



Resistance and Adaptability in Change Management at Vocational High School in West Java, Indonesia

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Abstract: The purpose of this study is to analyze the influence of resistance to change and adaptability to change on change management at Vocational High School (VHS) in West Java, Indonesia. Using the survey and quantitative approach, the research was conducted at 61 VHS in 27 regencies/cities in West Java, with a representative sample of 183 teachers. The data were analyzed by descriptive and Partial Least Square (PLS). It is found that resistance to change has a negative influence on change management, and that adaptability to change has a positive influence on change management. Thus, the schools have a low tendency to resist because they have the certainty to participate in the changes and have the willingness to undertake the programs to support the emergent changes. The schools have a high propensity to handle change management because they have high dynamic adaptability to change. This study is expected to have an impact on the school management to get a better picture of how to manage the changes effectively and efficiently, and on the government, industry, and community to interactively design the support system in the process of change management at vocational schools.

Keywords: Change management, resistance to change, adaptability to change, vocational student, teaching

1. Introduction

The world is changing dynamically in various sectors and this is why change management is needed in most organizations (Shaturaev, 2023). Nevertheless, the management of organizational change has to face resistance to change. "Resistance to change" is "resistance to uncertainty". This is because resistance derives from the process of handling and managing change, not from the change as such. To survive, however, an organization must be adaptable to change (Thomas & Hardy, 2011). The management has to concentrate on both resistance and adaptability to change to achieve organizational effectiveness and efficiency, and also excellent organizational performance.

Change is a sure fact to happen 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 (Juhanaini et al., 2022). 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. There is also a large change in size, namely multi-dimensional changes in an organization. This change is called a second-order change or is referred to as a 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. If an organization implements a second-order change, the organization does not need to apply the 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 (Perdianasyah et al., 2021).

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 (Kuznetsova et al., 2017). 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 (Graetz, 2000).

The concept or construction 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. Change management is a discipline that guides how to prepare, facilitate, and support individuals to succeed in adopting a change to drive organizational success and output. Change management is a discipline that can be applied to various types of organizational change. Change management can be either a process or a competency. As a process, effective change management follows an iterative process and uses many integrated tools to drive success in change. As a competency for leaders, change management is many skills that enable change and create strategic capabilities to improve organizational effectiveness (Bold, 2011).

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 (Moran & Brightman, 2001). Change management is the application of a structured process and set of tools for leading the people side of change to achieve the desired business outcome (Bold, 2011). 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. In this case, organizational change and change management cannot be separated from organizational strategy, or vice versa (Todnem-By, R. 2007). Given the importance of organizational change and change management, management is in desperate need of managerial skills.

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 for awareness, desire, knowledge, ability, and reinforcement (Bold, 2011). 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. Concerning 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.

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

The resistance and adaptability to change have also attracted considerable attention in educational organizations. Various national education policies and programs will be successfully implemented if supported by a range of resources with global competitiveness and by sufficient management of change. 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. 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 dynamic change and 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 a lack of environmental attention and support.

These conditions are the background of the need for transformational change in educational institutions in the current era of global competition (Khamitovna, 2022). The idea of placing secondary education as a pioneer of national change has been going on for a long time. Again and again, educational policymakers are faced with choices between educational equity and 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, and processes in the organizational environment to improve the effectiveness and efficiency of institutions in achieving their goals.

The role of secondary school institutions, especially Vocational High Schools (VHS), in preparing the nation's competitiveness in the era of global competition is very urgent (Rosina et al., 2021). That is why the curriculum of VHS is important and different from that of other secondary high school (Maryanti & Nandiyanto, 2021; Maryanti et al., 2021). The main purpose of vocational education is to prepare students to be able to become entrepreneurs or be able to work in industry (Al-Najar & El Hamarneh, 2019; Handayani, Ali, & Mukhidin, 2020a; Handayani, Ali, & Mukhidin, 2020b). This means that to become a workforce must have the knowledge, skills, and attitudes that are following the world qualifications of work (Mohamad & Masek, 2021; Ekamilasari & Pursitasari, 2021). In general, education in this country has been left behind, even alienated from the needs and realities of social, economic, and cultural society. VHS 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 a better competitive situation. An educational institution must have a strategic intent. To make it happen, institutional transformational change is needed that is more complex than just organizational development.

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 keyword in the transformation of an educational institution. Various challenges faced by schools from the general public and the demands of education policies and customers require schools to adapt through management with a focus on a variety of important components in the school (Benneworth, Pinheiro, & Karlsen, 2017). 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 following the demands and developments of the times (Rieckmann, 2018). 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.

The contextual aspects considered in deciding a change in VHS may refer to Time, Scope, Preservation, Diversity vs. Homogeneity, Capability, Capacity, Readiness for Change, and Power. This study then focuses on the determinants of change management influenced by resistance to changes and adaptability to changes. The purpose of this study is to analyze the influence of resistance and adaptability on change management at VHS in West Java. The conceptual framework for the inter-correlation of the variables is depicted as follows.

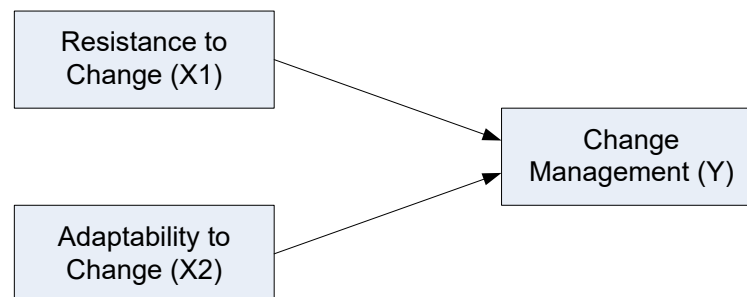


Fig. 1 - Conceptual framework

2. Methodology

This study was 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). This research was conducted at 61 VHS in 27 regencies/cities in West Java, with a representative sample of 183 teachers, using proportional random sampling. In the model, change management is the latent endogenous variable that has eight manifest variables:

- (i) Time (Y1), with the indicators of the urgency of change, the urgency of speed changes, and linkages with long-term strategies.
- (ii) Scope (Y2), with the indicators of the conformity to the level of change with expectations, matching the level of change with what is needed, a transformation that has been done, and the level of change needed.
- (iii) Preservation (Y3), with the indicators of aspects that must be changed and aspects that must be maintained.
- (iv) Diversity vs. Homogeneity (Y4), with the indicators of diversity vs. homogeneity in values, norms, and behaviors.
- (v) Capability (Y5), with the indicators of the ability of schools, principals, and teachers to manage change.
- (vi) Capacity (Y6), with the indicators of the capacity of financial, human resources, and availability of time.
- (vii) Readiness for Change (Y7), with the indicators of the readiness of schools, principals, and teachers for change.
- (viii) Power (Y8), with the indicators of the support of government, industries, and community.

Meanwhile, Resistance (X1) and Adaptability (X2) are endogenous variables, and each has two manifest variables. The indicators of Resistance are uncertainty to change (X11) and unwillingness to change (X12), and the indicators of Adaptability are internal adaptability (X21) and external adaptability (X22).

The model framework of the influence of resistance to change and adaptability to change on change management was built upon three hypotheses: (1) resistance to change and adaptability to change have simultaneous influence on change management; (2) resistance to change has a negative influence on change management; and (3) adaptability to change has a positive influence on change management. The F-test and t-test were used to test the significance to reject or accept the hypotheses.

3. Results

The descriptive analysis describes the average performance of each latent variable and manifest variable. The average score of each latent variable and manifest variable is presented in Table 1.

Table 1 - Average scores of latent and manifest variables

Manifest and Latent Variables	Average	Percentage	Category
Y1	3.752	75.0	High
Y2	3.303	66.1	High
Y3	3.317	66.3	High
Y4	2.931	58.6	Low
Y5	3.266	65.3	High
Y6	3.230	64.6	High
Y7	3.404	68.1	High
Y8	3.563	71.3	High
Change Management	3.346	66.9	High
X11	2.858	57.2	Low
X12	2.585	51.7	Low
Resistance to Change	2.721	54.4	Low
X21	3.738	74.8	High
X22	3.415	68.3	High
Adaptability to Change	3.577	71.5	High

The average score of Change Management is 3.346 (66.9%), categorized as high. It means that the schools have a high propensity to implementation of change management. Almost all of the manifest variables in Change Management are also categorized as high (range = 3.000 - 4.000 from lowest = 1.000 and highest = 5.000), except the Diversity vs. Homogeneity which is categorized as low (mean = 2.931). Based on the average score, the manifest variables of time, readiness for change, and power are higher than the average score, while preservation, scope, capability, capacity, diversity, and homogeneity are lower than the average score.

The average score of Resistance to Change is 2.721 (54.5%), categorized as low. It means that the schools have a low tendency to resist change. The schools believe and recognize that they should accept the evolving changes. In this sense, they have the certainty to participate in the changes needed. They have also the willingness to undertake the programs to support the emergent changes.

Hypothesis testing is done using SEM-PLS, which consists of two stages. The first stage is evaluating the outer model or measurement model, which includes the value of outer loading (valid if the outer loading > 0.5 and ideally outer loading > 0.7), average variance extracted (AVE) is valid if >0.5, and composite reliability (CR) is valid if > 0.7, and Cronbach's Alpha is valid if >0.7. The measurement model describes the variance of each manifest variable that can be reflected in latent variables. These outer loadings represent the absolute contribution of each manifest variable (dimension or indicator) in reflecting its latent variables. Through the measurement model, it can be seen which manifest variable is more dominant in reflecting latent variables. This test is a test of unidimensionality (validity and reliability) of each latent variable using Confirmatory Factor Analysis (CFA). The summary of the measurement model of each variable is presented in Table 2.

Table 2 - Measurement model

Manifest and Latent Variables	Loading	Cronbach's Alpha	Composite Reliability	AVE	Goodness of Fit
X1	X1_1	0.880	0.711	0.874	<i>Fit Model</i>
	X1_2	0.883			
X2	X2_1	0.767	0.782	0.710	<i>Fit Model</i>
	X2_2	0.716			

Y	Y_1	0.649				
	Y_2	0.784				
	Y_3	0.725				
	Y_4	0.641	0.861	0.897	0.553	<i>Fit Model</i>
	Y_5	0.755				
	Y_6	0.695				
	Y_7	0.796				
	Y_8	0.724				

Based on the summary of the measurement model, all outer loadings of each manifest variable are above 0.5 (most of them are ideally above 0.7) which means all outer loadings are valid. The values of Cronbach's Alpha and Composite Reliability are above 0.7, and the value of AVE is above 0.5. All measurements indicate that each model is fitted. In other words, we can say that each model is valid and reliable. Nevertheless, several manifest variables in Change Management have loadings that are below 0.7, namely: Time (Y1), Diversity vs. Homogeneity (Y4), and Capacity (Y6).

The second stage is the evaluation of the inner model (structural model), including the latent variable correlations, path coefficients, and R-square (R²) values, which exhibits the variance of endogenous constructs that can be explained by exogenous constructs simultaneously. Here, we examine the effect of each exogenous latent variable on the endogenous latent variable, as presented in Figure 2.

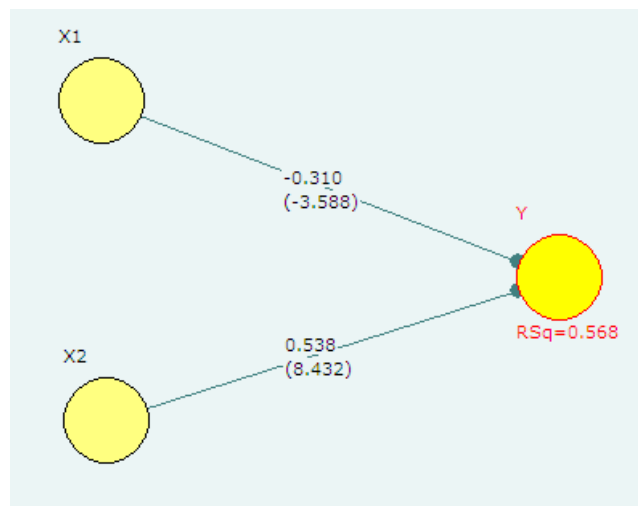


Fig. 2 - Structural model

The equation of the structural model can be formulated as follows:

$$y = -0.3010 X1 + 0.538 X2 \text{ with } R^2 = 0.568 \text{ and } e = 0.432$$

The R-square value of 0.568 indicates a significant influence of resistance to change and adaptability of change on change management, meaning that 56.8% variance of change management can be explained by resistance to change and adaptability to change. The error of 43.2% is influenced by other factors not examined in this model. The value of this R-square also indicates the importance of adaptability to change in change management, shown by the high positive value of its path coefficient (0.538). This path coefficient value ascertains the internal and external adaptability to change. Adaptability here is part of resilience that represents the capacity to adjust responses to changing external drivers and internal processes and thereby allow for progress along the current changes (Folke, et al., 2010).

On the contrary, the path coefficient value of resistance to change on change management is negative (-0.310), which implies the schools have no substantial issues with resistance to change. The negative value of the resistance to change suggests that the stakeholders of the schools have the confidence and willingness to participate in the change progress as a continuous improvement and linear process.

To test the significance of the simultaneous effect of resistance to change and adaptability to change on change management, the F-test was used. To test the significance of each path coefficient, the t-test was used. The result of the significance test is presented in table 3.

Table 3 - Test of significance

	Model	Jalur	T-stat(Significance)	Model	Jalur
	X1→ Y	-0.310	-3.588 (Significant)	16.30 (Significant)	R ² = 0.568; = 0.432
Y	X2→ Y	0.538	8.432 (Significant)		

Significance level $\alpha = 0.05$; t-table = $\pm 1,973$; F-table = 2.65.

4. Discussion

The test of significance shows the value of F-stat = 16.30 \geq F-table = 2.65, that is reject H0 and accept H1. It means that the hypothesis of “resistance to change and adaptability of change have a significant influence on change management” can be accepted. Further, the test of significance also indicates that the values of t-stat (-3.588 and 8.432, respectively) are above the critical value = $\pm 1,973$. It means that the hypothesis of “resistance to change has a negative influence on change management” can be accepted and that the hypothesis of “adaptability to change has a positive influence on change management” can also be accepted. Those acceptances imply that the lower the resistance to change and the higher the adaptability to change, the higher the implementation of change management at vocational high schools in West Java Province.

Furthermore, to synthesize descriptive analysis and verification analysis (SEM-PLS), we used the Matrix of Importance Performance Analysis (MIPA). The data from the descriptive analysis are assigned as performance and the data from outer loadings are assigned as importance.

Table 4 - Descriptive analysis and verification analysis (SEM-PLS)

Manifest Variabels	Ave. Perf.	Outer Loadings	Cat.	Quad.	Action/ Strategy
X_1	0.649	3.752	HL	Q2	Adjusted
X_2	0.784	3.303	LH	Q4	Improved
X_3	0.725	3.317	LL	Q3	Improved
X_4	0.641	2.931	LL	Q3	Repaired
X_5	0.755	3.266	LH	Q4	Improved
X_6	0.695	3.230	LL	Q3	Repaired
X_7	0.796	3.404	HH	Q1	Sustained
X_8	0.724	3.563	HH	Q1	Sustained
Change Management	0.721	3.346			

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

The 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 the SARI Quadrant Model is presented in Table I.

In this SARI quadrant model, three dimensions 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.

This institutional transformation includes alignment or redesign of strategies, structures, systems, stakeholders' relations, staff, skills/competence, leadership style, and shared value (Havidz & Gupron, 2019). This institutional transformation effort is expected to revitalize the role of educational institutions to be able to play an optimal role in realizing academic excellence for education, industrial relevance, the contribution of new knowledge, and empowerment.

5. Conclusion

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 to be high. It seems that the school, leadership, and teachers have been ready to change. The external stakeholders of the 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 to align the

achievement. The dimensions of preservation, diversity vs. homogeneity, and capacity have 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 to maintain 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 contributions to 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. Thus, 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.

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