



Utrecht University

The relationship between self-leadership and organizational commitment, and the
roles of job satisfaction and self-efficacy

Chenxi Guo (5139554)

Utrecht University

Master Thesis Social, Health and Organizational Psychology

Track: Work and Organizational Psychology

First assessor: Dr. Wieby Altink-van den Berg

Second assessor: Dr. Jojanneke van der Toorn

Date: June 28, 2023

Word count: 8416

May be made publicly accessible

Abstract

Currently, the use of hybrid working models increasingly requires the self-leadership of employees. Self-leadership, as the focus of ideal organizational management, has a positive impact on the individual and can also influence the organization through the individual. In order to provide some inspiration for different ways of retaining talent, this study is designed to illustrate the positive effects of self-leadership on organizational commitment and to test the mediating role of self-efficacy and job satisfaction. This study's reasoning is based on previous empirical studies' findings, the two-factor theory, and Mathieu & Zajac's antecedent and consequence model of organizational commitment. The hypothesis that self-leadership can increase employees' organizational commitment by influencing self-efficacy and job satisfaction is proposed in this study. This study used a cross-sectional survey, and the data were gathered from 212 employees. The results showed that job satisfaction mediates the positive relationship between self-leadership and organisational commitment ($b=0.06$, $p<0.05$), whereas self-efficacy did not act as a mediator.

Keywords: self-leadership, organizational commitment, job satisfaction, self-efficacy, mediating role

Introduction

Since organizational commitment was introduced by Becker in 1960, it has been recognized as an important predictor of employee turnover behaviour and individual performance (Ferris & Aranya, 1983). In the studies on the antecedents of organizational commitment, Steers (1977), and Mathieu and Zajac (1990) have emphasized the significance of the degree of organizational control and decentralization. With the development of science and technology, access to information has become easier, and the communication and decision-making process has become more streamlined and effective (Sostak & Kurz, 2020). These changes have moved organizations toward flexibility and openness, encouraging individuals to make decisions more independently. However, such a trend challenges the control and decentralization of the organization. Self-leadership is a popular concept for coping with organizational structure and management changes. It helps employees participate in organizational management and has even been considered to be the ideal management approach for modern organizations (Pearce & Manz, 2005). Therefore, this study aimed to explore the relationship between self-leadership and organizational commitment.

In addition, due to the COVID-19 pandemic, more organizations used a combination of in-office and at-home work models (Sjöblom et al., 2022). Even after the pandemic ended, many organizations also maintained this work model. Compared to working entirely in the office, employees would receive less guidance and supervision from their managers in this hybrid model. Therefore, employees need self-leadership to ensure their work is on track (Niskanen, 2021). Nowadays, work settings increasingly require self-leadership, which is one reason this study chose to focus on self-leadership.

Among the numerous studies, some researchers argue that self-leadership would be a necessary management strategy to strengthen employees' organizational commitment (Manz & Sims, 2001). Others also emphasize that self-leadership theory has a strong expectation that self-leadership and organizational commitment are strongly and positively related (Neck & Houghton, 2006). However, empirical research

on the relationship is limited (Andressen et al., 2012; Stewart et al., 2011). Therefore, this study hopes to continue the research on the relationship between self-leadership and organizational commitment and explore how self-leadership positively affects organizational commitment.

Previous research has shown that self-leadership can positively impact employee job satisfaction (Long et al., 2015). The explanation of this finding is that the more individuals engage in self-leadership, the more they are able to decide what tasks they want to perform, the reasons for performing, and when to perform (Uzman & Maya, 2019). This reflects the autonomy of employees in their work. Thus, employees are more willing to engage in their work, which increases their job satisfaction. Relatedly, Mathieu and Zajac (1990) theoretical model of the antecedents and consequences of organizational commitment emphasizes the role of job satisfaction in contributing to organizational commitment. Employees who are more satisfied with their jobs have more emotions about their jobs (Nie & Xie, 2018), which is positively reflected in their identification and loyalty to the organization, i.e. organizational commitment. Therefore, the above shows a triangular relationship in which self-leadership can play a positive role in job satisfaction and can also increase employees' organizational commitment in this way.

In addition, it is also possible that self-efficacy plays an active role in the relationship between self-leadership and organizational commitment. Self-efficacy refers to an individual's presumptions and judgments about their ability to perform a behavior (Prussia et al., 1998). Konradt et al. (2009) argue that performing self-leadership behaviors helps individuals develop strong beliefs when performing tasks. Self-leadership contributes to a positive perception of one's own effectiveness (Marshall et al., 2012). This positive relationship is evidenced by a study conducted by Boss and Sims (2008) on self-leadership training. Bandura et al. (1999) state self-efficacy affects how individuals feel, think, and act. People with a high sense of self-efficacy are more likely to believe in their ability to accomplish goals and tasks. They also feel less stress at work, are willing to actively address problems at work, and are more committed to their work and the organization (Lane et al., 2004; Schwarzer &

Hallum, 2008). Therefore, Syabarrudin et al. (2020) argue that employees with high self-efficacy are more willing to accept the goals and values of the organization and identify with it, i.e., higher levels of organizational commitment. The above also shows another triangle in which self-leadership can not only positively influence individual self-efficacy but can also further have a positive effect on organizational commitment through self-efficacy.

This study contributes to empirical research on work and organizational psychology by investigating the relationship between employees' self-leadership and organizational commitment. In previous studies, empirical studies between self-leadership and organizational commitment are limited. So this is the main contribution of this study. This study included two factors (self-efficacy and job satisfaction), which may play roles in the relationship between self-leadership and organizational commitment. In addition, as the current work settings rely more on self-leadership, research on employee self-leadership can also help employees better adapt to their work settings. Increasing employees' organizational commitment is also of great practical importance, as it predicts employee turnover behavior and is closely related to employee performance (Morris & Sherman, 1981).

Based on the above, the research question of this study is: to what extent is self-leadership related to organizational commitment, and to what extent do self-efficacy and job satisfaction mediate this relationship?

Theoretical Background and Hypotheses

Self-leadership and organizational Commitment

Organizational commitment has been a focus of research in the field of work and organizational psychology (Sang et al., 2019). It refers to an individual's attitudinal disposition to identify with and commit to a particular organization (Mowday, et al., 1982). In this study, the definition of organizational commitment combines some past perspectives (Kanter, 1968; Subramaniam et al., 1991) and is considered to be the attitude and behavior of employees. It reflects the loyalty and obedience of employees and continuous efforts to remain a member of the organization (Zaim et al., 2022).

Self-leadership focuses on self-competence and intrinsic motivation. It refers to the

process of self-direction and self-motivation that individuals engage in to accomplish tasks effectively (Sung & Lee, 2017). In this study, self-leadership prefers a personal behavioral preference. In the self-leadership theory, it is assumed that individuals initiatively and actively practice three different cognitive strategies (behavior-focused strategies, natural reward strategies, and constructive thought pattern strategies) and specific behaviors to direct and motivate themselves to accomplish the task (Manz, 1986). The attitudes and behaviors of organizational members toward work tasks do not come solely from the leader's instructions and commands but also from the organizational members' own motivation and control of their self-behavior (Manz, 1986).

Some researchers argue that a strong expectation is embedded in the theory of self-leadership. Self-leadership and organizational commitment are closely and positively related (Neck & Houghton, 2006). Stewart et al. (2019) argue that this expectation rests on the assumption that self-directed employees are guided by their daily work. Phil-Thingvad and Klausen (2020) believe that according to this assumption, employees can identify with their work and work ideals. Employees are guided by their work ideals and believe they are doing meaningful work (Liu & Chen, 2021). In the two-factor theory (Herzberg, 1959), meaningful work is precisely one important motivating factor. It encourages employees to be more committed to the organization, thus increasing employees' level of organizational commitment (Neck & Houghton, 2006). Ho and Nesbit (2014) also mentioned in their study that individuals with self-leadership develop a sense of ownership in completing their work to achieve the relevant goals. They have a sense of responsibility for their work and are willing to take a positive attitude towards the organization's goals and tasks. And empirically, studies by Phil-Thingvad and Klausen (2020) have demonstrated the positive impact of self-leadership on organizational commitment. Therefore, based on previous theories and studies, the following hypotheses can be formulated:

H1: Employee self-leadership is positively related to employees' organizational commitment.

The mediating effect of job satisfaction between self-leadership and

organizational commitment

In this study, job satisfaction refers to the individual's attitude and perception of the overall job. In rather many years of self-leadership research, studies related to job satisfaction have been one of the important aspects. Many empirical studies have shown that employee self-leadership positively impacts employee job satisfaction. Politis (2006) found that strategies centered on self-leadership behaviors significantly predicted employee job satisfaction. A study on bankers in the context of organizational crisis also mentions this relationship (Marques-Quinteiro et al., 2019). After a period of training in self-leadership for the employees of an international bank, the employees' job satisfaction was significantly improved. Ho & Nesbit's (2014) study explained this relationship: the more employees engage in self-leadership, the more they believe they can accomplish their job tasks and therefore the more satisfied they are with their jobs. From this, we can make the following assumptions:

H2: Employee self-leadership is positively related to employees' job satisfaction.

In addition, according to Mathieu & Zajac's (1990) model of the antecedents and consequences of organizational commitment, it is also possible to understand that individual job satisfaction can positively affect employees' organizational commitment. The higher an individual's job satisfaction, the more emotionally invested he or she will be in the current job. The higher the individual's job satisfaction, the more willing they are to commit themselves to their job and the more emotional attachment they have to their job and the organization. Therefore, individuals also have more commitment to the organization, especially in terms of emotions. The empirical studies by Čulibrk et al. (2018) and by (Aydogdu & Asikgil, 2011) both indicate that the higher the job satisfaction of individuals, the more willing they are to continue with their current job. Therefore, we can make the following hypothesis:

H3: Employees' job satisfaction is positively related to employees' organizational commitment.

Based on the description above and Mathieu & Zajac's model on organizational commitment, a triangular relationship between self-leadership, job satisfaction, and organizational commitment is hypothesized. Self-leadership positively influences both

job satisfaction and organizational commitment, while job satisfaction positively influences organizational commitment. For such triangulation, Mowday (1998) also mentioned in his study that how an organization is managed can not only directly affect employees' commitment to the organization but also influence organizational commitment by affecting job satisfaction. And self-leadership is considered to be a very desirable contemporary management style. Based on the contents mentioned above, we can formulate the following hypotheses:

H4: The positive relationship between employee self-leadership and organizational commitment is mediated by job satisfaction.

The mediating effect of self-efficacy in the relationship between self-leadership and organizational commitment

In this study, self-efficacy is defined as individuals' behavioral preference and judgments about their ability to perform certain behaviors (Prussia, Anderson, & Manz, 1998). Maddux and Gosselin (2012) argues that when showing self-leadership behaviors with the goal of improving performance, individuals become more determined to perform the task, have an increased sense of belief, and are thus more confident in their ability to complete the task. While Konradt et al. (2009) argue that implementing self-leadership is also a process of continuous self-control. Self-leadership can be understood as the motivating aspect of self-control, individuals directing themselves to engage in and show particular behaviors. But self-control also possesses an inhibitory aspect. Individual suppresses specific behavioral tendencies by modifying their emotions, thoughts, or actions (Timpano & Schmidt, 2013). Tuovinen (2010) stated that with the enhancement of self-control ability, individuals will have a more positive perception of their own efficacy, thus their sense of self-efficacy will be improved. Self-leadership, as the motivating aspect of self-control, can also have a positive effect on self-efficacy. In terms of empirical research, Norris (2008) and Uzman and Maya (2019) have found that self-leadership can positively predict self-efficacy. Lucke and Furtner (2015) stated that after self-leadership training, participants' self-efficacy was improved. Therefore, the following hypothesis can be formulated:

H5: Employee self-leadership is positively related to employee self-efficacy.

In addition, self-efficacy is considered to positively impact organizational commitment. Several psychologists have found a positive correlation between occupational self-efficacy and organizational commitment that can predict an individual's organizational commitment (Meyer et al., 2002). The relationship between self-efficacy and organizational commitment can be understood in light of Bandura's view of self-efficacy. He believed that self-efficacy affects how individuals feel, think, and act and how they choose and adhere to behaviors (Bandura, 2006). Individuals with high self-efficacy are able to feel competent and believe that they are sufficiently capable of accomplishing the set goals and tasks. Therefore, for the same task, individuals with high self-efficacy feel less stress and suffer fewer negative effects from stress compared to individuals with low self-efficacy. Because they believe they are competent enough to solve problems and complete tasks. They are also more willing to stick to their tasks and actively solve problems at work, i.e., they are more committed to their work and the organization (Schwarzer & Hallum, 2008)). These individuals have an increased commitment to their work and the organization and are more willing to accept the goals and values of the organization and identify more with it. At the same time, the cost of them leaving the organization is greater due to the high level of commitment, i.e. higher level of organizational commitment. Therefore, the following hypothesis can be formulated:

H6: Employees' self-efficacy is positively related to employees' organizational commitment.

Based on the above description, a triangle of self-leadership, organizational commitment, and self-efficacy can be found. Self-leadership has a positive effect on both self-efficacy and organizational commitment, and self-efficacy can positively affect organizational commitment. For the relationship among self-leadership, organizational commitment and self-efficacy, the study of Lobo (2022) on dance students' self-leadership, self-efficacy, and commitment, and Kim and Kim (2019) study on nurses' self-leadership, self-efficacy, and organizational commitment both point to the mediating role of self-efficacy. Therefore, we can formulate the following hypothesis:

H7: The positive relationship between employees' self-leadership and organizational commitment is mediated by self-efficacy.

In addition to the seven hypotheses mentioned above, it has also been suggested that self-efficacy can increase employee job satisfaction (Canrinus et al., 2012). This is due to the higher the self-efficacy and the stronger the sense of responsibility, and the individuals are more willing to set challenging goals and work hard to achieve them (Gist & Mitchell, 1992). And individual's job satisfaction will be higher.

Klassen and Chiu (2010) found that teachers with high self-efficacy had higher job satisfaction, while Caprara et al. (2006) suggested that personal characteristics such as self-efficacy were associated with job satisfaction. In a study on flight attendants, Kwon and Lee (2022) presented the results that the self-efficacy of flight attendants positively impacted job satisfaction. Therefore, we are able to formulate the following hypothesis:

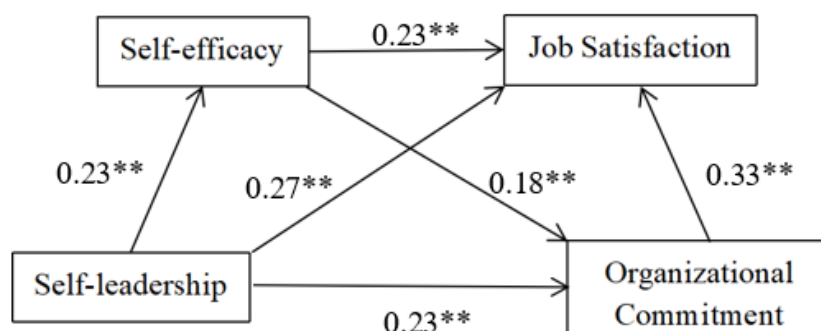
H8: Employees' self-efficacy is positively related to employees' job satisfaction.

H9: Self-efficacy and job satisfaction play a chain mediating role in the positive relationship between employee self-leadership and employees' organizational commitment.

Based on the above theoretical basis and assumptions, the conceptual model of this study is shown in Figure 1:

Figure 1

The hypothetical model of the study (the relationship among self-leadership, organizational commitment, job satisfaction and self-efficacy)



For the nine hypotheses mentioned above, H1, H3, and H6 will be tested in one regression analysis. H2 and H8 will be tested together in the same regression analysis. H5 will be tested in a regression analysis. H4, H7, and H9 will be tested together by

Process Macro. In addition to this, no control variables were included in this study. This is because, in reviewing the literature, no consistent evidence shows a control variable in the relationship between the above variables.

Method

Procedure

This study is a quantitative, cross-sectional study that does not require data collection across time and multiple times for the same participants. Therefore, for the data, this study used a more cost-effective, easy to fill out and enter online questionnaire to collect. The questionnaire was created on Qualtrics, including an informed consent form and researcher contact information. It ensured that participants understood the purpose of the study and could contact the researcher at any time in accordance with the ethical rules of Utrecht University. Participants are also required to sign this informed consent form prior to formal participation in the study. This survey was registered on the Utrecht University Ethics Review website and approved by the Faculty Ethics Review Committee. The voluntary, anonymity and confidentiality of the participants were guaranteed throughout the data collection process.

Before the questionnaire was officially published, friends and family members conducted a pre-test to collect feedback and make changes. After the modifications, the questionnaire was published on two social media platforms, WhatsApp and WeChat. My friends and family forward the link in order to get more participants. The process of data collection lasted for one week. After completing the collection process, these data were uploaded to SPSS (28.0) for analysis.

Participant

The target population of this study is employees (≥ 18 years), regardless of nationality, position, industry, or employment contract type. Based on a medium effect size of 0.15, an Alpha level of 0.05, the power of 0.95 and 3 predictors, the minimum number of responses indicated by G*Power (version 3.1.9.2) is 119. After the actual distribution of questionnaires at a later stage, a total of 212 (N) valid questionnaires were obtained.

For collecting the data, use is made of convenience sampling and snowballing, using personal networks and social media platforms such as Whatsapp and WeChat.

According to the demographic analysis results, the participants' age range was between 19 and 63, with a mean age of 35.41 (SD=12.18). In terms of gender, the percentage of males was around 49.5 (N=105), the percentage of females was about 48.5 (N=103). The number of participants who identified themselves as non-binary was 1, while 3 participants did not want to reveal their gender.

Measurement

Based on the above definitions of the four variables, four questionnaires were selected after comparing different questionnaires on the same topic in terms of reliability, validity, and length. They all match the definition in this study and have appropriate length, high reliability and validity. In addition, they are all English questionnaires with simple expressions, which are very friendly to participants of different educational backgrounds with a certain level of English.

In this study, the Cronbach's Alpha coefficient was used to measure the reliability of the questionnaire. The value of Cronbach's Alpha coefficient, if it is between 0.6 and 0.7, the reliability of the questionnaire is good. If it is between 0.7 and 0.8, the reliability of the questionnaire is very good. If it is above 0.8, the reliability of the questionnaire is extremely good.

As for the validity of the questionnaire, this study measured both content validity and construct validity. Content validity mainly refers to whether there is a logical relationship between the content of the measurement and the objectives of the study. It reflects the degree of accuracy of the questionnaire. The questionnaires used in this study are based on well-established theories and scales, which have been validated in a large number of previous studies. , These questionnaires' contents have the high degree of credibility. As for construct validity, it refers to how close the results of the measurement are to the theoretical objectives. This study used KMO and Bartlett's sphericity test to measure the validity. The Bartlett's sphericity test considers the entire correlation coefficient matrix, and if the index reaches the significance level (Sig. < 0.05), it indicates that there are common factors, and the analysis can be continued. The

KMO value ranges from 0 to 1. The high the value, the closer the measurement results are to the target to be achieved, and the more suitable for the factor analysis.

This study is primarily concerned with the path between variables, and therefore the test of the construct validity of the questionnaire is not the focus. The results of the factor analysis for each questionnaire can be found in the appendix. The subsequent analysis and discussion of the data are based on the total dimensions of the questionnaire. The total score was calculated by summing the scores of the individual items, then calculating the average.

Self-leadership

Self-leadership was measured by the Abbreviated Self-Leadership Questionnaire (Houghton et al., 2012). This questionnaire is scored on a 5-point Likert-type scale (from 1 to 5, 1 means strongly disagree and 5 means strongly agree). It has nine items: “I establish specific goals for my performance” and “I make a point to track how well I am doing at work”.

As an overall measure of self-leadership, in the study by Houghton et al. (2012), Cronbach’s Alpha for this questionnaire is 0.73. This shows that the questionnaire is reliable. In the present study, this questionnaire was also found to be very reliable with a Cronbach’s Alpha of 0.81 and an average inter-item correlation of 0.33. Bartlett’s spherical test showed a significance of less than 0.05 and a KMO value of 0.77. The factor analysis yielded three dimensions with a cumulative variance explained value of 78.21%, indicating that the three factors extracted could extract 78.21% of the information content of the total nine items. The results of the factor analysis were relatively good. The Cronbach’s Alpha coefficients for the three dimensions were 0.88, 0.79 and 0.78. The questionnaire was reliable.

Organizational Commitment

This study used the organizational commitment questionnaire (Allen & Meyer, 1990; De Gilder et al., 1997) to measure organizational commitment. The scale is scored on a 5-point Likert-type scale (from 1 to 5, 1 means strongly disagree and 5 means strongly agree). It has three sub-questionnaires with 15 items. The affective commitment questionnaire contains 5 items: “I really feel as if this organization’s

problems are my own". The continuance commitment includes 5 items like "I am afraid of what might happen if I quit my job without having another one lined up". The normative commitment consists of 5 items: "I believe that a person must always be loyal to his or her organization". In Allen and Meyer's study, the three sub-questionnaires have been proven reliable with a Cronbach's Alpha coefficients from 0.75 to 0.87.

Bartlett's sphericity test resulted in a significance of less than 0.05 and a KMO value of 0.86, making it suitable for factor analysis. The factor analysis results showed that the questionnaire could be divided into three dimensions, the same as other research. The three factors extracted explained 67.46% of all items. The Cronbach's Alpha coefficients for the three dimensions were 0.86, 0.85 and 0.88, respectively. In this study, this questionnaire was also found to be very reliable, with a total Cronbach's Alpha coefficient of 0.87 and an average inter-item correlation of 0.30.

Self-efficacy

This mediator was measured by the New General Self-Efficacy Scale (Chen et al., 2001). This scale consists of 8 items and is scored on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The items of it like "I will be able to achieve most of the goals that I have set for myself", "In general, I think that I can obtain outcomes that are important to me". In Chen's study, this scale has been proven reliable with a Cronbach's Alpha coefficient of 0.86. This questionnaire was also found to be very reliable in the current study, with a Cronbach's Alpha coefficient of 0.96 on the total demission and an average inter-item correlation of 0.75.

The significance of the Bartlett's sphericity test was less than 0.05, and the KMO value was 0.94, which was suitable for factor analysis. The results of factor analysis showed that the questionnaire had only one dimension, and the total explained variance was 77.43%.

Job satisfaction

In this study, the Minnesota Job Satisfaction Questionnaire (short form) (Weiss et al., 1977). It consists of 20 items, scored on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). It contains the items like "Being able to keep busy all

the time” “The chance to work alone on the job” and “The way my boss handles his/her workers”. The questionnaire showed high reliability in the study of its developers, with a Cronbach’s Alpha of 0.85. In the current study, this questionnaire was also found to be very reliable, with a Cronbach’s Alpha coefficient of 0.90 on the total dimension and an average inter-item correlation of 0.33.

The questionnaire’s Bartlett’s test of sphericity had a significance of less than 0.05 and a KMO value of 0.89, making it suitable for factor analysis. Factor analysis allowed the scale to be divided into four dimensions, which were able to explain 65.40% of all questions. One of the variables constitutes a separate dimension, leaving Cronbach’s Alpha values of 0.89, 0.89, and 0.83 for rest dimensions, indicating the reliability of the questionnaire.

Data Analysis

This study used SPSS 28.0 for the analysis of the data. After deleting the data from respondents who opened but did not complete the questionnaire, a total of 212 data were available. The questionnaire was first analyzed for descriptive statistics, including means and standard deviations. The validity and reliability of the questionnaires were then tested separately. The validity of each questionnaire was tested using factor analysis. Subsequently, for questionnaires divided into multiple dimensions, both the overall reliability and the reliability of each dimension were tested separately. After confirming that all of the above were acceptable, the testing of hypotheses began. The hypothesis testing stage utilized regression analysis to detect correlations between the variables. After proving that the variables were significantly correlated, Hayes’ (2018) PROCESS macro was used to analyze the data. Based on the hypothesis model for this study, the analysis was tested by using model 6. In this study, the 95% confidence interval level was used to determine whether the findings were significant. The value of the p for the significance level test should be less than 0.05.

Result

Descriptive statistics and correlations

Table 1

Means, standard deviations, and correlations (Pearson's r) between self-leadership, organizational commitment, self-efficacy, job satisfaction, age, and gender

	Mean	SD	1	2	3	4	5	6
Self-leadership	3.65	0.59	-					
Organizational Commitment	3.36	0.62	0.23**	-				
Self-efficacy	3.58	0.87	0.47**	0.18**	-			
Job Satisfaction	3.58	0.57	0.27**	0.33**	0.23**	-		
Age	35.41	12.18	0.07	0.01	0.03	-0.07	-	
Gender	1.06	0.58	-0.01	-0.18**	-0.60	-0.15*	-0.05	-

Note. ** = significance at $p < 0.01$ level. * = significance at $p < 0.05$ level.

Age = years

Gender is defined as 1 and 2: 1= male, 2 = female

Table 1 shows the means, the standard deviations and the correlations for all variables and age, gender. Based on the data presented in the table, nine relationships could be shown to be statistically significant. The first is the significant correlation between self-leadership and organizational commitment ($r = 0.23, p < 0.01$), self-efficacy ($r = 0.47, p < 0.01$), and job satisfaction ($r = 0.27, p < 0.01$). These indicate that employees with higher self-leadership have higher levels of commitment to the organization, higher self-efficacy, and higher self-satisfaction. Of the three correlations, the correlation coefficient between self-leadership and self-efficacy ranged from 0.4 to 0.6, which was moderately correlated. The remaining two correlations (self-leadership and organizational commitment, and self-leadership and job satisfaction) had correlation coefficients between 0.2 and 0.4, which were weaker than the correlations between self-leadership and self-efficacy. Secondly, it was found that there is a slight correlation between self-efficacy ($r = 0.18, p < 0.01$) and organizational commitment. This implies that employees with higher self-efficacy have higher levels of

organizational commitment. Also, it can be found that job satisfaction ($r = 0.33, p < 0.01$) was significantly correlated with organizational commitment. The higher the employee's job satisfaction, the stronger the employee's organizational commitment. Table 2 also shows a significant correlation between self-efficacy and job satisfaction ($r = 0.15, p < 0.05$). This means that employees with higher self-efficacy have more confidence that they can succeed in their job tasks and are more satisfied with their jobs.

Apart from the positive correlation, a slight negative correlation between organizational commitment and employees' gender was also significant ($r = -0.18, p < 0.01$). This implies that there is a difference in organizational commitment by gender, with males having lower levels of organizational commitment than females. Job satisfaction also differed between males and females with a significant negative relationship ($r = -0.15, p < 0.05$). This means that job satisfaction is lower for males than for females in this survey. It indicates that the responses to this questionnaire varied considerably between participants compared to the rest three questionnaire.

Hypothesis testing

As described in the theory and method chapters, a total of nine hypotheses need to be tested in this study. Five of these hypotheses need to be tested using linear regression (H1: Employee self-leadership has a significant positive effect on employees' organizational commitment. H2: Employee self-leadership has a positive impact on employee job satisfaction.; H3: Employees' job satisfaction has a positive effect on employees' organizational commitment. H5: Employee self-leadership has a positive impact on employee self-efficacy. H6: Employees' self-efficacy can positively influence employees' organizational commitment. H8: Employees' self-efficacy has a positive effect on co-group satisfaction) In this study, unstandardized coefficients were used at the time of reporting because there is no situation that which require standardize the coefficients in this study, such as different units of variables.

Table 2

Regression analysis between variables

Predictor	b	SE	t	R2
Results for dependent variable				
Organizational Commitment (H1, H3, H6)				
Self-leadership	0.24**	0.70	3.36	0.05
Self-efficacy	0.13*	0.05	2.61	0.03
Job Satisfaction	0.36**	0.07	5.11	0.11
Results for dependent variable Job Satisfaction (H2, H8)				
Self-leadership	0.26**	0.06	3.99	0.07
Self-efficacy	0.15*	0.44	3.36	0.05
Results for dependent variable Self-efficacy (H5)				
Self-leadership	0.70**	0.47	7.77	0.22

Note. ** = significance at $p < 0.01$ level. * = significance at $p < 0.05$ level.

Table 2 depicts the linear regression results for the different predictors related to the dependent variable of organizational commitment. According to Table 2, it can be found that employees' self-leadership presents a statistically significant and slightly weak positive correlation with organizational commitment ($b=0.24$, $t=3.36$, $p<0.01$). Hi is confirmed by H1. Employee self-leadership also showed a significant positive correlation with job satisfaction ($b=0.26$, $t=3.99$, $p<0.01$), which supported H2. Also, H3 was confirmed that job satisfaction showed a significant positive correlation with organizational commitment ($b=0.36$, $t=5.11$, $p<0.01$). H5 was also confirmed, showing a significant high-intensity positive correlation between self-leadership and self-efficacy ($b=0.70$, $t=7.11$, $p<0.01$). In addition, the H6 and H8 are also confirmed. Self-

leadership was positively associated with employees' organizational commitment (H6, $b = 0.13$, $t = 2.61$, $p < 0.05$). There was a slight correlation between self-efficacy and job satisfaction, and this correlation was significant (H8, $b = 0.15$, $t = 3.36$, $p < 0.05$).

After testing H1, H2, H3, H5, H6, and H8 using linear regression, Hayes' (2018) PROCESS macro will be used to test the remaining three hypotheses (H4, H7, and H9), which are tests of the mediating role of self-efficacy and job satisfaction. Macros refer to templates that can test various mediating and moderating relationships. It has a Bootstrap sample of 5000 and a confidence interval of 95%. Based on the three hypotheses that want to be tested, Model 6 was chosen to be tested in this study because H4 and H7 need to test two simple mediating relationships, while H9 needs to test multiple mediating relationships. Table 3 shows the results of the test using PROCESS macro.

Table 3

Mediating effects of self-efficacy and job satisfaction in the influence of self-leadership on organizational commitment

Path	Mediating effect	Percentage of total mediating effect	Confidence interval	
			BootLL CI	BootUL CI
Ind1: self-leadership — self-efficacy —organizational commitment (H4)	0		-0.0579	0.1126
Ind2: self-leadership — job satisfaction— organizational commitment (H7)	0.06	100%	0.0013	0.1462
Ind3: self-leadership — self-efficacy—job satisfaction — organizational commitment (H9)	0		-0.0027	0.0485
Total Mediating Effect: Ind1+Ind2+Ind3	0.06	100%	0.0060	0.2148

According to Table 3, it is clear that self-efficacy does not play a mediating role in the relationship between employees’ self-leadership and organizational commitment. The Ind1, the confidence interval corresponding to H7, contains 0. So the results are not statistically significant, and H7 is rejected. Similarly, the confidence interval for Ind3 contains 0. The result corresponding to it is also not statistically significant. H9 is rejected. However, the interval corresponding to Ind2 shown in Table 3 does not contain 0 and has a significant positive indirect effect of 0.06. It indicates that job satisfaction does play a mediating role between employees’ self-leadership and organizational commitment. H4 is confirmed. What’s more, we were further able to find that job satisfaction acts as a complete mediator in self-leadership and organizational

commitment.

In summary, H1, H2, H3, H5, H6, H4, H8 were confirmed, while H7 and H9 were rejected.

Table 4

Results of the test of hypothesis

Hypothesis	Test results
H1: Employee self-leadership is positively related to employees' organizational commitment.	Confirmed
H2: Employee self-leadership is positively related to employees' job satisfaction.	Confirmed
H3: Employees' job satisfaction is positively related to employees' organizational commitment.	Confirmed
H4: The positive relationship between employee self-leadership and organizational commitment is mediated by job satisfaction.	Confirmed
H5: Employee self-leadership is positively related to employee self-efficacy.	Confirmed
H6: Employees' self-efficacy is positively related to employees' organizational commitment.	Confirmed
H7: The positive relationship between employees' self-leadership and organizational commitment is mediated by self-efficacy.	Rejected
H8: Employees' self-efficacy is positively related to employees' job satisfaction.	Confirmed
H9: The positive relationship between employees' self-leadership and organizational commitment is mediated by a chain of self-efficacy and job satisfaction	Rejected

Discussion

This study intends to explore the mediating role that self-efficacy and job satisfaction play in the relationship between self-leadership and organizational

commitment. The core is the mediating effect of self-efficacy and job satisfaction. The results from the data analysis confirm that job satisfaction plays a positive mediating role in the influence of self-leadership on organizational commitment. Based on these results, it can be considered that the employees are more willing to engage in self-leadership. They are more have a high level of job satisfaction, which in turn increases their commitment to the organization (Mowday, 1986). As for self-efficacy, another variable that may serve as a mediator between self-leadership and organizational commitment, it was not found to be statistically significant after data analysis.

In this study, the two hypotheses about mediation are the center, one of which is significant at the statistical level. Therefore, the discussion will mainly focus on these two hypotheses and give possible explanations.

The relationship between self-leadership and organizational commitment

The results of this study showed that self-leadership has a positive effect on organizational commitment in a statistically significant manner (H1) ($b=0.24, p<0.01$). This is in line with the results of previous empirical studies. Studies by (Pihl-Thingvad, 2014), affirm that self-leadership has a positive impact on organizational commitment. The two-factor theory explains the relationship in the theoretical section (Herzberg, 1959). In addition, combine to two factors theory, Maslow's hierarchy of needs theory could also explain the relationship between self-leadership and organizational commitment.

As mentioned earlier, self-leadership is a concept related to decentralization, which implies that employees have more autonomy in their work. According to the Hierarchy of Needs, the need for self-actualization consists of the individual's willingness to realize his or her potential (Nie & Xie, 2018). The increased autonomy of employees at work for the same task makes it more likely that they will be willing to choose a different time and a different method to complete it. This is a process in which employees have the will to make changes, challenge themselves, practice their different abilities, and fulfil their potential. The fact that employees see their work as meaningful and may even discover new meaning, which can be a motivating factor. And Maslow's hierarchy of needs theory mentions that intrinsic needs have a long-

term motivational effect. Self-actualization, as a higher, intrinsic need, is difficult to fully satisfy and can have a long-term encouraging effect. Employees have more emotional attachment to the job, thus increasing their organizational commitment.

Job satisfaction as a mediator between self-leadership and organizational commitment

Based on the proven relationship between these self-leadership and organizational commitment, this study proposed the hypothesis of job satisfaction as a mediating variable in the relationship between self-leadership and organizational commitment (H4). And this result was confirmed in this study. The Job Demand-Resources Model (JDR Model) provides a possible explanation for this finding.

Self-leadership, a theory of directing and influencing oneself, is clear that it can impact the individual as a personal resource. In conjunction with the link between self-leadership and decentralization mentioned above, this influence is that the individual has more autonomy in his or her work. According to the motivational process of the JDR Model, self-leadership as a personal resource has a positive impact on job resources, which in turn has a positive effect on outcomes (H2), i.e. job satisfaction ($b=0.26$, $p<0.01$) and organizational commitment.

Regarding the relationship between job satisfaction and organizational commitment, Matheiu & Zajac's model on organizational commitment believes that job satisfaction positively impacts organizational commitment (H3). A possible explanation for this relationship is that the higher the job satisfaction of employees, the more attached they are to their work and the organization. Employees therefore need to expend more psychological resources to deal with their emotions when leaving the organization. Individuals have an increased emotion-cost of leaving the organization, resulting in employees are more willing to stay in their current organization. The results of this study ($b=0.36$, $p<0.01$) also illustrate the positive relationship between the two variables. Combined with the previous findings of Mowday (1986) and the proposed conclusion that self-leadership can influence not only job satisfaction but also an organizational commitment by influencing job satisfaction, H4 was confirmed in this study ($b=0.06$, $p<0.05$).

Self-efficacy as a mediator of self-leadership and organizational commitment

Also, based on the proven, positive relationship between self-leadership and organizational commitment, this study proposes H7, based on some empirical results and scholars' understanding that self-efficacy can play a mediating role in self-leadership and organizational commitment. However, the data results showed that H7 was not statistically significant ($b = 0.02$, $p > 0.05$). And H9, which is associated with H7 and assumes that self-leadership can positively influence organizational commitment through a dual chain of self-efficacy and job satisfaction mediators, was also rejected in this study ($b = 0.02$, $p > 0.05$). Combined with the results of the linear regression analysis, we can find that H5 was confirmed ($b = 0.70$, $p < 0.01$), and there is a very positive correlation between self-leadership and self-efficacy. However, the effect of self-efficacy on job satisfaction (H8) ($b = 0.15$, $p < 0.05$) and organizational commitment (H6) ($b = 0.13$, $p < 0.05$) were very weak.

Attribution theory may provide a possible explanation for the inability of self-efficacy to act as a mediator. Individuals, in order to adapt to the environment, try to find explanations for the environment. The attribution theory suggests that these explanations can be divided into endogenous explanations and exogenous explanations (Weiner, 1972).

Individuals with high self-efficacy tend to attribute their success to subjective factors. For example, the individuals suppose their success is due to their own ability or their effort. Objective factors are not seen as playing an important role in the individual's success, such as the support of the organization. Therefore, individuals with high self-efficacy do not have a specific preference regarding whether they want to remain with the organization.

Individuals with a low sense of self-efficacy also tend to look for the causes of their behavior in subjective terms. They believe that they have limited abilities and therefore have a great fear of failure. They are likely to feel stressed and experience anxiety in the organization and thus desire to leave the organization. But due to lack of confidence in their abilities, individuals may be unsure whether they will get better or equal salaries in other organizations. Therefore, there is also no typical tendency for individuals with

low self-efficacy to stay with the organization.

Conclusion

Self-leadership is increasingly necessary as an ideal way of organization management. It has positive implications for both the individual and the organization. The results of this study show that, on the one hand, self-leadership can directly influence individuals' self-efficacy, job satisfaction and organizational commitment. Self-leadership positively influences individuals' feelings, thoughts and behaviors and ensures their work is completed successfully. On the other hand, self-leadership can also indirectly influence individuals' organizational commitment by increasing their job satisfaction, which plays a positive role in retaining talent. Therefore, organizations can organize regular training sessions to help employees understand and practice self-leadership.

However, this study only focuses on the mediating role among these four variables. In fact, there may be additional variables that play a moderating role. For example, the relationship between self-efficacy and job satisfaction may be moderated by the difficulty of the work. Testing these additional variables would not only improve the theoretical framework but also give some inspiration for job design.

Reference

- Allen, N.J., & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational & Organizational Psychology*, 63(1), 1-18.
- Andressen, P., Konradt, U., & Neck, C. P. (2012). The relation between self-leadership and transformational leadership: Competing models and the moderating role of virtuality. *Journal of leadership & organizational studies*, 19(1), 68-82.
- Aydogdu, S., & Asikgil, B. (2011). An empirical study of the relationship among job satisfaction, organizational commitment and turnover intention. *International review of management and marketing*, 1(3), 43-53.
- Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy beliefs of adolescents*, 5(1), 307-337.
- [Record #163 is using a reference type undefined in this output style.]
- Boss, A. D., & Sims, H. P. (2008). Everyone fails! Using emotion regulation and self-leadership for recovery. *Journal of Managerial Psychology*, 23(2), 135-150.
- Canrinus, E. T., Helms-Lorenz, M., Beijaard, D., Buitink, J., & Hofman, A. (2012). Self-efficacy, job satisfaction, motivation and commitment: Exploring the relationships between indicators of teachers' professional identity. *European Journal of Psychology of Education*, 27, 115-132.
- Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of school psychology*, 44(6), 473-490.
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational research methods*, 4(1), 62-83.
- Ćulibrk, J., Delić, M., Mitrović, S., & Ćulibrk, D. (2018). Job satisfaction, organizational commitment and job involvement: The mediating role of job involvement. *Frontiers in Psychology*, 9, 132.
- De Gilder, D., van den Heuvel, H., & Ellemers, N. (1997). Het 3-componenten model van commitment. / A three component model of organizational commitment. *Gedrag en Organisatie*, 2), 95-106.
- Ferris, K. R., & Aranya, N. (1983). A Comparison of Two Organizational Commitment Scales 1. *Personnel psychology*, 36(1), 87-98.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, 17(2), 183-211.
- Ho, J., & Nesbit, P. L. (2014). Self-leadership in a Chinese context: Work outcomes and the moderating role of job autonomy. *Group & Organization Management*, 39(4), 389-415.
- Houghton, J. D., Dawley, D., & DiLiello, T. C. (2012). The abbreviated self-leadership questionnaire (ASLQ): A more concise measure of self-leadership. *International Journal of Leadership Studies*, 7(2), 216-232.
- Kanter, R. M. (1968). Commitment and social organization: A study of commitment mechanisms in utopian communities. *American sociological review*, 499-517.
- Kim, H., & Kim, K. (2019). Impact of self-efficacy on the self-leadership of nursing preceptors: The mediating effect of job embeddedness. *Journal of Nursing Management*, 27(8), 1756-1763.
- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of educational Psychology*, 102(3), 741.
- Konradt, U., Andreßen, P., & Ellwart, T. (2009). Self-leadership in organizational teams: A multilevel analysis of moderators and mediators. *European journal of work and organizational psychology*,

18(3), 322-346.

- Kwon, D.-H., & Lee, S.-h. (2022). A Study on the Mediating Effect of Self-Efficacy in the Relationship between Self-leadership and Customer Orientation: Focusing on Airline Cabin Crew. *Journal of Korean Society for Quality Management*, 50(3), 441-457.
- Lane, J., Lane, A. M., & Kyprianou, A. (2004). Self-efficacy, self-esteem and their impact on academic performance. *Social Behavior and Personality: an international journal*, 32(3), 247-256.
- Liu, J., & Chen, A. (2021). THE INFLUENCE OF ORGANIZATIONAL COMMITMENT ON JOB PERFORMANCE WITH EMPLOYEE ENGAGEMENT AS A MEDIATOR. *Chinese Journal of Social Science and Management*, 5(2), 45-60. <https://so01.tci-thaijo.org/index.php/CJSSM/article/view/224314>
- Lobo, J. (2022). The Relationship of Leadership Style to Commitment: Choreographers and Student Dancers' Perspective. *IJELM–International Journal of Educational Leadership and Management*, 11(2).
- Long, C. S., Alifiah, M. N., Kowang, T. O., & Ching, C. W. (2015). The relationship between self-leadership, personality and job satisfaction: A review. *Journal of Sustainable Development*, 8(1), 16.
- Lucke, G. A., & Furtner, M. R. (2015). Soldiers lead themselves to more success: A self-leadership intervention study. *Military Psychology*, 27(5), 311-324.
- Maddux, J. E., & Gosselin, J. T. (2012). *Self-efficacy*. The Guilford Press.
- Manz, C. C. (1986). Self-leadership: Toward an expanded theory of self-influence processes in organizations. *Academy of Management Review*, 11(3), 585-600.
- Manz, C. C., & Sims, H. P. (2001). *The new superleadership: Leading others to lead themselves*. berrett-koeehler publishers.
- Marques-Quinteiro, P., Vargas, R., Eifler, N., & Cural, L. (2019). Employee adaptive performance and job satisfaction during organizational crisis: the role of self-leadership. *European journal of work and organizational psychology*, 28(1), 85-100.
- Marshall, G., Kiffin-Petersen, S., & Soutar, G. (2012). The influence personality and leader behaviours have on teacher self-leadership in vocational colleges. *Educational Management Administration & Leadership*, 40(6), 707-723.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological bulletin*, 108(2), 171.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20-52.
- Morris, J. H., & Sherman, J. D. (1981). Generalizability of an organizational commitment model. *Academy of management Journal*, 24(3), 512-526.
- Mowday, R. T. (1998). Reflections on the study and relevance of organizational commitment. *Human Resource Management Review*, 8(4), 387-401.
- Neck, C. P., & Houghton, J. D. (2006). Two decades of self-leadership theory and research: Past developments, present trends, and future possibilities. *Journal of Managerial Psychology*, 21(4), 270-295.
- Nie, Q., & Xie, Y. (2018). Family-supportive supervisor behaviour and turnover propensity: The multiple mediating roles of work-family conflict bidirectionality and job satisfaction. *Human Resource Development in China*, 35(1), 48-59.

- Niskanen, E. (2021). Self-leadership in remote work.
- Norris, S. E. (2008). An examination of self-leadership. *Emerging leadership journeys*, 1(2), 43-61.
- Pearce, C. L., & Manz, C. C. (2005). The new silver bullets of leadership: The importance of self-and shared leadership in knowledge work.
- Phil-Thingvad, S., & Klausen, K. K. (2020). Managing the implementation of innovation strategies in public service organisation—How managers may support employees innovative work behaviour. *International Journal of Innovation Management*, 24(04), 2050074.
- Pihl-Thingvad, S. (2014). Is self-leadership the new silver bullet of leadership? An empirical test of the relationship between self-leadership and organizational commitment. *Management Revue*, 25(2), 103-124. <http://www.jstor.org/stable/24709919>
- Politis, J. D. (2006). Self-leadership behavioural-focused strategies and team performance: The mediating influence of job satisfaction. *Leadership & Organization Development Journal*, 27(3), 203-216.
- Prussia, G. E., Anderson, J. S., & Manz, C. C. (1998). Self-leadership and performance outcomes: the mediating influence of self-efficacy. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 19(5), 523-538.
- Sang, L., Xia, D., Ni, G., Cui, Q., Wang, J., & Wang, W. (2019). Influence mechanism of job satisfaction and positive affect on knowledge sharing among project members: Moderator role of organizational commitment. *Engineering, Construction and Architectural Management*.
- Schwarzer, R., & Hallum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout: Mediation analyses. *Applied psychology*, 57, 152-171.
- Sjöblom, K., Juutinen, S., & Mäkikangas, A. (2022). The importance of self-leadership strategies and psychological safety for well-being in the context of enforced remote work. *Challenges*, 13(1), 14.
- Sostak, H., & Kurz, P. (2020). Organizational Design in the Digital Age: A Systematic Literature Review. Available at SSRN 3658131.
- Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. *Administrative science quarterly*, 46-56.
- Stewart, G. L., Courtright, S. H., & Manz, C. C. (2011). Self-leadership: A multilevel review. *Journal of management*, 37(1), 185-222.
- Stewart, G. L., Courtright, S. H., & Manz, C. C. (2019). Self-leadership: A paradoxical core of organizational behavior. *Annual Review of Organizational Psychology and Organizational Behavior*, 6, 47-67.
- Subramaniam, A., Jones, W. K., Gulick, J., Wert, S., Neumann, J., & Robbins, J. (1991). Tissue-specific regulation of the alpha-myosin heavy chain gene promoter in transgenic mice. *Journal of Biological Chemistry*, 266(36), 24613-24620.
- Sung, M.-H., & Lee, M.-Y. (2017). Effects of self-leadership, clinical competence and job satisfaction on nurses' job involvement. *Journal of Korean Clinical Nursing Research*, 1-8.
- Syabarrudin, A., Eliyana, A., & Naimah, J. (2020). Does employees' self-efficacy drive their organizational commitment? *Systematic Reviews in Pharmacy*, 11(4).
- Timpano, K. R., & Schmidt, N. B. (2013). The relationship between self-control deficits and hoarding: a multimethod investigation across three samples. *Journal of abnormal psychology*, 122(1), 13.
- Tuovinen, T. (2010). Self-leadership among Savonia UAS students.

- Uzman, E., & Maya, I. (2019). Self-Leadership Strategies as the Predictor of Self-Esteem and Life Satisfaction in University Students. *International Journal of Progressive Education*, 15(2), 78-90.
- Weiner, B. (1972). Attribution theory, achievement motivation, and the educational process. *Review of educational research*, 42(2), 203-215.
- Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1977). Minnesota satisfaction questionnaire--short form. *Educational and Psychological Measurement*.
- Zaim, H., Ramadani, V., Dinibutun, S. R., Gërguri-Rashiti, S., & Said, D. S. (2022). Knowledge management and human resources performance: evidence from Turkish family businesses. *Journal of Family Business Management*, 12(2), 185-199.

Appendix A

Participant information and consent

Welcome to this research study!

This research will be conducted for my Master in Work and Organizational Psychology at the Utrecht University. The purpose of this research is to understand the adaptive behavior in organizations: self-leadership in organizations. You will be presented with information / statements that are relevant to you and your organizations. Please be assured that your responses will be kept anonymous and confidential throughout the study. Your responses will be only accessed by the main researcher and will only be used for the purpose of completing this study.

Participant Information

To participate in this study, the only requirement is that you should currently be working within an organization. You should try to answer the questions/statements as honestly as possible.

At the beginning of the survey, you will be asked a few questions about your gender, age, nationality, and your job. These questions are asked in order to understand the background of the participants participating in this study. There is no point where you would have to give your name, keeping your answers anonymous.

Filling in the questionnaire should take you around 10 minutes. Your participation in this research is fully voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you wish to withdraw your participation, please contact the researcher.

As a participant, you have the right to ask to see the final product of this research study. If you wish to receive the final product, please contact the main researcher.

By clicking the “I consent” in the following content, you acknowledge that your participation in the study is indeed voluntary, you are at least 18 years of age, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Please note that this survey will be best displayed on a laptop or desktop computer.

Some features may be less compatible for use on a mobile device.

Contact Information

If you would like to contact the main researcher of this study, please email Chenxi with any questions / remarks about the study at c.guo1@students.uu.nl

If you have more formal complaints / comments, you can contact the complaints officer at klachtenfunctionaris-fetcsocwet@uu.nl

Informed Consent

By clicking 'I consent', you confirm to have read the information above and acknowledge that your participation in the study is voluntary, you are at least 18 years of age, and that you have the right to withdraw from the survey at any point, for any reason. You agree to the anonymous collection of your data. If you click 'I do not consent' your participation in the study will be terminated.

I consent.

I do not consent.

Appendix B
Demographic Questions

1. How old are you?

2. What's your gender?

- Male
- Female
- Non-binary/third gender
- Prefer not to say

3. What's the highest level of education that you have completed?

- High school
- Vocational education
- Bachelor's degree
- Master's degree
- PhD/Doctorate
- No degree or diploma obtained

4. Which sector do you work in?

- Agricultural
- Construction
- Advertising and marketing
- Transport and storage
- Computer and technology
- Finance and economic
- Professional and scientific activities
- Administrative and support service activities
- Public administrations and defence
- Education

- Healthcare and welfare
- Arts, entertainment, and recreation
- Other service activities
- Energy
- Fashion
- Hospitality
- Pharmaceutical
- Telecommunication
- Other, namely:

5. How long have you been working in the current organization? (in years)

6. How many hours do you work in total per week? (including working overtime)

7. How many hours do you work on average remotely per week?

8. What type of your contract?

- Permanent contract
- Temporary contract
- Other

9. What's your nationality?

Appendix C

Self-leadership Questionnaire

The following statements relate to your self-leadership. Please indicate to what extent each statement applies to you by filling in the most appropriate number (from 1 to 5) each time?

1 Strongly Disagree	2 Disagree	3 Neither Disagree nor Agree	4 Agree	5 Strongly Agree
---------------------------	---------------	---------------------------------------	------------	---------------------

1	I establish specific goals for my own performance	1	2	3	4	5
2	I make a point to keep track of how well I'm doing at work	1	2	3	4	5
3	I work toward specific goals I have set for myself	1	2	3	4	5
4	I visualize myself successfully performing a task before I do it	1	2	3	4	5
5	Sometimes I picture in my mind a successful performance before I actually do a task	1	2	3	4	5
6	When I have successfully completed a task, I often reward myself with something I like	1	2	3	4	5
7	Sometimes I talk to myself (out loud or in my head) to work through difficult situations	1	2	3	4	5
8	I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with	1	2	3	4	5
9	I think about my own beliefs and assumptions whenever I encounter a difficult situation	1	2	3	4	5

Appendix D

Organizational Commitment Questionnaire

The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you by filling in the most appropriate number (from 1 to 5) each time?

1 Strongly Disagree	2 Disagree	3 Neither Disagree nor Agree	4 Agree	5 Strongly Agree
---------------------------	---------------	---------------------------------------	------------	---------------------

1	I really feel as if this organization's problems are my own	1	2	3	4	5
2	I feel "emotionally attached" to this organization	1	2	3	4	5
3	This organization has a great deal of personal meaning for me	1	2	3	4	5
4	I feel a strong sense of belonging to my organization	1	2	3	4	5
5	I feel like "part of the family" at my organization	1	2	3	4	5
6	It would be very hard for me to leave my organization right now, even if I wanted to	1	2	3	4	5
7	One of the few serious consequences of leaving this organization would be the scarcity of available alternatives	1	2	3	4	5
8	I feel that I have too few options to consider leaving this organization	1	2	3	4	5
9	Too much in my life would be disrupted if I decided I wanted to leave my organization now	1	2	3	4	5
10	I am afraid of what might happen if I quit my job without having another one	1	2	3	4	5

	lined up					
11	I was taught to believe in the value of remaining loyal to one organization	1	2	3	4	5
12	Jumping from organization to organization seems unethical to me	1	2	3	4	5
13	Things were better in the days when people stayed with one organization for most of their careers	1	2	3	4	5
14	I believe that a person must always be loyal to his or her organization	1	2	3	4	5
15	One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain	1	2	3	4	5

Appendix E
Self-efficacy Questionnaire

The following statements relate to your belief in your capacity to execute behaviors. Please indicate to what extent each statement applies to you by filling in the most appropriate number (from 1 to 5) each time?

1 Strongly Disagree	2 Disagree	3 Neither Disagree nor Agree	4 Agree	5 Strongly Agree		
1	I will be able to achieve most of the goals that I have set for myself	1	2	3	4	5
2	When facing difficult tasks, I am certain that I will accomplish them	1	2	3	4	5
3	In general, I think that I can obtain outcomes that are important to me	1	2	3	4	5
4	I believe I can succeed at most any endeavor to which I set my mind.	1	2	3	4	5
5	I will be able to successfully overcome many challenges.	1	2	3	4	5
6	I am confident that I can perform effectively on many different tasks.	1	2	3	4	5
7	Compared to other people, I can do most tasks very well.	1	2	3	4	5
8	Even when things are tough, I can perform quite well.	1	2	3	4	5

Appendix F
Job Satisfaction Questionnaire

The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job by filling in the most appropriate number (from 1 to 5) each time?

1	2	3	4	5
Very Dissatisfied	Dissatisfied	Neither Satisfied nor Dissatisfied	Satisfied	Very Satisfied

On my present job, this is how I feel about						
1	Being able to keep busy all the time	1	2	3	4	5
2	The chance to work alone on the job	1	2	3	4	5
3	The chance to do different things from time to time	1	2	3	4	5
4	The chance to be “somebody” in the community	1	2	3	4	5
5	The way my boss handles his/her workers	1	2	3	4	5
6	The competence of my supervisor in making decisions	1	2	3	4	5
7	Being able to do things that don’t go against my conscience	1	2	3	4	5
8	The way my job provides for steady employment	1	2	3	4	5
9	The chance to do things for other people	1	2	3	4	5
10	The chance to tell people what to do	1	2	3	4	5
11	The chance to do something that makes use of my abilities	1	2	3	4	5
12	The way company policies are put into practice	1	2	3	4	5

13	My pay and the amount of work I do	1	2	3	4	5
14	The chances for advancement on this job	1	2	3	4	5
15	The freedom to use my own judgment	1	2	3	4	5
16	The chance to try my own methods of doing the job	1	2	3	4	5
17	The working conditions	1	2	3	4	5
18	The way my co-workers get along with each other	1	2	3	4	5
19	The praise I get for doing a good job	1	2	3	4	5
20	The feeling of accomplishment I get from the job	1	2	3	4	5

Appendix G

The Factor Analysis Result of Self-leadership

Items	Component		
	1	2	3
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - I work toward specific goals I have set for myself	.880	.176	.173
X2_ The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - I make a point to keep track of how well I'm doing at work	.877		.171
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - I establish specific goals for my own performance	.875	.155	.147
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - I visualize myself successfully performing a task before I do it	.144	.867	
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - Sometimes I talk to myself (out loud or in my head) to work through difficult situations	.251	.827	
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - I think about my own beliefs and assumptions whenever I encounter a difficult situation		.785	.125
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems wit	.127		.829
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - Sometimes I picture in my mind a successful performance before I actually do a task	.145	.110	.804
The following statements relate to how you take actions at work. Please indicate to what extent each statement applies to you. - When I have successfully completed a task, I often reward myself with something I like	.170	.106	.803

Extraction Method: Principal Component Analysis^a; Rotation method: Varimax with Kaiser Normalization. Eigenvalue = 3.67, 1.6 and 1.41

a. 3 components extracted.

Appendix H

The Factor Analysis Result of Organizational Commitment

Items	Component		
	1	2	3
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - I feel a strong sense of belonging to my organization	.863		
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - This organization has a great deal of personal meaning for me	.846		
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - I feel like “part of the family” at my organization	.834	.148	.104
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - I feel “emotionally attached” to this organization	.794	.167	.146
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - I really feel as if this organization’s problems are my own	.702	.133	.215
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - I believe that a person must always be loyal to his or her organization	.115	.848	
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - One of the major reasons I continue to work for this organization is that I believe that loyalty is important and the	.129	.834	
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - Things were better in the days when people stayed with one organization for most of their careers	.132	.806	
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - Jumping from organization to organization seems unethical to me	.135	.787	.174
The following statements relate to how involved you are in your work. Please indicate to what extent each statement		.766	

applies to you. - I was taught to believe in the value of remaining loyal to one organization			
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - I feel that I have too few options to consider leaving this organization			.860
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - Too much in my life would be disrupted if I decided I wanted to leave my organization now	.163	.136	.817
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - One of the few serious consequences of leaving this organization would be the scarcity of available alternatives	.133		.798
The following statements relate to how involved you are in your work. Please indicate to what extent each statement applies to you. - I am afraid of what might happen if I quit my job without having another one lined up			.766

Extraction Method: Principal Component Analysis^a; Rotation method: Varimax with Kaiser Normalization. Eigenvalue = 5.35, 2.54 and 2.21

a. 3 components extracted.

Appendix I

The Factor Analysis Result of Self-efficacy

Items	Component 1
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - I will be able to achieve most of the goals that I have set for myself	.137
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - When facing difficult tasks, I am certain that I will accomplish them	.147
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - In general, I think that I can obtain outcomes that are important to me	.139
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - I believe I can succeed at most any endeavor to which I set my mind	.141
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - I will be able to successfully overcome many challenges	.145
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - I am confident that I can perform effectively on many different tasks	.142
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - Compared to other people, I can do most tasks very well	.141
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - Even when things are tough, I can perform quite well	.144
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - I will be able to achieve most of the goals that I have set for myself	.137
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - When facing difficult tasks, I am certain that I will accomplish them	.147
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - In general, I think that I can obtain outcomes that are important to me	.139
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - I believe I can succeed at most any endeavor to which I set my mind	.141
The following statements relate to how you see yourself at work. Please indicate to what extent each statement applies to you. - I will be able to	.145

successfully overcome many challenges

The following statements relate to how you see yourself at work. Please .142
indicate to what extent each statement applies to you. - I am confident that
I can perform effectively on many different tasks

Extraction Method: Principal Component Analysis^a; Rotation method: Varimax with
Kaiser Normalization. Eigenvalue = 6.194

a. 1 components extracted.

Appendix I

The Factor Analysis Result of Job Satisfaction

Items	Component		
	1	2	3
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The freedom to use my own judgment	.831	.176	.174
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The working conditions	.805	.246	
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The chance to try my own methods o	.767		.102
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The chances for advancement on thi	.763	.205	.211 - .271
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - My pay and the amount of work I do	.732	.192	.185 -.260
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The chance to do different things f	.716	.102	.300 .221
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The chance to work alone on the job	.709		.239 .359
The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job,	.668	.129	.266

<p>this is how I feel about - The chance to be “somebody” in the</p>				
<p>The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The feeling of accomplishment I ge</p>	.146	.806		.206
<p>The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The praise I get for doing a good</p>	.206	.790		
<p>The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The way my co-workers get along wi</p>		.757		.264
<p>The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - Being able to do things that don’t</p>	.131	.753	.210	.161
<p>The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The way my boss handles his/her wor</p>	.125	.743	.152	-.160
<p>MB6_The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The competence of my supervisor in</p>	.169	.741	.132	-.294
<p>he following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The way my job provides for steady</p>		.674	.197	
<p>The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The chance to tell people what to</p>	.207	.122	.789	
<p>The following statements relate to your feel about your present job. Please indicate how you are satisfied with the following working conditions on your present job. On my present job, this is how I feel about - The chance to do something that</p>	.151	.782	.195	

ma

The following statements relate to your feel about your present .225 .146 .763 -.199
job. Please indicate how you are satisfied with the following
working conditions on your present job. On my present job,
this is how I feel about - The way company policies are
put i

The following statements relate to your feel about your present .246 .130 .723 .232
job. Please indicate how you are satisfied with the following
working conditions on your present job. On my present job,
this is how I feel about - The chance to do things for other
p

Extraction Method: Principal Component Analysis^a; Rotation method: Varimax
with Kaiser Normalization. Eigenvalue = 7.24, 2.85, 1.93, and 1.04
a. 4 components extracted.