



Role of self-efficacy, knowledge sharing, mediated adaptability and external environment change as moderators of readiness for change

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ABSTRACT

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It is vital for higher education to improve its ability to anticipate and implement long-lasting change. Private higher education institutions are currently facing challenges in governance that hinder their ability to upgrade their accreditation grade to "excellent". The involvement of institutional management is a key factor in enabling these institutions to compete on a national and international level. Research methodology uses confirmatory factor analysis to test the hypotheses developed while structural equation modeling is employed as the equation model. The sample population comprised 16 private tertiary institutions in South Sumatra, Indonesia. The study focused on the heads of study programs resulting in a total of 195 respondents. The results indicated that self-efficacy and knowledge sharing did not have a direct impact on readiness for change whereas adaptability exhibited a direct influence. The study demonstrated that adaptability acts as a mediator between self-efficacy and knowledge sharing towards readiness for change. The final model test results confirmed adaptability as a mediating variable. Additionally, the study revealed that external environmental change did not moderate the relationship between adaptability and readiness for change. Changes of a high calibre that promote a sustained digital education transformation are necessary due to the real-world effects on Indonesia's higher education system. The ability to adapt and embrace new technology is very important factors for higher education performance to face readiness for change in private higher education, especially in management units.

Contribution/Originality: This research contributes to the literature on the importance of organizational readiness for change in driving sustainable digital education transformation. Change management involvement is the subject and object of change which is the key to overcoming resistance. Adaptability to technological sophistication is very important at private universities.

1. INTRODUCTION

Private higher education institutions are currently facing the challenge of enhancing their governance capabilities to anticipate and adapt to the changes necessary for sustainable higher education. Organizational reform often requires transformative changes to align with new requirements (Burnes, 2020). Lewin's three-step model of organizational change involving defrosting, changing and refreezing (Lewin, 1947) emphasizes the interconnectedness of change management within organizations (Burnes, 2017). In this context, the involvement of institutional management becomes crucial for institutions to compete at national and international levels (Robbins

et al., 2020). Institutions need to consider management as both the subject and object of change to improve performance, increase their readiness for change and enhance their competitiveness globally. Previous research by Santos, Queiroz, Borini, Carvalho, and Dutra (2023) emphasizes the importance of prioritizing change management during organizational transformation highlighting the weight of institutions in the change process.

Observations in the field reveal that private tertiary institutions as part of government programs have not universally implemented governance practices due to limited knowledge capabilities in South Sumatra, Indonesia. This hampers their ability to improve their accreditation status to "excellent." According to Robert and Bliese (2006), an organization's success or failure hinges on its ability to harness advanced technology and adapt to change. However, some organizations struggle to leverage new technological resources hindering their access to timely information and their ability to compete. Therefore, it is essential for these institutions to enhance their knowledge, skills and abilities to anticipate and drive sustainable change. The following data provides an overview of private tertiary educational institutions in four provinces in southern Sumatra from 2017 to 2021, Lampung, Bengkulu, South Sumatra and Bangka Belitung. The total number of private tertiary institutions in these provinces is 13, 5, 17 and 1 respectively. Among these institutions, 5 (13.9%), 17 (33.3%), 6 (16.7%) and 4 (11.1%) have accreditation grades of "very good" (A), "good" (B), "adequate" (C) and "unaccredited" (U) respectively. It is worth noting that observations have revealed that none of the 16 private universities in South Sumatra Province, Indonesia have achieved an "excellent" grade. This raises concerns about the management practices within these private tertiary educational institutions. Results from several types of private colleges indicate that changing old patterns into new ones takes time and requires a lot of adaptation. Innovation is required to satisfy the technology needs of internal and external stakeholders in order to accomplish this change. Innovative strategies are especially needed in the education to maintain competitiveness and quality in the face of constant change. External changes are heavily influenced by regulations set by the Ministry of Education and Culture which universities must comply with and cannot avoid. The Decree of the Minister of Education and Culture of the Republic of Indonesia No. 74/P/2021 concerning Recognition of Learning Semester Credit Units for the Independent Campus Programme Minister (2021) which deals with the recognition of semester credit units is one example of an internal regulation, rule or policy that has been impacted by changes in leadership within the Ministry of Education and Culture (Decree of the Minister of Education and Culture of the Republic of Indonesia, 2021). The goal of becoming national and international universities is something that both public and private universities are striving to accomplish. Therefore, the academic community and stakeholders must be encouraged to adopt a new perspective and an independent campus culture that supports diverse innovations must be developed.

2. LITERATURE REVIEW

2.1. Readiness for Change

The basis for a successful change implementation strategy is organisational preparedness for change (Jones, 2013). Although there is a lot of literature regarding organizational change and readiness for change, there is still limited research that publishes the concept of readiness for change in private higher education. However, readiness for change in private higher education is very important because human resource interactions are the object and subject of change in organizations.

2.2. Self-Efficacy

According to the cognitive social behavior change theory (Bandura & Adams, 1977), self-efficacy refers to an individual's belief in their ability to achieve goals, overcome obstacles and manage anxiety in specific situations. The level of self-efficacy is determined by individuals' confidence in their ability to complete tasks and achieve goals. According to Waddell, Creed, Cummings, and Worley's (2019) research, efficacy is associated with the belief that an organization can effectively deal with change. Therefore, self-efficacy is considered a crucial factor in task

completion, generating learning changes, fostering a positive academic environment and handling diverse situations (Yang, Zhou, Cao, Xia, & An, 2019). Modeling self-efficacy at the individual and managerial levels can be challenging as it involves adapting to new job demands. Individuals with higher self-efficacy levels in carrying out work tasks can overcome work-related problems more effectively whereas individuals with lower self-efficacy levels tend to experience difficulties. The following hypothesis is proposed based on this rationale:

H: Self-efficacy has a direct effect on readiness for change.

2.3. Knowledge Sharing

Pioneers in knowledge management outline the necessary knowledge sources (Fernandez & Sabherwal, 2010; Sabherwal & Becerra-Fernandez, 2013). Knowledge sharing involves the sharing and dissemination of information within an organization (Kianto, Shujahat, Hussain, Nawaz, & Ali, 2019). Previous research by Aslam, Muqadas, and Imran (2018) indicates that knowledge sharing can address the challenges associated with organizational change. Koki and Makumbe (2020) also suggest that knowledge sharing has a significant relationship with university changes. Knowledge sharing plays a crucial role and should be implemented in various tertiary institutions based on these discussions. This is especially important considering the presence of digital technology which has accelerated access to information and has become an integral part of higher education environments. However, further investigation is still required leading to the following hypothesis:

H: Knowledge sharing has a direct effect on readiness for change.

2.4. Adaptability

Moreover, Bandura (1977) suggests that self-efficacy is influenced by various factors that are unique to individuals' abilities. Adaptability requires a continuous learning process particularly in rapidly evolving fields like technology. However, some individuals, groups or organizations may struggle to adapt to change due to limited capabilities and resources (Gacs, Goertler, & Spasova, 2020; Lokuge, Sedera, Grover, & Dongming, 2019). Malik and Kanwal (2018) provide evidence that knowledge sharing also impacts interpersonal adaptability. The following hypothesis should be developed based on these findings:

H: Adaptability has a direct effect on readiness for change.

Adaptation refers to the ability of individuals, groups or organizations to adjust to their environment for survival (Lee & Young, 2018). Managing organizational change is crucial to help organizations anticipate and enhance adaptability which is essential for survival. On the other hand, self-efficacy is defined as an individual's belief in their ability to take the necessary actions to achieve desired outcomes. Previous research suggests that the level of career adaptability can increase overall self-efficacy (Marcionetti & Rossier, 2021). However, there is still a gap in the literature regarding the direct relationship between knowledge sharing, self-efficacy and adaptability. Recent findings by Wang, Wu, Pechmann, and Wang (2023) indicate that learning adaptability and learning self-efficacy play a significant role in academic engagement. This resulted in the following theories being put forth:

H: Self-efficacy has a direct effect on adaptability.

H5: Knowledge sharing has a direct effect on adaptability.

According to Robbins (2009), knowledge is an asset that can be used to support continuous improvement in organizations. Nonaka and Von Krogh (2009) explain knowledge sharing as the exchange of experiences, facts, knowledge and skills within an organization. According to research by Budhiraja (2021), shifts in self-efficacy considerably reduce the relationship between change management and continuous learning. Previous research by Tan and Nadarajah (2021) shows that adaptability influences readiness for change and is able to mediate individual proactiveness. In addition, Yean, Tan, and Nadarajah (2022) state that adaptability is able to mediate the influence of trust on readiness for change in public sector organizations. However, no study has examined adaptability as a

mediating variable. This indicates a need to assess the importance of creating readiness for organizational change with adaptability as a mediating variable. The following hypotheses were developed:

H₁: Self-efficacy has an indirect effect on readiness for change through adaptability as a mediating variable.

H₂: Knowledge sharing has indirect effects on readiness for change through adaptability as a mediating variable.

2.5. External Environmental Change

Lewontin (1978) revealed that organizational adaptation is the state in which an organization can survive changing environmental conditions. Individual adaptability Chan (2014) has also been shown to be essential for organizational adaptation allowing organizations to align themselves with changing conditions. A previous study explored the implications of environmental change for human populations and their adaptive capacities (Shinn, King, Young, & Crews, 2014) suggesting that adaptive responses can effectively mitigate the impacts of global environmental changes. This highlights the need for adaptive management in changing environments including through the governance of adaptation environments and change systems approaches. A recent study emphasized the need for educational institutions to adapt to changing climatic conditions (Acs, Song, Szerb, Audretsch, & Komlosi, 2021). There is a need to initiate a movement aimed at changing the mindset of the academic community and stakeholders, transforming the independent campus culture through various breakthroughs considering the external changes affecting tertiary institutions driven by unavoidable regulations. Therefore, the importance of creating organizational change readiness in this study was further examined with external environmental change as a moderating variable. The following hypothesis was developed:

H₃: External environmental change moderates the relationship between adaptability and readiness for change.

This study is unique in its focus on change readiness as it incorporates the dimensions of change management involvement, adaptability and technological sophistication. Previous studies have not explored the relationship between self-efficacy, knowledge sharing and readiness for change considering adaptability as an intervening variable. Additionally, the external environmental change variable serves as a moderator between adaptability and readiness for change. The novelty in this study is the readiness to change by adding the dimension of change management involvement while the adaptability variable is adding the dimension of technological sophistication. Based on previous research, no novelty model has been found in this study that links self-efficacy, knowledge sharing readiness to change and adaptability to function as intervening variables. Meanwhile, the external environment changes variable which acts as a moderator between adaptability and readiness to change.

2.6. Theoretical Framework

This theoretical framework is developed based on the presentation of study concepts which serve as the foundation for the thinking model. Therefore, the thinking model can be formulated as follows:

Figure 1 indicates the research conceptual framework.

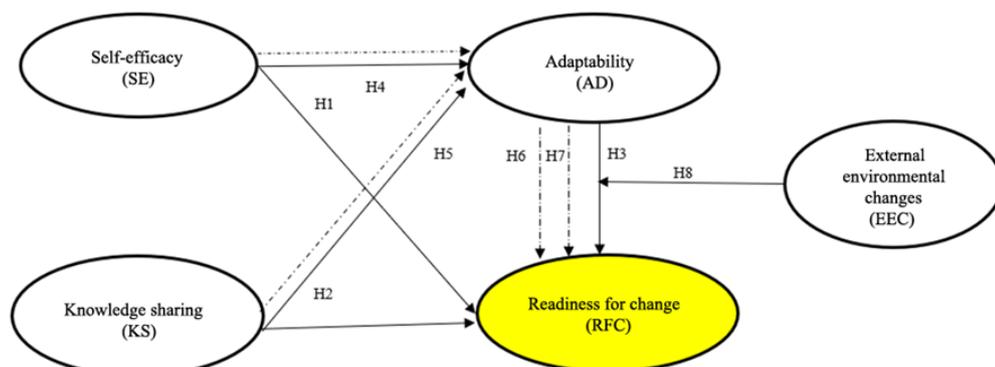


Figure 1. Framework of thought.

3. METHOD

Confirmatory factor analysis (CFA) is a statistical tool used to identify latent constructs from a set of observable variables. It is employed to test a variable theory assumed to be measured by these indicators. CFA results are valuable for confirming the validity of the theoretical measurement model. Structural equation modelling is a branch of statistics that analyses relationships between variables. The LISREL programme for linear structural relationships is a computer programme used to study structural equation models. (Jöreskog & Sörbom, 1996). LISREL for Windows is a windows application intended for modeling structural equation. LISREL is software developed to process data using SEM (structural equation modelling).

According to Yamane (1973), the population consists of 36 Indonesian private universities located in the provinces of Lampung, Bengkulu, South Sumatra and Bangka Belitung. The data collection technique employed was simple random sampling selecting 16 private tertiary institutions within the higher education institutions. The unit of analysis was the head of the study program representing Indonesian private universities with a total of 230 prospective respondents. Initially, 30 individuals participated in the initial pre-test (pilot test). The questionnaire was then completed by 195 individuals while 5 did not participate. Therefore, a total of 195 respondents were included in the research procedure. Simple random sampling was used as the data collection technique.

4. RESULTS

The distribution of respondents was based on gender, marital status, age, last education and tenure. The frequency of data collected from the respondents through the questionnaires is presented in Table 1.

Table 1. Respondents' data.

No	Respondent profile	Frequency	Percentage
Gender of respondents			
1.	Man	79	40.5%
2.	Woman	116	59.5%
Respondent status			
1.	Single	23	11.80%
2.	Marry	166	85.10%
3.	Widower/Widow	6	3.10%
Respondent age			
1.	15 - 28 years	9	4.60%
2.	29 - 39 years	79	40.50%
3.	40 - 50 years	66	33.80%
4.	51 - 61 years	38	19.50%
5.	More than 62	3	1.50%
Respondent education			
1.	Bachelor degree	0	0.0%
2.	Grade 2	162	83.1%
3.	Grade 3	33	16.9%
Respondent service period			
1.	< 1 year	22	11.3%
2.	1 s/d 4 years	84	43.1%
3.	5 s/d 8 years	89	45.6%
Total		195	100%

The descriptive results showed that the majority of the participants were female with 116 respondents (59.5%). This aligns with Robbins (2009) who stated that women were more likely to obey authority while men tended to be more aggressive and have higher expectations of success. Additionally, a total of 166 respondents (85.10%) were married (Robbins & Judge, 2008) indicating that married individuals had a higher sense of job stability. The results also revealed that the majority of participants fell within the 29-39 age range with 79 respondents (40.50%). This

demographic condition benefits higher education since younger workers are typically more energetic, physically healthier, more industrious and more receptive to change and new experiences. Most of the respondents had a master's degree totalling 162 (83.1%). This indicates that a master's level of education (graduate 2) is still valued by management for structural positions such as head of the study program. However, a person's level of education can influence their mindset which in turn affects their level of job satisfaction (Kreitner & Kinicki, 2010). Furthermore, 45.6% of respondents had work experience of 5 to 8 years indicating that they had relatively more experience.

4.1. Direct Effect Test Results

The structural model conducted an in-depth model analysis following the completion of a confirmatory factor analysis (CFA) for each variable (Hair, Black, Abin, & Anderson, 2014; Hoyle, 2012). The overall test results for the full model analysis are presented in Figure 2.

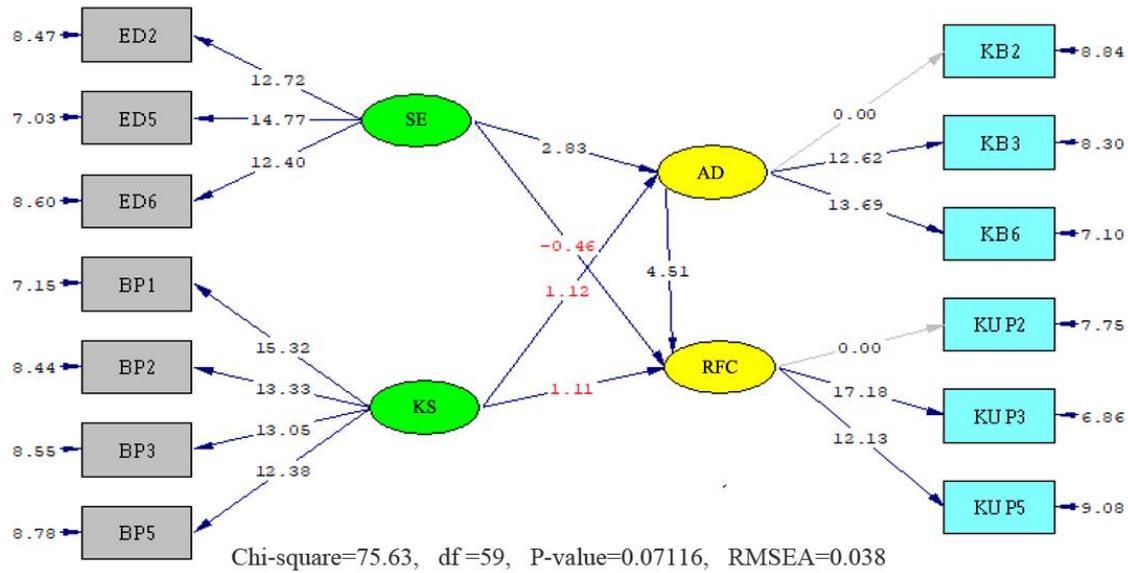


Figure 2. Full model test results.

According to Figure 2's final CFA intervening model test findings, it was determined that the estimated factor loading indications were higher than 0.5. Additionally, the final full CFA model satisfied the criteria with estimated values for chi-square, degrees of freedom (df), p-value and RMSEA (root mean square error of approximation) of 75.63, 59, 0.07116, and 0.038, respectively. The results of the goodness of fit test are presented in Table 2.

Table 2. Results of the goodness of fit (GOF) full final model.

No	Criteria	Limit value	Results	Conclusion
1	X ² -chi-square, significance probability	P-value ≥ 0.05	0.071	Fit
2	GFI	> 0.90	0.94	Fit
3	AGFI	> 0.90	91	Fit
4	CFI	> 0.95	1.00	Fit
5	TLI	> 0.95	0.99	Fit
6	RMR	≤ 0.10	0.017	Fit
7	RMSEA	≤ 0.08	0.038	Fit

The test results for each parameter of the structural model are presented in Table 2. Several goodness-of-fit (GOF) statistical criteria have been met such as the chi-square value which was greater than 0.05. Furthermore, other GOF criteria including GFI, AGFI, CFI, TLI, RMR and RMSEA have also been examined. The results

indicate that the final full measurement model satisfies the criteria of a good measurement model and can be used to assess construct variables.

Table 3. Outcomes of a direct impact test conducted between latent variables.

Hypothesis	Endogenous variables		Exogenous and Endogenous variables	Estimate	T-value	Information	R ²
H1	Readiness for change (RFC)	<—	Self-efficacy (SE)	-0.12	-0.46	Not significant	0.94
H2	Readiness for change (RFC)	<—	Knowledge sharing (KS)	0.22	-1.11	Not significant	
H3	Readiness for change (RFC)	<—	Adaptability (AD)	0.89	4.51	Significant	
H4	Adaptability (AD)	<—	Self-efficacy (SE)	0.67	2.83	Significant	0.86
H5	Adaptability (AD)	<—	Knowledge sharing (KS)	0.26	1.12	Not significant	

Table 3 presents the results of the hypothesis testing where 2 out of the 5 proposed hypotheses for direct influence were significant while 3 were found to be insignificant. The explanation for each hypothesis is provided below:

According to the statistical results, hypothesis 1 which suggested that self-efficacy has an effect on readiness for change was rejected as the t-value was lower than the critical t-value (1.96). This finding is inconsistent with the theory of knowledge sharing proposed by Park and Kim (2015) which emphasized the importance of knowledge sharing in facilitating readiness for change. However, Meria, Prastyani, and Dudhat (2022) and Taufikin, Zamroni, and Muthohar (2021) have shown conflicting results with some indicating that self-efficacy does not directly affect readiness for change while others suggest that self-efficacy acts as a significant positive mediator. These contradictory findings should be further examined and taken into consideration.

The acceptance of hypothesis 3 resulted from the t-value exceeding the crucial t-value of 1.96 indicating the clear significance of adaptability to readiness for change. These findings align with the theory of adaptation by Helson (1964) which highlights the importance of organizational adaptability in ensuring effectiveness and survival in changing environments. Previous studies by Tan (2020) have also emphasized the influence of adaptability on change readiness with adaptability acting as a mediating factor. Research findings by Agero and Quines (2022) indicate that adaptability partially mediates change.

Hypothesis 4 which suggested that self-efficacy has an effect on adaptability was supported by the results as the t-value was greater than the critical t-value (1.96). These findings are consistent with previous studies. Răducu and Stănculescu (2021) indicate that self-efficacy significantly affects online adaptability. Pumptow and Brahm (2021) stated that self-efficacy in academic and digital media plays a crucial role in higher education influencing various aspects of teaching and learning. Moreover, Adam and Hanafi (2022) emphasized the importance of self-efficacy and adaptability in effectively coping with job demands and environmental changes.

The results demonstrated that knowledge sharing has a significant effect on adaptability as indicated by the t-value being greater than the critical t-value (1.96). This implies that increased knowledge exchange levels lead to improved adaptability. However, these findings are inconsistent with the theory proposed by Nonaka (2009) which emphasizes knowledge sharing as a crucial aspect of the knowledge management cycle for facilitating information exchange among group members and organizations.

4.2. Intervening Effect Analysis Results

After carrying out confirmatory factor analysis (CFA) on each variable, analysis was carried out on the full model for the structural model. The estimation results for the full structural model analysis are shown in Figure 3.

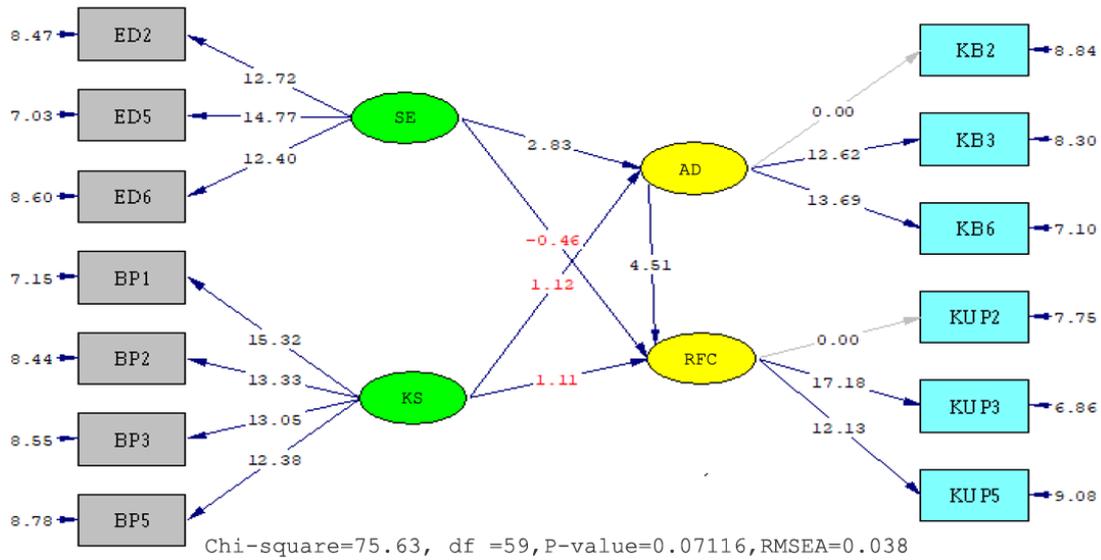


Figure 3. Intervening model test results.

Intervening model test results show the results of the parameter values in the relationship between existing latent variables as well as the magnitude of the loading factor values for each indicator forming the latent variable. The results of the existing parameter values show that there is a relationship between exogenous variables and endogenous variables.

Table 4 shows the magnitude of the direct influence, indirect influence and total effect of each variable relationship.

Table 4. Direct and indirect effects of each relationship.

No	Variable relationships	Direct influence	Indirect influence through adaptability	Total influence
1	SE --> AD	0.67	-	0.67
2	KS --> AD	0.26	-	0.26
3	AD --> RFC	0.89	-	0.89
4	SE --> AD --> RFC_ns)	-0.12	0.89 x 0.67 = 0.60	-0.12 + 0.60 = 0.48
5	KS --> AD --> RFC_ns)	0.22	0.89 x 0.26 = 0.23	0.22 + 0.23 = 0.45

Note: SE = Self-efficacy, KS = Knowledge sharing, AD = Adaptability, RFC = Readiness for change, ns) = Not significant level 5%

It can be inferred that Self-efficacy (SE) has a direct influence of -0.12 and an indirect effect of 0.60 on Readiness for Change (RFC) through adaptability (AD) based on the results of the calculations shown in Table 4. These values can be evaluated to determine that the indirect effect (0.60) is larger than the direct effect (-0.12). Therefore, it can be inferred that adaptability serves as an intervening variable and mediates the relationship between self-efficacy and readiness for change indicating the acceptance of hypothesis 6.

Furthermore, the calculation results show that the indirect effect and direct effect of knowledge sharing on readiness for change through adaptability are 0.23 and 0.22 respectively. Comparing these values, the indirect effect (0.23) is greater than the direct effect (0.22). This indicates that adaptability acts as an intervening variable and mediates the relationship between knowledge sharing and readiness for change. Thus, hypothesis 7 is supported.

The results of the full model test indicate that adaptability functions as a perfect mediating variable. The initial effect becomes insignificant after adding the intervening and exogenous variables to the endogenous variables. Several previous studies by Agero and Quines (2022); Tan (2020) and Yean et al. (2022) have also stated that adaptability can play a role as a mediator in facilitating readiness for change.

4.3. Results of Moderating Variable Analysis

Figure 4 shows the estimation results for the structural model analysis which includes moderating variables such as external environmental change.

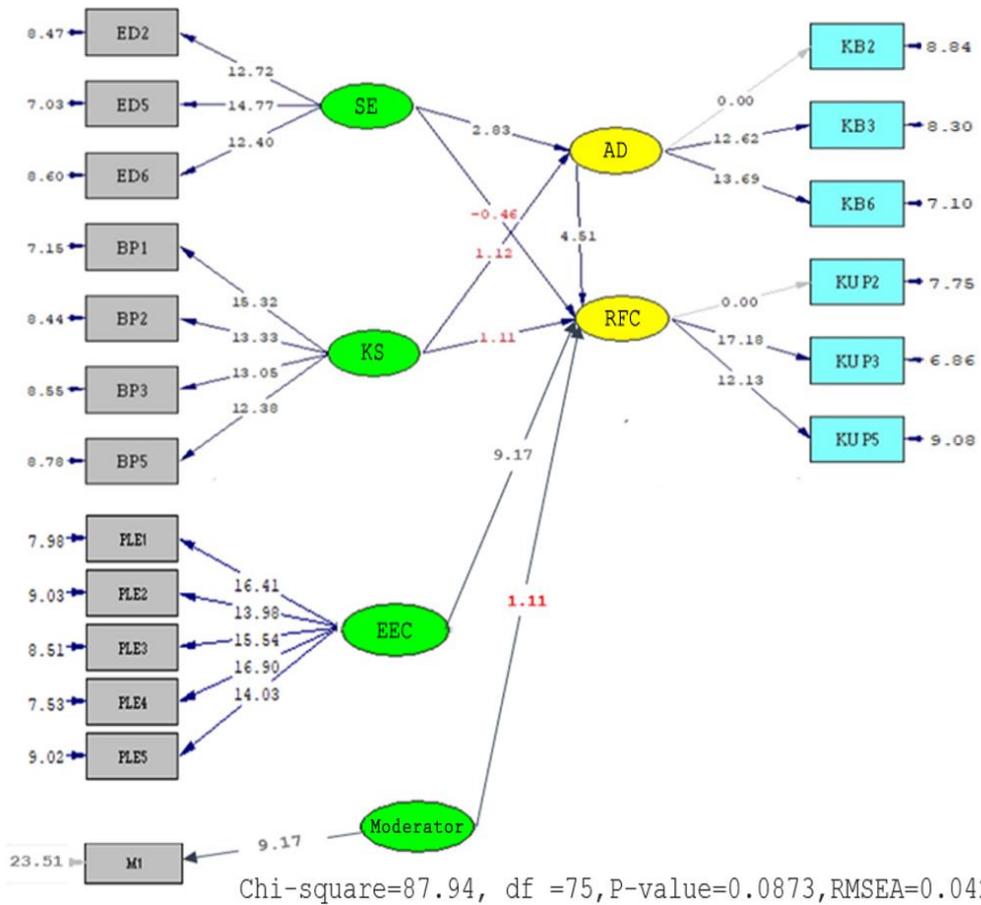


Figure 4. Moderating model test results.

The effect of moderation can be tested by modeling the interaction between the independent and moderating variables followed by evaluating the goodness of fit (GOF) in the final full model test. The results of the GOF evaluation are presented in Table 5.

Table 5. Results of the goodness of fit (GOF) full final model.

No	Criteria	Limit value	Results	Conclusion
1	X ² -chi square and significance probability	P-value ≥ 0.05	0.0873	Fit
2	GFI	> 0.90	0.92	Fit
3	AGFI	> 0.90	0.97	Fit
4	CFI	> 0.95	0.99	Fit
5	TLI	> 0.95	0.98	Fit
6	RMR	≤ 0.10	0.018	Fit
7	RMSEA	≤ 0.08	0.060	Fit

Several goodness-of-fit (GOF) statistical criteria including the chi-square value which was greater than 0.05 have been met based on Table 5. Furthermore, other GOF criteria include the Goodness of Fit Index (GFI), it is a measure of the proportion of variance and covariance in the sample data that is accounted for by the model. GFI ranges from 0 to 1 with values closer to 1 indicating better fit. The value of the Adjusted Goodness of Fit Index (AGFI) which has a range of 0 to 1 indicates a better fit. The hypothesised model's relative fit improvement

compared to a null model is measured by the Comparative Fit Index (CFI). CFI ranges from 0 to 1 with values closer to 1 indicating a better fit. Tucker-Lewis Index (TLI) is similar to CFI but it adjusts for the number of parameters in the model. TLI ranges from 0 to 1 with values closer to 1 indicating a better fit.

Root Mean Square Residual (RMR): It is a measure of the discrepancy between the observed covariance matrix and the model-implied covariance matrix. RMR ranges from 0 to 1 with values closer to 0 indicating better fit. Root Mean Square Error of Approximation (RMSEA): It is a measure of the discrepancy between the hypothesized model and the population covariance matrix. RMSEA ranges from 0 to 1 with values closer to 0 indicating better fit have also been examined. The results indicate that the final full measurement model satisfies the criteria of a good measurement model and can be used to assess construct variables.

The measurement and structural models were tested using the external environmental change moderator variable. All parameters were assessed using the t-test statistic with significance set at a t-value of > 1.96 . The results obtained were $1.11 < 1.96$. It was concluded that external environmental change was not a significant moderating variable for the relationship between adaptability and readiness for change. This leads to the rejection of hypothesis 8 based on the analysis.

5. DISCUSSION

The results of this study indicate that self-efficacy has no significant effect on readiness for change leading to the rejection of the hypothesis. These findings are inconsistent with the social cognitive theory proposed by Bandura and Adams (1977) and Jeffrey (2012). Previous research by Rahi, Alghizzawi, Ahmad, Munawar Khan, and Ngah (2022) and Zainab, Akbar, and Siddiqui (2022) has shown that self-efficacy plays an important role in moderating the relationship between readiness for change and the implementation of organizational change. Another finding suggests that the respondents were unable to overcome the difficulties imposed by leadership and there was a lack of awareness among work units regarding the importance of knowledge sharing and information exchange. This lack of knowledge sharing may be attributed to differences in facilities among private universities (Choi & Ruona, 2011). The study suggests that the management of private tertiary institutions specifically the study program units has not fully embraced and experienced the changes and demands of new work assignments (Maddux & Stanley, 1986). Additionally, knowledge sharing was found to have no significant effect on readiness for change contradicting the theory proposed by Nonaka and Takeuchi (1996). These results suggest that private tertiary institutions in the study program units have not fully embraced knowledge externalization due to varying facilities and capabilities among different institutions. On the other hand, the results of this study align with the theory of adaptation (Helson, 1964) which emphasizes the need for organizations to adapt to changing environments for survival. Therefore, it is important for private tertiary institutions to enhance their adaptability by embracing new technologies (Pulakos, Dorsey, & White, 2006). One effective approach is to develop competent human resources particularly in the field of higher education to cope with change. Study programs should also be actively involved in this process as both subjects and objects of change.

The observations and findings underscore the significance of involving human resources in addressing change readiness and overcoming resistance to organizational change (Trowler, 2015). Human resources are considered valuable assets (Jones, 2013). In this study, the dimensions of change management involvement and readiness for change in new technologies were examined. According to the findings of Alnoor, Al-Abrow, Abdullah, and Abbas (2020), it is critical that institutions of higher learning are ready to adjust and make efficient use of the latest technological advances.

6. CONCLUSION

The results of the study indicated that self-efficacy and knowledge sharing did not have a direct impact on readiness for change leading to the rejection of the hypothesis. However, adaptability was found to have a direct

influence on readiness for change supporting the hypothesis. Self-efficacy and knowledge sharing were shown to have a direct effect on adaptability and the hypothesis was accepted in this regard. The results indirectly demonstrated that self-efficacy and knowledge sharing influenced readiness for change through the mediating role of adaptability indicating acceptance of the hypothesis. The initial direct effects were no longer significant when the intervening and exogenous variables were taken into account in relation to the endogenous variables which led to the identification of adaptability as the ideal intervening variable (perfect mediation). This suggested that the immediate impact of the exogenous variables was minimal but still had an effect. The findings also revealed that the external environment change variable did not act as a moderating variable for the relationship between adaptability and readiness for change. Instead, external environment change functioned as quasi-moderator variables influencing the interaction between the independent variables and the dependent variables.

6.1. Theory Implications

The concept of change refers to a transition or a state that differs from the initial conditions. The traditional model which involves disbursement, change or refreshment is no longer applicable. Change is a phenomenon that occurs in the life of an organization experiencing a transition (Lewin, 1947). Previous studies have emphasized the interdependent contribution of various members in managing change (Burnes, 2017). Change serves as the connecting thread that organizations must navigate (Leigh, 2020). According to Robbins and Coulter (2021), human resources play a central role in both the subject and object of management. Jones (2013) highlighted the significance of human resources as valuable assets closely tied to skills and capabilities.

Studies conducted by Holt, Armenakis, Feild, and Harris (2007) examined readiness to create change in organizations while Weiner (2020) focused on readiness for organizational change as a means to prevent failure. Anticipating all possible changes that can occur at the individual, group or organizational level is essential in order to prevent failure according to expert opinions. Previous research on employee readiness for change at state universities (Gelaidan, Al-Swidi, & Mabkhot, 2018) has indicated that organizations should prioritize communication and involve employees ensuring their active participation throughout the process. Diab, Safan, and Bakeer (2018) demonstrated a positive relationship between organizational readiness and managerial behavior in change management while Yeap, Abdullah, and Thien (2021) emphasized the importance of communication, participation and employee involvement during the implementation process.

6.2. Practical Implications

The implication is that the education landscape in Indonesia requires continuous improvement and a commitment to transform digital education despite the risks associated with adapting and learning new things. Additionally, the ability to adapt to technological advancements is essential (Robert & Bliese, 2006) although it often takes time as old habits are hard to change. The issue of coordinating internal policies with government regulations arises when private tertiary institutions especially the governance units are not prepared for change. As a result, some institutions may act reluctantly or with resistance out of concern for possible setbacks.

6.3. Study Limitations

This study used quantitative methods employing structural equation models and online interview instruments to gather data on the phenomenon under investigation. However, it did not employ quantitative analysis to provide a comprehensive overview of the overall condition. This was due to the presence of numerous recently established private tertiary institutions resulting from the transition from high schools to institutes or tertiary institutions. Moreover, study programs had the ongoing challenge of enhancing their accreditation ratings which were subject to continuous changes. Future research may take into account comparing institutions and high schools in order to increase the study's scope and ensure good performance.

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Institutional Review Board Statement: The Ethical Committee of the Universitas PGRI Palembang, South Sumatra, Indonesia has granted approval for this study on 19 May 2021 (Ref. No. 0838/UN9.FR/TU.SB5/2021).

Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

Competing Interests: The authors declare that they have no competing interests.

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