**Conscientiousness on Affective Commitment to Change: The Mediating Role of Psychological Ownership**

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**Abstract**

Based on self-determination theory, this study identified the effect of conscientiousness on the affective commitment to change of lecturers in Indonesian universities. This study empirically examined the uniqueness of conscientiousness which is strongest and most consistently associated with various outcomes. The mediation effect of psychological ownership of lecturers was also examined. A total of 321 responses were analyzed using a two-stage structural equation modeling (SEM) approach to confirm factors and test the study hypotheses. The results showed that the level of conscientiousness had a significant effect on psychological ownership. Conscientiousness had a significant indirect effect on affective commitment to change only through the psychological ownership of the lecturers. These results support the mediating role of lecturers' psychological ownership level in explaining the influence between conscientiousness and the level of affective commitment to change for lecturers. Research limitations and implications are discussed and future directions of research are suggested

**Keywords:** psychological ownership, conscientiousness, affective commitment to change, self-determination theory

## INTRODUCTION

The rapid change have made several improvements and triggered new teaching practices and processes in education (Beatty et al., 2020). Several changes have enriched the current learning context such as the improvement of teaching technology. The need to reconsider the governance and management structures and management processes of higher education has been recognized in light of the dramatic changes in universities (Allen, 2003; Baker & Baldwin, 2015), such as new teaching approaches and technologies (Baker & Baldwin, 2015), environmental and sustainability issues (Hoover & Harder, 2015), and the requirement to engage with businesses to meet the impending demand for the labor market and skills along with the need to fulfill the market value of a degree (Vaira, 2004). However, organizational change can cause great stress and resistance to changes that have an impact on the organization and its members, such as increasing uncertainty and reducing well-being (Bordia et al., 2004).

This makes it important for universities to encourage human resource development and individual commitment to support change. Individual support is a key factor in implementing change in organizations (Herold et al., 2008; van der Voet, 2014; Wright et al., 2013). Commitment is one of the most important factors involved in individual support for change initiative (Armenakis & Bedeian, 1999). Based on a study conducted by Bouckenooghe et al. (2015) and Herscovitch and Meyer (2002), affective commitment to change is positively correlated with discretionary behavior and efforts to fight for change. As Conner and Patterson (1982) explain, the most common factor contributing to failed change project is a lack of commitment by individual.

Therefore, organizations must design several mechanism that can align employee interest and motivation with organizational interest, so this results in employee producing extra-role behavior that improve organizational performance. Individual psychological state has an impact on their behavior and performance. As suggested by Kubzansky and Druskat (1993), a sense of ownership can be an important part of the relationship between employees and the organization. Studies on how individual differences, dispositional factor, between individual can predict psychological ownership and affective commitment to change. According to Pierce et al. (2001) psychological ownership, apart from the result of situational factors, is also a factor of inherited genetic structure. As explained by Dittmar (1992), in addition to social factor, biological factor plays a role in forming individual relationships with their ownership. Consistent with previous study, individual difference variables such as personality traits can influence “how an individual pursues a relationship with object ownership and the types of objects deemed suitable” (Pierce et al., 2003).

According to Dawkins et al. (2017), there has been little attention to the influence of personality traits and other key individual difference variables. Further research is needed to investigate how personality traits and other individual differences can affect psychological ownership. The top five personalities Barrick and Mount (1991) found that one personality dimension, conscientiousness, showed consistent relationship with all job performance criteria for all occupational groups. Salgado (1997) obtained a similar result. In discussing the results of these studies, showing conscientiousness is related to performance in all occupations, Barrick and Mount (1991) suggest an analogy between conscientiousness in the personality domain and general mental abilities in the cognitive domain (Ree et al., 1994). Recent research on the personality-performance relationship has consistently found that conscientiousness is one of the best predictors of personality performance (Agarwal & Gupta, 2018; Biderman et al., 2008; LaHuis et al., 2005; Zhao et al., 2010). Apart from that, the relationship between conscientiousness, psychological ownership, and affective commitment to change is based on SDT. The trait of conscientiousness manifests itself in three main aspects: regularity (planned and organized), reliable “constancy” (responsible and careful), and achievement orientation (Judge et al., 1999).

In addition, Barrick et al. (1993) and Gellatly, 1996) link conscientiousness with motivation to set goals. According to Deci and Ryan (2000) SDT suggests adaptive design of the human organism to perform interesting activities, to train capacities, to pursue connections in social groups, and to integrate intrapsychic and interpersonal experiences into relative unity. The organic-dialectical perspective proposes that individual activities have an integrative tendency that coordinates them requiring basic nutrition, namely environmental support for competence, engagement, and autonomy. Therefore, the feeling of competence, autonomy, and the attachment of conscientiousness can encourage individuals to have growth in psychological ownership and affective commitment to change.

## LITERATURE REVIEW

According to John and Srivastava (1999), conscientiousness is defined as “socially determined impulse control that facilitates task-and-goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks. " Testing the potential effect of conscientiousness on affective commitment to change and work outcomes is necessary, given that individuals who are high in this nature often include characteristics such as dependability, reliability, persistence, and achievement orientation. (Barrick & Mount, 1991). In previous studies, conscientiousness was positively correlated with multiple job performance. Reliable, persistent, achievement-oriented, and organized individuals tend to perform higher in most jobs. When viewed negatively, individuals low in conscientiousness perform lower in almost all occupations (Mount & Barrick, 1998).

Previous studies considered conscientiousness as the main work motivation variable (eg, Costa & McCrae, 1992; Gellatly, 1996) and the most consistent predictor of personality from job performance in all types of work and occupation (Agarwal & Gupta, 2018; Barrick & Mount, 1991; John & Srivastava, 1999). For example, the empirical research conducted by Zhao et al. (2010) show that conscientiousness as the personality construct is most strongly and consistently associated with these two important outcomes of "entrepreneurial intention and performance" (Zhao et al., 2010). Baum and Locke (2004) found evidence to support conscientiousness as an antecedent of entrepreneurial behavior, which in turn is sequentially related to new business growth. Research has shown that a person's reaction to the perception of a favorable or unfavorable job depend on personality factor (Cullen & Sackett, 2003; Kamdar & van Dyne, 2007).

Individuals with high conscientiousness tend to have more suitable goals. SDT recognizes that differences in individual dispositions exist in terms of strength of need (Gagné & Deci, 2005). People who are high in conscientiousness will have self-confidence, discipline, order, and planning, while people who are low in conscientiousness will have insecurity in their ability to control their behavior, are spontaneous, easily distracted, and tend to procrastinate. nunda (Costa & McCrae, 1992). Therefore, individuals who have high conscientiousness will be involved in a job. These individuals are intrinsically motivated, enthusiastic about their work and bring more energy to the work than individuals without conscientiousness (Kim et al., 2009). Highly-conscious individuals tend to have more goals that are in line with goals and are intrinsically motivated to pursue their goals, thus triggering an individual's affective commitment to change. Therefore, the researcher proposes the hypothesis that conscientiousness has a positive effect on affective commitment to change. Hypothesis 1: Conscientiousness has a positive effect on affective commitment to change.

The potential effect of conscientiousness on affective commitment to change through the mediating role of psychological ownership is recommended, given that individuals who are high in this trait often include characteristics such as persistence, reliability, persistence, and achievement orientation (Barrick & Mount, 1991). Conscientious individuals tend to become very involved in their work (Organ & Lingl, 1995). Increased work involvement usually leads to increased psychological ownership (Han et al., 2010) and commitment to change (Rogiest et al., 2015). Hoyle (2010) argues that conscientiousness is an important antecedent to employee altruistic spirit, which is an important determinant of extra-role behavior (i.e., affective commitment to change). According to Organ and Lingl (1995), conscientiousness is associated with a greater likelihood of obtaining satisfying employee benefits, both formal (e.g., salary, promotion) and informal (e.g., recognition, respect, and personal achievement). Thus, these things can encourage psychological ownership because individuals who have conscientiousness substantially invest in their work, which can generate a feeling of ownership.

McCrae and Löckenhoff (2010) suggest that people who have high conscientiousness tend to set more explicit and more challenging goals. Because setting explicit and challenging goals is associated with achieving goals, and because goal attainment increases self-efficacy beliefs, people with higher awareness are more likely to develop strong self-efficacy beliefs more easily than people lower in this trait. Therefore, individuals who are high in conscientiousness tend to have psychological ownership as a mechanism that underlies the relationship of conscientiousness and affective commitment to change because they are more organized, plan-oriented, focused, not careless, not easily distracted from their duties, and reliable (Costa & McCrae, 1992). Individual has a need for psychological ownership because of their innate motives for efficacy and effect, self-identity, and having a place to live. Pierce et al. (2003) said that there will be individual differences in this process. Individuals will differ in terms of motive power, both across individuals and individuals across time. This will result in the possible development of feelings of ownership among individuals. Psychological ownership reflects a sense of responsibility for objects. Parker et al. (1997) suggested that individuals have a stronger sense of ownership when they have a perceived concern and responsibility towards the target. Psychological ownership positively affects attitude and behavior performance (Pierce et al., 1991). Psychological ownership causes proactive behavior that aims to assume responsibility for, protect, and increase ownership targets (Pierce et al., 2003). In addition, previous research has also examined the relationship between organization and psychological ownership, and other outcomes such as burnout (Kaur et al., 2013), knowledge sharing (Han et al., 2010; Peng & Pierce, 2015), owner's strategic behavior (Ikävalko et al., 2010), and factors in volunteering intention (Ainsworth, 2020).

Based on SDT, individuals who have high conscientiousness feel competent if they get the opportunity to express their competence (Ryan & Deci, 2002). The need for attachment shows caring and feelings of being cared for by others, seeking a close relationship with wanting to join a social group (Deci & Ryan, 2000). Thus, psychological ownership is much more likely to be influenced by conscientiousness, so that the individual develops a positive attitude reaction and affective commitment to change. When individuals feel engaged in work, they tend to create greater opportunities for themselves to act in a way that is consistent with their personality and reinforces the basic disposition of affective commitment to change. Therefore, psychological ownership is thought to help strengthen the effect of the conscientiousness relationship on affective commitment to change through psychological ownership. Therefore, the researcher proposes the hypothesis that psychological ownership has a mediating effect on the relationship between conscientiousness and affective commitment to change. Hypothesis 2: Psychological ownership mediates the effect of conscientiousness on affective commitment to change.

## METHODOLOGY

The population of this study is all lecturers who work at universities in Indonesia because this is relevant to the context of changes that have occurred in the learning process. In order to select the appropriate context for this study, an internet search was carried out, because information about the majority of recurring changes in organizations is disseminated either through the internet, newspapers or television coverage (Cunningham, 2006). Gornitzka (1999) and Allen (2003) suggest that the uniqueness of governance, professional autonomy and traditions of academic freedom in universities must be reflected in the process of change. This survey was sent to all lecturers working in tertiary institutions. Overall, 321 respondents have participated. Education sector organizations (i.e., universities) have been chosen as the context for this research. Gornitzka (1999) and Allen (2003) suggest that the uniqueness of governance, professional autonomy and traditions of academic freedom in universities must be reflected in the process of change. These changes apply to lecturers who responded to this research survey. This limits the sample of this study to 321 respondents, 300 of whom gave valid responses to all items included in the analysis of this study.

Respondents were asked to rate all variables on a five-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree"). Conscientiousness. According to John and Srivastava (1999), conscientiousness is defined as “socially determined impulse control that facilitates task-and-goal-directed behavior, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks. " The measurement of conscientiousness uses 9 statement indicators from John and Srivastava (1999). An example of an indicator is "I always get the job done to completion." Psychological ownership. Psychological ownership is defined as "the state in which an individual feels as if the target ownership or part of the target is 'theirs' (e.g., it is MINE!)" (Pierce et al., 2003). Psychological ownership measurement uses 7 indicators (van Dyne & Pierce, 2004). An example of an indicator is "I feel a very high level of personal ownership for this organization." Affective commitment to change. Commitment to change is “the power (mindset) that binds a person to actions deemed necessary for the successful implementation of a change initiative” (Herscovitch & Meyer, 2002, p. 475). Meanwhile, the affective commitment to change reflects the desire to provide support for change based on the belief in inherent benefits. Measurement of affective commitment to change uses 6 statement indicators from Herscovitch and Meyer (2002). An example of an indicator is "I believe in the value of this change".

## RESULTS AND DISCUSSIONS

## Statistical analysis was carried out in three different stages: (1) testing the measurement model then for the constructs in this research model (2) testing the hypothesis relationship. Confirmatory factor analysis (CFA) should be used to test the measurement model. CFA analysis through Amos 26 Graphics (Arbuckle, 2019) was carried out to ensure convergent and discriminant validity on all constructs. Convergent validity, validity, discriminant, and model suitability indices. To evaluate convergent validity, the researchers looked at standard estimates of the value of factor loadings, average variance extracted (AVE), and composite reliability (CR). Based on Table 1 the results show AVE and CR. Hair et al. (2014) stated that the AVE value is greater than 0.5 and CR is greater than 0.7 indicating that the convergent validity is adequate. Table 1 shows that the AVE value for each construct ranges from 0.503 to 0.56. This shows that the results have reached the required threshold, namely psychological ownership (PO: 0.503), affective commitment to change (Affcom: 0.501), and conscientiousness (Cons: 0.522). Table 1 shows that the proposed research model has met convergent validity. In particular, the CR value is close to or above the recommended minimum value of 0.70 (Anderson & Gerbing, 1988; Nunnally & Bernstein, 1994).

Table 1. Summary of the results of the measurement model analysis

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Construct | Total indicators | After deletion | CR | AVE | PO | AffCom | Cons |
| PO | 7 | 6 | 0,858 | 0,503 | **0,709** |  |  |
| AffCom | 6 | 5 | 0,832 | 0,501 | 0,655\*\*\* | **0,708** |  |
| Cons | 9 | 4 | 0,807 | 0,522 | 0,328\*\*\* | 0,444\*\*\* | **0,723** |

Source: Data processed by AMOS 26 Graphics.

Note: the diagonal (bold) line is the square root of AVE of each construct. \*\*\* The correlation value between constructs is smaller than the square root of AVE of each construct. PO = Psychological ownership; Affcom = Affective commitment to change; Cons = Conscientiousness; AVE = average variance extracted; CR = composite reliability

Furthermore, the second validity test is the discriminant validity test. Discriminant validity is a measure to test whether research constructs that are considered to be unrelated are, in fact, not related to each other (Campbell & Fiske, 1959). The results of the discriminant validity test of the study are shown in Table 1 which shows that the square root of AVE value of each construct is greater than the correlation value between each construct. The results show that the square root of AVE value for all variables is greater than the inter-construct correlation value of all variables, so the results in Table 1 show evidence of discriminant validity (Hair et al., 2014). Discriminant validity is achieved because the square root of AVE of each construct exceeds its correlation with other constructs (Fornell & Larcker, 1981). Therefore, it can be concluded that the test of each construct in this study has met the discriminant validity.

The first step before testing the hypothesis is to assess the GOF measurement model. The results of the evaluation of the GOF value of the measurement model of this study can be seen in Table 2, with the results of the χ2 value of 336.123, RMSEA of 0.055, SRMR of 0.067, CMIN / DF of 1.899, CFI of 0.947, and TLI of 0.937. According to Hair et al. (2014), the model is said to be feasible if at least two GOF indices testing models are met. Based on the overall evaluation of the GOF measurement model, it can be concluded that the proposed model has met the GOF indices for CMIN / DF, RMSEA, SRMR, CFI, TLI, so it can be said that the overall GOF measurement model in this study can be accepted with good GOF test results.

Table 2. The results of the structural model analysis

|  |  |
| --- | --- |
| Construct | Structural Path to- (*β* & *p-value*) |
| ***Psychological ownership*** | ***Affective commitment to change*** |
| Basic Model |  |  |
| *Conscientiousness* | 0,171\*\* | 0,265\*\*\* |
| Psychological Ownership |  | 0,487\*\*\* |
| *R*² (*R-square*) | 0,358 | 0,553 |
| Control Variable |  |  |
| Age |  | 0,191 ✝ |
| Gender |  | 0,092 ✝ |
| Years of work |  | -0,214✝ |
| Length of Work with Leaders |  | 0,039 ✝ |

 Source: Data processed by AMOS 26.

 Note: Significance of estimation; \*\*\* p <0.001, \*\* p <0.01, \* p <0.05. ✝ p> 0.1

Based on the results of the analysis of the data obtained using the AMOS 26 Graphics analysis tool, briefly the results of hypothesis testing are shown in Table 2. First, the hypothesis test results show that there is a positive effect between conscientiousness and affective commitment to change (β = 0.40, p <0.01), H1 is supported. SDT recognizes that differences in individual dispositions exist in terms of motivational strength (Gagné & Deci, 2005). Lecturers in tertiary institutions with high conscientiousness tend to have an active learning orientation, more appropriate goals, and be intrinsically motivated to pursue their goals, thus encouraging their affective commitment to organizational change in college. The results of this study confirm the previous research conducted by Bakker et al. (2012) found that conscientiousness in the relationship of work engagement with task performance, contextual performance, and active learning. In addition, in one comprehensive study of dispositional predictors, this study confirmed the findings of Lepine and Van Dyne (2001) that dispositional factors tend to influence voice behavior. Consistent with the predictive findings of Lepine and Van Dyne (2001), the study found voice behavior was more frequent among individuals who were high in conscientiousness. Individuals with high conscientiousness are reported to be reliable, responsible, organized, hardworking, and achievement-oriented (Barrick & Mount, 1991; Goldberg, 1990). In explaining these findings, lecturers with high conscientiousness were more willing to be involved in work on how to improve and overcome challenges. Thus, lecturers who have high conscientiousness tend to have an affective commitment to change because they tend to be involved in increasing work and meeting challenges.

Furthermore, Hypotheses 2 suggest that psychological ownership will mediate the respective relationship between conscientiousness towards affective commitment to change. Preacher and Hayes (2008) bootstrapping test was adopted to test the significance of the mediating effect of psychological ownership in the relationship between conscientiousness towards affective commitment to change. Bootstrapping is used to provide more conclusive evidence about the mediating effect of conscientiousness on affective commitment to change through psychological ownership.

Table 3. Mediation test results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mediation Path | *Estimate (ab)* | BC 95% CI | *P-Value* |  |
| ***Lower*** | ***Upper*** | ***Standardized Estimate*** |
| Cons --> PO --> Affcom | 0,137 | 0,059 | 0,26 | 0,008 | 0,082\*\* |

Source: Data processed by AMOS 26 Graphics.

Information: ab = estimated mediation effect, SE = standard error, BC = bias corrected, CI = confidence interval, PO = Psychological ownership, Affcom = Affective commitment to change, Cons = Conscientiousness.

The results provide support for psychological ownership which acts as a mediator between each conscientiousness towards affective commitment to change. Table 3 Bias corrected confidence intervals for this indirect effect do not contain zero values. These results indicate that psychological Ownership mediates the effect of conscientiousness on affective commitment to change (ab = 0.137, p = 0.008 \*\*, SE = 0.061, with a CI of 95% [0.059, 0.26]), H2 is supported. Hypothesis 2 also shows that there is a diminishing effect of the independent variable on the dependent variable after adding the mediating variable. The results of the mediation hypothesis test using the bootstrapping approach showed that psychological ownership was statistically significant in mediating the relationship between conscientiousness and affective commitment to change (ab = 0.137, p = 0.008 \*\*, SE = 0.061, with a CI of 95% [0.059, 0.26]). Since 0 is not included in the range of confidence intervals, it can be concluded that the effect of mediation is significant (Preacher & Hayes, 2008), H2 is supported.

Based on SDT, the approach is to identify a person's motivation and personality to take an action (Deci & Ryan, 2000). Individuals with high conscientiousness will have a need for autonomy, competence, and attachment. This study confirms the research conducted by Dawkins et al. (2017) that there is a potential influence on personality traits and individual difference variables. In addition, this is consistent with Pierce et al. (2003) regarding the key individual difference variables that can affect psychological ownership. This study adds to a small number of studies examining individual differences (i.e., conscientiousness) in influencing psychological ownership and work outcomes. This study proves that conscientiousness can encourage psychological ownership of lecturers in tertiary institutions because lecturers who have conscientiousness substantially invest in their work, which can generate a feeling of ownership. Individuals high in this trait often include characteristics such as dependability, reliability, persistence, and achievement orientation (Barrick & Mount, 1991). Conscientious individuals tend to become very involved in their work (Organ & Lingl, 1995). Thus, an increase in work involvement usually leads to an increase in psychological ownership, and then affects the affective commitment to change for lecturers in tertiary institutions.

## CONCLUSION

A summary of the results and conclusions is discussed, followed by practical and theoretical implications. Future research recommendations based on recognized research limitations are discussed. In general, this study aims to examine the effect of conscientiousness on affective commitment to change, which is then mediated by psychological ownership. Affective commitment is needed to ensure an individual's willingness to cooperate with others, to exert extra effort to achieve change goals, and to champion change (Herscovitch & Meyer, 2002). This study found that conscientiousness can be used in the higher education sector because this is relevant to the context of changes that occur in the learning process to produce a higher level of affective commitment to change and produce a better understanding of the mechanism-based psychological resources (ie, psychological ownership) where conscientiousness influences the affective commitment to change. This study found that conscientiousness had an influence on affective commitment to change. However, these results will greatly increase the affective commitment to change through the development and fulfillment of psychological resources (i.e., psychological ownership). This study shows the importance of SDT in explaining why high conscientiousness encourage a higher level of affective commitment to change. Individuals with conscientiousness tend to become deeply involved in their work (Organ & Lingl, 1995). Then, this increases psychological ownership which serves to explain why psychological ownership acts as a mechanism whereby conscientiousness leads to a higher affective commitment to change. The fact that conscientiousness lead to increased affective commitment to change has important implications. A higher affective commitment to change has been linked in previous research with attitudes to positive organizational change such as discretionary cooperative behavior and efforts to fight for organizational change (Bouckenooghe et al., 2015; Herscovitch & Meyer, 2002). Overall, understanding how affective commitment to change can be increased through individual conscientiousness with the fulfillment of psychological resources is very important in the success of organizational change.

In the existing literature on affective commitment to change, most of the empirical investigations focus on affective commitment to change as a result of various antecedent variables of situational factors such as leadership behavior (Hechanova et al., 2018; Mangundjaya & Giovanita, 2018; Mangundjaya, 2019; Michaelis et al., 2009; Odoardi et al., 2019; Thien, 2019; Thien & Adams, 2019; van der Voet et al., 2016) and organizational culture (Malik & Garg, 2017). As a route to a more comprehensive understanding of the dynamics in which individuals and organizations prepare for change. Thus, this study broadens the understanding of the mechanism that links internal motivational forces (conscientiousness) as fundamental determinants in influencing psychological resources and individual attitudes to change. Theoretically, this study strengthens SDT (Deci & Ryan, 2000). This study confirms how the differences between individual conscientiousness predict psychological ownership and then how this affects the affective commitment to change. This is consistent with Pierce et al. (2001, 2003) that several key individual difference variables can influence psychological ownership and then the results of individual attitudes and behavior. In response to this, this study seeks to explore the mediating role of psychological ownership in the relationship between antecedents and outcomes. This study finds support for the research model. Conscientiousness were found to be associated with affective commitment to change, and psychological ownership positively mediates and has a greater and significant effect on the influence.

For the management of university lecturers, the results of this study offer a number of important practical implications for organizational change. This study shows that the ability of lecturers to respond effectively to organizational change is determined by conscientiousness (dispositional) factors, their relationship with psychological resources, and individual perceptions of the situational and social environment in which the change occurs. Based on Dittmar (1992), this study suggests that biological and social experiences play a role in shaping the relationship between people and ownership. These empirical results have important practical applications. The finding that psychological ownership mediates the effect of the relationship between conscientiousness shows that efforts to encourage affective commitment to change must target the psychological resources of lecturers as well as management behavior in tertiary institutions. Conscientiousness has a limited effect if they are not accompanied by efforts to foster a sense of belonging, self-efficacy, and self-identity - the three components of psychological ownership of the lecturers. As an individual psychological difference variable, psychological ownership can easily be developed and improved through education and training (Pierce et al., 2001, 2003). For higher education, investing in socialization, education and training initiative, by providing individual time, space, and activities to develop psychological ownership, will foster an affective commitment to change for lecturers in higher education. Nonetheless, the findings of this study have two limitations. First, this study is based on a set of respondents using self-reported questionnaires that may lead to measurement bias. This study has indeed overcome this by ensuring the anonymity of respondents in the study, and the results of the single-factor test were poor, suggesting that the CMB in this study was not significant. However, the next research can prevent the problem of response bias in SDB, some common method bias factors can be applied, namely by adding SDB latent variables in the structural model. Second, because the research data is cross-sectional, this study cannot determine the causal relationship in this research model. The causality between conscientiousness, psychological ownership, and affective commitment to change must also be tested again in the longitudinal research design. This study realizes that this limits the conclusions of this research data. Thus, this study acknowledges that this research is only the first step. Future researchers should test these variables from time to time so that a causal relationship between these variables can be determined.

## REFERENCE

Agarwal, U. A., & Gupta, V. (2018). Relationships between job characteristics, work engagement, conscientiousness and managers’ turnover intentions: a moderated-mediation analysis. *Personnel Review*, *47*(2), 353–377.

Ainsworth, J. (2020). Feelings of ownership and volunteering: Examining psychological ownership as a volunteering motivation for nonprofit service organisations. *Journal of Retailing and Consumer Services*, *52*(February 2019), 101931.

Allen, D. K. (2003). Organisational climate and strategic change in higher education: Organisational insecurity. *Higher Education*, *46*(1), 61–92.

Amundsen, S., & Martinsen, Ø. L. (2014). Empowering leadership: Construct clarification, conceptualization, and validation of a new scale. *Leadership Quarterly*, *25*(3), 487–511.

Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, *103*(3), 411–423.

Arbuckle, J. L. (2019). *Amos 26.0 User’s Guide*. Chicago: IBM SPSS.

Armenakis, A. A., & Bedeian, A. G. (1999). Organizational change: A review of theory and research in the 1990s. *Journal of Management*, *25*(3), 293–315.

Armenakis, A. A., Harris, S. G., & Feild, H. S. (1999). Paradigms in organizational change: Change agent and change target perspectives. In R. Golembiewski (Ed.), *Handbook of Organizational Behavior* (pp. 631– 658). New York: Marcel Dekker.

Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior*, *21*(3), 249–269.

Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. (2009). Psychological ownership: Theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational Behaviorrnal of Marriage and Family*, *30*(3), 173–191.

Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic Need Satisfaction: A Motivational Basis of Performance and Well-Being in Two Work Settings. *Journal of Applied Social Psychology*, *34*(10), 2045–2068.

Bakari, H., Hunjra, A. I., & Niazi, G. S. K. (2017). How Does Authentic Leadership Influence Planned Organizational Change? The Role of Employees’ Perceptions: Integration of Theory of Planned Behavior and Lewin’s Three Step Model. *Journal of Change Management*, *17*(2), 155–187.

Baker, V. L., & Baldwin, R. G. (2015). A Case Study of Liberal Arts Colleges in the 21st Century: Understanding Organizational Change and Evolution in Higher Education. *Innovative Higher Education*, *40*(3), 247–261.

Bakker, A. B., Demerouti, E., & Lieke, L. (2012). Work engagement , performance , and active learning : The role of conscientiousness. *Journal of Vocational Behavior*, *80*(2), 555–564.

Barrick, M. R., & Mount, M. K. (1991). the Big Five Personality Dimensions and Job Performance: a Meta‐Analysis. *Personnel Psychology*, *44*(1), 1–26.

Barrick, M. R., Mount, M. K., & Strauss, J. P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. *Journal of Applied Psychology*, *78*(5), 715–722.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.

Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, *89*(4), 587–598.

Beatty, J. E., Leigh, J., & Dean, K. L. (2020). The More Things Change, the More They Stay the Same: Teaching Philosophy Statements and the State of Student Learning. *Journal of Management Education*, 1–10.

Bentler, P. M. (1990). Comparative fit indiceses in structural models. *Psychological Bulletin*, *107*(2), 238–246.

Biderman, M. D., Nguyen, N. T., & Sebren, J. (2008). Time-on-task mediates the conscientiousness-performance relationship. *Personality and Individual Differences*, *44*(4), 887–897.

Bohnlein, P., & Baum, M. (2020). Does job crafting always lead to employee well-being and performance? Meta-analytical evidence on the oderating role of societal culture. *International Journal of Human Resource Management*, 1–39.

Bordia, P., Hobman, E., Jones, E., Gallois, C., & Callan, V. J. (2004). Uncertainty during organizational change: Types, consequences, and management strategies. *Journal of Business and Psychology*, *18*(4), 507–532.

Bouckenooghe, D., Schwarz, G. M., & Minbashian, A. (2015). Herscovitch and Meyer’s Three-Component model of commitment to change: Meta-analytic findings. *European Journal of Work and Organizational Psychology*, *24*(4), 578–595.

Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, *97*(2), 117–134.

Burnes, B. (2011). Introduction: Why Does Change Fail, and What Can We Do About It? *Journal of Change Management*, *11*(4), 445–450.

By, R. T. (2005). Organisational change management: A critical review. *Journal of Change Management*, *5*(4), 369–380.

Byrne, B. M. (2016). *Structural Equation Modeling with Amos: Basic Concepts, Aplications, and Programming.* (3rd ed.). New York and London: Routledge Taylor & Francis Group.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, *56*(2), 81–105.

Chan, S. C. H., & Mak, W. ming. (2014). The impact of servant leadership and subordinates’ organizational tenure on trust in leader and attitudes. *Personnel Review*, *43*(2), 272–287.

Chiniara, M., & Bentein, K. (2016). Linking servant leadership to individual performance: Differentiating the mediating role of autonomy, competence and relatedness need satisfaction. *Leadership Quarterly*, *27*(1), 124–141.

Conner, D. R., & Patterson, R. W. (1982). Building commitment to organizational change. *Training & Development Journal*, *36*(4), 18–30.

Conway, N., Clinton, M., Sturges, J., & Budjanovcanin, A. (2015). Using self‐determination theory to understand the relationship between calling enactment and daily well‐being. *Journal of Organizational Behavior*, *36*(8), 1114–1131.

Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, *13*(6), 667–673.

Cullen, M. J., & Sackett, P. R. (2003). Personality and counterproductive work behavior. In M. R. Barrick & A. M. Ryan (Eds.), *Personality and Work* (pp. 150–182). Jossey-Bass, San Francisco:

Cunningham, G. B. (2006). The relationships among commitment to change, coping with change, and turnover intentions. *European Journal of Work and Organizational Psychology*, *15*(1), 29–45.

Dawkins, S., Tian, A. W., Newman, A., & Martin, A. (2017). Psychological ownership: A review and research agenda. *Journal of Organizational Behavior*, *38*(2), 163–183.

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*(4), 227–268.

Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R. M. Ryan (Ed.), *Oxford library of psychology. The Oxford handbook of human motivation* (pp. 85–107). Oxford University Press.

Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and well-being in the work organizations of a former eastern bloc country: A cross-cultural study of self-determination. *Personality and Social Psychology Bulletin*, *27*(8), 930–942.

Dittmar, H. (1992). *The social psychology of material possessions: To have is to be*. Harvester Wheatsheaf and St. Martin’s Press.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). *Perceived Supervisor Support : Contributions to Perceived Organizational Support and Employee Retention*. *87*(3), 565–573.

Eva, N., Robin, M., Sendjaya, S., van Dierendonck, D., & Liden, R. C. (2019). Servant Leadership: A systematic review and call for future research. *Leadership Quarterly*, *30*(1), 111–132.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable and measurement errors. *Journal of Marketing Research*, *18*(1), 39–50.

Gagné, M. (2003). The Role of Autonomy Support and Autonomy Orientation in Prosocial Behavior Engagement. *Motivation and Emotion*, *27*(3), 199–223.

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, *26*(4), 331–362.

Gellatly, I. R. (1996). Conscientiousness and task performance: Test of a cognitive process model. *Journal of Applied Psychology*, *81*(5), 474–482.

Goldberg, L. R. (1990). An Alternative " Description of Personality ": The Big-Five Factor Structure. *Journal of Personality and Social Psychology*, *59*(6), 1216–1229.

Gornitzka, Å. (1999). Governmental policies and organisational change in higher education. *Higher Education*, *38*(1), 5–31.

Greenleaf, R. K. (1970). *The servant as leader*. Indianapolis: Robert K. Greenleaf Center.

Greenleaf, R. K. (1977). *Servant leadership: A journey into the nature of legitimate power and greatness*. New York: Paulist Press.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis: Pearson New International Edition* (7th ed.). Pearson Education Limited.

Han, T. S., Chiang, H. H., & Chang, A. (2010). Employee participation in decision making, psychological ownership and knowledge sharing: Mediating role of organizational commitment in Taiwanese high-tech organizations. *International Journal of Human Resource Management*, *21*(12), 2218–2233.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, *76*(4), 408–420.

Hechanova, M. R. M., Caringal-Go, J. F., & Magsaysay, J. F. (2018). Implicit change leadership, change management, and affective commitment to change: Comparing academic institutions vs business enterprises. *Leadership and Organization Development Journal*, *39*(7), 914–925.

Herold, D. M., Fedor, D. B., Caldwell, S., & Liu, Y. (2008). The Effects of Transformational and Change Leadership on Employees’ Commitment to a Change: A Multilevel Study. *Journal of Applied Psychology*, *93*(2), 346–357.

Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a three-component model. *Journal of Applied Psychology*, *87*(3), 474–487.

Hoch, J. E., Bommer, W. H., Dulebohn, J. H., & Wu, D. (2018). Do Ethical, Authentic, and Servant Leadership Explain Variance Above and Beyond Transformational Leadership? A Meta-Analysis. *Journal of Management*, *44*(2), 501–529.

Hoover, E., & Harder, M. K. (2015). What lies beneath the surface? the hidden complexities of organizational change for sustainability in higher education. *Journal of Cleaner Production*, *106*, 175–188.

Hoyle, R. H. (2010). Personality and Self-Regulation. In R. H. Hoyle (Ed.), *Handbook of Personality and Self-Regulation* (pp. 1–18). United Kingdom: Willey-Blackwell Publishing Ltd.

Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indiceses in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55.

Hunter, E. M., Neubert, M. J., Perry, S. J., Witt, L. A., Penney, L. M., & Weinberger, E. (2013). Servant leaders inspire servant followers: Antecedents and outcomes for employees and the organization. *Leadership Quarterly*, *24*(2), 316–331.

Ikävalko, M., Pihkala, T., & Kraus, S. (2010). The Role of Owner-Managers’ Psychological Ownership in SME Strategic Behaviour. *Journal of Small Business and Entrepreneurship*, *23*(3), 461–479.

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. Pervin and O.P. John (Ed.), *Handbook of Personality: Theory and Research* (2nd ed., pp. 102–138). New York: Guilford (in press).

Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology*, *52*(3), 1–7.

Kamdar, D., & van Dyne, L. (2007). The Joint Effects of Personality and Workplace Social Exchange Relationships in Predicting Task Performance and Citizenship Performance. *Journal of Applied Psychology*, *92*(5), 1286–1298.

Kanat-Maymon, Y., Elimelech, M., & Roth, G. (2020). Work motivations as antecedents and outcomes of leadership: Integrating self-determination theory and the full range leadership theory. *European Management Journal*.

Kaur, D., Sambasivan, M., & Kumar, N. (2013). Effect of spiritual intelligence, emotional intelligence, psychological ownership and burnout on caring behaviour of nurses: A cross-sectional study. *Journal of Clinical Nursing*, *22*(21–22), 3192–3202.

Kim, H. J., Shin, K. H., & Swanger, N. (2009). Burnout and engagement: A comparative analysis using the Big Five personality dimensions. *International Journal of Hospitality Management*, *28*(1), 96–104.

Kirrane, M., Lennon, M., O’Connor, C., & Fu, N. (2016). Linking perceived management support with employees’ readiness for change: the mediating role of psychological capital. *Journal of Change Management*, 1–20.

Kındap-Tepe, Y., & Aktaş, V. (2019). The Mediating Role of Needs Satisfaction for Prosocial Behavior and Autonomy Support. *Current Psychology*, 1–13.

Kubzansky, P. E., & Druskat, V. U. (1993). Psychological sense of ownership in the workplace: Conceptualization and measurement. *Annual Meeting of the American Psychological Association*.

LaHuis, D. M., Martin, N. R., & Avis, J. M. (2005). Investigating Nonlinear Conscientiousness–Job Performance Relations for Clerical Employees. *Human Performance*, *18*(3), 199–212.

Lee, A., Lyubovnikova, J., Tian, A. W., & Knight, C. (2020). Servant leadership: A meta-analytic examination of incremental contribution, moderation, and mediation. *Journal of Occupational and Organizational Psychology*, *93*(1), 1–44.

Lepine, J. A., & Van Dyne, L. (2001). *Voice and Cooperative Behavior as Contrasting Forms of Contextual Performance : Evidence of Differential Relationships With Big Five Personality Characteristics and Cognitive Ability*. *86*(2), 326–336.

Leroy, H., Anseel, F., Gardner, W. L., & Sels, L. (2015). Authentic Leadership, Authentic Followership, Basic Need Satisfaction, and Work Role Performance: A Cross-Level Study. *Journal of Management*, *41*(6), 1677–1697.

Liden, R. C., Bauer, T. N., & Erdogan, B. (2004). The role of leader–member exchange in the dynamic relationship between employer and employee: Implications for employee socialization, leaders, and organizations. In J. Coyle-Shapiro, L. Shore, M. Taylor, & L. Tetrick (Eds.), *The employment relationship: Examining psychological and contextual perspectives* (pp. 226–250). Oxford: Oxford University Press.

Liden, R. C., Wayne, S. J., Liao, C., & Meuser, J. D. (2014). Servant leadership and servant culture: Influence on individual and unit performance. *Academy of Management Journal*, *57*(5), 1434–1452.

Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *Leadership Quarterly*, *19*(2), 161–177.

Luthans, F., & Avolio, B. J. (2003). Authentic Leadership Development. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive Organizational Scholarship* (pp. 241–258). San Francisco, CA: Berrett-Koehler.

Malik, P., & Garg, P. (2017). The relationship between learning culture, inquiry and dialogue, knowledge sharing structure and affective commitment to change. *Journal of Organizational Change Management*, *30*(4), 610–631.

Mangundjaya, W. L. (2019). Leadership, empowerment, and trust on affective commitment to change in state-owned organisations. *International Journal of Public Sector Performance Management*, *5*(1), 46–62.

Mangundjaya, W. L., & Giovanita, D. (2018). Transformational Leadership, Change Self-Efficacy on Affective Commitment to Change, in Banking versus Insurance Industries. *Advanced Science Letters*, *24*(1), 497–499.

Martinaityte, I., Sacramento, C., & Aryee, S. (2019). Delighting the Customer: Creativity-Oriented High-Performance Work Systems, Frontline Employee Creative Performance, and Customer Satisfaction. *Journal of Management*, *45*(2), 728–751.

Mayer, D. M. (2010). Servant leadership and follower need satisfaction. In D. van Dierendonck & K. Patterson (Eds.), *Servant Leadership: Developments in Theory and Research* (pp. 147–154). London: Palgrave Macmillan.

Mayer, D. M., Bardes, M., & Piccolo, R. F. (2008). Do servant-leaders help satisfy follower needs? An organizational justice perspective. *European Journal of Work and Organizational Psychology*, *17*(2), 180–197.

Mccrae, R. R., & Löckenhoff, C. E. (2010). Self-regulation and the five-factor model of personality traits. In R. H. Hoyle (Ed.), *Handbook of personality and self-regulation* (pp. 145–168). United Kingdom: Willey-Blackwell Publishing Ltd.

Menges, J. I., Tussing, D. V., Wihler, A., & Grant, A. M. (2017). When job performance is all relative: How family motivation energizes effort and compensates for intrinsic motivation. *Academy of Management Journal*, *60*(2), 695–719.

Miao, Q., Newman, A., Schwarz, G., & Xu, L. (2014). Servant leadership, trust, and the organizational commitment of public sector employees in China. *Public Administration*, *92*(3), 727–743.

Michaelis, B., Stegmaier, R., & Sonntag, K. (2009). Affective Commitment to Change and Innovation Implementation Behavior: The Role of Charismatic Leadership and Employees’ Trust in Top Management. *Journal of Change Management*, *9*(4), 399–417.

Mount, M. K., & Barrick, M. R. (1998). Five reasons why the “big five” article has been frequently cited. *Personnel Psychology*, *51*(4), 849–857.

Naff, K. C., & Crum, J. (1999). Working for America: Does public service motivation make a difference? *Review of Public Personnel Administration*, *19*(4), 5–16.

Neubert, M. J., Kacmar, K. M., Carlson, D. S., Chonko, L. B., & Roberts, J. A. (2008). Regulatory Focus as a Mediator of the Influence of Initiating Structure and Servant Leadership on Employee Behavior. *Journal of Applied Psychology*, *93*(6), 1220–1233.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGRAW-HILL, INC.

Odoardi, C., Battistelli, A., Montani, F., & Peiró, J. M. (2019). Affective commitment, participative leadership, and employee innovation: A multilevel investigation. *Journal of Work and Organizational Psychology*, *35*(2), 103–113.

Organ, D. W. . (1988). *Organizational Citizenship Behavior: The Good Soldier Syndrome*. Lexington Books/DC Heath and Com.

Organ, D. W., & Lingl, A. (1995). Personality, satisfaction, and organizational citizenship behavior. *Journal of Social Psychology*, *135*(3), 339–350.

Page, D., & Wong, P. T. P. (2000). A conceptual framework for measuring servant leadership. In S. Adjibolooso (Ed.), *The human factor in shaping the course of history and development* (Issue May, pp. 69–110). American University Press.

Panaccio, A., Henderson, D. J., Liden, R. C., Wayne, S. J., & Cao, X. (2015). Toward an Understanding of When and Why Servant Leadership Accounts for Employee Extra-Role Behaviors. *Journal of Business and Psychology*, *30*(4), 657–675.

Parker, S. K., Wall, T. D., & Jackson, P. R. (1997). “That’s not my job”: Developing flexible employee work orientations. *Academy of Management Journal*, *40*(4), 899–929.

Parris, D. L., & Peachey, J. W. (2013). A Systematic Literature Review of Servant Leadership Theory in Organizational Contexts. *Journal of Business Ethics*, *113*(3), 377–393.

Peng, H., & Pierce, J. (2015). Job-and organization-based psychological ownership: Relationship and outcomes. *Journal of Managerial Psychology*, *30*(2), 151–168.

Peterson, S. J., Galvin, B. M., & Lange, D. (2012). Ceo servant leadership: Exploring executive characteristics and firm performance. *Personnel Psychology*, *65*(3), 565–596.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *Academy of Management Review*, *26*(2), 298–310.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The State of Psychological Ownership: Integrating and Extending a Century of Research. *Review of General Psychology*, *7*(1), 84–107.

Pierce, J. L., Rubenfeld, S. A., & Morgan, S. (1991). Employee Ownership: a Conceptual Model of Process and Effects. *Academy of Management Review*, *16*(1), 121–144.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, *88*(5), 879–903.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891.

Putnick, D. L., & Bornstein, M. H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review*, *41*, 71–90.

Rai, R., & Prakash, A. (2012). A relational perspective to knowledge creation: Role of servant leadership. *Journal of Leadership Studies*, *6*(2), 61–85.

Ree, M. J., Earles, J. A., & Teachout, M. S. (1994). Predicting Job Performance: Not Much More Than g. *Journal of Applied Psychology*, *79*(4), 518–524.

Rogiest, S., Segers, J., & van Witteloostuijn, A. (2015). Climate, communication and participation impacting commitment to change. *Journal of Organizational Change Management*, *28*(6), 1094–1106.

Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). USA: University Rochester Press.

Salgado, J. F. (1997). The Five Factor Model of Personality and Job Performance in the European Community. *Journal of Applied Psychology*, *82*(1), 30–43.

Seligman, M. E. (1975). *Helplessness*. San Francisco: H. Freeman.

Sendjaya, S., Eva, N., Butar Butar, I., Robin, M., & Castles, S. (2019). SLBS-6: Validation of a Short Form of the Servant Leadership Behavior Scale. *Journal of Business Ethics*, *156*(4), 941–956.

Slemp, G. R., Kern, M. L., Patrick, K. J., & Ryan, R. M. (2018). Leader autonomy support in the workplace: A meta-analytic review. *Motivation and Emotion*, *42*(5), 706–724.

Steiger, J. H. (1990). Structural Model Evaluation and Modification: An Interval Estimation Approach. *Multivariate Behavioral Research*, *25*(2), 173–180.

Tang, G., Kwan, H. K., Zhang, D., & Zhu, Z. (2016). Work–Family Effects of Servant Leadership: The Roles of Emotional Exhaustion and Personal Learning. *Journal of Business Ethics*, *137*(2), 285–297.

Thien, L. M. (2019). Distributive Leadership Functions, Readiness for Change, and Teachers’ Affective Commitment to Change: A Partial Least Squares Analysis. *SAGE Open*, *9*(2), 1–15.

Thien, L. M., & Adams, D. (2019). Distributed leadership and teachers’ affective commitment to change in Malaysian primary schools: the contextual influence of gender and teaching experience. *Educational Studies*, 1–21.

Trong Tuan, L. (2017). Knowledge Sharing in Public Organizations: The Roles of Servant Leadership and Organizational Citizenship Behavior. *International Journal of Public Administration*, *40*(4), 361–373.

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, *38*(1), 1–10.

Tureman, D. (2013). The effectiveness of servant leadership in bringing about change. *Senior Thesis*.

Vaira, M. (2004). Globalization and Higher Education Organizational Change: A Framework for Analysis Globalization and higher education organizational change : A framework for analysis \* 1 . Introduction : The problem of higher education organizational in change a globaliz. *Higher Education*, *48*(4), 483–510.

Van Den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work and Stress*, *22*(3), 277–294.

van der Voet, J. (2014). The effectiveness and specificity of change management in a public organization: Transformational leadership and a bureaucratic organizational structure. *European Management Journal*, *32*(3), 373–382.

van der Voet, J., Steijn, B., & Kuipers, B. S. (2016). What’s in it for others? The relationship between prosocial motivation and commitment to change among youth care professionals. *Public Management Review*, *19*(4), 443–462.

van Dierendonck, D. (2011). Servant leadership: A review and synthesis. *Journal of Management*, *37*(4), 1228–1261.

van Dierendonck, D., Stam, D., Boersma, P., de Windt, N., & Alkema, J. (2014). Same difference? Exploring the differential mechanisms linking servant leadership and transformational leadership to follower outcomes. *Leadership Quarterly*, *25*(3), 544–562.

van Dyne, L., & Pierce, J. L. (2004). Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of Organizational Behavior*, *25*(4), 439–459.

Van Vianen, A. E. M., Shien, C.-T., & Chuang, A. (2011). Person–organization and person–supervisor fits: Employee commitments in a Chinese context. *Journal of Organizational Behavior*, *32*(1), 906–926.

Vansteenkiste, M., Niemiec, C. P., & Soenens, B. (2010). The development of the five mini-theories of self-determination theory: An historical overview, emerging trends, and future directions. *Advances in Motivation and Achievement*, *16A*, 105–165.

Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration*, *23*(3), 263–280.

Wood, R., & Bandura, A. (1989). *Social Cognitive Theory of Organizational Management University of New South Wales*. *14*(3), 361–384.

Wright, B. E., Christensen, R. K., & Isett, K. R. (2013). Motivated to adapt? The role of public service motivation as employees face organizational change. *Public Administration Review*, *73*(5), 738–747.

Zhang, H., Kwong Kwan, H., Everett, A. M., & Jian, Z. (2012). Servant leadership, organizational identification, and work‐to‐family enrichment: The moderating role of work climate for sharing family concerns. *Human Resource Management*, *51*(5), 747–768.

Zhao, H., Seibert, S. E., & Lumpkin, G. T. (2010). The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review. *Journal of Management*, *36*(2), 381–404.