad. = Quadrant; H = Higher; L = Lower

In this SARI quadrant model, there are three dimensions that have to be sustained (readiness for change, power, and adaptation) because the performance is high and the contribution is also high; one dimension to be adjusted (time) because the performance is high but the contribution is low; three dimensions to be repaired (preservation, diversity vs.

homogeneity, and capacity) because the performance is low and the contribution is also low; and three dimensions to be improved (scope, capability, and resistance) because the performance is high but the contribution is low. The appropriate synergies of each dimension in each quadrant can be the best model of change management at the VHS in West Java.

**V. DISCUSSION**

The descriptive analysis, hypothesis testing, and SARI quadrant analysis reveal the position of change management at the VHS in West Java. The dimensions of readiness for change, power, and adaptation need to be sustained for the performance and contribution of each dimension is high. It seems that the school, leadership, and teachers have been ready to change. The external stakeholders of school and also the principals have supported the change management. The level of adaptation and efforts to improve the adaptation at school has also to be sustained.

The dimension of time needs to be adjusted for the performance of this dimension is high but the contribution is low. On this condition, the school has to adjust the urgency of change, the urgency of speed changes, and the linkages with long-term strategies in order to align the achievement.

The dimensions of preservation, diversity vs. homogeneity and capacity has to be repaired in such a way that the dimensions can be optimally implemented. In this sense, there must be clarity about aspects that must be maintained and how efforts in maintaining these aspects. The school is expected to have more homogeneity in responses, attitudes, and behavior. The capacity of finance/funds, facilities and time is still low that needs specific corrective actions.

The dimensions of scope, capability, and resistance are relatively lower but have important contribution to the change management at schools. This improvement effort includes aspects of change that need to be done, suitability of the level of change with expectations, achievement of change, and change gap. The ability of schools, management/principal, and teachers in managing change must be continuously improved to support the change management at school. The level of resistance is considered relatively low and efforts to overcome resistance are considered sufficient so that the condition must be continuously improved.

The appropriate synergies of each dimension must be further exercised. If all conditions are met, then the VHS may implement the change management successfully as intended.

**CONCLUSIONS**

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