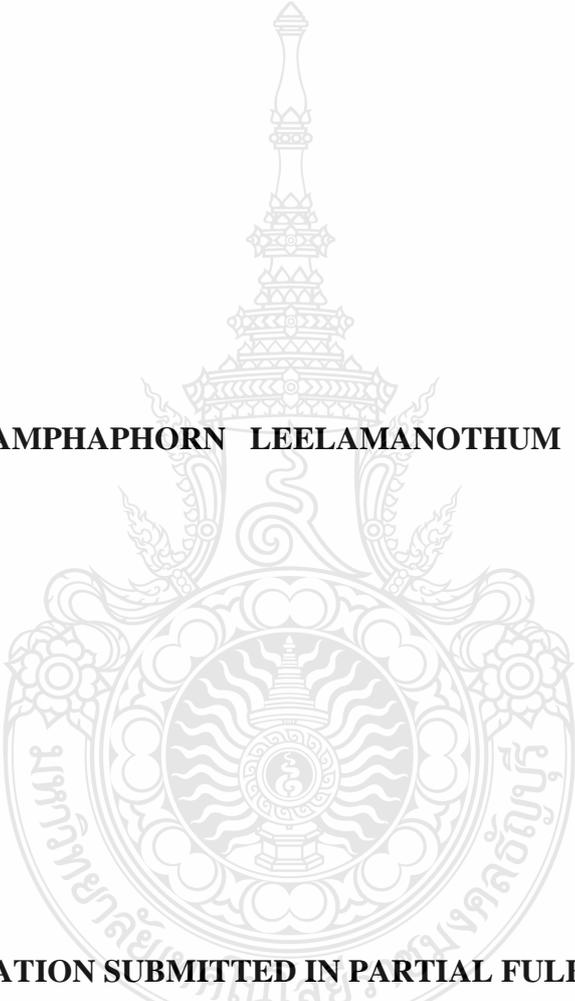


**TRUST AND JUSTICE AS MEDIATORS ON TRANSFORMATIONAL
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INSTITUTION OF RAJAMANGALA UNIVERSITY OF TECHNOLOGY**

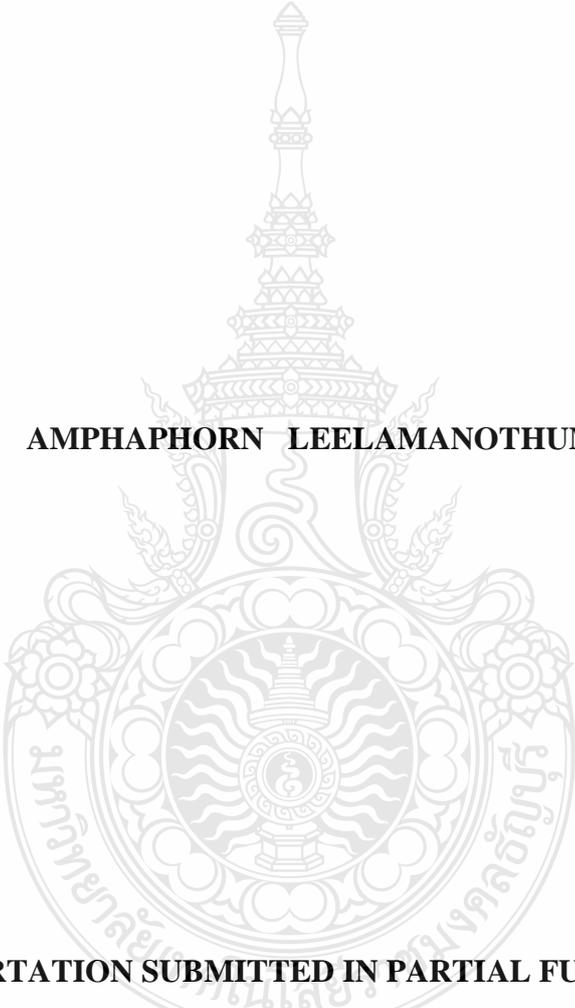
AMPHAPHORN LEELAMANOTHUM



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FACULTY OF BUSINESS ADMINISTRATION
RAJAMANGALA UNIVERSITY OF TECHNOLOGY THANYABURI
ACADEMIC YEAR 2017
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Dissertation Title Trust and Justice as Mediators on Transformational Leadership, Transactional Leadership and Organizational Citizenship Behavior of Employees in Higher Education Institution of Rajamangala University of Technology

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ABSTRACT

The purposes of this study were (1) to investigate the mediating role of trust and justice between transformational leadership (TFL) and transactional leadership (TSL), and organizational citizenship behavior (OCB); (2) to compare a proposed model's differential effects of generations (generation X and generation Y) and the university's employees (lecturers and staffs). The questionnaire was designed to collect data in this survey research, which was distributed to 470 Rajamangala University of Technology (RMUT)'s employees. Descriptive statistical analysis was used to report basic features of the data collected, and the structural equation modeling approach was employed to test the hypothesis in this study.

The results indicated that trust and justice had a positively significant mediating effect on TFL and TSL, and OCB in the RMUT context. For generation's comparative results, the TSL factor has a more positively significant effect on trust for generation X than generation Y, whereas justice has a more significant effect on OCB for generation Y than generation X. Finally, to compare the different effect result of RMUT's employees, the support group significantly perceived the effect of TSL toward trust and justice on OCB more than the academics' group.

The results of this study contribute to support of the employees' leadership in the higher education institution of RMUT. Moreover, for managerial implications, the insights for the leadership, trust, and justice aspects are powerful drivers to encourage RMUT to increase and achieve its optimal organizational performance.

Keywords: leadership, trust, justice, organizational citizenship behavior

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List of Abbreviation

AGFI	Adjusted Goodness-of Fit Index
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN/DF	Chi-square statistic comparing the tested model and the independent model with the saturated model
C.R.	Critical Ratio
<i>df</i>	Degree of freedom
Gen	Generation
GFI	Goodness of Fit Index
IOC	Item-Objective Congruency
MLQ	Multifactor Leadership Questionnaire
NFI	Normed Fit Index
OCB	Organizational Citizenship Behavior
P	p-value
RMSEA	Root Mean Square Error of Approximation
RMUT	Rajamanagala University of Technology
S.D.	Standard Deviation
S.E.	Standard Error
SEM	Structural Equation Modeling
TFL	Transformational leadership
TSL	Transactional leadership
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

1.1 Background and Statement of the problem

Every organization has goals to work toward their aimed objectives. To achieve these goals, it requires relying on many factors to drive towards success. One of the factors here is the human resource in the organization, in which, it's so crucial to work towards goals. Since personnel is a valuable resource for the organizational operations and the future sustainability of the organization. Currently, the environment has been changing based on the aspects of economic, social, political and cultural influences, while technologies have so far advanced and these also lead to changes in operations. The operational personnel must keep learning and practice to learn more skills and expertise in their jobs. Thus, each organization needs executive staff with greater knowledge and know-how. The team needs to diversify personnel to work towards goals. Team behaviors are then so essential for the organizations operations. Motowildo, Borman, and Schmit (1997) state that to achieve operational goals, the personal actions are crucial to promoting the efficiency and effectiveness of the operation. The organization citizenship behaviors are partly essential for the ability of each person, group, and organization (Organ, Podsakoff, & MacKenzie, 2006). Besides, it helps to increase the efficiency of the organization (Organ, 1988; Organ & Ryan, 1995; P. M. Podsakoff, MacKenzie, Paine, & Bachrach, 2000).

To achieve the organization objectives, you need to study the personal behaviors and the behaviors of team personnel, which can be divided into two types (P. M. Podsakoff et al., 2000): In-role behavior, which is the behavior that a person acts according to the assigned job description or as agreed within the organization to gain compensation; and extra-role behavior, the behavior that a person voluntarily forms and works beyond the functions set by the organization. Thus, without consideration of compensation received from the team and it is the behavior that supports the operational outcomes and the organization efficiencies. It can be said that this extra-role behavior is good organizational citizenship behavior (OCB) (Organ & Bateman, 1991).

To study the personnel practices in the organization has been largely done for the good organizational citizenship behavior with the cooperation and staff must fully agree to work together. OCB are a particular behavior of persons by, and when OCB takes place for a period, and most of the personnel reflects good organizational citizenship behavior, it would help improve the organization's efficiency. OCB has a significant role in the social process; it is the exchange between each other in the organization (Organ et al., 2006). Williams and Anderson (1991) has separated OCB into two groups, which are OCB-I: which benefits individuals within the organization related to colleagues aids during work and OCB-O: benefits the organization, which will help the team in general. Organ (1988) stated that the personnel behavior directly is an unaccepted decision from the formal reward system and support for the efficiency of the organization are not the requirements that can be forced into the role of functional operations. These behaviors are understood by persons that will become guilty if ignored.

This research has studied organizational citizenship behavior by dividing it into five elements of Altruism, Courtesy, Sportsmanship, Conscientiousness, and Civic Virtue. The organizational citizenship behavior is positive behavior related to efficiency in organizational operations (Organ & Bateman, 1991; P. M. Podsakoff et al., 2000).

In the past, there were studies on the causal factors that influence organizational citizenship behavior, no matter what factors relate to the leadership of trust and justice. When mentioning about trust, it is important to form people's cooperation towards the relationship between individuals and organizations. Trust is crucial in building team effectiveness; the more trust exists, the better the organizational operations. When there is more trust, it would be useful for the team processes, more productivities, and forming goodwill within organizations relationships (Nyhan & Marlowe Jr, 1997). Marshall (2000) stated trust naturally occurs during human interactions, and trust needs to take into account loyalty though it cannot happen alone.

Besides trust, another important thing is the perception of fairness in the organization, in which the holding of equitable treatment of people and this is crucial for making decisions. When individuals in the group perceive confidence that they are fairly treated by the organization, they will try to keep the relationship in the form of

social exchange by putting their efforts to work and sacrifice for a successful operation. It is the work beyond the assigned functions, but on the contrary, if the person perceives being unfairly treated by the organization; they will work on only their assigned duties. The perception of group fairness can be divided into three elements such as 1) the perception of distributive justice, 2) the perception of procedural justice, 3) the perception of fairness of interpersonal justice in the organization (Colquitt, 2012).

Besides the factors of trust and justice, the leadership factor is crucial to driving the team forward and to succeed in the future. When mentioning "leadership," some researcher studies on the healthy leadership behaviors. The forms of leadership in this study are transformational leadership and transactional leadership. These are cast in the group of modern approaches raised during the 1970s. It is the mix and development between the concepts of leadership characteristics and the idea of situational leadership by considerations from the organizations internal and external environments as well as the leadership characteristics that results in their dynamic changes (Northouse, 2010). Transformational leadership and transactional leadership was initiated from Burn who began to study and proposed the leadership behavior that can take place in any form of transformational leadership and transactional leadership. Transactional leadership takes place from the relationship between leaders and followers in the form of exchanging and helping each other by motivating their members through rewards in return for accomplishing goals. When there is no mutual benefit, this kind of relationship will end. For the transformational leadership, the leader will motivate and help the followers by leveraging the level of beliefs, attitudes, needs and higher moralities. Burn reflected that transformational leadership and transactional leadership cannot be separated, unlike Bass who considered that both types of leadership cannot be separated and happen together. The environment will set on what behavioral aspects the leader will show more or less. Bass suggested that transactional leadership is based on the social exchange theory stresses on the transferring of benefits and help between leaders and followers. The leader will set the role for the members to act and motivate them to exchange benefits for rewards in return. This is to stimulate the members to accomplish their work goals. Transactional leadership consists of two elements, which are the contingent rewards to compensate those who worked according to the goals set by

management. The exception is leaders that will not get involved and let things process normally until there are mistakes and problems, then the manager will come and help. Bass and Avolio (1990b) have next added the element of management by exception into two sub-elements, which are managed by exception active and management by exception- passive. For the transformational leadership, there is the basic concept from motivation theory by leaders who must motivate the followers to act as they want and inspire them to perform with potential, knowledge, ability and pay attention to the work outcomes for them to learn to sacrifice for the mutual benefits and raise their morality, ethics, and motivate them to step up to higher levels to get beyond expected outcomes. Transformational leadership consists of 4 elements such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Next, Avolio, Bass and Jung (1999b) have divided idealized influence into two sub-elements, which are idealized influence attributed and idealized influence-behaviors altogether are five elements.

Recently, many educational institutions have changed their status into universities under the government, while many are in the process of changing to be under the government's control. As a result employees in the schools need to adjust themselves according to the university systems under government control. They have to change their working behaviors, and there is promoting and supporting the employees to work efficiently for them and to have the right organization citizenship behavior. Thus, employees either in academics and operations have succeeded on the factors that resulted in organizational citizenship behavior for the strength in the team and to reflect the ongoing good corporate citizenship.

Rajamangala University of Technology (RMUT) is a public university in Thailand under the office of the higher education commission, Ministry of Education. The Ministry of Education is the corporate and legal part of the government that deals with higher education institutes on professional and technology matters. Rajamangala University has to be flexible in its administration and to leverage to be government higher education institute with the emphasis on sciences and technologies and be able to manage all the education in master degree and doctoral degree. At present, Rajamangala University of Technology has personnel that can be divided into

government officials, employees in the higher education institute, government employees, and temporary employees. Employees in the higher education institute who work in the group of Rajamangala Universities of Technology (RMUT) consist of employees in the academic line and supportive line. They have the right to be appointed to work in academic positions as well as management just like government officials in the higher education institute.

Factors which can lead RMUT to become a leader in academics are efficient operational management, the ability and potential of personnel in the academic line, and the academic environment. RMUT relies on support and collaboration from personnel in supporting line to help move towards becoming a leader within the academic society. In RMUT, there are management personnel with leadership qualifications in each unit to supervise and to be responsible for the operation in their unit; for instance, the director of human resources management is responsible for human resource tasks, the financial director is responsible for finances and accounting, etc. For the faculty, the leader is the dean who is responsible for course syllabus preparation as well as faculty management. Besides, each faculty has a head dean officer to take care of the faculty supporting line. The key missions of the faculty consist of preparing the courses, conducting research, providing academic services to society or the community including preserving art and cultures. The dean of each faculty would place the management policy according to the central policy of the university. The major policy of the faculty is to produce graduates for entrepreneurial careers, to manage on the faculty's human resources to work with efficiency. Leaders shall have full efficiency and effectiveness with the strategy and the ability to operate the faculty toward the leading of academic and take main part on society and community development with strength. Leader then shall have good vision and creative problem solutions with the variety of choices in problems solving, be able to well solve the problem at hand and set for the direction of management and best practice operations to proceed according to the policy. Leaders are people with the main role to set the direction of operations for all personnel to act according to the policy. Leaders should be able to transfer, motivate and persuade the personnel to work toward goals. For all personnel in the organization to collaborate to

succeed in organizational development as set in the missions and policy. Thus, in any policy objectives completion, leaders are required to play a major role.

For the leader in RMUT, it seems to be the leadership obtained from birth and passes through knowledge and experience as well as leadership development training. Therefore, leaders shall take the main role to help push personnel to be enthusiastic to work towards goals and create job satisfaction as well. Leaders shall understand the different nature of people and their needs, leaders shall have a guideline to bring the limited resources to use for maximum benefit.

With the role of leaders in RMUT as mentioned above, it can be seen that leaders are so close with the followers in each unit. Any management will be according to the main mission as being assigned as well as all other duties beyond the main mission shall be done by the leader as well. RMUT has changed from the past, so leaders have had to adjust their management styles according to the current environment since the university is different from other universities because it comes from merging the campuses of nine universities from several parts of the country as well as in Bangkok. The leader of faculty is the dean who was appointed to this position through the standard selection method of RMUT. In the first period, dean came from the head of faculty but at recent, the selection of dean is in accordance with the regulations from RMUT Isan on Dean Selection B.E. 2555 that provided the criteria, approach and lists of applicants who were suggested for the consideration to filter for the suitable persons not more than three, then working on their profile, works history, awarded, and details required for the consideration to submit to the university council to make the secret vote to appoint a person to be the dean. For the head of dean officer, it is comparable to the director of the office that required having the qualifications as announced in Kor.Por.Or on the standard of positions and appointment of civil servant in the graduate institution to upper position B.E. 2553 and issue no. 2 B.E.2554. So it should be the person that the university has assessed on the values of work. It sets to assess according to the following components. The results of work according to the indicators of the governing position, knowledge, ability, skills and capacity necessary for the assessed position, moreover, management capacity, relevant units to open for the applicant for the position of head of the dean officer, considering on the qualifications as set, when getting the

personnel who suites for position, the university council will appoint and register to certify for the management position at the officer of graduate. It can be seen that the leader role in RMUT is crucial for the efficient work management for the organization to step into the best of academic. It requires for the collaboration of personnel from every unit to support and recognize on the importance of goals accomplishment together.

In this study, the researcher has investigated the causal factors over the reflection of organizational citizenship behavior of the employees in academics and supporting staff in all nine Rajamangala Universities of Technology. The group of Rajamangala Universities of Technology, consists of nine Rajamangala Universities of Technology as follows: Rajamangala University of Technology Thanyaburi, Rajamangala University of Technology Isan, Rajamangala University of Technology Suvarnabhumi, Rajamangala University of Technology Krungthep, Rajamangala University of Technology Tawan-ok, Rajamangala University of Technology Sri-vichai, Rajamangala University of Technology Lanna, Rajamangala University of Technology Ratanakosin and Rajamangala University of Technology Phra-nakorn. Each has formed the educational districts together, and when Rajamangala University of Technology has moved away from the government official service system, the operators will be called employees of a higher education institution or university staff. Then they are divided into academics and supporting lines. These colleges and university officers will drive the school forward in the future.

An organization that changes their operating systems must have leaders who form healthy relationships in the organization and develop trust and perceived fairness in the organization among the employees, which will lead towards organization citizenship behavior. The leader must be able to motivate staff to work within the guidelines for the organization. If the organization can operate efficiently with quality personnel, the organization will be able to compete with other agencies, as well.

According to the past literature review, it is found that the roles of trust and justice as the mediator variable are different. It is found by Aryee, Budhwar, and Chen (2002), Casimir, Waldman, Bartram, and Yang (2006), Ertürk (2007) that trust is the full mediator between independent variable and dependent variable. While the study by

Aryee et al. (2002); Ertürk (2007) has found that trust is a partial mediator between independent variable and dependent variable. In the research by Walumbwa, Wu, and Orwa (2008) justice has found to have the fully mediator role between independent variable and dependent variable. Besides, Walumbwa, Wu, and Orwa have also found that justice is the partially mediator between transactional leadership and organizational citizenship behavior. Therefore, it can be seen that the mediator variable roles of trust and justice are different in each context. And to prove in the context of Rajamangala University of Technology how the institution staff both from academic and supporting lines perceive the role of trust and justice and to check that whether in the university context trust and justice function as the fully or partially mediator.

Therefore, the researcher is interested to study if trust and justice, play a role as mediators in transformational leadership, transactional leadership and organizational citizenship behavior, this will allow us to know if the group of Rajamangala Universities of Technology has what it takes to form relationships that result in the higher education institutions or university staff to develop organization citizenship behavior, as well as to promote these causal forms to be strong and can be the model for personal potential developments and to step in the leaders role in the group of Rajamangala Universities of Technology and to keep reflecting on organization citizenship behavior.

1.2 Objectives of the Study

RMUT has changed much from the past until present, there are changes that make the organization growth and gains acceptance from all sectors to produce graduates for the labor market. These successes result from the collaboration of people in the organization that put their efforts to develop the organization. The role of personnel in the organization is significant; every organization requires their own personnel to reflect the role and behaviors according to their function and behaviors other than their role which are important. Behavior beyond the role and responsibility shows that person feels happy to collaborate with the organization in every way for the organizations development. If these behaviors will occur more or lesser, partly it comes from the role of leader in the organization. Leaders shall form trust and justice in the

organization. The characteristics of personnel in the organization are diverse in several aspects, and generations as well as types of employee and higher education are those to drive the organization toward its goals.

Therefore, it is interesting to study if the role of leader in form of transformational leadership and transactional leadership on how we understand organizational citizenship behaviors of employees in RMUT by study on the influential roles of mediator and moderator variables related to trust, justice, generation, and type of employees in higher education. With the key group of variables in this study, the researcher sets the objective as follows:

1.2.1 To investigate the effects of transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior.

1.2.2 To explore the mediating role of trust and justice in the relationship between transformational leadership, transactional leadership, and organizational citizenship behavior.

1.2.3 To explore the moderating role of generation (X and Y), types of employees in higher education institutions (lecturers and staff) in the relationship between transformational leadership, transactional leadership, trust, justice, and organizational citizenship behavior.

1.3 Research Questions

1.3.1 Do transformational leadership, transactional leadership, trust, and justice have an effect on organizational citizenship behavior?

1.3.2 Do trust and justice mediate the effect of transformational leadership, transactional leadership on organizational citizenship behavior?

1.3.3 Do generation (X and Y) and type of employees in higher education institutions (lecturers and staff) moderate the effect of transformational leadership, transactional leadership, trust, justice, on organizational citizenship behavior?

1.4 Research Hypothesis

For the study to be in accordance with the objectives and research questions, hypotheses are set under the relationship between transformational leadership, transactional leadership, trust and justice that have a positive result toward organizational citizenship behavior plus, the mediator role of trust and justice toward the relationship between transformational leadership, transactional leadership, and organizational citizenship behavior. Including, this study has separated the personnel generations and types of employees in higher education institutions with the moderator role to study the influence of moderators towards the relationship between transformational leadership, transactional leadership, trust, justice, and organizational citizenship behavior. Thus, it leads to the hypotheses setting as follows:

H1: Trust is the full mediator of transformational leadership and organizational citizenship behavior.

H2: Trust is the full mediator of transactional leadership and organizational citizenship behavior.

H3: Justice is a partial mediator of transformational leadership and organizational citizenship behavior.

H4: Justice is a partial mediator of transactional leadership and organizational citizenship behavior.

H5: Transformational leadership has a positive effect on organizational citizenship behavior.

H6: Transactional leadership has a positive effect on organizational citizenship behavior.

H7: Transformational leadership has a positive effect on trust.

H8: Transformational leadership has a positive effect on justice.

H9: Transactional leadership has a positive effect on trust.

H10: Transactional leadership has a positive effect on justice.

H11: Trust has a positive effect on organizational citizenship behavior.

H12: Justice has a positive effect on organizational citizenship behavior.

H13: The relationship among transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior differ according to the types of employees in higher education institutions.

H14: Generation X and Y differently moderate the effect of transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior.

1.5 Conceptual Framework

This conceptual framework is based on the Social Exchange Theory. It leads to show up on organizational citizenship behavior, which is regarded as an extra-role behavior. That is to say, trust and justice affected employee's behavior that leads to loyalty in the organization.

The purpose of this study is to investigate the relationship and effects of transformational leadership, transactional leadership, trust, justice and organizational citizenship behavior. Conceptual framework for this study is drawn from the empirical previous evidence; transformational leadership with five dimensions based on Bass and Avolio (1990b) transactional leadership with three dimensions based on Bass and Avolio (1990a) trust with two dimensions based on Robinson (1996), Nyhan and Marlowe Jr (1997), justice with three dimensions based on Colquitt (2012) and organizational citizenship behavior with five dimensions based on P. M. Podsakoff, MacKenzie, Moorman, and Fetter (1990)

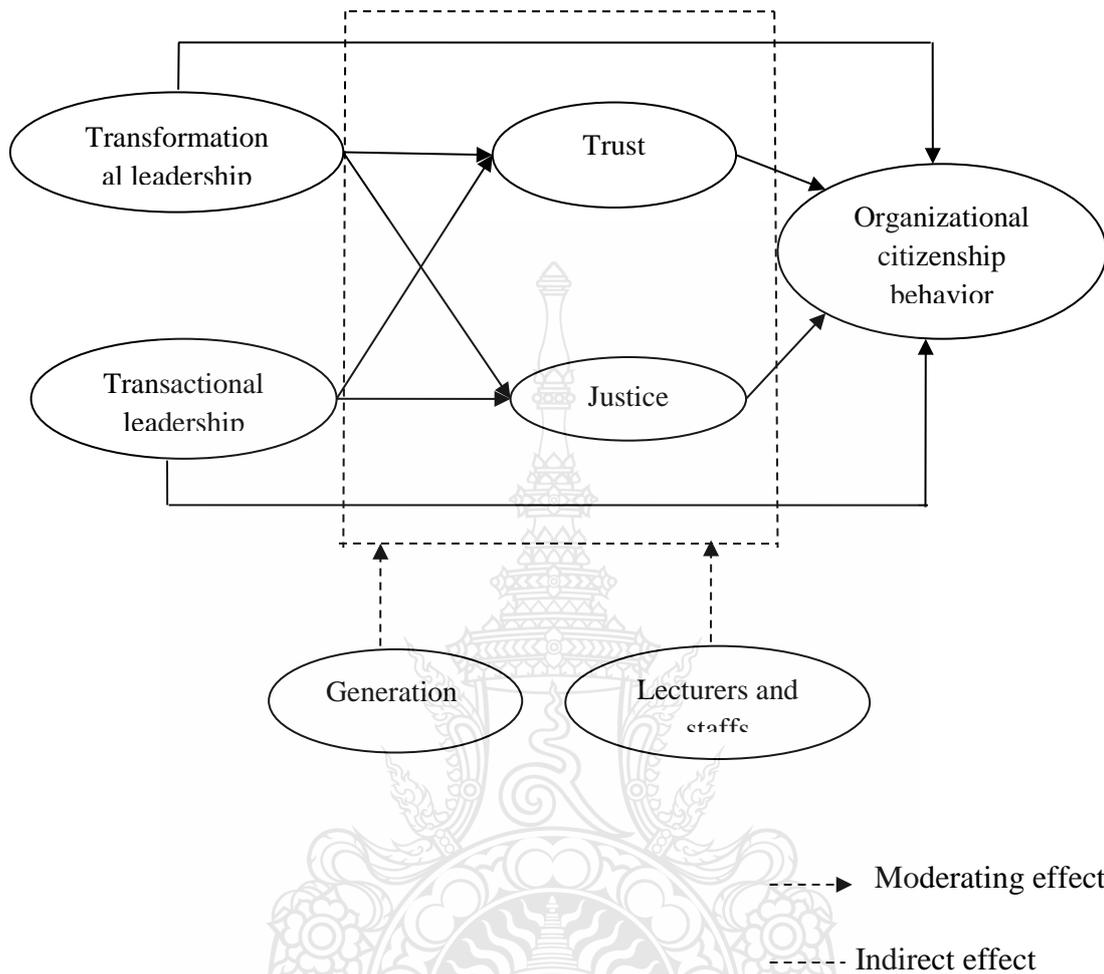


Figure 1.1 Conceptual Frameworks

The conceptual framework is illustrated in Figure 1.1; the overall concept, theories, and related research are integrated. According to the conceptual framework, the relationships among variables can be explained as follows:

1.5.1 Transformational leadership effects on the organizational citizenship behavior.

1.5.2 Transactional leadership effects on the organizational citizenship behavior.

1.5.3 Trust and justice effect on the organizational citizenship behavior.

1.5.4 The relationships among variables in the organizational citizenship behavior model were moderated type of employee and generation.

1.6 Definition of Terms

Transformational Leadership refers to the way that a leader motivates his/her followers beyond immediate self-interests via idealized talent, inspiration, intellectual stimulation, or individualized consideration (Bass, 1999).

Idealized Influence refers the extent to which a leader shares his or her vision and sense of duty with his or her followers. Bass (1997) remarks that the leader proposes radical and innovative solutions to solve serious problems of the followers. Also, the members want to be recognized as the leader who presents determination and conviction.

Inspirational Motivation refers the extent to which a leader enhances the optimism and enthusiasm of his or her followers. Also, the leader who always communicates fluently and confidently with simple language and appealing symbols, as well as metaphors (Bass, 1997).

Intellectual Stimulation refers the extent to which a leader encourages new ways of solving problems to encourage intelligence and creativity. Besides, the leader provokes rethinking and re-examination of assumptions, which are based on possibilities and strategies (Bass, 1997).

Individualized Consideration means that a manager personally pays attention to his/her followers and makes them possess self-esteem. Referring to Bass (1997) the leader personally develops the members by training and giving suggestions.

Transactional Leadership means a leader and a follower change their relationship to meet their self-interest. According to Bass (1999) this kind of leadership may take the form of contingent reward, which the leader clarifies for the follower through direction or participation that the member needs to do to get rewards for his achievements. It may also take the form of active management-by-exception, where the leader controls the follower's actions and takes corrective actions if the member does not achieve his goals. It may take the form of passive leadership. That is the leader will wait until problems occur and then he or she solves the problems.

Contingent Reward means a leader informs or gives directions to followers to understand what to do, and what outcomes he/she expects from them. If the members complete the assignment successfully, they will get rewards. Such rewards are; e.g. praise, salary raise, bonus, and commendations (Bass, 1997).

Management by Exception-Active means a leader controls followers' actions. He/she will correct when some mistakes or failures are found (Bass, 1997).

Trust refers to the willingness to accept the risk of other people's action. It is by the expectation that these individuals will treat us well, regardless any follow-up or control (Mayer, Davis, & Schoorman, 1995)

Supervisory trust refers to the confidence to rely on other people for results within the operations, communications, participation in problem solving or any obstacles to a solution (Nyhan & Marlowe Jr, 1997).

Organization trust refers to feeling confident that a person has towards the organization with having a good relationship and loyalty to the organization. Trust in the organization is the relationship between any units in the organization, colleagues, and commanders at all levels (Nyhan & Marlowe Jr, 1997)

Justice refers to the perception of equitable treatment from the organization through the decisions of the commander (Colquitt, 2012).

Distributive Justice refers to the Multifactor received as proper with the compensation (Colquitt, 2012).

Procedural Justice refers to the equity of the process that is used in the consideration of manager compensation and reward (Colquitt, 2012).

Interpersonal Justice refers to the communication between each other for understandings in operations, operation evaluations, information providing backward and information exchanges between people in the organization (Colquitt, 2012).

Organizational Citizenship Behavior Organ (1988) clarified that it is an individual behavior that is discretionary. It is not directly or explicitly recognized by the formal reward system. That is to say, and the aggregate advocates the active duties in an organization.

Altruism Organ (1988) remarks that altruism is the discretionary or voluntary behavior. Such behavior has influence on helping other workers who experience problems completing his/her work under unusual circumstances.

Conscientiousness Organ (1988) clarifies the term as “more impersonal contributions to the organization”. Such activities are; working long hours, efficient use of work time, excellent attendance and faithful adherence to the organization rules, as well as, understanding regulations and policies about work operations.

Sportsmanship refers to an employee’s ability to be patient under less-than-ideal circumstances, without any complaint. (Organ, 1988)

Courtesy refers to proactive behavior. According to Organ (1988), the objective is to assist in preventing problems among colleagues at work.

Civic virtue is an employee’s behavior that points out that he/she takes responsibility in participating in the organization’s activities (Organ, 1988).

Generation refers to the separation of personnel into groups depending on the years they were born, ages and lifestyles of people in each group. This can be divided into those who born after the WWII era so called baby boomers, then generation X who were born between 1965-1980 and generation Y who were born after 1980 (Macky, Cennamo, & Gardner, 2008).

Employees in this higher education institution according to the act of civil servant discipline in the higher education institution (issue no. 2) B.E.2551 are people who are employed to work in the higher education institution by receiving a salary or compensation from the national budget or the revenues of the higher education institution (The royal gazette dated 5th February B.E. 2551 Issue no. 125 chapter 28kor)

The employees in the higher education institution of Rajamangala Universities of Technology are those who work in the academic or supportive line in the group of Rajamangala Universities of Technology.

1.7 Delimitation and Limitation of the Study

The study consists of delimitations and limitation. Regarding the nature of this study, a number of limitations are addressed as follows;

1. This study collects data from a specific sample group of employees in higher education institutions under 9 RMUT universities. The personnel here operate in the academic and supportive line. These personnel are the key force to drive RMUT to achieve its goal and to be able to create an understanding of the organization citizenship behavior of RMUT.

2. Data collection from the sample group was done only in the part of faculty of each RMUT group only. RMUT has other units as well as the faculties such as office of the president, graduate school, University Business Incubator (UBI) and other offices that may not exist in all 9 RMUT.

1.8 Contribution

This study contributes to the development of leaders in the organization to prepare to become an autonomous university. The benefits of this research are as follows:

1.8.1 The Organization

1.8.1.1 To generate guideline to develop Human Resources strategies, to create a new generation of leadership in the 21st century.

1.8.1.2 To have leaders that are suitable and congruent with the organizational goals set.

1.8.1.3 To create the organization's empowerment with stability and sustainability. This will lead to a competitive advantage.

1.8.1.4 To guide the design of a framework to develop staff with leadership skills in an autonomous university.

1.8.2 Personal

1.8.2.1 The personnel are promoted and drawn up to get higher potentials in leadership from the organization.

1.8.2.2 A leadership is acceptable to the personnel in the organization.

CHAPTER 2

REVIEW OF THE LITERATURE

2.1 Introduction

This chapter presents a review of the related literature on trust and justice as mediators on transformational leadership, transactional leadership, and organizational citizenship behavior. The researcher has studied theories, conceptual and relevant research to define the conceptual framework and research hypotheses. This chapter presents the definition, theories, relationship between variables and relates to a study of each variable. The variables in this study are transformational leadership, transactional leadership, trust, justice and organizational citizenship behavior. The researcher synthesized in the view of many scholars, a variety of ideas, which were compiled into knowledge about transformational leadership, transactional leadership, trust, justice and the organizational citizenship behavior.

2.2 Review of the theories

The exchange theory comes from integrating principle concepts of behavioral theory with other concepts. For example; the idea in economics regards human beings as rational persons who use reasons to search for maximum benefits for themselves. After that, when they possess what they require, the importance of these things reduces. However, the concept of anthropology presents that the exchange theory of people in a group focuses on personal relationships to respond to each other. Moreover, Storer (1966) remarks that the relationship occurs when one party requires something from another party. They believe that the opponent will be willing to exchange with them if such things still exist and are appropriate to both sides. Also, the exchange must be based on justice as far as both parties feel that it is a fair exchange. Similarly, Blau (1964) explains the concept of an exchange that when a person expects to get profit from his or her activity, the trend to do the activity will increase. When the person trades a reward with another person, there will be a commitment to each other. Such commitment will define the exchange activities of both individuals. This will occur "Norm of Reciprocity." Blau also classifies the exchange into two types; i.e. Economic

Exchange and Social Exchange. These types of exchange are based on different expectations of rewards. The exchange of personnel in an organization is by co-relationships. The exchange mainly comes from the basis of Economic Exchange. The compensation must be transparent (Emerson, 1976). Apart from this, there is a non-formal exchange, which emphasizes attachment. There is no special agreement for compensation in return. However, it depends on how a person expresses his behavior of trust and gratitude (Cropanzano, Rupp, & Byrne, 2003; Sparrowe & Liden, 1997).

The social exchange theory deals with the way to express "Organizational Citizenship Behavior." According to Tsui, Pearce, Porter, and Tripoli (1997), they explain the social exchange with "Mutual Investment Relationship." That is to say, what an organization offers to employees is worth more than figures. In other words, the organization supports the employees in many aspects so that they are better off. This is the way to reward the employees who devote themselves to work. Such employees will have an exchange to their organization by extra-role jobs, helping co-workers, transfer their work according to the commander, and willing to participate in the group's activities. Besides, they will develop and enrich their skills as well as knowledge to improve their organization further. It is believed that this is an investment to get a profit exchange between a person and an organization. Another point, "Psychological Contracts Model" is regarded as the relationship in employment, according to employees' viewpoint. That is to say; the organization has a mission to provide things for employees to work. So the employees reward their team with a psychological contract, beliefs, and expectations. There is an acknowledgment of relationship of exchange between two parties. For example, an organization has contracts dealing with salary, wages, job security, and skill development in vocational fields. For employees, they promise to work with royalty and have an attachment to the organizational goal. When the organization keeps the promise, the workers will tend to work, with the purpose to exchange with the team. However, whenever the agreements or contracts are not fair or broken, and the employees obtain profits less than their expectations, there will be an effect on the relationship and attachment to the organization (Chang, 1999). Also, there are influences on the employees' attitudes and

behaviors; e.g. job satisfaction, organizational commitment, organizational citizenship behavior, absenteeism, and intention to quit.

Trust is necessary for social exchange, both in the short-term and in the long run. For the short-term, the inequality temporarily appears, or the perception may exist in individual motivation. The advantages can be gained from participating in the relationship of social exchange and contribution. Hence, the expectation of justice in the short-term is the nature of economic exchange which will cause expectations of injustice in the long run (Konovsky & Pugh, 1994).

Regarding another point, Blau 1964, Homans 1961, Thibaut and Kelly 1959, displayed remarkably little professional interest in this, despite the fact that the process of exchange is almost continual in human interactions. They, of course, studied social behavior involving reciprocal, as distinguished from unilateral, transactions. However, their sights focused on the amount and content of communications; i.e. attitudinal, affective, motivational, perceptual, and behavioral changes. The changes are in group structure, leadership, and so on, rather than on exchange proper. The process of exchange still appears to have peculiar characteristics to itself and to generate affect, motivation, and behavior that cannot be predicted if exchange processes are not understood (Adams, 1965).

The underlying assumption premises of social exchange theory can be described that behavior motivated by the desire to maximize positive experiences and minimize negative experiences through social interactions. These interactions elicit rewards and costs. Rewards are defined as positive reinforcements for behavior e.g. money, trophies, feelings of self-satisfaction, self-esteem enhancement, and social status. Costs are defined as negative reinforcements for behavior that act to inhibit or deter motivated behavior. Costs might include the amount of time invested in the activity, feelings of anxiety, feeling of failure, and the inability to be concerned about other value activities. According to Weiss and Stevens (1993), as individuals seek to maximize positive and minimize negative experiences, an assessment of the costs and benefits for activities occur, ultimately resulting in a favorable or unfavorable outcome regarding the continuance of or attrition from the current activity. Also, Social exchange theory, predicts behavior relating to a function of costs, benefits, and

comparable levels of satisfaction. For a relationship to exist and continue, it must provide a cost/benefit ratio or outcome that compares favorably with competing for alternative situations (Weiss & Stevens, 1993).

2.3 Transformational Leadership

According to Bass's perspective, transformational leadership is the behavior that a leader creates his/her followers being inspired to elevate their morale and gives them encouragement. The members will try to create their work achievements more than their set targets (Northouse, 2010). Transformational leadership is composed of four factors. They are; idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. After that, in 1999 Bass, Avolio and Jung divided the factor of idealized influence into two aspects; attribute and behavior. So there are a total five factors for transformational leadership.

Definition of transformational leadership

Bass (1995) defined the term "transformational leaders" as the person who motivates followers more than they initially expected, raise the level of high awareness, increase the number of needs for security or recognition to achievement or self-actualization, and lead to transcending their self-interests for the good of the organization or team.

Concept and Theories of transformational leadership

The theory of leadership is widespread in research and widely accepted in academics, which the results have been applied in the organization to perform effectively. The researcher believes that in the perspective of leadership, it can create inspiration and motivation to follow work to achieve the goals set. So, the goal set is performed by everyone in the organization. Several agencies were a realignment in the direction of the organization's context. So it gained competitive advantages which affect the survival and sustainability of the organization. The leader has a critical role in organizational change. The style of leadership can help the team succeed. Many styles of leadership are based on evolution and the organization's context. In this research, the styles of leadership are represented in transformational leadership and transactional leadership style.

Transformational leadership theory began from the concept of transactional leadership, which is based on the foundation of social exchange theory. It focuses on trading benefits between leaders and followers. In 1973, the term transformation leadership was first used by Downton. The concept of transformational leadership was introduced by Burns in 1978. He said that excellent transformational leadership characteristics are similar to charismatic leadership or development leadership. Transformational leadership can take an important and necessary transfer to employees and their organization. The employees can pay attention to vision, value, intellectually stimulates with individual among employees (Du, Swaen, Lindgreen, & Sen, 2012). The transformational approach was one of the current and most popular approaches to research since the 1980s. The new paradigm of leadership was transformational leadership (Northouse, 2010).

Scholars and researchers are interested in transformational leadership, which is capable of organizational performance. The organization will be changed with the characteristic of transformational leadership theory that motivates and creates inspiration to the employees. Such employees perceive the organization's vision, share its values, and culture. Then they will achieve their goals and objectives (Bass & Avolio, 1994; Griffin & Moorhead, 2006). The transformational leader's behavior will motivate employees to achieve goals above expectations (Long & Lee, 2011). Also, Gillespie and Mann (2004) found that the potential of a transformational leader to develop followers and communicate would promote trust in the relationships of the organization's members (Alsughayir, 2014). Therefore, transformational leaders change his or her followers to actual work-related outcomes and higher levels of performance (Lin & Hsiao, 2014). The theory of transformational leadership is studied about the behaviors of leaders in the aspect that the leaders can contribute to change in the organization. The leaders' actions have influence and inspire their followers to perform at full capacity. Therefore, the characteristics of transformational leadership include; influence to the members' ideas, inspiration and motivation, intellectual stimulation, individualized consideration, a creation of strategic vision, ability to communicate a vision, good examples for employees.

The transformational leadership theory was successively improved since 1985, until; in 1991 Avolio & Bass improved and called this theory "Full Range Leadership Theory." The model of transformational leadership is concerned with enhancing factors, which are widely accepted from the scholar (Sahaya, 2012). As it can be seen in Table 1, Summaries the improvement of transformational and transactional leadership.

Table 2.1 The improvement of transformational and transactional leadership

Year	Author	Step of improvement
1978	Burns	characteristics of transformational and transactional leadership
1985	Bass	a six-factor model of leadership styles
1990	Bass and Avolio	a nine factor model were the characteristics of transformational and transactional leadership
1991	Avolio & Bass	“Full Range Leadership Theory” The constructs of three types of leadership behavior: transformational, transactional, and no transactional laissez-faire leadership include nine factors
1991	Avolio et al.	revised the Bass’s (1985) theory to concepts of “Four Is” of transformational leadership
1993	Bass and Avolio	modified “The Four Is” to seven leadership factors
1994	Bass and Avolio	modified new the active and passive forms eight factors of leadership
1995	Bass and Avolio	- added the category of Laissez-faire to another style - separated the idealized influence factor into attributed and behavior
After 1995	Several researchers	- still used the nine factors - additions or deletions the items of factors from nine factors model for their studies

Table 2.1 The improvement of transformational and transactional leadership (Cont.)

Year	Author	Step of improvement
2004	Bass and Avolio	- revised version of a nine-factor or full range of leadership model - five factors of transformational leadership style as: idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, individualized consideration
2004	Bass and Avolio	- two factors of transactional leadership styles as: contingent reward, management-by-exception (active); - two factors of passive-avoidant leadership style as: management-by-exception (passive), laissez-faire leadership style

According to a recent study, it was found that some of the scholars used transformational leadership style with four dimensions; idealized influence or charisma leadership, inspirational motivation, intellectual stimulation, and individualized consideration. Also, the dimensions of transformational leadership style were represented to five dimensions. It was different in idealized influence. They separated idealized influence into attribute and behavior. The term "charismatic" has a meaning to be repeatedly used in positive and negative matters. In actual meaning, it has a specific meaning in the media and the public mind. Meanwhile, negative a meaning has adapted in communism i.e. Hitler, Tojo, Mussolini, and other dictatorships. This is the reason why Avolio and Bass use it instead of the term idealized influence for the charismatic factor (Bass, 1995).

Table 2.2 The Summaries of transformational leadership dimension

Author	Year	Dimensions	Factors
Bass	1985	4	- Idealized Influence (II) - Intellectual Stimulation(IS) -Inspirational Motivation(IM) -Individualized Consideration(IC)
Bass & Riggio	2006	4	- Idealized Influence (II) - Intellectual Stimulation(IS) -Inspirational Motivation(IM) -Individualized Consideration(IC)
Xirasagar	2008	5	- Idealized Influence Attribute (II-A) - Idealized Influence Behavior (II-B) - Intellectual Stimulation(IS) -Inspirational Motivation(IM) -Individualized Consideration(IC)
Zhu , Sosik, Riggio, Yang	2012	4	- Charisma or Idealized Influence (II)(Attribute and Behavior) - Intellectual Stimulation(IS) -Inspirational Motivation(IM) -Individualized Consideration(IC)
Chuadhry, Javed and Sabir	2012	5	- Idealized Influence Attribute - Idealized Influence Behavior - Inspirational Motivation - Intellectual Stimulation -Individualized Consideration

Table 2.2 The Summaries of transformational leadership dimension (Cont.)

Author	Year	Dimensions	Factors
Sadeghi , Pihie	2013	5	- Idealized Influence Attribute (II-A) - Idealized Influence Behavior(II-B) - Intellectual Stimulation(IS) -Inspirational Motivation(IM) -Individualized Consideration(IC)
Ejere and Abasilim	2013	5	- Idealized Influence Attribute (II-A) - Idealized Influence Behavior(II-B) - Intellectual Stimulation(IS) -Inspirational Motivation(IM) -Individualized Consideration(IC)
Olcer, Florescu, Nastase	2014	4	- Idealized Influence (II) - Intellectual Stimulation(IS) -Inspirational Motivation(IM) -Individualized Consideration(IC)
Lin and Hsiao	2014	4	-Charisma Leadership -Individualized Consideration(IC) -Intellectual Stimulation(IS) -Inspirational Motivation(IM)

From Table 2.2 summaries of transformational leadership theory, it was invented to describe four dimensions of leader behavior.

Idealized influence: Leaders behave as a role model for their employees, which reflects a vision and an obvious purpose. Under the current changing environment, the leaders will help to develop a vision of organizations and conduct ethics of the occupation. They will enhance the employees to perform and accept a risk so the employees can work with their utmost efficiency (Nemanich & Keller, 2007).

Inspirational motivation: It consists of the appreciation of tasks and challenges to followers. It causes enthusiasm to create favorable positive attitudes. The leaders

will help the members to accept the vision and mission to work for the organization's benefit. Thus the leaders must be used as a communication approach to motivate the followers to see a vision of the society. So it is represented for a higher effort of the supporters.

Intellectual stimulation: A leader urges an employee to solve the problem occurring in their organization with new methods using creative thinking and a systematic solution. So the employee hypothesizes problems and stays with the situations while solving new challenges. No criticism of the idea is not consistent with what the leaders think, so as we look at what the problems are and find a solution with a new approach based on their new concept.

Individualized consideration is to say that the leader is a mentor, coach, and regards the abilities, goals, and needs of the employees (Guay, 2013). The leader pays attention to the needs of individuals, supports development skills to each employee. So the leader is a person who will promote the employee to grow in his/her career in the future.

2.4 Transactional Leadership

Transactional leadership focuses on the exchanges between leaders, followers, and co-workers. Transactional leadership motivates followers by giving rewards and setting goals (Sadeghi & Pihie, 2013). Transactional leadership is the primary factor in organizational success for team and individuals that leads to a relationship between people, leadership behavior and the team performance factors. Transactional leadership is a process of reinforcement with followers in positive or negative ways. The followers will receive rewards such as a high salary, bonus, or progress at work, but they will receive punishment such as salary reduction, demotions (Hung Q Kieu, 2010). Robbins defined the term as "leaders who lead primarily by using social exchanges for transactions" (Robbins , 2007: 475). In the context of Maslow's hierarchy of needs, transactional leadership is a fundamental need for satisfaction, which focuses on primary of the hierarchy. If you have good work or positive outcomes, you will receive rewards, but you will receive punishment when you have minor work or adverse outcomes (Odumeru & Ogbonna, 2013).

Transactional leadership, Bass suggests that this kind of relationship has a basis from "Social Exchange Theory." The theory emphasizes the exchanges of benefits and assistance to each other, between a leader and his followers. The manager defines roles for the members to perform. Also, the leader motivates them by offering other benefits as rewards. Such things drive the members to achieve their goals. Transactional leadership composes of two dimensions; contingent reward and management by exception. Contingent reward refers to granting of awards to the followers, who can achieve their goals. In contrast, management by exception is the way in which a leader ignores and does not manage anything. He/she will let the situation happen. However, if some mistakes happen, the leader will interfere and give assistance. Later, Bass and Avolio (1990) enlarged management into three sub-dimensions. They are classified as management by; exception-active, exception-passive, and laissez-faire. "Management by Exception-active" is the way a leader follows-up, takes care, and assists his/her co-workers to prevent some mistakes that might cause problems. The second point, management by exception-passive" means a leader will interfere with employees when some errors occur in the offices. Lastly, Management by Laissez-faire" is the ignorance of a leader to adjust or change anything. He/she will let things naturally happen and go on. That is the leader does not solve any problems nor cares about the co-workers' requirements. Zahari and Shurbagi (2012) noted that the transformation leadership is essential to motivate followers with inspirations and members to propose skills, and supports personal development attentiveness on quality and share ideas, value, and vision to set up a good relationship between an organization (Bass, 1985). According to Bass, Avolio, Jung, and Berson (2003) they suggest dividing transformational leadership into five aspects; idealized influence (attribute), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration.

Concept and theories of transactional leadership

Transactional leadership is a process of exchanges between leaders and followers that focuses on the progress in the short-term, through the use of motivation, to achieve goals. The transactional leaders use rewards for results in the short-term, but the characteristic of transformational leader uses rewards for results in the long-term

(Bass, 1997). If the followers can work on assignments completely, the leaders will give prizes to exchange for the benefit of both parties. Conversely, if the task assigned to followers does not achieve its goal, they will be punished. The determination objective and setting rewards for the followers' desired outcomes are the motivation of transactional leaders (Sadeghi & Pihie, 2013). Transactional leadership focuses on the implementation of the organization to smooth and efficient operations. Thus the leaders will be proficient in management-oriented performance. The leaders can help the followers gain self-confidence, build morale in the workplace, and create effectiveness; then the leaders must identify the scope of the task.

The exchange will satisfy the followers in a job and collaborative performance to achieve objectives. According to Northouse (2010), transactional leadership is different from transformational leadership that the transformation leadership focuses on developing personnel. In contrast, the transactional leadership focuses on rewards and punishments. Transactional leadership consists of contingent rewards and management by exception. In table 2.3 summaries of transactional leadership dimension.

Contingent Reward is the interaction between the leaders and the followers. That is to say; the leaders must understand the basic needs of the followers of Maslow's Theory of Need Gratification (Odumeru & Ogbonna, 2013). Then, the leaders can motivate the followers to accomplish tasks in exchange for rewards. Also, the leaders also need; reinforcement to the followers, compliments on the work as well, accepting the competence of the presence of others, salary raises, giving bonuses, promotions to a higher position, create a good atmosphere in the workplace. Therefore, the leaders must describe the tasks clearly to the followers. Also, the leaders can comment on standardization of work, control and monitor the work support the followers' work to achieve the goals. The rewards must be appropriately given to whomever with the responsibility to perform; otherwise, the followers do not work for the benefit of the organization, but they will seek rewards on their own. The leaders and the followers should agree explicitly about the rewards and punishment. If the followers are achieving their performances, the leaders will give awards for them. However, the leaders will deliver punishment to the followers if they fail (Hung Q. Kieu, 2010). Management by exception: the leaders allow employees to work without interference.

However, if there are some problems and errors in their performance, the leaders will use negative reinforcement.

Management by Exception Active: the director will monitor the followers' performance. He/she will help to resolve the work and to carry it out properly. The leader will prevent errors of failure that might occur. That is they learn by mistakes (Ejere & Abasilim, 2013).

Table 2.3 The Summaries of transactional leadership dimension

Author	Year	Dimensions	Factors
Bass	1985	3	Contingent Reward Management by exception-Active Management by exception- Passive
Bass and Riggio	2006	3	Contingent Reward Management by exception-Active Management by exception- Passive
Ejere and Absilim	2013	3	Contingent Reward Management by exception-Active Management by exception- Passive
Sadeghi, Pihie	2013	2	Contingent Reward Management by exception
Rothfelder	2013	3	Contingent Reward Management by exception-Active Management by exception- Passive
Onorato	2013	2	Contingent Reward Management by exception-Active
Sakiru, D'Silva, Silong, and Busayo	2013	3	Contingent Reward Management by exception-Active Management by exception- Passive

Measurement of transformational and transactional leadership

According to some previous research work (Bass, 1995; Bass et al., 2003; P. M. Podsakoff et al., 1990), they examined transformational leadership by four-items, five-dimension measures, and transactional leadership. There are three-dimensions. Each dimension consists of four-items. The dimensions of transformational and transactional leadership were measured with the items from the Multifactor Leadership Questionnaire (MLQ Form 5X-Short). There were five dimensions of transformational leadership as follows idealized influences-attribute, idealized influences-behavior, intellectual stimulation, individualized considerations, and inspirational motivation. The three dimensions of transactional leadership were a contingent reward, management by exception active and passive. The first MLQ was created by Burns in 1978. It has 142 items, which sort 11 judges for transformational and transactional leadership. After that, the MLQ was revised by Hater and Bass in 1988. It was called "the MLQ (Form 4R) which included management by exception into active and passive. Beside the MLQ was developed for behavior only and it used current study called "The MLQ-5X" (Avolio, Bass, & Jung, 1999a) (Table 2.4). These scales were combined in transformational and transactional leadership factors which consisted of four items. The examples are "I provide others with assistance in exchange for their efforts" and "I talk optimistically about the future." Participants' responses were obtained by using a five-point Likert-type scale where 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, and 4 = frequently, if not always.

Table 2.4 The items measure of multifactor leadership questionnaire

Dimensions	Factors	Items
Transformational leadership	Idealized influence - behavior	4
	Idealized influence - attributes	4
	Inspirational motivation	4
	Individualized consideration	4
	Intellectual stimulation	4
	Sub total	20

Table 2.4 The items measure of multifactor leadership questionnaire (Cont.)

Dimensions	Factors	Items
Transactional leadership	Contingent rewards	4
	Management by exception(active)	4
	Sub total	8
Passive/Avoidant behavior	Management by exception(passive)	4
	Laissez-faire	4
	Sub total	8
Leadership outcomes	Extra-effort	3
	Effectiveness	3
	Satisfaction	3
	Sub total	9
	Total	45

The relationship between transactional leadership and organizational citizenship behavior

Nguni, Slegers, and Denessen (2006) examine the effects of transformational and transactional leadership on teachers' job satisfaction, organizational commitment, and organizational citizenship behavior in the schools of Tanzania. By using data collected from a sample of Tanzanian primary school teachers. Found that transactional leadership had effects on job satisfaction, organizational commitment, and organizational citizenship behavior. Similarly, Ghasriki and Mahmoodi (2015) study the relationship between transactional leadership and organizational citizenship behavior. A sample is the employees of West Azerbaijan's department of health insurance. The result found that transactional leadership had a significant relationship with organizational citizenship behavior. In addition, MacKenzie, Podsakoff, and Rich (2001) examined the impact of transformational and transactional leadership on the sales performance and organizational citizenship behaviors of salespeople found that contingent reward behavior had positive effects on organizational citizenship behavior.

This result suggests that the sale manager must pay attention to employee praise for high employee performance.

2.5 Organizational Citizenship Behavior

Organizational citizenship behavior began from the concept of pro-social behavior and altruism behavior. The organizational citizenship behavior is an organizational spontaneity of each person, regardless of any rewards (Organ et al., 2006). Previously, Brief and Motowidlo (1986) explain "Organizational behavior," which is based on the concept of "Pro-social Behavior." It deals with how to develop humans to have an extra-role in behaviors. It is the action of helping co-workers with pleasure and willingness and is irrelevant to his/her routine duties in the organization. Moreover, (P. M. Podsakoff & MacKenzie, 1997) remark that the organizational citizenship behavior is positive for efficiency. That means it helps employees to request more work. Besides, it increases productivity. That is to say, the labor increases, whereas the number of staff does not increase. Moreover, the employees can do many kinds of tasks. So they can help other co-workers. Finally, the organization can keep good staff to stay longer and increase efficiency at work. Twenge, Baumeister, DeWall, Ciarocco, and Bartels (2007) reveal that pro-social behavior depends on a belief that one person is a part of a community, where other people mutually help and support each other. They also love one another. As a result, when people feel excluded, their inclination to perform such behaviors would be reduced or eliminated.

In the organization, which requires employees to work for the organization, the cooperation of the employees is important for the team. Besides the duties and responsibilities of their own, the employees have extra-roles beyond their job. The organization should establish which employees have organizational citizenship behavior because it is the factor that will help the organization to develop experienced employees who can cooperate within the organization. With extra-role behaviors, the organization can predict and support the relationship and cooperation between the organizational social, so this will assist in the success of the organization. The employees are willing to work without regulatory force. Thus, the expression is not associated with the formal reward system. When the employees have "organizational citizenship behavior," they

will work with perseverance. So the job is more efficient. Even if it takes time to practice more and they are enthusiastic to work for success. This causes job satisfaction with excellent performance within the organization.

For the conceptualization about organizational citizenship behavior, it has been studied for nearly the past five decades with different and similar concepts of dimension on "Organizational Citizenship Behavior." Katz (1964) introduced the importance of discretionary and spontaneous behaviors that are beyond role requirements. He also classified it as extra-role behaviors. Williams and Anderson (1991) later formally defined as "OCB represents individual behaviors that are discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective function of the organization." (Organ, 1988: 4, cited in Williams and Anderson, 1991). Bateman and Organ (1983), he predicted the connection between previous overall satisfaction and followed with citizenship behaviors.

Organizational Citizenship Behavior is considered as "Extra-Role Behavior". The aim of the behavior is to help and adjust the living condition of the person who is treated (Katz & Kahn, 1978). It is acceptable that the organizational citizenship behavior is useful to run jobs in an organization. That is, it helps to increase efficiency and effectiveness of workers in an organization. So every organization wants their staff have good member behaviors (P. M. Podsakoff et al., 2000). According to Organ's guideline, major factors of the organizational citizenship behavior are as follows;

Altruism - is the will to help others, especially deals with job. Suggestion for new staff on how to work is counted.

Conscientiousness - is the willingness to work for more than the organization's expectation; i.e. be on time, devoted to work.

Sportsmanship - means being patient with problems, barriers, and high pressure without requesting anything.

Courtesy - refers to the consideration of other co-workers, as well as respecting their right. It also deals with prevention to impact with others.

Civic Virtue - is the responsibility and participation in an organization's operation.

Concept and theories of organizational citizenship behavior

Several scholars studied the organizational citizenship behavior factor. The literature reviewed found that the dimension of organizational citizenship behavior is similar and different. In 1983 Bateman and Organ introduced the term organizational citizenship behavior. Also Smith, Organ, and Near (1983) suggested two major factors of organizational citizenship behavior.

Altruism focuses on helping behavior of other workers directly in a situation i.e. helping coworkers who have overloaded tasks and introduce new employees to work with them.

Generalized compliance (conscientiousness) is a behavior pattern, which is more formal than raising awareness. It is not the objective for someone, but it indirectly teaches other employees about the work system in the organization, i.e., the devotion to duty. Compliance with the rules of the organization does not help someone only but assist the person and overall operations for the majority of the organization including punctuality. It does not waste time in operations to any benefit and accepts the organizational norms. It is a behavior for the employee in an organization that they must perform.

Dimensions of Organizational Citizenship Behavior

Organ (1988) developed factors of organizational citizenship behavior to five factors. They are altruism, courtesy, conscientiousness, sportsmanship, and civic virtue. Sportsmanship is defined as the tolerance to a situation i.e. inconvenience, frustration, and strain. It can be seen in the employees who have a heavy workload. The employee will be shown as a sportsman.

Civic virtue is the behavior that shows responsibilities and willingness in participating in the organization i.e. attend meetings, keep confidentiality in the organization and only appropriate commenting.

Conscientiousness is indicated as the employee's adherence and acceptance to the rules of the organization, such as, faithful adherence to organizational rules, punctuality at work, keeping organizational assets, and do not work overtime above the regular work hours. In an organization, the employees are members. The organization is a resemblance of a large team, and everyone must cooperate in performing to achieve

their goals. Thus, the members must contribute to citizenship teamwork and their organization.

Courtesy is the behavior that shows characteristic humility and respects others to solve problems that may occur. In an organization, employees must complement one another, so the action or decision of one person may affect other coworkers. Moreover, the respectful and courteous behavior to other individuals is critical to the organization.

Altruism is defined as the discretionary act that effects to help a person when he or she has a problem in the task, such as instructing a new coworker on how to use the equipment in the organization (Mahembe & Engelbrecht, 2014).

Moreover, in 1990, Organ expanded his model into two dimensions; peacekeeping and cheerleading (N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009). Organ's Dimension of Organizational citizenship behavior in 1990 included altruism, courtesy, conscientiousness, sportsmanship, civic virtue, peacekeeping, and cheerleading. So altruism, courtesy, peacekeeping and cheerleading are considered as helping behavior dimensions. Thus, helping behavior is second-order caused by P. M. Podsakoff, Ahearne, and MacKenzie (1997). The first three dimensions "clearly involve helping others with or preventing the occurrence of work-related problems."(p.263). Also, cheerleading is regarded as words and actions to encourage, motivate to a coworker to succeed in the operations and development in their profession. Also, peacekeeping is to help, protect, revise or reduce the intensity of the conflict, which is not creative, between an individual in the organizational. Graham (1991 cited in Van Dyne, Graham and Dienesch, 1994: 767) classified organizational citizenship behavior into three dimensions. Three dimensions are organizational loyalty, organizational obedience, and organizational participation. Organizational loyalty is a behavior that commits loyalty to the organization and leaders.

This includes interested persons and departments in the organization, which have a good citizenship to protect associations from threats. It comprises of self-sacrifice for the reputation of the organization, as well as cooperating with other persons to create benefits in a whole group. Second, organizational obedience is the behavior adaptation to the organizational structure, job description, and human policies by acceptance reason of the organization's rules. The respect in the organization can

present by recognizing organizational rules and commands. It includes punctuality, discipline in operating and delivering on time as well as a responsibility to the organization's resources. Finally, Organizational participation is the behavior to become involved in the activities of the organization. It is good behavior and is important in the practice of virtue. This action is shown by responsibilities within the organization i.e. when having a meeting, everyone attends without any force to exchange opinions and ideas with other colleagues. They also present their negative data and support different views to other persons in commenting among the group.

Williams and Anderson (1991) divided organizational citizenship behavior into two factors; organizational citizenship behavior -directed toward individuals: OCB-I, organizational citizenship behavior -directed toward organizational: OCB-O. Organ's organizational citizenship behavior dimension OCB-I includes altruism, courtesy, peacekeeping, and cheerleading, OCB-O includes compliance (conscientiousness), civic virtue and sportsmanship. Furthermore, R. H. Moorman and Blakely (1995) divided the organizational citizenship behavior into four factors as follows interpersonal helping, individual initiative, personal industry, and loyalty. In addition, P.M. Podsakoff, MacKenzie, Paine, and Bachrach (2000: 516-526) divided behavior into seven factors; helping behavior, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue, and self-development. The literature of reviews found that many scholars studied the theory related to organizational citizenship behavior. The study used Organ's dimension similarly e.g. altruism, conscientiousness, sportsmanship, courtesy, and civic virtue (Dash & Pradhan, 2014; Mahembe & Engelbrecht, 2014; Ölçer, Florescu, & Năstase, 2014; Schlechter & Engelbrecht, 2006). Mahembe and Engelbrecht (2014) analyzed the relationships between servant leadership, organizational citizenship behavior and team effectiveness in the South African School System. The sampling population was 288 non- probability teachers in 38 schools in the Western Cape in South Africa. This research of organizational citizenship behavior is moderation between servant leadership and the team's effectiveness. It is found that organizational citizenship behavior has positive relationships between the servant leadership and the team's effectiveness.

Ölçer et al. (2014) examined the effects of transformational leadership and leader's emotional intelligence of managers on the dimensions of organizational citizenship behavior with employees in the manufacturing industry. They stated that emotional intelligence of executives had significant positive effects on organizational citizenship behavior. It dealt with the dimensions of altruism, courtesy, conscientiousness, and civic virtue. But transformational leadership had no effects on the dimensions of organizational citizenship behavior. The study conducted by Dash and Pradhan (2014) found that this study examined the organizational citizenship behavior in Indian organizations. The model included human resource practices, employee engagements, and job embeddedness as determinants of organizational citizenship behavior. High employee retentions, job satisfaction, and low absenteeism were conceptualized as positive with the outcomes. However, work-family conflict and role overload were regarded as negative results.

In addition, Schlechter and Engelbrecht (2006) investigated the relationship between transformational leadership meaning and organizational citizenship behavior. They found that partial support for the meaning and organizational citizenship behavior accepted transformational leadership. Furthermore, some scholars studied organizational citizenship behavior with some of Organ's dimensions. For example, Yan and Yan (2013) investigated the relationships between leadership, organizational citizenship behavior, and innovation in small businesses. They found that among the three organizational citizenship behaviors, only civic virtue had significant and positive relationships with innovation. However, helping had significant but negative relationships with innovation. It had no significant relationship between sportsmanship and innovation. The leadership behavior had a significant and positive relationship with all the three organizational citizenship behaviors of the small business owners. Borman (2004) reviewed the concept of organizational citizenship behavior. He defined citizenship performance as the action above technical expertise and task performance. It supports the organization, social and psychological matters that serve for task success. Borman focused on the experienced supervisors, personality predictions, citizenship performance, a link between organizational effectiveness and citizenship performance, and the influence of organizational characteristics. Therefore, Borman summarized

three categories as; personal support, organizational support, and conscientious initiatives. P. M. Podsakoff et al. (1997) measured helping behavior, sportsmanship and civic virtues based on Organ's dimension in 1988, 1990. They collected data from 218 crew members in a paper mill producing bond and catalog paper, which was located in the Northeastern portion of the United States. They found that helping behavior and sportsmanship had significant effects on performance quantity, and also a major impact on performance quality. Nevertheless, civic virtue had no effect on either performance. The previous research can summarize the organizational citizenship behavior from other authors as in the following table 2.5.

In this research, it presents organizational citizenship behavior in five dimensions: altruism, conscientiousness, sportsmanship, courtesy, and civic virtue (P. M. Podsakoff et al., 1990).

Table 2.5 Summary of variable Organizational Citizenship Behavior

Authors	Year	Title	Variables	Source
Lin and Hsiao	2014	The relationship between Transformational Leadership, Knowledge Sharing, Trust and Organizational Citizenship behavior	Identification Altruism Conscientiousness Harmony Resource	Farh, Earley and Lin, 1997
Mahembe and Engelbrecht	2014	The relationship between servant leadership, organizational citizenship behavior and team effectiveness	Altruism Conscientiousness Sportsmanship Courtesy Civic virtue	Organ,1988
Olcer, Florescu, and Nastase	2014	The effects of transformational leadership and emotional intelligence of managers on OCB of employees	Altruism Conscientiousness Sportsmanship Courtesy Civic virtue	Organ,1988; Podsakoff, et al., 1990

Table 2.5 Summary of variable Organizational Citizenship Behavior (Cont.)

Authors	Year	Title	Variables	Source
Palomino and Cañas	2014	Ethical culture, ethical intent and OCB : the moderating and mediating role of Person-Organization Fit	Working longer hours in response to job demands, Individual creativity, Job behavior	Cardona et.,al 2004
Newman , Kiazad, Miao, and Cooper,	2014	Examining the Cognitive and Affective Trust-Based Mechanisms Underlying the Relationship Between Ethical Leadership and Organizational Citizenship: A Case of the Head Leading the Heart?	OCBO; directed at the organization OCBI; individuals within the organization	Lee and Allen, 2002
Dash, Sangya Pradhan, Rabindra Kumar	2014	Determinants & Consequences of Organizational Citizenship Behavior: A Theoretical Framework for Indian Manufacturing Organizations	Altruism Conscientiousness Sportsmanship Courtesy Civic Virtue	Organ, 1988
Yan and Yan	2013	Leadership, organizational citizenship behavior, and innovation in small business: an empirical study	Helping Civic virtue Sportsmanship	Podsakoff and coworkers, 1994, 1997
Wei	2012	Person–organization fit and organizational citizenship behavior: Time perspective	OCBI; interpersonal OCBO; organization	Williams and Anderson, 1991

Table 2.5 Summary of variable Organizational Citizenship Behavior (Cont.)

Authors	Year	Title	Variables	Source
Chen and Chiu	2008	An Integrative Model Linking Supervisor Support and Organizational Citizenship Behavior	OCBO: benefits the organization OCBI: benefits individuals within the organization OCBJ benefits one's own job	-Williams and Anderson, 1991 -Coleman and Borman, 2000
Boerner , Eisenbeiss, and Griesser	2007	Follower Behavior and Organizational Performance: The Impact of Transformational Leaders	Sportsmanship Helping Conscientiousness	Deckop et., 1999
Mari´a and Pablo	2007	The impact of work alienation on organizational citizenship behavior in the Canary Islands	OCBO: directed at organization OCBI: directed at individuals; co-workers (OCBIC), and students or clients (OCBIS)	Borman and Motowidlo, 1993
Vilela , González and Fernández	2006	Person-Organization Fit, OCB and Performance: An empirical investigation in the Spanish sales context	Helping Civic virtue Sportsmanship	Organ, 1988

Table 2.5 Summary of variable Organizational Citizenship Behavior (Cont.)

Authors	Year	Title	Variables	Source
Schlechter and Engelbrecht	2006	The relationship between transformational leadership, meaning and organizational citizenship behavior	Courtesy Civic virtue Conscientiousness Altruism Sportsmanship	Organ, 1988
Suresh and Venkatammal	2010	Antecedents of Organizational Citizenship Behavior	OCBO; directed at the organizational OCBI; directed at individuals within organization	Williams and Anderson, 1991
Ertürk	2007	Increasing organizational citizenship behaviors of Turkish academicians Mediating role of trust in supervisor on the relationship between organizational justice and citizenship behaviors	OCBO; directed at the organizational OCBI; directed at individuals	Williams, 1988
Elanain	2007	The Five-Factor Model of Personality and Organizational Citizenship Behavior in United Arab Emirates	interpersonal helping, individual initiative, personal industry and loyal boosterism	Moorman and Blakely, 1995
Ehrhart	2004	Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior	OCB-Helping OCB- Conscientiousness	Podsakoff et.,al, 1990

Table 2.5 Summary of variable Organizational Citizenship Behavior (Cont.)

Authors	Year	Title	Variables	Source
Farh , Earley and Lin	1997	Impetus for action: A cultural analysis of justice and organizational citizenship in Chinese Society	Identification with the company Altruism toward colleagues Conscientiousness Interpersonal harmony Protecting company resource	Farh, Jiing-Lih Earley, P. Christopher Lin, Shu-Chi

Measurement of organizational citizenship behavior

Organizational citizenship behavior is measured by measuring the five organizational citizenship behaviors. And several researchers used five dimensions to assess an employee (Haigh & Pfau, 2006; Mahembe & Engelbrecht, 2014; P. M. Podsakoff et al., 1990; Schlechter & Engelbrecht, 2006). This instrument consists of 32 items measuring. For example "Help others who have a heavy workload," "Take a step to try to prevent problems with other workers." Five dimension base on Organ (1988), namely; altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. Five points Likert scale ranging from 1 = strongly disagree, and 5 = strongly agree to assess all of the dimensions in the present study. The researcher adopts questions for Thai organizational culture.

Influence of transformational leadership on organizational citizenship behavior

Organizational citizenship behavior is extra-role behavior and has a positive impact on performance (P. M. Podsakoff et al., 2000). Transformational leadership is a process involving individual, organizational and group which change and motivate employees (Lian & Tui, 2012). Bryman (1992) suggested that “transforming leadership entails both leaders and followers raising each other’s motivation and sense of purpose. This higher purpose is the one in which the aims and aspirations of leaders and

followers congeal into one. Both leaders and followers are changed in pursuit of goals which express expectations in which they can identify themselves” (p.95). Boerner, Eisenbeiss and Griesser (2007) studied, in German companies, 91 leaders with their followers’ behaviors and organizational performances with impact of transformational leaders. The result confirms that the organization citizenship is mediate as a significant on transformation leaders. Singh (2011) also states that the effective leader must be able to communicate the vision and mission of the organization to the employees. Also clarity and creativity and innovation are sustainable competitive advantages nowadays. Lian and Tui (2012) found that the transformational leadership has significant positive relationship with subordinates’ organizational citizenship behavior. The organizational citizenship behavior supports the interest of scholarly because this is a behavioral action of a person in an organization which feels positive to the organization. The organizational citizenship behavior is important to support the willingness to work hard within the organization with job description (Hutahayan, Astuti, Raharjo, & Hamid, 2013).

Influence of transactional leadership on organizational citizenship behavior

Gadot (2007) studied perception of politics among employees in public sectors. He used an empirical examination of two competing models. Comparing model 1 and model 2, the result showed the relationship between transactional leadership and organizational citizenship behavior is a positive (0.24, $p < 0.05$) and the relationship between transformational leadership and organizational citizenship behavior was a positive (0.32, $p < 0.05$), too. In addition, Walumbwa et al. (2008) also studied on the contingent reward transactional leadership, work attitudes, and organizational citizenship behavior. The result showed that the relationships between contingent reward leader behavior and followers’ satisfaction with supervisor and levels of organizational commitment were high and the relationship between contingent reward leader behavior and supervisor rated organizational citizenship behavior was significant. Similarly, MacKenzie et al. (2001) found that the transactional leadership had positive influences on a salesperson’s organizational citizenship behavior.

2.6 Trust

Trust is essential for every organization. Trust makes an organization develop and achieve success because workers need to depend on each other. Trust among members in the organization tends to increase. Trust is a resource that comes from a basis of cooperation (Shaw, 1997). If there is no trust among organizational members, the organization will waste a lot of time, as well as resources to accomplish achievements. So trust among organizational members will create practical results for the organization (Reynolds, 2011). Hence, trust becomes an important subject matter in more than HR management. Trust has been highly praised for being the factor that affects the achievement of every organization (Healey, 2008). Therefore, trust is regarded as the most important factor in the 21st century (Perry & Mankin, 2007).

Concept and Theories of Trust

Trust has been studied in many sciences; i.e. economics, psychology, sociology, anthropology, organizational behavior, etc. The varieties of research in each science come from different concepts (Lewicki, McAllister, & Bies, 1998; Rousseau & Parks, 1992). Creed, Miles, Kramer, and Tyler (1996) remarked that people have been interested in and studied trust since the 1980's. It was during this period that researchers became interested in behaviors because they thought that trust led to the creation of human cooperation among personnel and an organization (Lewicki et al., 1998).

Many different people defined the term "trust" according to various sciences. For example, Rotter (1967) describes that trust is an expectation to an individual or a group with speech, action, promises, as well as writing messages from the person or the group. Such action or activities create trust. A second point, Cook and Wall (1980) define "trust" as the way a person is pleased or willing to treat other people with intent or good intentions. This comes from the confidence in speech or the action of such person. Anderson and Narus (1990) clarify that "trust" is a belief, reliability or expectation to a partner. Trust comes from the partner's knowledge, skill, and credibility. C. Moorman, Deshpande, and Zaltman (1993) also give their definition of "trust". It is the behavior that reflects reliability on participating people. The trusted people cannot help themselves or for lack of knowledge. In addition, Fairholm (1994)

remarks that "trust" is a kind of relationship with risk. However, it is important, whenever there is trust in a person, event, or object; it shows that there is belief in such person, event, and object. So when there is trust in other people, we will treat such people with reliance, though we do not have complete information about them. Beside, McAllister (1995) defines that "trust" is a subject that people have confidence and intention to perform by speech, action, and a decision of the others. Furthermore, Mayer et al. (1995) define that "trust" is the willingness to accept the risk of other person's action. It is by the expectation that these individuals will treat us well, regardless of any follow-up or control.

Finally, A. K. Mishra (1996) gives the meaning of 'trust' that it is the willingness to give security to other persons. It is believed that such a person has abilities, frankness, interest, care and credibility. The researcher then concluded the meaning of trust as the pleasure to take risks that may occur from the act of others in which we expect to gain positive things in return by not aiming at the follow up or control it as we want.

The organizational theories during the year 1990 regarded more importance of the studies on "trust." Many research works provided more knowledge. According to Jones and George (1998) and McAllister (1995) trust leads to behaviors of inter-person cooperation, as well as personal groups and an organization. At present, researchers still study new guidelines to promote the inter-person cooperation, particular group and the organization. The purpose is to increase the organization's efficacy. Lewicki and Bunker (1996) remark that trust is a multidimensional approach. There are differences in the aspects of psychology, sociology, history, anthropology, and economics. According to these differences, three groups of views appear, they are the opinion of personality theories, sociologist and economists, and social psychologists. Moreover, Gillespie and Mann (2004) explain about affective-base trust. That is emotion is important in the process of trust. For cognitive-based trust, people believe in positive characteristics of other individuals. And for behavior-base trust, people believe in other people and reveal their information. Such concepts were followed by McAllister's in 1995. He remarks that the cognitive-based trust is the perception of the particular action of the trusted persons, under one situation and chooses good reasonable things.

According to the concept of affective-based trust, each one will have feelings of trust on a person. People express their behaviors with care. They believe that the feeling will get rewards. In 1996, Johns noted that there are varieties of trust in supervisors. John developed the concepts of trust into two aspects; i.e. trust as a process and trust as an outcome. According to trust as a process, there are four periods of trust; i.e. assimilation of information, decision-making, relationship creation, and consequence of trusting.

Furthermore, Mcknight, Cummings and Chervany (2006) remark that trust is intimate relationships in an organization. Trust gets influences from trustor's disposition to trust, cognitive process, trusting belief, and trust intention. According to the previous study of Luhmann (1979), he presents the concept of trust, and it is widely accepted on the patterns of trust. The trust pattern composes of interpersonal trust and system trusts. For interpersonal trust, it is confidence in supervisors. And for system trust, it is confidence in an organization. The Luhmann's theory explains that trust is the representative of a person's confidence level in others' actions. Such actions deal with appropriate action, ethics, and can be predictable. In addition, Luhmann regards the importance of organizational trust. That is to say; it is the organizational system that is accepted in value and organizational goal. It is highly needed to stay within the organization. Besides, Luhmann remarks that trust comes from interaction, which gets influences from other people and social systems. The trust is divided into interpersonal trust and system trusts. For interpersonal trust, it is the assessment on supervisors. And for system trusts, it is the assessment of the organization; therefore, it can explain the differences of perception to the organizational personnel.

According to Whitener, Brodt, Korsgaard, and Werner (1998), the relationship of organizational workers needs to have trust to be the primary basis to create trust among membership in the organization. This concept is by the idea of Shaw (1997). Shaw says that trust arises from resources that come from cooperation, which is an essential basis. Trust is the important thing for everyone in an organization. It is the intermediary to link the differences and creates a good treatment to one another in the organization. Besides, trust affects satisfaction in works concerned. This concept is written by J. Mishra and Morrissey (1990). They remark that trust has a positive

correlation with job satisfaction, as well as effective communications. In the same way, other researchers have the same idea that trust affects job satisfaction, behaviors of good membership in organization, organizational commitment, job resignation, and performance (Flaherty & Pappas, 2000).

According to the research work with the method of meta-analysis of Dirks and Ferrin (2002), found that trust affects attitudes; i.e. job satisfaction, organizational commitment, information beliefs, reducing job resignations, behavior of good membership in organizations and performances. After reviewing the literature, it can be concluded that trust is important to organizations in the 21st century in multi-dimensions. The dimensions deal with human relationships. Trust affects the efficiency of organizations and performances. Hence, each organization needs to have a guideline to create trust for everybody to achieve the goals. The researcher is interested in the study of trust according to the concept of Luhmann (1997). His theory deals with the dimensions of organizational trust and supervisory trust.

Measurement of Trust

Trust is measured by measuring the two trusts. And several researchers used two dimensions to assess an employee (Aryee et al., 2002). This instrument consists of measuring 14 items. For example "I believe my employer has high integrity." Two dimension base on Robinson (1996), Nyhan and Marlowe Jr (1997) namely; Trust in Organization and Trust in Supervisor. Five points Likert scale ranging from 1 = strongly disagree, and 5 = strongly agree to assess all of the dimension in the present study. The researcher adopts questions for Thai organizational culture.

2.7 Justice

Nowadays the study found that the primary factor for decisions has basic concepts from the theory of equal treatment of individuals. This idea leads to sentences according to the principle of justice. The principle of justice is divided into two types; i.e. Balance principle and rightness principle. Firstly, balance principle regards the comparison of what a person invests with other people. After that, it is considered whether there is a balance and fairness on the outcomes or not. Secondly, rightness principle is for an organization's or supervisors' decision-making to operate process or

performance methods. The research study found that people are not only interested in the outcome of the decision, but they are also interested in the practical ways to decide (Korsgaard, Schweiger, & Sapienza, 1995). According to Folger and Cropanzano (1998) people may get feelings by awareness of equal treatment for a decision. So a leader should have consistent behavior, which is necessary for his under-control staff's awareness of equality.

Concept and Theories of Justices

Many people have defined the term "justice" in many ways. For example, Organ and Konovsky (1989) remark that the awareness of justice in an organization means the employees' recognition of fair treatment from their organization or supervisors. In addition, Greenberg (1990) notes that justice in an organization is the justice of compensation that allocates to employees. It is the justice of the process to define fair compensation in the organization. Kanfer (1990) also remarks that organizational justice refers to the personal awareness on sharing compensation according to the proportion of job characteristics. Likewise, R. H. Moorman (1991) points out that organizational justice means the methods or the way that officers decide whether they should get fair treatment in the matters concerned in their work. This issue is the influence of variants of other works. Another point, Cropanzano et al. (2003) refers to the just and ethical treatment of individuals within an organization. In the same way, Gilliland and Langdon (1998) defines that the awareness of organizational justice means the feeling that the process and outcomes are fair, invariable, and appropriate. Folger and Cropanzano (1998) also remarks that the awareness of the organizational justice deals with rules and social norms. Such rules and standards control reward allocation (both awards and punishment). The rules include the process decision-making to allocate rewards and other matters, as well as interpersonal treatment. Similarly, Greenberg and Baron (2000) note that organizational justice refers to a person's awareness of justice in his organization. That is the process to make decisions on reward allocation. The rules include the feeling of perception of justice for his reward. Colquitt, Lepine, Piccolo, Zapata, and Rich (2012) add up that organizational justice means appropriateness, justness, rightness and frankness.

For another point, Muchinsky (2003) says that organizational justice refers to the personal awareness to his organization, which concerns the justice he receives from the organization. Finally, Judge and Colquitt (2004) define the term "awareness of organizational justice." It is the thing an employee compares whether it is appropriate to receive a reward with what he dedicates to his work, according to the decision-making process and appropriate interpersonal treatment. Hence, the researcher concludes the term "justice' is the thing a person receives from his organization and supervisor in the aspects of compensation, other process and treatment with rightness and justice.

Theories Concerning with Organizational Justice

There are many theories concerning organizational justice. For example, Walster's theory explains that each person wants to receive full compensation. And a group can collect most compensation to the members. There will be anxiety if they do not have equal participation. And there will be more anxiety if they find out that they do not receive equally. They will feel that how to make equality back is difficult (Walster, Berscheid, & Walster, 1976). Another theory is Vroom's Expectancy theory. It is the application of expectancy theory with motivation in workplace (Vroom, 1964). The theory suggests how to choose guidelines of decision behavior. The method helps to increase employees' expectations caused from motivations and reward of achieving their goals. In addition, Deutsch's theory deals with compensation, justice, condition distribution, and other resources that people or private group value in the society. Besides, there may be dissatisfaction, if these individuals do not get justice in their benefits, damages, rewards, etc. (Deutsch, 1975). According to the concept of organizational justice of Sheppard, Lewicki, and Minton (1992), the awareness of organizational justice considers the rightness principle and balance principle. Sheppard, Lewicki and Minton divide organizational justice into three aspects; i.e. reward justice, procedural justice to define rewards, and system justice.

In the same way, the concept of organizational justice can be divided into three types; i.e. distributive justice, procedural justice, and interactional justice (Moorman (Folger & Cropanzano, 1998; R. H. Moorman, 1991; Price & Mueller, 1986).

1. Distributive justice is most often conceptualized from an equity perspective (Tyler, 1994). According to Price and Mueller (1986:122), they define distributive justice as "the degree to which rewards and punishments are related to performance inputs." Also, Lind and Tyler (1988) remarks that distributive justice is typically related to the fairness of outcomes and procedural justice, which refers to perceptions of fairness concerning procedures and processes. Distributive justice is the way personnel in an organization make a comparison with what he invests with other persons. Then he considers the justice from compensation by evaluating whether the outcome is appropriate or not. Many researchers emphasize justice on the results (Adams, 1965; Deutsch, 1975; Leventhal, 1976). Distributive justice is fostered where outcomes are consistent with implicit norms for allocation, such as equity or equality.

2. Procedural justice; Lind and Tyler (1988) remark that there are two models of procedural justice; i.e. self-interest model and group-value model. Procedural justice is fostered through voices during a decision-making process or influences over the outcome (Thibaut, 1975). During the year 1970, some researchers thought that sharing justice cannot completely be explained and predicted the reaction of a person to the justice (Folger & Konovsky, 1989). The reason is that sharing compensation is not as important as the process or method to determine the compensation. An organization will consider the process to determine the quantity and reward allocation to employees. If the decision process on bonus compensation is fair enough, the employees will accept that they will not get rewards equally (Greenberg, 1990). So procedural justice concerns with awareness of procedural equality to allocate compensation, awards, and duty responsibilities (Saunders & Thornhill, 2003).

3. Interactional justice; Bies and Moag (1986) refers to interactional treatment that people receive during the enactment of formal procedures. Likewise, Choi (2008) remarks that interactional justice means that an employee is aware that his supervisor treats him with fairness during co-worker activities. In addition, there is real interaction, and fair information received. As a result, organizational personnel regard importance on the relationships with their supervisors; for example, gentle behaviors, acceptance, etc. Moreover, the employees learn how to be treated by others with justice. This also includes enough information being received to make decisions and to

explain the interpersonal right and justice, which will lead to healthy relationships among employees, supervisors, and colleagues. Some researchers count interactional justice as the third type of organizational justice. That is the interactional justice is fostered when decision makers treat other persons with respect and sensitivity and explain the rationale or decisions thoroughly (Barling & Phillips, 1993; Bies & Shapiro, 1987).

Hence, the researcher concludes that organizational justice is the awareness or perception of employees toward fair treatment in their organization. This includes fairness in resource allocation and fairness in exchange to each other in the organization. It deals with personnel, colleagues, supervisors, and under-control staff. In addition, organizational justice refers to the justice of organizational process to sentence or judge with fairness. That is the employees can check without any bias, and their ideas are not dominated by fair decisions. Finally, the organization has a system to evaluate, which is based on reliable information, which provides equality for every employee in the organization.

Measurement of justice

Justice is measured by measuring the three justices. This instrument consists of 15 items measuring. For example "Are you able to express your views during those procedures?" Do those outcomes reflect the effort that you have put into your work?. Three dimension base on Colquitt et al. (2012) namely; procedural justice, distributive justice, and interpersonal justice. Five point Likert scale ranging from 1 = strongly disagree and 5 = strongly agree to assess all of the dimension in the present study. The researcher adopts questions for Thai organizational culture.

Influence of transformational leadership, Trust, Justice

The concept of trust in the organization. Trust between an employee and the organization is to reward, earnings and fairness, while the trust between the employee and supervisor tends to grow active cooperation and affects the whole system. The report indicated that employees are more likely to trust their supervisor more than the organization (Tan and Tan, 2000). Podsakoff et al.,(1990) state that trust from different sources also gives different results, such as trust of a supervisor can improve employee's performance and moral by dedicating themselves to work, while trust in the

organization makes them unite and move towards the same targets. Moreover, Bennis and Nanus (1983) claimed that a good leader is a man who can gain trust from the party members effectively. Yukl (1989) notes that trust and respect between followers and leaders could unlock the ability to perform better performances than usual. Boal and Bryson (1988) also claimed there are relationships of trust and loyalty between leaders and followers are very effective in a change of the leadership roles. Kouzes and Posner (1987) said that the important options of good leadership by the members resulted in real loyalty and moral. Transformational leadership method use trust as the key towards functionality. Casimir, Waldman, Bartram, and Yang (2006) studied that leadership is positively related to trust, which was indicated in research of a cross-cultural comparison of the mediating effects of trust in the leadership and the relationship between the in-role performance of followers and transformational leadership and transactional leadership in Australians and Chinese. Also, the direction of managers can be seen due to fairness and organizational management, which also improve employee's manners (Lin, Chang, Chen, and Lin, 2011).

Influence of Transactional leadership, Trust, Justice

Contingent rewards transactional leader behavior has been a focus of substantial organizational research over the last two decades (Avolio, Bass, Walumbwa, & Zhu, 2004). Contingent rewards transactional leaders furnish tangible support and resources to subordinates for a reward for their endeavors and performances, defining the rules of work, holding standards, and impose the outcome of goal accomplishments (Walumbwa et al., 2008). Pillai, Schriesheim, and Williams (1999) found that the relationship between transactional leadership and distributive justice was positive and significant. Also, Walumbwa et al. (2008) studied transactional leadership, work attitudes, and organizational citizenship behavior: the role of procedural justice perceptions and strength. They found that the contingent reward transactional leader behavior was positive and significantly related to procedural justice perceptions and justice powers. Krafft, Engelbrecht, and Theron (2004) found that the relationship between transactional leadership for contingent rewards and distributive justice were positive and significant. Casimir et al. (2006) showed that transactional leadership had significant positive correlations with trust in the Australians and the Chinese. Jung and

Avolio (2000) studied the causal effects of transformational and transactional leadership and the mediating role of trust and values based on the follower's performance. A total of 194 participants worked on a brainstorming task under transformational and transactional leadership conditions. The results, LISREL was used to indicate transactional leadership, had indirect effects on followers' performance mediated through members' trust and value conditions.

Influence of Trust, Justice on Organizational Citizenship Behavior

In Trust, Trust is a group's concept that someone would do significant things for another without doubt to overcome another group (Mayer et al., 1995). In the research, a researcher can use generosity, fairness, and moral as indicators of trust in a supervisor (P. M. Podsakoff et al., 1990). Moreover, Yang and Mossholder (2010) researched that real trust in supervisors gave an ability of in-role and extra-role behavior. Lu (2014) states that the importance to note is that real trust is the main variable related to organizational citizenship behavior.

In justice, procedural justice climate state that “a distinct group-level cognition about how a workgroup as a whole is treated” (Naumann & Bennett, 2000). The individual worked in group with the supervisor; they were sharing the perceptions of the group together, the group was being treated as the organizational intendant (Liao & Rupp, 2005). Interpersonal justice knew in the relationship between transformational leadership and subordinate's group-level procedural justice. The charismatic leaders focus the effort and spirits of the group as a whole to achieve missions and goals (Cho & Dansereau, 2010). Besides, Cropanzano, Prehar, and Chen (2002) suggest two types of justice; procedural justice and interactional justice, applying the exchange between employees and their association or employees and their supervisors. De Cremer and van Dijk (2002) found that positive effects of procedural fairness manners help inspire other employees in the organization to improve them and to assist making the company's targets. Zeinabadi and Salehi (2011) indicated that procedural fairness and trust relates to organization manners with trust and procedural fairness were the highest relation ($r=0.53$, $p<0.01$) as studied on the social exchange predictors of teacher organizational citizenship behavior. Van Dijke, De Cremer, Mayer, and Van Quaquebeke (2012): consciousness of self-improvement of employees affected

citizenship manners and connections, as well as justice and relationship improvement. Jafari and Bidarian (2012) reported of the study of 250 employees of Islamic Azad University about correlations between associational fairness and associational manners that positive relationship between organizational citizenship behaviors were significantly the scope of organization. Wang and Jiang (2015) study indicated that interactional fairness of supervisors identification indirectly affects the interactional fairness of the organization citizenship manners as investigated result in differential mediating effects of organizational and supervisors identification for interactional justice.

The mediating role of trust and justice

The mediator variable is the variable that comes to intervene between the independent and dependent variables, in which, functions connect between both. The independent variable may not influence much on dependent variable thus; it requires seeking some factors to join into the analysis. If it is found that the factors are correct mediator variables, the total influential value must reduce maybe down to zero or without any significance. It means the full mediation effect. Thus, if it decreases, but does not touch at zero or significantly reduce; this means a partial mediation effect (Baron & Kenny, 1986). In the test of significance of the mediator effect, it is an indirect influence testing (Piriyakul, 2015). For the mediator variable of trust, Mayer et al. (1995) defined it as the party's willingness to be vulnerable in the actions of another party with an exemption for the other party to perform particular crucial work for the trust or irrespective of the monitoring or controllable ability of another party. The weakness results from risks and uncertainty related to the intention of the other and the proper acts of functionality. The increasing level of weakness in the situation, so that people have to depend on each other leads to the interest of each that cannot meet the needs of others (Aryee et al., 2002). The perceived trust can explain that the evaluation of the ability of each person is dependent on functions and to reflect the beliefs of persons, confidences, and capacities. On the other hand, the effect of Trust reflects the emotions from taking care of each other and concerns between people (McAllister, 1995). Chen, Chen, and Meindl (1998) mentioned that the relationship on a social exchange has unusual characters that influence on trust. For the mediator variable,

justice in each organization will be affected on the perceived justice in the organization, which relates to factors, in all aspects. Justice would result in emotions, feelings, motivations, resignations, perceptions, as well as people's behavior. The operating results in trust, job satisfaction and behavior of a strong organization (Muchinsky, 2003). Thus, the fairness theory has mentioned the perception of the organization's justice of people on the distributive justice, which bring comparisons with others. Next, there is the study on the procedural justice related to procedures that the organization uses to decide compensation payments. Besides, it has also studied the perception of procedural justice or interactional justice, to investigate the operational practices towards people in the organization. Especially, the internal organization communications (Cohen-Charash & Spector, 2001). The previous research Casimir et al. (2006), examined the relationship between transformational leadership and transactional leadership effect on performance as trust mediator, a total of 119 participants who work in Australia and 122 participants who work in China, it found that transformational leadership and transactional leadership has significant positive influences with regard to trust in the Australian and Chinese. In Australia trust is full mediator between transformational leadership, transactional leadership and performance. Ertürk (2007) studied the relationship between organizational justice and organizational citizenship behaviors of Turkish academics mediating role of trust in supervisory, found that a total of 1,018 participants work in public universities in Turkey. The result showed that trust in supervisors was full mediates in the relationship between organizational justice and organizational citizenship behavior. Aryee et al. (2002) studied the role of trust mediator in the relationship between justice and work outcomes, it found that 179 subordinates and 28 supervisors work in public sector organizations in India, the result showed that trust in organizational was full mediator in the relationship between interactional justice and work attitudes, trust in supervisory was full mediator in the relationship between interactional justice and organizational citizenship behavior. Chughtai, Byrne, and Flood (2014) examined the role of trust mediator in the relationship of ethical leadership, it found that 216 trainee accountants from any organization, the result shown that trust in supervisor was full mediator effect of ethical leadership on work engagement and emotional exhaustion. In the part of

justice, Ehrhart (2004) studied on servant leadership effect on organizational citizenship behavior a total of 249 employees and 120 managers who work in grocery stores in the USA, found that procedural justice was the partial mediator in the relationship between servant leadership and organizational citizenship behavior. And Walumbwa et al. (2008) examined the transactional leadership, work attitudes, and organizational citizenship behavior as justice mediator, found that 281 supervisors working in banks in the USA, the result showed that justice was a partial mediator between the relationship between transactional leadership and organizational citizenship behavior.

2.8 Generation

Nowadays, the workforce is dominated by two generations: (a) the baby boomers born between 1946 and 1964 and (b) generation X or babies born between 1965 and 1981 (Egri & Ralston, 2004). A third generation is entering the labor force, Generation Y or the internet generation. Personnel are affected by the number of persons retiring each year. The goods and services has a direct impact on the economy (Rodriguez, Green, & Ree, 2003). The generation X will not stay at the same place of business for more than five years and in most cases may move at the three-year mark (Chatzky, 2002). It has been said of the generation X, work to live, while baby boomers live to work (Tulgan, 2000). Generation Y were born after 1982 (Eisner, 2005) or generation Y were born in the 20th century. They are also known as the repeat boomers, the millennium generation, and generation next (Reisenwitz & Iyer, 2009). Generation X, who will substitute the boomers when they retire, show the independence, self-sufficiency, and self-confidence they achieved in their childhood (Shragay & Tziner, 2011). Shragay and Tziner (2011) studied the generational effect on the relationship between job involvement, work satisfaction, and organizational citizenship behavior. They found that generations alleviate the impact of job involvement on two dimensions of organizational citizenship behavior with the effects of this interaction being more positive among generation X and generation Y employees. Lavoie-Tremblay, Leclerc, Marchionni, and Drevniok (2010) described the needs, motivations, and expectations of generation Y nurses at the start of their careers. The generation Y nurses reported that appreciation was a key motivator. Their needs

are stability, flexible work programs and shifts, recognition, opportunities for professional development, and suitable supervision. Yu and Miller (2005) investigated several Western research paper that were applied equally to generational groups in Taiwan's workplaces, in higher education, and the manufacturing industry. The study found that the generational groups in the manufacturing industry have different work characteristics and require various leadership styles, while there were no differences in work characteristics and preferred leadership style for generational groups in the education sector.

Influence of Generation on Organizational Citizenship Behavior

Yu and Miller (2005) investigation of western research paper applied equally to generational groups in Taiwan's workplaces, in higher education and manufacturing industries, found that generational groups in the manufacturing industries had different work characteristics and require different leadership styles, while there were no differences in work characteristics and preferred leadership styles for generational groups, in the education sector. Lavoie-Tremblay et al. (2010) described the needs, motivations, and expectations of generation Y nurses at the start of their careers. The generation Y nurses reported that appreciation was a key motivator. Their needs were stability, flexible work programs and shifts, recognition, opportunities for professional development, and proper supervision. Shragay and Tziner (2011) studied the generational effect on the relationships between job involvement, work satisfaction, and organizational citizenship behavior. They found that generation alleviates the effect on job involvement on two dimensions of organizational citizenship behavior with the consequences of this interaction being more positive among generation X and generation Y employees. Andert (2011) examined traditional leadership and assumptions concerning hierarchical and leader focused paradigms against the need of the baby boomers, gen X, millennial. The result that, to confirmation of the dual alternating leadership role existing within all employees or managers and range of worker-centered, real-time interventions needed to increase worker interaction and synergy.

2.9 Rajamangala University of Technology

Rajamangala University of Technology is under the office of the higher education commission. The aim is to offer education to promote high academic and professional achievement, emphasizing on practice, teaching, and research, producing professional teachers and providing services in academic, scientific and technologies to benefit society, enhancing arts and cultures as well as environmental preservation. Rajamangala University of Technology was founded as a technological and vocational education institution. His Majesty King Bhumibol Adulyadej renamed this technological and vocational college as Rajamangala Institute of Technology. Currently Rajamangala University of Technology covers areas in all regions of the country. Rajamangala Universities of Technology focus on producing quality graduates for the labor market. Its mission is to produce graduates in sciences and technological branches who are professional. Thus, it can be said that the graduates from Rajamangala University are “practitioner graduates”.

Nowadays, Rajamangala University of Technology does not included the government official however, changing them to be the employees in the higher education institute with monthly salary and additional welfare unlike government officials. Employees in the higher education institute who work in the group of Rajamangala Universities of Technology consist of employees in the academic group and supportive group. They have the rights to be appointed to work in academic positions as well as management just like civil servants in higher education institutes.

The employees in Rajamangala University can be divided into generations; there are those from the baby boomer era which are those who were born from the end of WWII or the senior level. Next is generation X in which are the children of the baby boomer generation; the era of high competition in economy and others. People from generation X possess vision, confidence, and always seek additional knowledge. They consider it essential to build on family institute and place importance on work toward goal achievement. At last, generation Y is the modern world people with courage to show off, less concern about criticism and interested in technology, they usually seek pleasant jobs and living pleasantly with a sufficiently high income, self-spoiled, and result-oriented. Thus, it can be seen that employees in Rajamangala University at

present are people in generation X and generation Y which are the key forces to drive the organization toward success. Personnel development among generation X and generation Y is then important since the leader will lead the organization and its members toward the same goal. This requires cooperation from everyone in the organization. If the leader can form trust and be fair in organization management, the organization will have receive more sacrifices from personnel who want to work for the organization. This would generate the organization citizenship behavior and become the culture of the organization that everyone is pleased to work for the organization with love and loyalty.

Organization leaders are crucial to motivate personnel to work toward the objective. As well at RMUT, personnel are the key factor for organization development with quality and efficiency in qualified graduate's production into society and being accepted by the entrepreneurs. Organization leader shall form trust and justice for the followers for them to reflect the organization citizenship behavior. Thus, it leads to the establishment of this research concept that aims to study trust and justice as the mediator variables. In which it would influence leadership toward organization citizenship behavior.

Employees in higher education institutions Lecturers and Staff

During the economic crisis in B.E. 2541, the government at that time aimed to reduce the budget on the part of civil servants for them to manage themselves. Thus, it resulted in the policy to exclude some members from the system. During B.E. 2542, there was the suggestion for universities or any new faculties to "leave the government system" therefore, at present the higher education institutions have not included civil servants into it but the newly appointed positions will be called "employees in higher education institutions" with different salaries and welfare from the civil servants. If retired from the civil service, the position and salary will be changed into the position of an employee in the higher education. Employees in the higher education institutions who work in the group of Rajamangala Universities of Technology consist of employees in the higher education institutions in academic and supportive lines. They have the right to be appointed to academic positions as well as management just like the civil servants in the higher education institutions. It can be said that this organization

management in the future shall take into account the knowledge, ability and potential of the group of employees in this higher education institution to step up to be the new management generation. Therefore, it is interesting for the researcher to study the differences between people in the academic line and supportive line among the group of Rajamangala Universities of Technology toward the organizational leadership, trust and justice in which would lead toward the organizational citizenship behavior with still be less studied. The researcher considers that these personnel are the key force to drive the education institutions toward efficiency and effectiveness in producing qualified graduates for the society.

2.10 Research Model

The author brings an objective and conceptual framework that was developed as a research model to test the hypothesis. The author reviewed the literature in the second chapter to summarize this research. In this research there are five factors it consisted of transformational leadership, transactional leadership (independent), trust, justice (mediator), organizational citizenship behavior (dependent), generation, lecturers and staffs (moderator). According to the study by Boerner et al. (2007), Lian and Tui (2012), MacKenzie et al. (2001) showed the statistical significant relationship between transformational leadership, transactional leadership toward organizational citizenship behavior. While the research by De Cremer and van Dijk (2002), Zeinabadi and Salehi (2011) found that trust and justice had a significant relationship toward organizational citizenship behavior. While Aryee et al. (2002); Casimir et al. (2006); Ertürk (2007) found that trust was the full mediator and Ehrhart (2004); Walumbwa et al. (2008) found that justice in organization was a partial mediator.

This study based on the structural equation model (SEM) analysis and shown that the research model as follows:

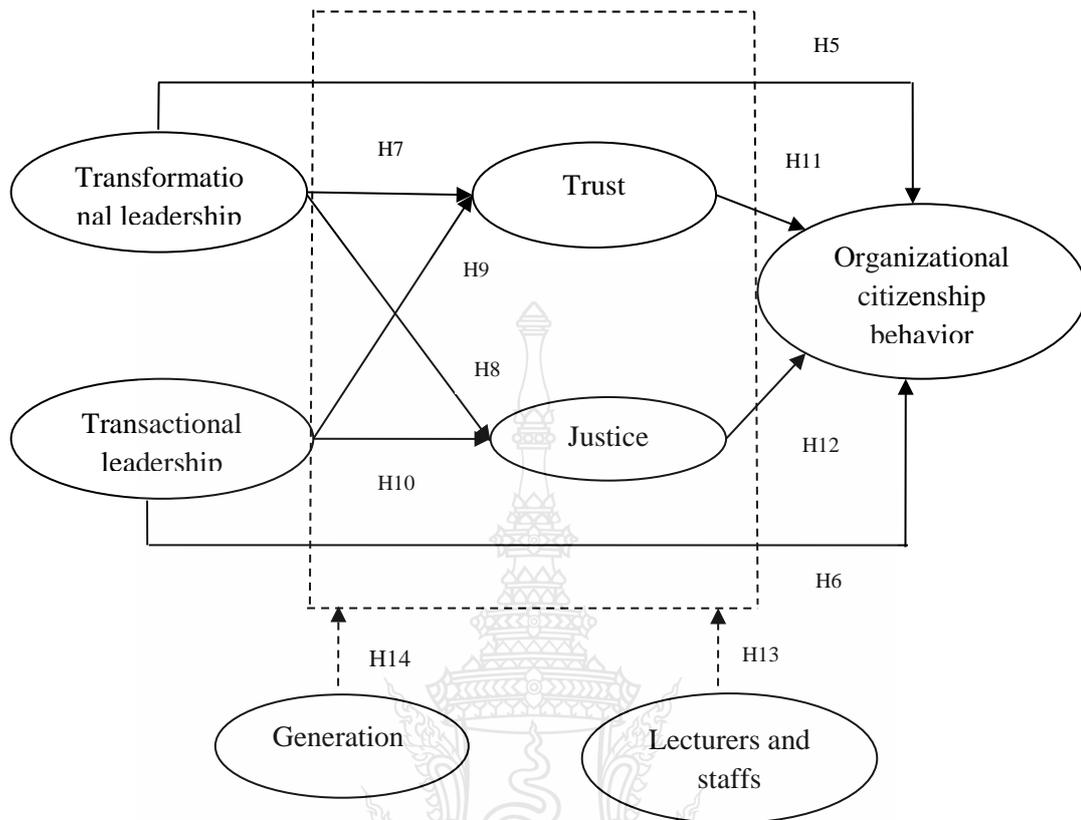


Figure 2.1 Research Model

CHAPTER 3

RESEARCH METHODOLOGY

Chapter three presents the research methodology that applies to this study on a causal model of transformational leadership, transactional leadership, and organizational citizenship behavior mediators as trust and justice. The chapter comprise of four parts including research methods, population and sample size, instrumentation and procedure of the data collection.

3.1 Introduction to the Research Methods

Figure 3.1 illustrates the study conceptual framework where the researcher integrated the overall concepts, theories, and related research together. According to the conceptual framework, the relationship between variables can be explained as follows:



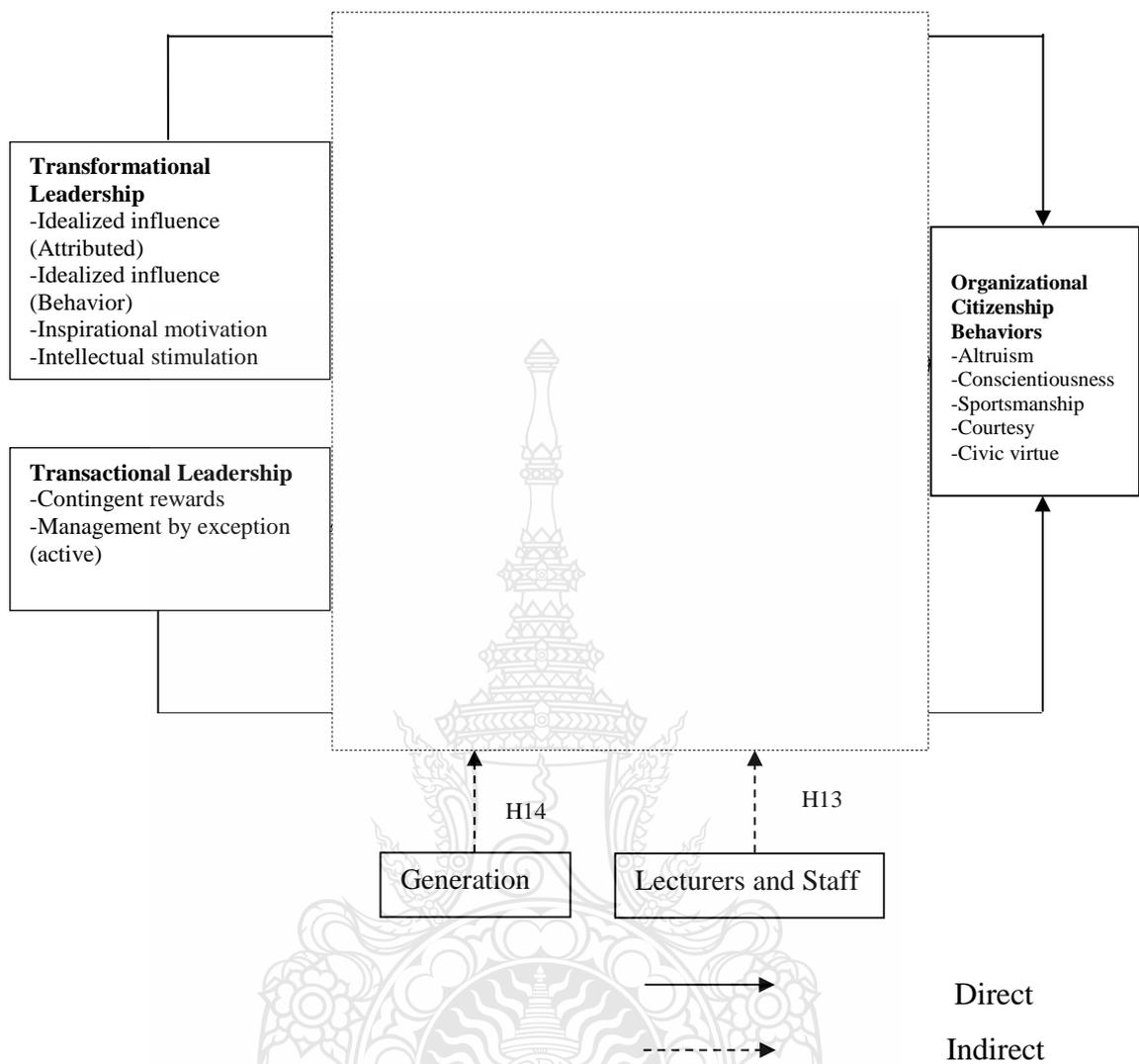


Figure 3.1 Hypotheses Model

3.2 Population and Sample Size

Populations in this study are the staffs in the higher education institutions who work in the nine Rajamangala Universities of Technology, as follows:

Table 3.1The Name of Nine Rajamangala University of Technology

Rajamangala University of Technology-Thanyaburi (RMUTT)
Rajamangala University of Technology-Isan (RMUTI)
Rajamangala University of Technology-Suvarnabhumi (RMUTSB)
Rajamangala University of Technology-Krungthep (RMUTK)
Rajamangala University of Technology-Lanna (RMUTL)
Rajamangala University of Technology-Srivijaya (RMUTSV)
Rajamangala University of Technology-Tawan-ok (RMUTTO)
Rajamangala University of Technology-Phra Nakhon (RMUTP)
Rajamangala University of Technology-Rattanakosin (RMUTR)

The methodology applied for sampling are the stratified sampling techniques from the total number of populations of nine RMUT's and the researcher estimated the population size by using the samples ratio to rate the number of parameters from ratio 10:1(Schreiber, Nora, Stage, Barlow, & King, 2006). There are 47 parameters the researcher selected 470 samples to research. The formula of sample sizes follow:

Table 3.2 Expected Samples Classified by Nine RMUT Campus

MUT location	Number of staff in higher education institutions	Estimated samples
1.RMUTT	716	61
2. RMUTI	976	83
3. RMUTSB	706	60
4. RMUTK	336	28
5.RMUTL	863	73
6.RMUTSV	694	59
7.RMUTTO	395	33
8.RMUTP	497	42
9.RMUTR	371	31
Total	5,554	470

Source: From Nine RMUT's database on October 31, 2015

3.3 Instrumentation

Instruments used in the study are summarized below:

3.3.1 Review the concepts, theories, and research papers related to the study of variables to determine the research purpose, concepts, and definitions of variables to be studied.

3.3.2 Determine the nature of question types and each variable scoring measurement and transform the meaning of scores.

3.3.3 Definitions are identified as key factors in each question and then a behavioral indicator is written to measure the attributes listed in the definitions of each issue by avoiding leading questions and complex questions.

3.3.4 Pre-test is to examine the content validity of the questionnaire items. In order for the questionnaire appropriateness, the pre-test is conducted by 30 employees who are not sample's in this study.

3.3.5 The query is generated to determine the quality of tools validity and reliability.

3.3.6 The questionnaire modified to fit the purposes of research.

Demography: The researcher created a questionnaire that includes information on gender, age, education level, income, and work experience in the RMUT's

Section A: Transformational and transactional leadership questionnaire. The questionnaire relates to transformational and transactional leadership. It has been developed from the leadership test: Multifactor Leadership Questionnaire; MLQ (Bass & Avolio, 1990b). The researcher has the license from Mind Garden, Inc. The questionnaire contains 20 question items. For transformational leadership, it consists of five sub-variables on the aspects of idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration. Each aspect consists of four questions. For transactional leadership, there are 8 items containing the sub- variables in three aspects, which are contingent rewards, management by exception (active). Each aspect consists of four questions by the participants' responses were obtained using a five point Likert type scale where 0 =

not at all, 1 = once in a while, 2 = some times, 3 = fairly often, and 4 = frequently, if not always.

Section B: Trust. The questionnaire relates to trust, that has been developed from Robinson (1996) Nyhan and Marlowe Jr (1997). The questionnaire contains 14 questions items on trust which consist of supervisory trust and organizational trust. Each aspect contains 14 question items where participants' responses are obtained on a five point Likert scale ranging from 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

Section C: Justice. The questionnaire relates to justice that has been developed from Colquitt et al. (2012). The questionnaire contains 15 question items on justice which consist of distributive justice, procedural justice and interactional justice by participants' responses are obtained through five point Likert scale ranging from 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

Section D: Organizational Citizenship Behavior. The questionnaire relates to Organizational Citizenship Behavior that has been developed from Organ (1988). The questionnaire contains 24 question items on organizational citizenship behavior which consist of altruism, conscientiousness, sportsmanship, courtesy and civic virtue. Participants' responses were obtained by using a five point Likert type scale where 1 = strongly disagree and 5 = strongly agree.

Table 3.3 Independent and Dependent Variables measurement

Independent Variables	Reference
Transformational leadership	Bass and Avolio (1990b)
<ul style="list-style-type: none"> - Idealized influence (attributed) - Idealized influence (behavior) - Inspirational motivation - Intellectual stimulation - Individualized consideration 	
Transaction leadership	Bass and Avolio (1990)
<ul style="list-style-type: none"> - contingent rewards - management by exception (active) 	

Table 3.3 Independent and Dependent Variables measurement (Cont.)

Mediator Variable	Reference
Trust	Robinson (1996), Nyhan and Marlowe Jr (1997)
- Organizational trust	
- Supervisory trust	
Justice	Colquitt et al. (2012)
- Distributive Justice	
- Procedural Justice	
- Interactional Justice	
Dependent Variable	Reference
Organizational citizenship behavior	P. M. Podsakoff et al. (1990)
- Altruism	
- Conscientiousness	
- Sportsmanship	
- Courtesy	
- Civic virtue	

Table 3.4 Measurement Instrument

Section	Dimension	Instrument	Items
A	Transformational and Transactional Leadership Questionnaire	MLQ 5X	28
B	Trust Questionnaire	Adapted from Robinson (1996), Marlowe and Nyhan (1992)	14
C	Justice Questionnaire	Adapted from Colquitt, LePine, Piccolo, Zapata and Rich (2012)	15
D	Organizational Citizenship Behaviors	Adapted from Organ(1988)	24

After discovered these instruments, the techniques of back translation was used by the researcher to convert the original version from English into Thai, while later it was reconverted from Thai into English to avoid language and content bias and mimicking. All the translation versions were completed by the translators with the language experts' approval.

To verify the instrument validity, the academics with specialized related fields were invited by the researcher. The study applied the instruments that fit with the studying contexts and this must involve organizational culture with easy reading and understanding, as well as accurate emotional phases to the original copy.

At last, the instruments are verified and the pilot test of the questionnaires launched prior to the real distribution to the respondents.

Reliability and Validity

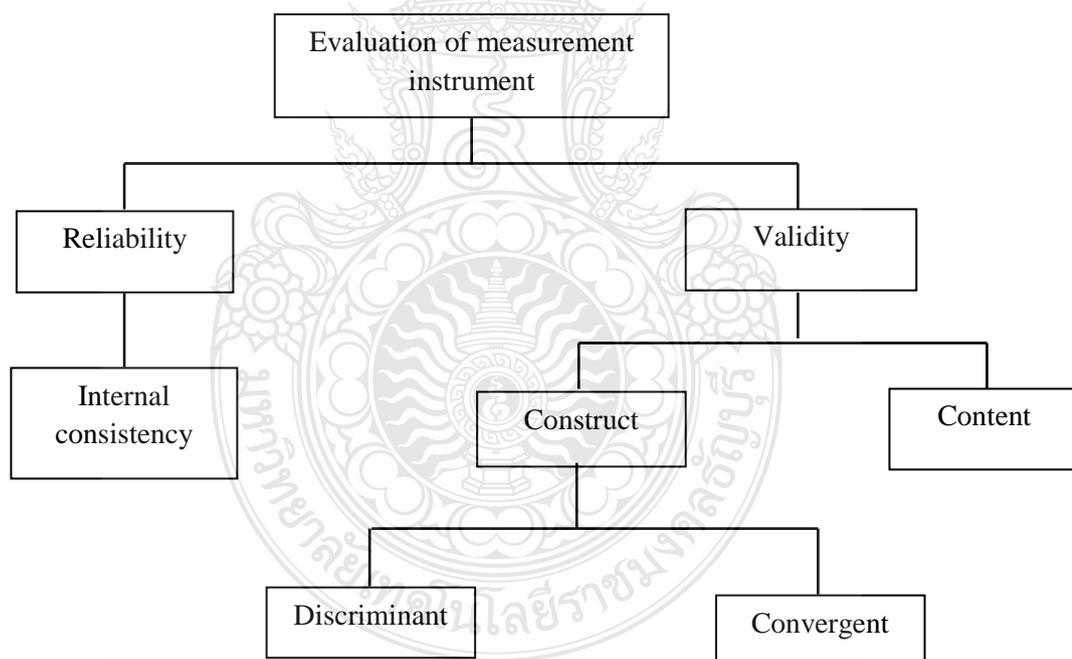


Figure 3.2 Evaluation of measurement instrument

Reliability analysis (Figure 3.2)

Reliability analysis is the measurements that help the researcher to check on the reliable qualifications of the measuring tools and the information related to the

relationship between each item. It is suggested by Garver and Mentzer (1999) that the calculation for the correlation alpha of Cornbrash in setting the level of reliability, if the value of alpha is equal or more than 0.70, it refers to acceptable reliability.

The reliability for this study that contains five construct is shown that in table 3.5

Table 3.5 The Cronbach's alpha of the pre-test measurement

Construct	Cronbach's Coefficient Alpha
Transformational Leadership(TFL)	0.92
Transactional Leadership(TSL)	0.79
Trust	0.88
Justice	0.87
Organizational Citizenship Behavior (OCB)	0.86

According to table 3.5, it presents the reliability analysis of the tools before actual use (pre-testing). The group tested are not the sample group in the research, there are 30 of them where the values of Cronbach's alpha are as follows: TFL has Cronbach's alpha of 0.92, TSL has Cronbach's alpha of 0.79, Trust has Cronbach's alpha of 0.88, Justice has the Cronbach's alpha of 0.87 and OCB has the Cronbach's alpha of 0.86.

Validity Analysis: Discriminant validity: After that set the code for the questionnaire, the researcher conducted the quality analysis of each item by using two statistical analyses: 1) categorizing the items into ratio t that must be equal or higher than 2.00 and 2) the correlation coefficient analysis of Pearson Product – moment correlation coefficient or ratio r that must be more than 0.20.

Construct validity: This study tested the confirmatory factor analysis (CFA) consisting of p-value, factor loading, and average variance extracted (AVE).

3.4 Procedure of the Data Collection

3.4.1 Data Collection

1) The distribution of the questionnaire is done via postage to the Deans of each faculty in the group of nine Rajamangala Universities of Technology by attaching a letter to request participation in data collections with return envelopes with stamps attached addressed and to the researcher for the return of the questionnaires.

2) The researcher followed up the questionnaires after a few weeks, by telephone, so there is coordination for the return within the time frame.

3) When receiving the returned questionnaires, the researcher tested the completeness of the questionnaire.

3.4.2 Data Processing and Analysis

Demography: After receiving the returned questionnaires, the data was analyzed by descriptive statistics, such as, frequency and percentage. For general information on the respondents, it consists of gender, age, education levels, incomes, and working experiences in RMUT's.

Variable: the analysis explains the distribution of all six variables by the external latent variables, such as, transformational leadership, transactional leadership, and internal variable such as organizational citizenship behavior. Besides, the mediator variables are trust and justice and presented with the statistical values about average and standard deviation.

Correlation Coefficient: The analysis on the relationship between variables by using correlation coefficient Pearson and statistical program to calculate and present the correlation between the variables.

Structural Equation Modeling (SEM): the tools used in the analysis of structural equation are to form the structural models to test the independent variables and relationship of latent factors. There are the hypotheses set for the variables in the concepts related to the organizational citizenship behavior ranking the analyses from starting with normal distribution testing, composite reliability (CR), multicollinearity, convergent validity, average variance extracted (AVE), and discriminant validity. By Fornell and Larcker (1981) suggested that the composite reliability (c.r.) value should be more than 0.60 and the average variance extracted (AVE) shall be more than 0.50

and the SEM analysis of the suggestion model and hypotheses testing. Which c.r. and AVE can be calculated according to the following formulas:

$$\text{c.r.} = (\Sigma \text{ of standardized loading})^2 / [(\Sigma \text{ of standardized loading})^2 + \Sigma \text{ of } \epsilon_j]$$

$$\text{AVE} = \Sigma \text{ of (standardized loading)}^2 / [(\Sigma \text{ of standardized loading})^2 + \Sigma \text{ of } \epsilon_j]$$

Confirmatory Factor Analysis (CFA) is used to measure the conformance of the model to be tested whether the composite model has conformed to the gathered data. Besides, it is used to test the relationship between the variables and the impact on the CFA analysis, such as, research hypotheses, the need of sufficient size of samples, measuring tools and the missing data. The Confirmatory Factor Analysis by path analysis to test the Single-factor structure by Hair, Black, Babin, and Anderson (2010) stated that the form of testing is aimed at the levels of acceptant of goodness fit values, the values of structural conformance by the comparison between two matrix. The test of goodness model fit consists of:

Degree of Freedom (df): the amount of information available to estimate model parameters.

The Normed Chi-square: χ^2/df which affect is 3:1 or less with better-fitting models.

Goodness of Fit Index (GFI): which indicates the proportion of the observed covariance that is explained by the model-implied covariance;

Adjusted Goodness of Fit Index (AGFI): which is an adjusted form of the GFI that takes into account to demonstrate adequate model fit.

Comparative Fit Index (CFI): which is affected less by sample size than other indices, such as the normed fit index.

GFI that takes into account to demonstrate adequate model fit, the values for CFI, GFI and AGFI should all be greater than 0.9 while the value of the RMR should be less than 0.1 (Hair et al., 2010).

Root Mean Square Error of Approximation (RMSEA): which indicates the amount by which the sample variances and covariance differ from estimates obtained using the hypothesized model. The value of RMSEA is lower indicating better fit.

Hypotheses Testing: By H1-H4 uses mediating effect analysis to find out the role of trust and justice mediator. H5-H12 uses structural equation modeling to set for the relationship between the causal factors and transformational leadership, transactional leadership, trust, justice and organizational citizenship behaviors. Next, H13-H14 uses moderating effect analysis to compare between generation X and Y by using multiple group analysis to test on the measurement beginning from the pattern of metric invariance that must be created first before checking the difference in the estimation of the structural model.

The structural model estimating are the filtering and comparing the form of the group to test on the non-variances. The first group model is estimated by path analysis in separate groups into each group. The second group model is to estimate the value by input the limitation factors into the models. After that, to compare the differences of the groups by testing the difference on Chi-square ($\Delta\chi^2$). It reflects significantly to the conformance of the model and the limitations for the estimations are equal. The statistical significant differences between the models reveals the different paths of the models (Hair et al., 2010). The structural weights models are significant between two groups by the analysis of the structural model, must be processed to check on the statistical significance of the standard coefficient path between two groups (Schumacker & Lomax, 2010).

Table 3.6 The model goodness of fit

Model fit	criteria	Reference
Chi-square(χ^2) or CMIN	$p > 0.05$	Diamantopoulos and Siguaw (2000)
χ^2/df or CMIN/df	< 3	(Kline, 2015a)
GFI (Goodness of Fit Index)	> 0.90	Hair et al. (2010)
AGFI(Adjusted Goodness of Fit)	> 0.90	Hair et al. (2010)
NFI(Normed Fit Index)	> 0.90	Bentler and Bonett (1980)
CFI (Comparative Fit Index)	> 0.90	(Hu & Bentler, 1999)
RMSEA(Root Mean Square Error of Approximation)	< 0.08	MacCallum, Browne, and Sugawara (1996)

This study has checked on the condition of normal distribution by testing the Skewness and Kurtosis values. The skewness values are between -3.0 to +3.0 refers to the normal data distribution (Kline, 2015a) and kurtosis values are between -3.0 to +3.0, it also means the normal data distribution (DeCarlo, 1997). For the statistical significance values at the level of 0.05, p value lesser than 0.05, the statistical significance values at the level of 0.01 with p value that lesser than 0.01 and the statistical significance values at the level of 0.001 with p value that lesser than 0.001 (Arbuckle, 2011).

Testing mediating effect, the researcher conducted the analysis by comparing the models indirectly. The direct path model is the first model to adjust until getting the fit value. After that creating model with mediator variable as the indirect path model, then run the model and link the arrow lines in two directions between errors like direct path model. This is to compare the differences of Chi-square value in each model and compare the Model fit values if which models conform better to the information. If there is any model with the better conformity of information, it will be selected to use. After that, the researcher will consider on p values in the direct path model in comparison to p values in the indirect path model. (Figure 3.3 and Figure 3.4).

In the first case, if the direct path model, the independent variable influences on the dependent variables at the significant level but the indirect path model influences less on the dependent variables or down to zero, it means the mediator variable is the full mediator.

In the second case, if the direct path model influence on the dependent variable at the significance level and the indirect path model of independent variable has not lesser influence on the dependent variable or down to zero but with significant level; it means the mediator variable is the partial mediator.

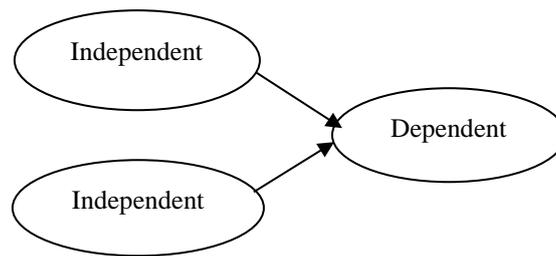


Figure 3.3 Direct Path Model

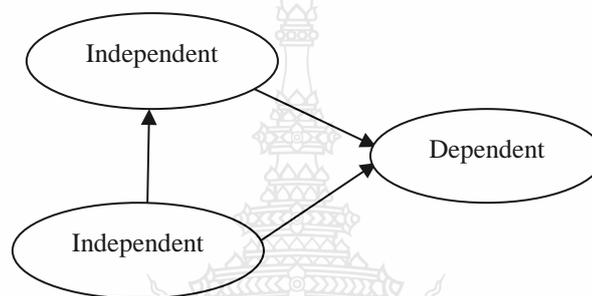


Figure 3.4 Indirect Path Model

Testing moderating effect, to compare the differences between groups of moderator variables; in this study it contains with two major groups. First, to compare the differences between generations by study on particular groups in generation X in comparison with generation Y only by not including the generation of Baby Boomer. Second, to compare on the differences in lines of work by studying the group of lecturers in comparison with staff. Both are the employees of the graduated institute of all 9 RMUT universities.

The processes of moderator testing are as follows:

Step 1: to run the full model to get the unconstrained value and present the equal Chi-square and degree of freedom (df) .

Step 2 to run the full model by grouping generation X and generation Y, Lecturers group and Staffs group by fixing the associate lines in each pair for 8 pairs and fix them at one pair each time to run the model, constrained value will reflect the Chi-square and degree of freedom (df) values of each associate pair.

Step 3 comparison process, to test the difference value between chi-square and degree of freedom value using chi-square table. The significant value is the proposed model's chi-square better than chi-square table value.

Step 4 to run the model of each group to compare the relationship per pair and conclude the comparison result in each group.



CHAPTER 4

RESEARCH RESULTS

Chapter four presents the statistical analysis results for the research questions and hypotheses. The results are organized into four sections: 1) demographic data, 2) descriptive statistics of variables, 3) structural equation modeling analysis and 4) hypotheses testing.

4.1 Demographic Data

Demographic questions were asked regarding seven areas including: gender, age, education and work experience in the Rajamangala University of Technology (RMUT) system as shown in Table 4.1

Table 4.1 Demographic data

	Frequency	Percentage
Gender		
Male	121	25.70
Female	349	74.30
Age		
22-26 years	17	3.60
27-31 years	112	23.80
32-36 years	158	33.60
37-41 years	110	23.40
42-46 years	33	7.00
47-51 years	21	4.50
Over 51 years	19	4.10
Education		
Bachelor Degree	172	36.60
Master Degree	245	52.10
Doctoral Degree	53	11.30

Table 4.1 Demographic data (Cont.)

	Frequency	Percentage
Work experience at RMUT		
1-5 years	209	44.50
6-10 years	156	33.20
11-15 years	59	12.60
Over 15 years	48	9.80

Table 4.1 reveals the data of the sample group from nine RMUT campuses for 470 samples. The majority are female at 74.30% and aged between 32-36 years old at 33.60%. 52.10% graduated with a master degree and 44.50% have 1-5 years of work experience at the Rajamangala University of Technology.

4.2 Descriptive Statistics of Variables

Table 4.2 Descriptive statistics of summary variables

Construct	Mean	S. D.
Transformational leadership	4.11	0.72
Transactional leadership	3.90	0.68
Trust	4.03	0.67
Justice	3.93	0.68
Organizational citizenship behavior	4.20	0.60
Total	4.03	0.67

Table 4.2 presents the data analysis of the levels of opinion of the overall variables. It was found that the average is quite high, around 3.90-4.20. The overall average is 4.03 and the standard deviation value is 0.67. The order of variables with the average value from high to low is as follows: organizational citizenship behavior, transformational leadership, trust, justice and transactional leadership.

4.2.1 Transformational Leadership

Transformational Leadership can be categorized into five areas: idealized influence (Attributed), idealized influence (Behavior), inspirational motivation, intellectual stimulation and individualized consideration. The study focuses on the opinions of leaders and followers regarding transformational leadership. The levels of opinion toward transformational leadership are shown in the following table below.

Table 4.3 Descriptive statistics of transformational leadership

Transformational Leadership	Observed Variables	Mean	S.D.	Skewness	Kurtosis
Idealized Influence-Attributed	IIAT	4.16	0.73	-0.64	-0.31
Idealized Influence-Behavior	IIBB	4.16	0.66	-0.64	-0.02
Inspirational Motivation	IMOT	4.20	0.70	-0.75	-0.05
Intellectual Stimulation	ISTI	4.01	0.74	-0.63	0.02
Individualized Consideration	ICON	4.03	0.79	-0.74	0.02

Table 4.3 presents an analysis of the levels of opinion toward transformational leadership. It shows that the respondents have a high level of opinion in all items with an average of around 4.01-4.20. Regarding the inspirational motivation has the highest average at 4.20, with a standard deviation value of 0.70.

When considering the analysis result of standard deviation, it was found that the S.D. value is suitable for the criteria since the values obtained do not vary greatly. As a result, there is no problem in the structural equation model analysis, such as which would occur due to variation in values greater than 10 times (Kline, 2015b).

As regards the skewness and kurtosis values, it was found that the skewness values are between -0.75 (lower) and -0.63 (higher) and kurtosis values are between -0.31 (lower) and 0.02 (higher). This reflects a normal distribution of data.

4.2.2 Transactional Leadership

Transactional leadership consists of contingent reward, management by exception-active. The levels of opinion are shown in the following table below.

Table 4.4 Descriptive statistics of transactional leadership

Transactional Leadership Variables	Observed	Mean	S.D.	Skewness	Kurtosis
Contingent Reward	CORE	3.99	0.77	-0.71	0.31
Management by Exception-Active	MBXA	4.03	0.71	-0.64	0.20

Table 4.4 presents the levels of opinion data related to transactional leadership. It was found that the respondents have moderate to high levels of opinion with an average of around 3.99-4.03. Regarding management by exception (active) has the highest average at 4.03, with a standard deviation value of 0.71.

When considering the analysis results of standard deviation, it was found to be suitable for the criteria since the S.D. values did not vary greatly. As a result, there are no problems in the structural equation model analysis as would occur when the variation is more than 10 times (Kline, 2015b).

The skewness values were found to be from -0.71 (lower) to -0.64 (higher) and the kurtosis values are between 0.20 (lower) and 0.31 (higher). These values reflect the normal distribution of the data according to the criteria explained by Kline (2015) as being acceptable values for skewness and kurtosis, which should not be more + 3 and -3.

4.2.3 Trust

Trust consists of supervisory trust and organizational trust, with the respondents giving opinions on a five point Likert scale ranging from (1) = strongly disagree, (2) = disagree, (3) = neutral, (4) = agree and (5) = strongly agree. The opinions given by the respondents are shown in the table below.

Table 4.5 Descriptive statistics of trust

Trust	Observed Variables	Mean	S. D	Skewness	Kurtosis
Supervisory trust	SUPTRUST	4.05	0.66	-0.55	-0.04
Organizational trust	ORGTRUST	4.01	0.68	-0.47	-0.11

Table 4.5 presents a data analysis of the levels of opinion regarding trust. It was found that the respondents have opinions regarding supervisory trust at a rather high level with an average of around 4.05-4.01. Supervisory trust has the highest average at 4.05, with a standard deviation value of 0.66.

When considering the result of standard deviation analysis, it was found that S.D. values are suitable for the criteria since the values obtained do not vary greatly. As a result, there is no problem with the structural equation model analysis, which could occur when the variation values are different more than 10 times (Kline, 2015b).

The skewness was found to be between -0.55 (lower) and -0.47 (higher) and kurtosis values are between -0.11 (lower) and -0.04 (higher). These values present a normal distribution of data according to the criteria set by Kline (2015) which states that the acceptable skewness and kurtosis values should not be more than + 3 and -3.

4.2.4 Justice

Justice consists of distributive justice, procedural justice, and interactional justice. The opinions obtained from the respondents are shown in the table below.

Table 4.6 Descriptive statistics of justice

Justice	Observed Variables	Mean	S. D.	Skewness	Kurtosis
Distributive justice	DISJUS	3.84	0.73	-0.46	0.18
Procedural justice	PROJUS	3.92	0.62	-0.45	0.40
Interactional justice	INTJUS	4.01	0.68	-0.57	0.51

Table 4.6 presents an analysis of the levels of opinions regarding justice. It was found that the respondents gave opinions about interactional justice at a rather high

level, with the average around 3.84-4.01. The interactional justice has the highest average at 4.01, with a standard deviation value of 0.68.

When considering the analysis result of standard deviation, it was found that S.D. values are suitable for the criteria since the obtained values do not vary greatly. As a result, there is no problem with the structural equation model analysis such as those which occur when the variation values are different by more than 10 times (Kline, 2015b).

The skewness values are between -0.57(lower) and -0.45 (higher) and kurtosis values between 0.18 (lower) and 0.51 (higher). The values present a normal distribution of data according to the criteria explained by Kline (2015), which is that the acceptable skewness and kurtosis should not more than + 3 and -3.

4.2.5 Organizational Citizenship Behavior

Organizational Citizenship Behavior consists of altruism, courtesy, conscientiousness, sportsmanship and civic virtue. The opinions given by the respondents are shown in the table below.

Table 4.7 Descriptive statistics of organizational citizenship behavior

Organizational Citizenship Behavior	Observed Variables	Mean	S. D.	Skewness	Kurtosis
Altruism	ALTRUI	4.06	0.69	-0.46	-0.28
Courtesy	COURT	4.20	0.59	-0.66	0.63
Conscientiousness	CONSC	4.24	0.56	-0.50	0.10
Sportsmanship	SPORTS	4.13	0.59	-0.50	0.54
Civic Virtue	CIVIC	4.39	0.54	-0.67	0.35

Table 4.7 presents the data analysis of opinions related to organizational citizenship behavior. The respondents gave the levels of opinion at a rather high level with an average between 4.06 and 4.39. As regards civic virtue has the highest average at 4.39, with a standard deviation value of 0.54.

When considering the analysis results of standard deviation, it was found that S.D. values are suitable for the criteria since the obtained values do not vary greatly. As

a result, there is no problem with the structural equation model analysis such as would occur if the variation values are more than 10 times (Kline, 2015b).

It was found that skewness values are between -0.67 (lower) and -0.46 (higher) and kurtosis values are between -0.28 (lower) and 0.63 (higher). The obtained values present a normal distribution of data according to the criteria that explained by Kline (2015) as being acceptable skewness and kurtosis of not more than + 3 and -3.

4.3 Structural Equation Modeling Analysis

4.3.1 Normal Distribution Testing

In the investigation of data distribution, it is necessary to consider whether the data has a normal distribution or not. This can be determined from the statistical values. In the measurement of statistical values, the skewness and kurtosis values obtained indicate either a negative or positive data direction (Tabachnick, Fidell, & Osterlind, 2013). Thus, Kline (2015b) determined that the value of skewness should be around - 3.0 to +3.0 as a normal data distribution. For the kurtosis value, DeCarlo (1997) suggested that a normal data distribution should have a kurtosis value around -3.0 to +3.0. In this research, the obtained values of skewness are around -0.75 (lower) to 0.27 (higher) and the values of kurtosis are between -0.11 (lower) and 0.63 (higher). Therefore, it can be summarized that the obtained data in this study has a normal distribution as skewness and kurtosis values are according to the criteria.

4.3.2 Reliability

Table 4.8 The Cronbach's Cronbach's Alpha

Construct	Cronbach's Coefficient Alpha
Idealized Influence- Attribute	0.92
Idealized Influence-Behavior	0.83
Inspirational Motivation	0.89
Intellectual Stimulation	0.89
Individualized Consideration	0.90
Contingent Reward	0.90

Table 4.8 The Cronbach's Cronbach's Alpha (Cont.)

Construct	Cronbach's Coefficient Alpha
Management by exception-Active	0.88
Supervisory trust	0.93
Organizational trust	0.93
Distributive justice	0.91
Procedural justice	0.92
Interactional justice	0.91
Altruism	0.88
Courtesy	0.87
Conscientiousness	0.78
Sportsmanship	0.83
Civic Virtue	0.88

Table 4.8 presents the reliability analysis of the data collection with 470 respondents. It was found that idealized influence- attribute (4 items) has a Cronbach's alpha value of 0.92, idealized influence-behavior (4 items) has a Cronbach's alpha value of 0.83, Inspirational Motivation (4 items) has a Cronbach's alpha value of 0.89, intellectual stimulation (4 items) has a Cronbach's alpha value of 0.89, Individualized Consideration (4 items) has a Cronbach's alpha value of 0.90, Contingent Reward (4 items) has a Cronbach's alpha value of 0.90, management by exception-active (4 items) has a Cronbach's alpha value of 0.88, supervisory trust has a Cronbach's alpha value of 0.93, organizational trust (7 items) has a Cronbach's alpha value of 0.93, distributive justice (4 items) has a Cronbach's alpha value of 0.91, procedural justice (7 items) has a Cronbach's alpha value of 0.92, interactional justice (4 items) has a Cronbach's alpha value of 0.91, altruism (5 items) has a Cronbach's alpha value of 0.88, courtesy(5 items) has a Cronbach's alpha value of 0.87, conscientiousness (5 items) has a Cronbach's alpha value of 0.78, sportsmanship (5 items) has a Cronbach's alpha value of 0.83, civic

virtue (4 items) has a Cronbach's alpha value of 0.88. All of these constructs present high reliability where the acceptable Cronbach's alpha is more than 0.70.

4.3.3 Multicollinearity Test

Multicollinearity involves the structural equation modeling of each independent variable (Hair et al., 2010). Problems with multicollinearity can occur when independent variables have a high relationship to each other (Hair et al., 2010; Tabachnick et al., 2013). The investigation of this condition can be done by using the statistics Tolerance value and Variance Inflation Factor (VIF). The tolerance value of the variable must more than 0.1 and Variance Inflation Factor (VIF) must be less than 10. If so, there will be no problem of multicollinearity (Hair et al., 2010; Pallant, 2013). In this study, we tested the relationship between independent variables and found that Tolerance and Variance Inflation Factors have the values as shown in Table 4.9.

Table 4.9 Collinearity Statistics

Variable	Collinearity Statistics	
	Tolerance	VIF
Transformational Leadership (TFL)	0.29	3.43
Transactional Leadership (TSL)	0.36	2.76
Trust	0.35	2.85
Justice	0.55	1.80

Note: The dependent variable is Organizational Citizenship Behavior (OCB)

Table 4.9 shows that the data in this study has no Multicollinearity problem and there is no variable with a Tolerance value that is less than 0.10 or VIF that is more than 10. The obtained Tolerance value is between 0.29 (lowest) to 0.55 (highest) and VIF values are around 1.80 to 3.42.

Table 4.10 Correlation matrix of independent variable

	Transformational Leadership	Transactional Leadership	Trust	Justice
Transformational Leadership	1			
Transactional Leadership	0.78**	1		
Trust	0.76**	0.68**	1	
Justice	0.58**	0.55**	0.65**	1

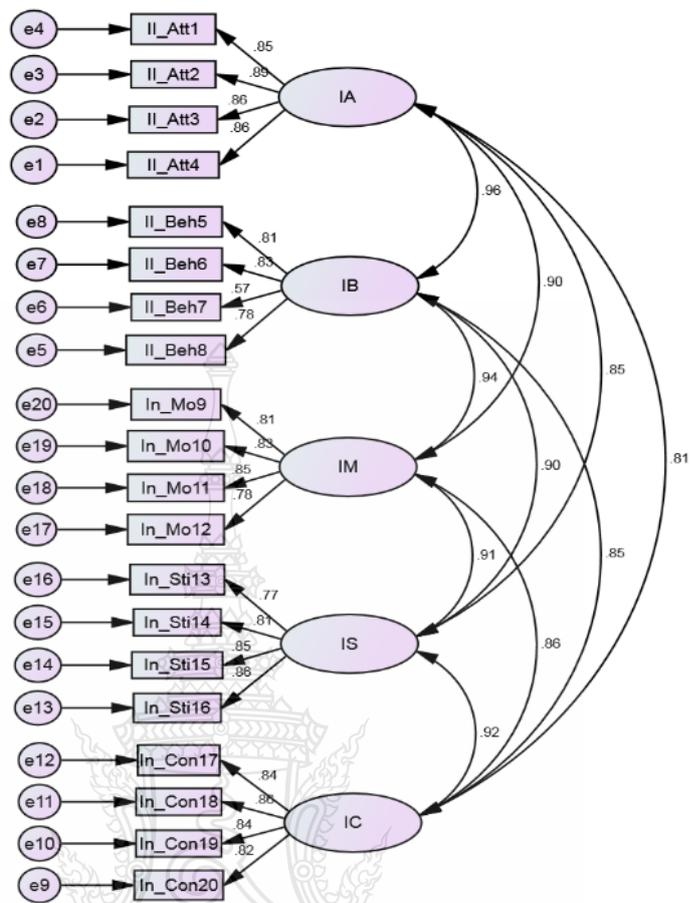
Note: *Correlation is significant at the 0.01 level

The coefficient value in the independent variable group if more than 0.80 can cause an indication problem (Hair et al., 2010). Table 4.10 shows the coefficient values of the variables in this study which were found to not have a multicollinearity problem.

4.3.4 Convergent Validity

Measurement model of Transformational Leadership

The testing of convergent validity is to measure the level of similarity of the latent variables. In this study, the author conducted confirmatory factor analysis (CFA) of the indicator which consists of five constructs: idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation and individualized consideration. The author tested whether the models are in conformance.



Chi-Square=520.931

df=160

p-value=0.000

CMIN/df=3.256

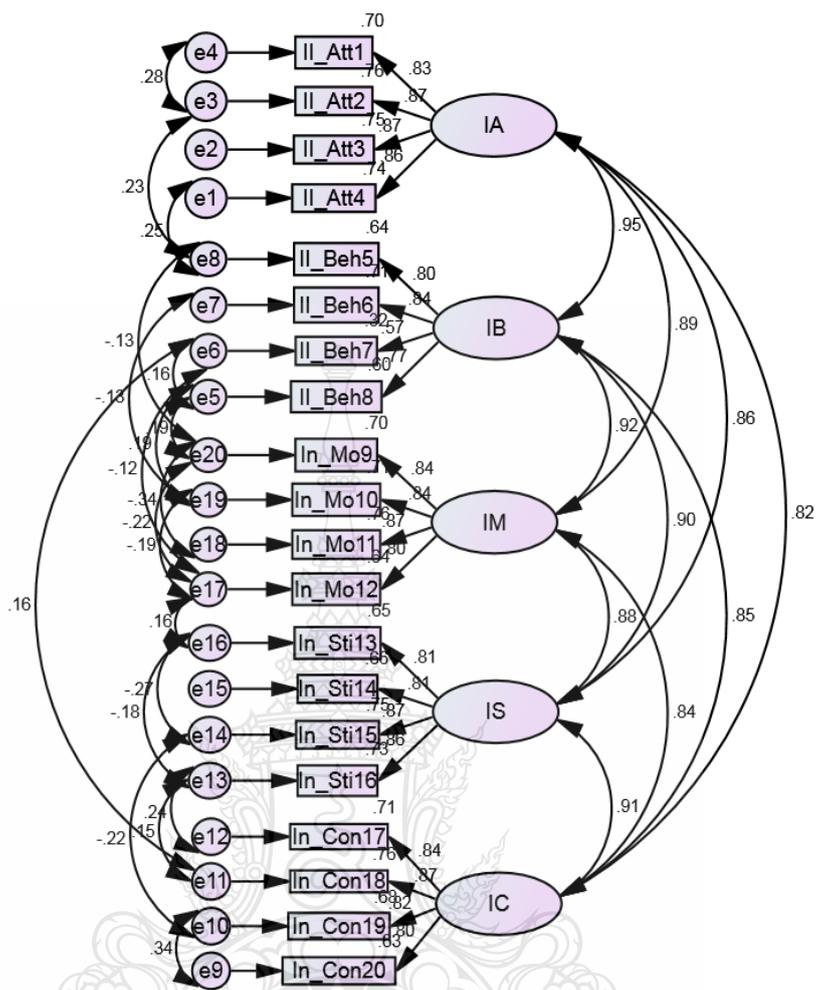
GFI=0.898

AGFI=0.867

CFI=0.956

RMSEA=0.069

Figure 4.1 Initial construct measurement model of transformational leadership



Chi-Square=242.782

Df=140

p-value=0.000

CMIN/df=1.734

GFI=0.951

AGFI=0.926

CFI=0.988

RMSEA=0.040

Figure 4.2 Adjusted construct measurement model of transformational leadership

Figure 4.1 presents the confirmatory factor analysis of transformational leadership which did not find any conformance of the model and the empirical data. Therefore, the model was adjusted according to Figure 4.2 to obtain the conformance model of the empirical data.

Table 4.11 Measurement model of Transformational Leadership (CFA)

	Model fit Criteria	Initial Model	Adjusted Model
CMIN	small	520.931	242.782
df		160	140
p-value	>0.05	0.000	0.000
CMIN/df	<3	3.256	1.734
GFI	>0.90	0.898	0.951
AGFI	>0.90	0.867	0.926
NFI	>0.90	0.938	0.971
CFI	>0.90	0.956	0.988
RMSEA	<0.08	0.069	0.040

Table 4.11 presents the statistical values pre and post model adjustment. The researcher considered the conformance of the empirical data from various statistical values in the investigation as follows: CMIN = 242.782, df=140, p-value = 0.000, CMIN/df = 1.734, GFI = 0.951, AGFI = 0.926, NFI = 0.971, CFI = 0.988 and RMSEA = 0.040. These obtained statistical values are in accordance with the criteria of model conformity.

Table 4.12 Factor loading: transformational leadership

			Factor Loading				Standardized
			Estimate	S.E.	C.R.	P	Factor Loading
IIA4	<---	IA	1.000				0.863
IIA3	<---	IA	1.016	0.041	24.942	***	0.865
IIA2	<---	IA	1.116	0.044	25.218	***	0.872
IIA1	<---	IA	1.044	0.045	23.188	***	0.834
IIB8	<---	IB	1.000				0.775
IIB7	<---	IB	0.843	0.063	13.427	***	0.565
IIB6	<---	IB	1.200	0.060	19.950	***	0.840
IIB5	<---	IB	1.093	0.058	18.831	***	0.802
ICO20	<---	IC	1.000				0.796
ICO19	<---	IC	1.083	0.044	24.629	***	0.822
ICO18	<---	IC	1.141	0.053	21.359	***	0.869
ICO17	<---	IC	1.188	0.058	20.489	***	0.842
IST16	<---	IS	1.000				0.857
IST15	<---	IS	0.969	0.040	24.340	***	0.867
IST14	<---	IS	0.856	0.039	22.129	***	0.814
IST13	<---	IS	0.893	0.045	19.834	***	0.806
IMO12	<---	IM	1.000				0.801
IMO11	<---	IM	1.154	0.054	21.365	***	0.870
IMO10	<---	IM	1.038	0.054	19.171	***	0.841
IMO9	<---	IM	1.160	0.062	18.745	***	0.838

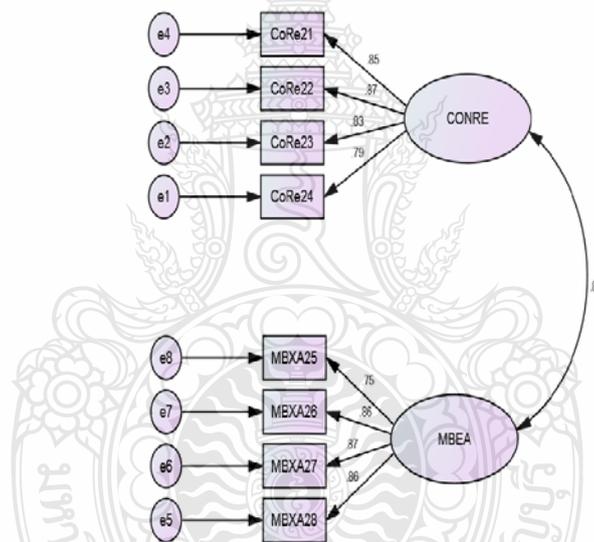
***p<0.001, S.E. =standard error, C.R. =critical ratio

For interpreting CFA results, factor loading of the transformational leadership components by considering the factor weight where each value must not be at zero and the critical ratio (C.R.) must be higher than 1.96 or p-value must be less than 0.05 (Vanichbuncha, 2013).

Table 4.12 shows that all the obtained C.R. values are higher than 1.96 and p-value (***) is less than 0.001, which means both lines have statistical significance. In addition, Hair et al. (2010) state that the weight of the components should be around 0.30 to 0.40 to consider the appropriateness at the minimal level for this structure explanation. In this study, every value of component weight exceeded 0.30 with statistical significance.

Measurement model of Transactional Leadership (CFA)

Convergent validity testing measures the level of similarity in latent variables. This study analyzed the form of confirmatory factor analysis of the indicator which consists of two constructs including contingent reward, and management by exception (active). The researcher tested whether the models are blended.



Chi-Square=51.474

df=19

p-value=0.000

CMIN/df=2.709

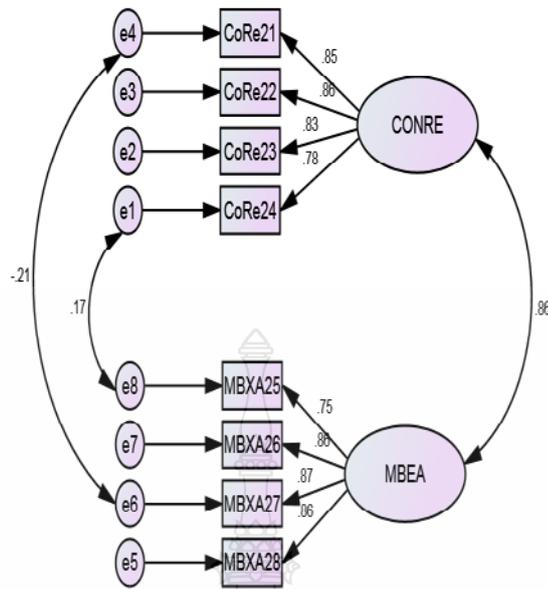
GFI=.0974

AGFI=0.950

CFI=0.988

RMSEA=0.060

Figure 4.3 Initial construct measurement model of transactional leadership



Chi-Square=30.122

df=17

p-value=0.025

CMIN/df=1.772

GFI=0.984

AGFI=0.967

CFI=0.995

RMSEA=0.041

Figure 4.4 Adjusted construct measurement model of transactional leadership

Figure 4.3 presents the confirmatory factor analysis of transactional leadership. The conformity of the model was not found based on the empirical data; therefore, the model was adjusted, as can be seen in Figure 4.4, to get a model that conformed to the empirical data.

Table 4.13 Measurement model of Transactional Leadership (CFA)

	Model fit Criteria	Initial Model	Adjusted Model
CMIN	small	51.474	30.122
df		19	17
p-value	>0.05	0.000	0.025
CMIN/df	<3	2.709	1.772
GFI	>0.90	0.974	0.984
AGFI	>0.90	0.950	0.967
NFI	>0.90	0.982	0.989
CFI	>0.90	0.988	0.995
RMSEA	<0.08	0.060	0.041

Table 4.13 presents the statistical values pre and post of model adjustment. The researcher determined conformance with the empirical data from various statistics in the test as follows: CMIN = 30.122, df=17, p-value = 0.025, CMIN/df = 1.772, GFI = 0.984, AGFI = 0.967, NFI = 0.989, CFI = 0.995 and RMSEA = 0.0041. These obtained statistics are in accordance with the criteria of model conformity.

Table 4.14 Factor loading: transactional leadership

			Factor Loading			P	Standardized
			Estimate	S.E.	C.R.		Factor Loading
CRE24	<---	CONRE	1.000				0.783
CRE23	<---	CONRE	1.160	0.059	19.581	***	0.827
CRE22	<---	CONRE	1.093	0.053	20.722	***	0.865
CRE21	<---	CONRE	1.113	0.055	20.335	***	0.855
MEA28	<---	MBEA	1.000				0.855
MEA27	<---	MBEA	1.019	0.042	24.212	***	0.871
MEA26	<---	MBEA	1.003	0.042	23.916	***	0.862
MEA25	<---	MBEA	0.866	0.045	19.043	***	0.746

***p<0.001, S.E.=standard error, C.R.=critical ratio

In Table 4.14, all the obtained C.R. values are greater than 1.96 and p- value (***) is less than 0.001. This shows that both lines have statistical significance. In addition, Hair et al. (2010) noted that the component weight should be around 0.30 to 0.40, which is the least level of appropriateness considered to explain this structure. In this study, all the component weight values are more than 0.30 with statistical significance.

Measurement model of Trust (CFA)

The convergent validity test is to measure the level of similarity in latent variables. This research analyzed the form of Confirmatory factor analysis (CFA) of the indicator where it consists of two constructs such as supervisory trust and organizational trust. The researcher tested the model as to whether it has conformity.

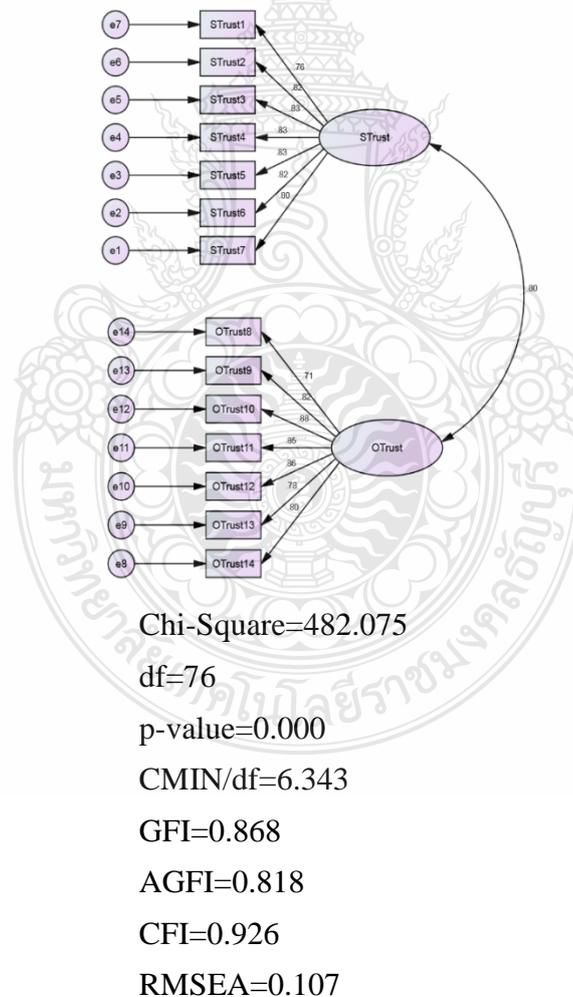
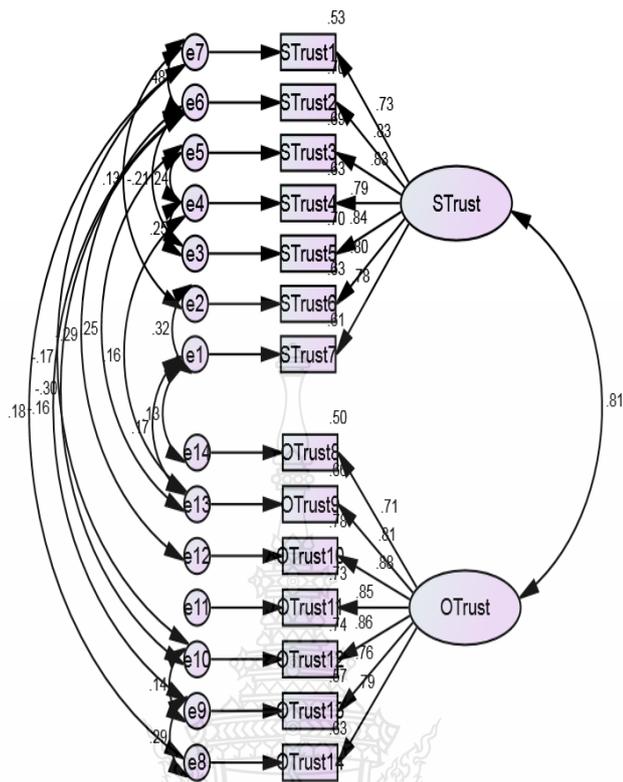


Figure 4.5 Initial construct measurement model of trust



Chi-Square=116.177

df=59

p-value=0.000

CMIN/df=1.969

GFI=0.967

AGFI=0.942

CFI=0.990

RMSEA=0.045

Figure 4.6 Adjusted construct measurement model of trust

Figure 4.5 presents the confirmatory factor analysis of trust. The conformity of the model and the empirical data was not found; thus, the model was adjusted according to Figure 4.6 to obtain a model with conformity to the empirical data.

Table 4.15 Measurement model of Trust (CFA)

	Model fit Criteria	Initial	Adjusted
		Model	Model
CMIN	small	482.075	116.177
df		76	59
p-value	>0.05	0.000	0.000
CMIN/df	<3	6.343	1.969
GFI	>0.90	0.868	0.967
AGFI	>0.90	0.818	0.942
NFI	>0.90	0.913	0.979
CFI	>0.90	0.926	0.990
RMSEA	<0.08	0.107	0.045

Table 4.15 presents the statistical values pre and post to the model adjustment. The researcher considered conformity with the empirical data from various statistics in the test as follows: CMIN = 116.177, df=59, p-value = 0.000, CMIN/df = 1.969, GFI = 0.967, AGFI = 0.942, NFI = 0.979, CFI = 0.990 and RMSEA = 0.045. These obtained statistics are in accordance with the criteria of model conformity.

Table 4.16 Factor loading: Trust

			Factor Loading			P	Standardized
			Estimate	S.E.	C.R.		Factor Loading
SUTRU7	<---	STrust	1.000				0.779
SUTRU6	<---	STrust	1.050	0.046	22.863	***	0.796
SUTRU5	<---	STrust	1.099	0.056	19.549	***	0.838
SUTRU4	<---	STrust	1.041	0.057	18.362	***	0.794
SUTRU3	<---	STrust	1.321	0.067	19.716	***	0.832
SUTRU2	<---	STrust	1.105	0.057	19.369	***	0.834
SUTRU1	<---	STrust	0.903	0.055	16.528	***	0.727
ORTRU14	<---	OTrust	1.000				0.792

Table 4.16 Factor loading: Trust (Cont.)

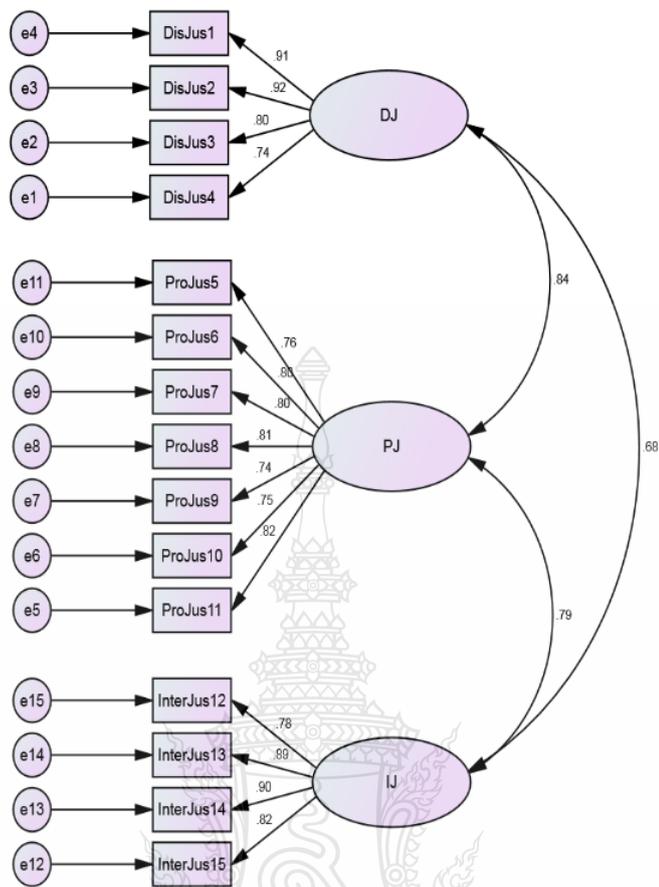
			Factor Loading				Standardized
			Estimate	S.E.	C.R.	P	Factor Loading
ORTRU13	<---	OTrust	1.031	0.048	21.271	***	0.756
ORTRU12	<---	OTrust	1.193	0.056	21.468	***	0.860
ORTRU11	<---	OTrust	1.156	0.054	21.230	***	0.852
ORTRU10	<---	OTrust	1.180	0.053	22.126	***	0.881
ORTRU9	<---	OTrust	1.256	0.063	20.038	***	0.815
ORTRU8	<---	OTrust	0.909	0.054	16.683	***	0.708

***p<0.001, S.E. =standard error, C.R. =critical ratio

In Table 4.16, all the obtained C.R. values are more than 1.96 and for p-value (***) less than 0.001. This shows the statistical significance of both lines. In addition, Hair et al. (2010) noted that the component weight should be around 0.30 to 0.40, which it is the least level of appropriateness considered to explain this structure. In this study, all the component weight values are more than 0.30 with statistical significance.

Measurement model of Justice (CFA)

Convergent validity testing is to measure the level of similarity in latent variables. This study analyzed the form of Confirmatory factor analysis (CFA) of the indicator, which consists of three constructs such as distributive justice, procedural justice and interactional justice. The author tested whether the models are in conformance.



Chi-Square=458.141

df=87

p-value=0.000

CMIN/df=5.463

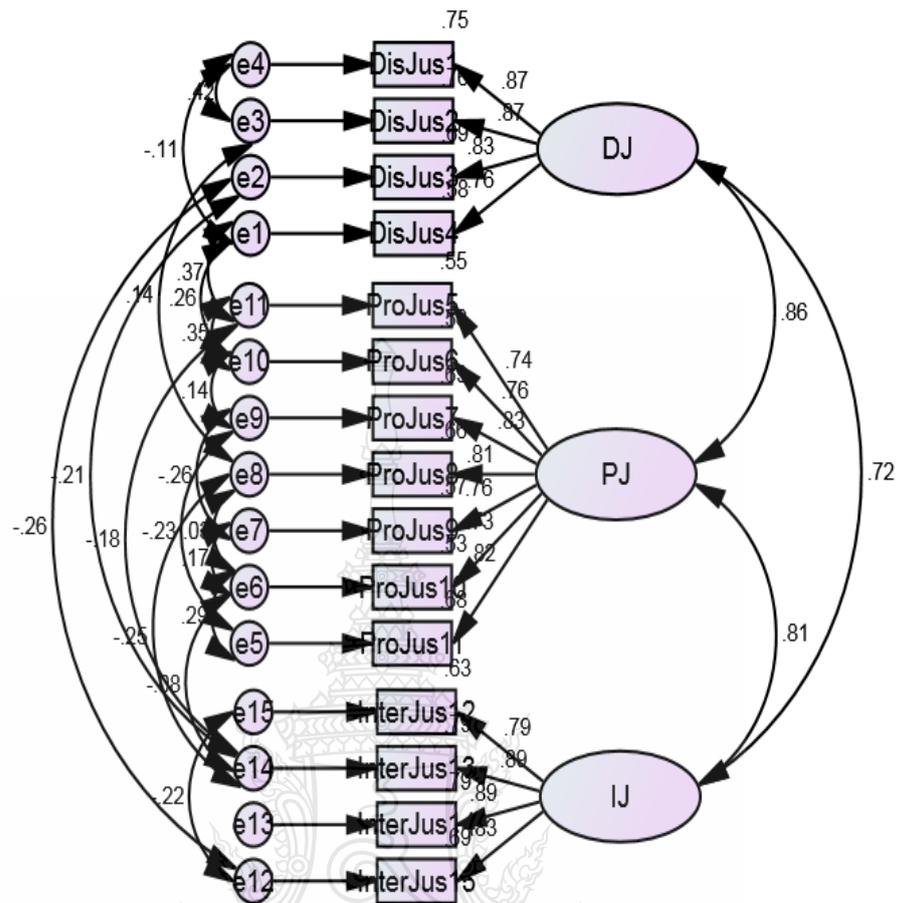
GFI=0.875

AGFI=0.827

CFI=0.934

RMSEA=0.098

Figure 4.7 Initial construct measurement model of justice



Chi-Square=125.461

df=69

p-value=0.000

CMIN/df=1.818

GFI=0.965

AGFI=0.940

CFI=0.990

RMSEA=0.042

Figure 4.8 Adjusted construct measurement model of justice

Figure 4.7 presents the confirmatory factor analysis of justice. Conformity between the model and empirical data was not found; thus, the model was adjusted according to Figure 4.8 to obtain a conformance model of the empirical data.

Table 4.17 Measurement model of Justice (CFA)

Model fit Criteria		Initial Model	Adjusted Model
CMIN	small	458.141	125.461
df		87	69
p-value	>0.05	0.000	0.000
CMIN/df	<3	5.463	1.818
GFI	>0.90	0.875	0.965
AGFI	>0.90	0.827	0.940
NFI	>0.90	0.920	0.978
CFI	>0.90	0.934	0.990
RMSEA	<0.08	0.098	0.042

Table 4.17 presents the statistical values pre and post model adjustment. The researcher considered conformance with the empirical data from various statistical values in the investigation as follows: CMIN = 125.461, df =69, p-value = 0.000, CMIN/df = 1.818, GFI = 0.965, AGFI = 0.940, NFI = 0.978, CFI = 0.990 and RMSEA = 0.042. These obtained statistics are in accordance with the criteria of model conformity.

Table 4.18 Factor loading: Justice

			Factor Loading				Standardized
			Estimate	S.E.	C.R.	P	Factor Loading
DJUS4	<---	DJ	1.000				0.759
DJUS3	<---	DJ	1.033	0.056	18.510	***	0.829
DJUS2	<---	DJ	1.182	0.061	19.341	***	0.870
DJUS1	<---	DJ	1.222	0.066	18.487	***	0.869
PJUS11	<---	PJ	1.000				0.822
PJUS10	<---	PJ	0.831	0.041	20.266	***	0.728
PJUS9	<---	PJ	0.887	0.048	18.394	***	0.756

Table 4.18 Factor loading: Justice (Cont.)

			Factor Loading				Standardized
			Estimate	S.E.	C.R.	P	Factor Loading
PJUS8	<---	PJ	0.961	0.047	20.425	***	0.810
PJUS7	<---	PJ	0.991	0.052	19.231	***	0.832
PJUS6	<---	PJ	0.853	0.046	18.677	***	0.763
PJUS5	<---	PJ	0.903	0.050	18.035	***	0.739
IJUS15	<---	IJ	1.000				0.831
IJUS14	<---	IJ	1.045	0.043	24.083	***	0.889
IJUS13	<---	IJ	1.055	0.044	23.978	***	0.889
IJUS12	<---	IJ	0.865	0.047	18.494	***	0.794

***p<0.001, S.E. =standard error, C.R. =critical ratio

In Table 4.18, all the obtained C.R. values are more than 1.96 and p-value (***) less than 0.001. This shows the statistical significance of both lines. In addition, Hair et al. (2010) noted that the component weight should be around 0.30 to 0.40, which is the least level of appropriateness considered to explain this structure. In this study, all the component weight values are more than 0.30 with statistical significance.

Measurement model of Organizational Behavior Citizenship (CFA)

Convergent validity testing is to measure the level of similarity in latent variables. This study analyzed the form of Confirmatory factor analysis (CFA) of the indicator, which consists of five constructs including altruism, courtesy, conscientiousness, sportsmanship and civic virtue. The author tested whether the models are in conformance.

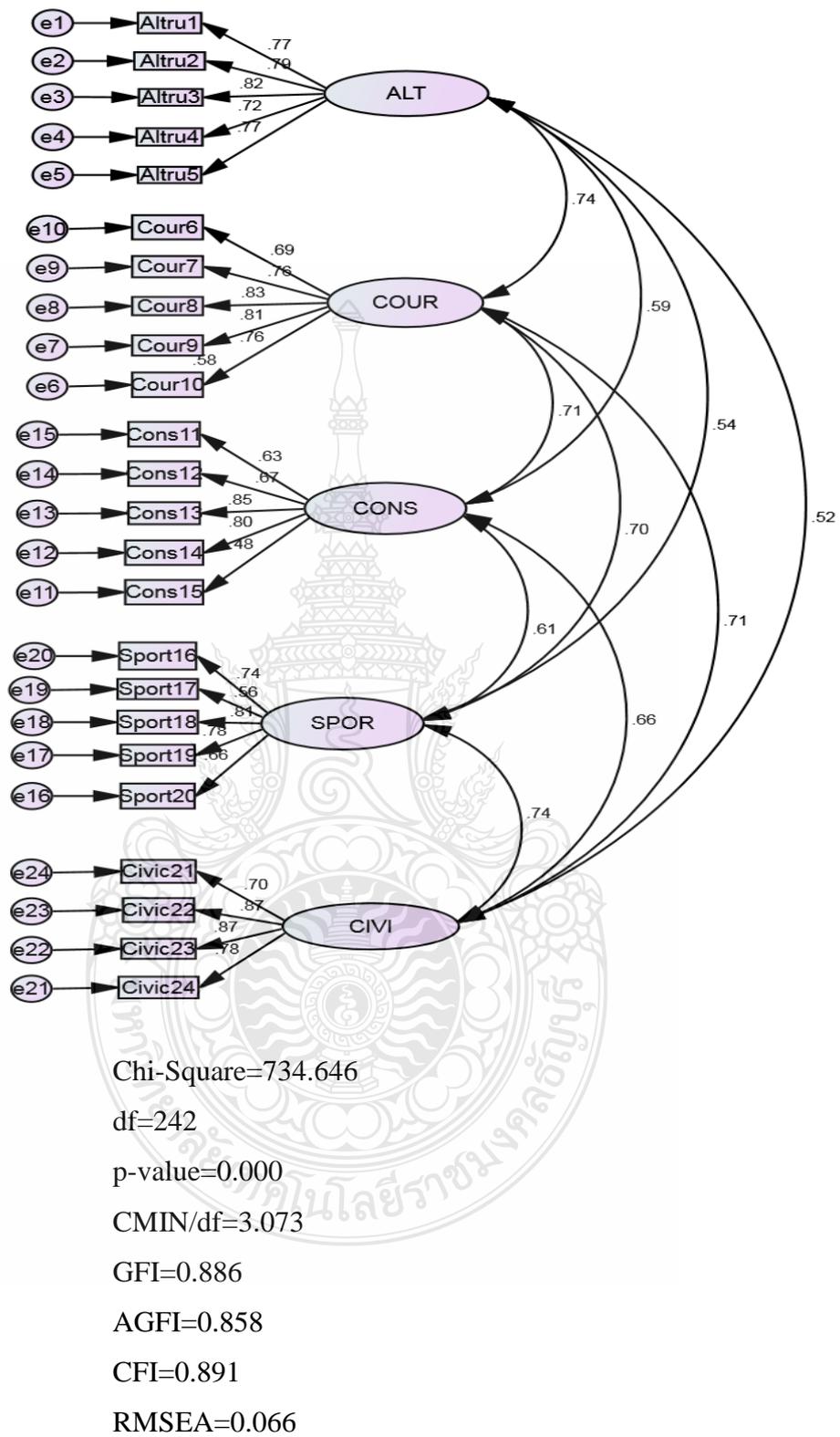
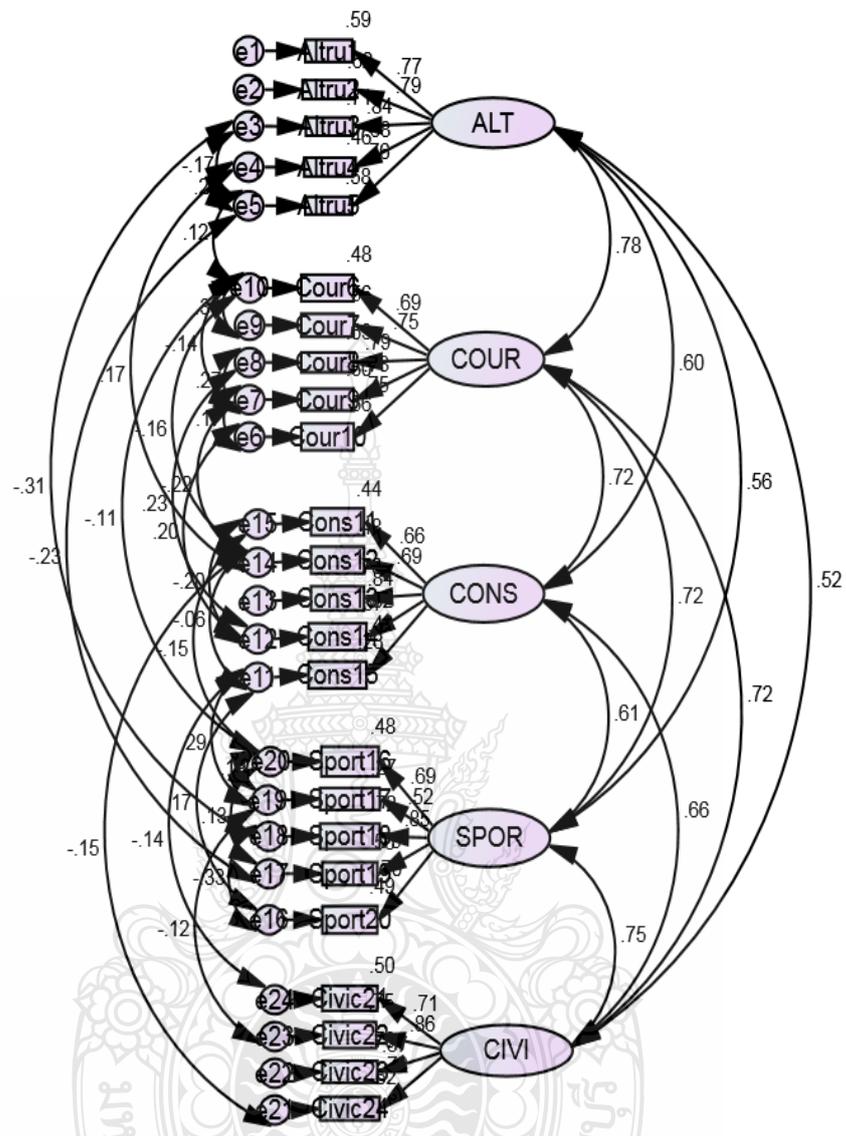


Figure 4.9 Initial construct measurement model of organizational behavior citizenship



Chi-Square=372.845

df=216

p-value=0.000

CMIN/df=1.726

GFI=0.940

AGFI=0.917

CFI=976

RMSEA=0.039

Figure 4.10 Adjusted construct measurement model of organizational behavior citizenship

Figure 4.9 presents the confirmatory factor analysis of organizational citizenship behavior. Conformity between model and empirical data was not found; thus, the model was adjusted according to Figure 4.10 to obtain the conformance model of the empirical data.

Table 4.19 Measurement model of Organizational Citizenship Behavior (CFA)

	Model fit Criteria	Initial Model	Adjusted Model
CMIN	small	734.646	372.845
df		242	216
p-value	>0.05	0.000	0.000
CMIN/df	<3	3.073	1.726
GFI	>0.90	0.886	0.940
AGFI	>0.90	0.858	0.917
NFI	>0.90	0.891	0.945
CFI	>0.90	0.923	0.976
RMSEA	<0.08	0.066	0.039

Table 4.19 presents the statistical values pre and post model adjustment. The researcher considered conformance with the empirical data from various statistical values in the investigation as follows: CMIN = 372845, df=216, p-value = 0.000, CMIN/df = 1.726, GFI = 0.940, AGFI = 0.917, NFI = 0.945, CFI = 976 and RMSEA = 0.039. These obtained statistics are in accordance with the criteria of model conformity.

Table 4.20 Factor loading: Organizational Citizenship Behavior

			Factor Loading				Standardized Factor Loading
			Estimate	S.E.	C.R.	P	
OALT1	<---	ALT	1.000				0.765
OALT2	<---	ALT	1.037	0.059	17.473	***	0.786
OALT3	<---	ALT	1.068	0.058	18.402	***	0.840
OALT4	<---	ALT	1.074	0.073	14.619	***	0.676
OALT5	<---	ALT	0.958	0.059	16.182	***	0.760
OCOU10	<---	COUR	1.000				0.748
OCOU9	<---	COUR	1.066	0.059	18.002	***	0.776
OCOU8	<---	COUR	1.103	0.066	16.763	***	0.794
OCOU7	<---	COUR	1.140	0.072	15.817	***	0.750
OCOU6	<---	COUR	1.112	0.077	14.424	***	0.690
OCON15	<---	CONS	1.000				0.481
OCON14	<---	CONS	1.058	0.101	10.483	***	0.816
OCON13	<---	CONS	1.099	0.103	10.666	***	0.839
OCON12	<---	CONS	1.010	0.104	9.696	***	0.694
OCON11	<---	CONS	0.951	0.100	9.468	***	0.662
OSPO20	<---	SPOR	1.000				0.698
OSPO19	<---	SPOR	1.052	0.076	13.815	***	0.748
OSPO18	<---	SPOR	1.049	0.074	14.219	***	0.851
OSPO17	<---	SPOR	0.896	0.088	10.177	***	0.518
OSPO16	<---	SPOR	0.939	0.073	12.908	***	0.693
OCIV24	<---	CIVI	1.000				0.784
OCIV23	<---	CIVI	1.070	0.052	20.667	***	0.871
OCIV22	<---	CIVI	1.089	0.053	20.495	***	0.865
OCIV21	<---	CIVI	.898	0.056	16.059	***	0.706

***p<0.001, S.E. =standard error, C.R. =critical ratio

Table 4.20 shows that all obtained C.R. values are more than 1.96 and p value (***) less than 0.001. This shows the statistical significance of both lines. In addition, Hair et al. (2010) noted that the component weight should be around 0.30 to 0.40, which is the least level of appropriateness considered to explain this structure. In this study, all the component weight values are more than 0.3 with statistical significance.

4.3.4 Average Variance Extracted (AVE) and Composite reliability (c.r.)

In finding of the convergent validity, researcher can consider the value of average variance extracted (AVE). Fornell and Larcker (1981) suggested that AVE should be more than 0.50 and the composite reliability (c.r.) value should more than 0.60.

Table 4.21 Average variance extracted of variables

	Standardized Factor Loading	R ²	Composite Reliability (c.r.)	Average Variance Extracted
Transformational Leadership				
Idealized Influence- Attribute			0.918	0.737
IIA1	0.834	0.695		
IIA2	0.872	0.761		
IIA3	0.865	0.748		
IIA4	0.863	0.744		
Idealized Influence- Behavior			0.832	0.559
IIB1	0.802	0.644		
IIB2	0.840	0.705		
IIB3	0.565	0.319		
IIB4	0.775	0.600		
Inspirational Motivation			0.904	0.702
IMO1	0.838	0.702		

Table 4.21 Average variance extracted of variables (Cont.)

	Standardized Factor Loading	R²	Composite Reliability (c.r.)	Average Variance Extracted
IMO2	0.841	0.708		
IMO3	0.870	0.757		
IMO4	0.801	0.642		
Intellectual Stimulation			0.903	0.699
IST1	0.806	0.649		
IST2	0.814	0.662		
IST3	0.867	0.751		
IST4	0.857	0.734		
Individualized Consideration			0.900	0.693
ICO1	0.842	0.709		
ICO2	0.869	0.756		
ICO3	0.822	0.675		
ICO4	0.796	0.634		
Transactional Leadership				
Contingent Reward			0.900	0.694
CRE1	0.855	0.730		
CRE2	0.865	0.748		
CRE3	0.827	0.684		
CRE4	0.783	0.614		
Management by Exception- Active			0.902	0.697
MEA1	0.746	0.557		
MEA2	0.862	0.742		
MEA3	0.871	0.758		
MEA4	0.855	0.731		

Table 4.21 Average variance extracted of variables (Cont.)

	Standardized Factor Loading	R²	Composite Reliability (c.r.)	Average Variance Extracted
Trust				
Supervisory trust			0.925	0.641
Sup_tru1	0.727	0.528		
Sup_tru2	0.834	0.695		
Sup_tru3	0.832	0.693		
Sup_tru4	0.794	0.631		
Sup_tru5	0.838	0.703		
Sup_tru6	0.796	0.634		
Sup_tru7	0.779	0.607		
Organizational Trust			0.930	0.658
Org_tru1	0.708	0.502		
Org_tru2	0.815	0.664		
Org_tru3	0.881	0.777		
Org_tru4	0.852	0.726		
Org_tru5	0.860	0.740		
Org_tru6	0.756	0.571		
Org_tru7	0.792	0.627		
Justice				
Distributive justice			0.900	0.694
Dis_jus1	0.869	0.755		
Dis_jus2	0.870	0.756		
Dis_jus3	0.829	0.687		
Dis_jus4	0.759	0.577		
Procedural justice			0.915	0.608
Pro_jus1	0.739	0.546		
Pro_jus2	0.763	0.583		

Table 4.21 Average variance extracted of variables (Cont.)

	Standardized Factor Loading	R²	Composite Reliability (c.r.)	Average Variance Extracted
Pro_jus3	0.832	0.693		
Pro_jus4	0.810	0.656		
Pro_jus5	0.756	0.572		
Pro_jus6	0.728	0.529		
Pro_jus7	0.822	0.679		
Interactional justice			0.913	0.725
Int_jus1	0.831	0.631		
Int_jus2	0.889	0.791		
Int_jus3	0.889	0.791		
Int_jus4	0.794	0.691		
Organizational behavior citizenship				
Altruism			0.877	0.589
Alt1	0.765	0.585		
Alt2	0.786	0.618		
Alt3	0.840	0.706		
Alt4	0.676	0.457		
Alt5	0.760	0.577		
Courtesy			0.867	0.566
Cou1	0.690	0.476		
Cou2	0.750	0.562		
Cou3	0.794	0.630		
Cou4	0.776	0.602		
Cou5	0.748	0.559		
Conscientiousness			0.831	0.504
Con1	0.662	0.438		

Table 4.21 Average variance extracted of variables (Cont.)

	Standardized Factor Loading	R²	Composite Reliability (c.r.)	Average Variance Extracted
Con2	0.694	0.482		
Con3	0.839	0.704		
Con4	0.816	0.665		
Con5	0.481	0.231		
Sportsmanship			0.832	0.504
Spo1	0.693	0.481		
Spo2	0.518	0.269		
Spo3	0.851	0.724		
Spo4	0.748	0.559		
Spo5	0.698	0.487		
Civic Virtue			0.883	0.655
Civ1	0.706	0.499		
Civ2	0.865	0.748		
Civ3	0.871	0.759		
Civ4	0.784	0.615		

Table 4.21 presents the composite reliability (c.r.) and average variance extracted (AVE). Fornell and Larcker (1981) stated that AVE values should be higher than 0.50 and composite reliability (c.r.) should be greater than 0.60. In Table 4.21, it was found that composite reliability (c.r.) for all the notice variables have composite reliability of more than 0.60, which is a positive value for the construct reliability. All AVE values are greater than 0.5. According to Fornell and Larcker who stated that it is acceptable for AVE to be less than 0.50 but with composite reliability more than 0.60.

4.3.5 Discriminant Validity

Table 4.22 Discriminant Validity

Factor	Average Variance Extracted	Highest (correlation)²	Discriminant Validity
Idealized Influence- Attribute	0.737	0.722	1.021
Idealized Influence-Behavior	0.567	0.548	1.035
Inspirational Motivation	0.702	0.688	1.020
Intellectual Stimulation	0.699	0.689	1.014
Individualized Consideration	0.693	0.672	1.031
Contingent Reward	0.694	0.672	1.037
Management by exception-Active	0.697	0.695	1.003
Supervisory trust	0.641	0.640	1.001
Organizational trust	0.658	0.655	1.004
Distributive justice	0.694	0.692	1.002
Procedural justice	0.608	0.606	1.003
Interactional justice	0.725	0.724	1.001
Altruism	0.589	0.586	1.005
Courtesy	0.566	0.565	1.002
Conscientiousness	0.504	0.488	1.033
Sportsmanship	0.504	0.492	1.024
Civic Virtue	0.655	0.650	1.008

$$c.r. = (\Sigma \text{ of standardized loading})^2 / [(\Sigma \text{ of standardized loading})^2 + \Sigma \text{ of } \epsilon_j]$$

$$AVE = \Sigma \text{ of (standardized loading)}^2 / [(\Sigma \text{ of standardized loading})^2 + \Sigma \text{ of } \epsilon_j]$$

$$DV \text{ (Discriminant Validity)} = AVE / (\text{corr.})^2 : (\text{corr.})^2 = \text{highest}(\text{correlation})^2$$

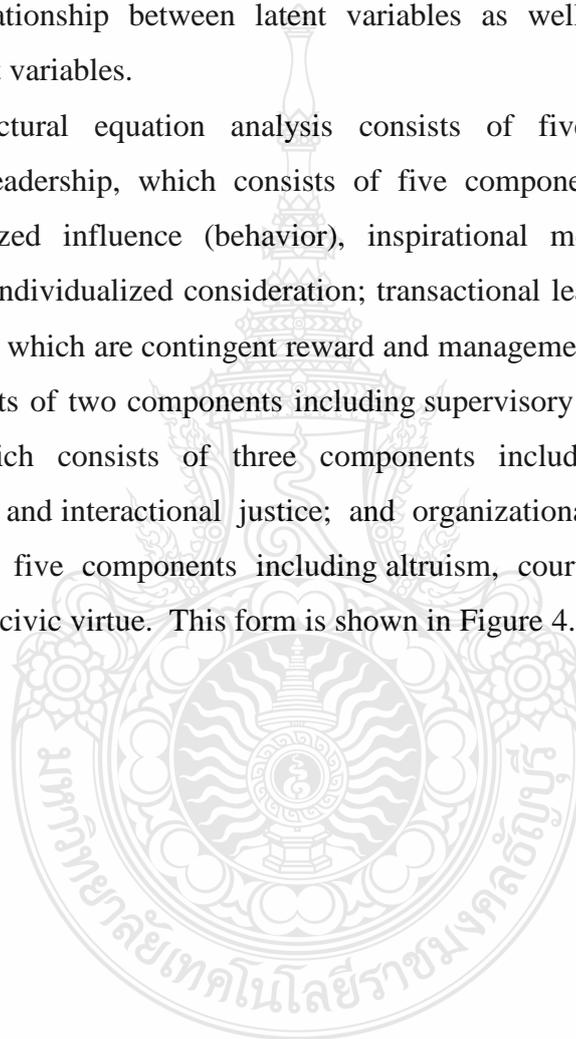
The author tested the discriminant validity with the limitation in the multiple correlations with each pair of factors to determine the structural validity of the latent variable using 1) all the p-value has statistical significance; 2) all weight values of factor loading are greater than 0.3; 3) AVE value of every variable is greater than 0.5 and; 4) the discriminant validity value is greater than 1.00.

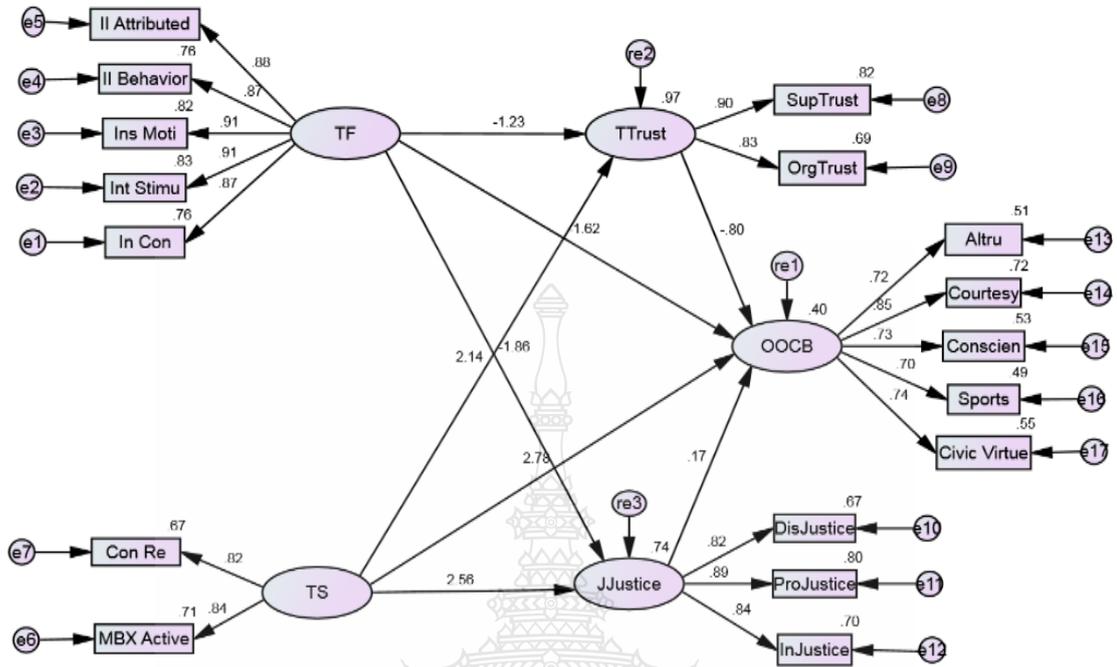
In Table 4.22, it was found that all factor values are in accordance with the criteria. Thus, the structure of transformational leadership, transactional leadership, trust, justice and organizational citizenship behavior can be accepted.

4.3.6 Structural Equation Modeling of a Proposed Model

An analysis on the overall form was conducted using the Structural Equation Modeling Analysis for hypotheses testing. The analysis of structure equation was to determine the relationship between latent variables as well as between observed variables and latent variables.

The structural equation analysis consists of five dimensions including transformational leadership, which consists of five components: idealized influence (attributed), idealized influence (behavior), inspirational motivation, individualized consideration and individualized consideration; transactional leadership, which consists of two components which are contingent reward and management by exception (active); trust, which consists of two components including supervisory trust and organizational trust; justice, which consists of three components including distributive justice, procedural justice and interactional justice; and organizational citizenship behavior, which consists of five components including altruism, courtesy, conscientiousness, sportsmanship and civic virtue. This form is shown in Figure 4.11.





Chi-Square=502.457

Df=110

p-value=0.000

CMIN/df=4.568

GFI=0.875

AGFI=0.826

CFI=0.942

RMSEA=0.087

Figure 4.11 Proposed Model for SEM analysis

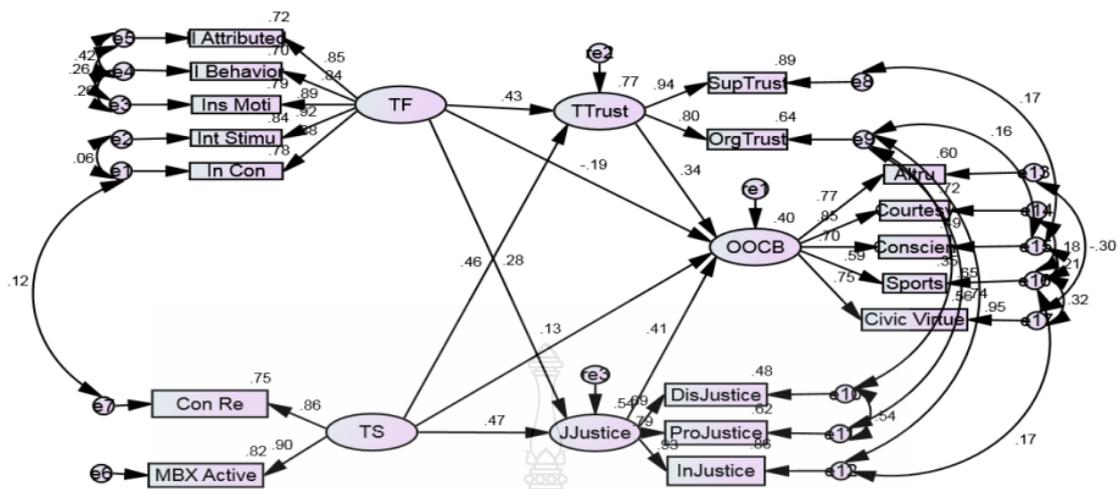


Figure 4.12 Adjusted Structural Model of Organizational Citizenship Behavior

Table 4.23 Level of Acceptable Fit of Goodness of Fit Measures and Result

Goodness of Fit Measure	Level of Acceptable Fit	Goodness of Fit
CMIN		134.456
df		90
p-value	$p > 0.05$	0.002
Chi-Square/degrees of freedom(CMIN/df)	< 3	1.494
Goodness of fit Index(GFI)	> 0.90	0.969
Adjusted Goodness of fit Index (AGFI)	> 0.90	0.948
Normed fit Index (NFI)	> 0.90	0.981
Comparative Fit Index (CFI)	> 0.90	0.993
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.032

The proposed model was analyzed through AMOS by using the Maximum Likelihood Estimation. The model-data fit statistics of the proposed model are p-value = 0.002, CMIN/df = 1.494, GFI = 0.969, AGFI = 0.948, NFI = 0.981, CFI = 0.993, RMSEA = 0.032. It can be seen that the obtained statistics meet the acceptable criteria.

Table 4.24 Summary of path coefficient from adjusted

	Effect		Coefficient	S.E.	C.R.	P
OCB	<---	TFL	-0.191	0.117	-1.243	0.214
OCB	<---	TSL	0.134	0.138	0.779	0.436
Trust	<---	TFL	0.433	0.091	4.193	***
Justice	<---	TFL	0.277	0.090	2.180	0.029
Trust	<---	TSL	0.465	0.098	4.431	***
Justice	<---	TSL	0.473	0.098	3.614	***
OCB	<---	Trust	0.338	0.101	2.875	0.004
OCB	<---	Justice	0.408	0.079	5.498	***

Note:TFL=Transformational leadership, TSL=Transactional leadership,
OCB=Organizational Citizenship Behavior

Table 4.24 report the effect of variable in model adjusted (figure 4.12), it found that transformational leadership and transactional leadership is not a significant effect on organizational citizenship behavior.

Table 4.25 Standardized direct, indirect, and total effects of Model

	Trust			Justice			Organizational citizenship behavior		
	DE	IE	TE	DE	IE	TE	DE	IE	TE
Transformational leadership	0.433	-	0.433	0.277	-	0.277	-0.191	0.259	0.068
Transactional leadership	0.465	-	0.465	0.473	-	0.473	0.134	0.350	0.483
Trust	-	-	-	-	-	-	0.338	-	0.338
Justice	-	-	-	-	-	-	0.408	-	0.408

Note: DE=Direct Effect, IE=Indirect Effect, TE=Total Effect

Table 4.25, when considering the influence on trust, it was found that trust is directly influenced by transformational leadership and transactional leadership with a positive influence size of 0.433 and 0.465, respectively.

When considering the influence on justice, it was found that justice is directly influenced by transformational leadership and transactional leadership with a positive influence size of 0.277 and 0.473, respectively.

When considering the influence on organizational citizenship behavior, it was found that organizational citizenship behavior is both directly and indirectly influenced by transformational leadership and transactional leadership. Transformational leadership has a direct influence size of -0.191 and indirect influence has a size of 0.259, and transactional leadership has a direct influence size of 0.134 and indirect influence size of 0.350.

In addition, organizational citizenship behavior also is directly influenced by trust with an influence size of 0.338. This means that when the employees in the group of RMUT universities consider their trust in the organization, they will reflect organizational citizenship behavior. Being directly influenced by justice with an influence size of 0.408 shows that when employees in the group of RMUT universities consider organization justice, they will reflect organizational citizenship behavior.

4.4 Hypothesis Testing

4.4.1 Mediating test

To confirm the mediation effects, the study used compare model between direct effect model and mediator effect model. By the full mediation held that the effect of the independent variable on the dependent variable was either insignificantly or significantly decreased when controlling the mediator variable (Fairchild & MacKinnon, 2009; MacKinnon, 2008).

The researcher tested the mediate variables of trust and justice to determine whether trust and justice can be a variable in the mediator? So, by testing the difference of chi-squares between the models, the results are as follows.

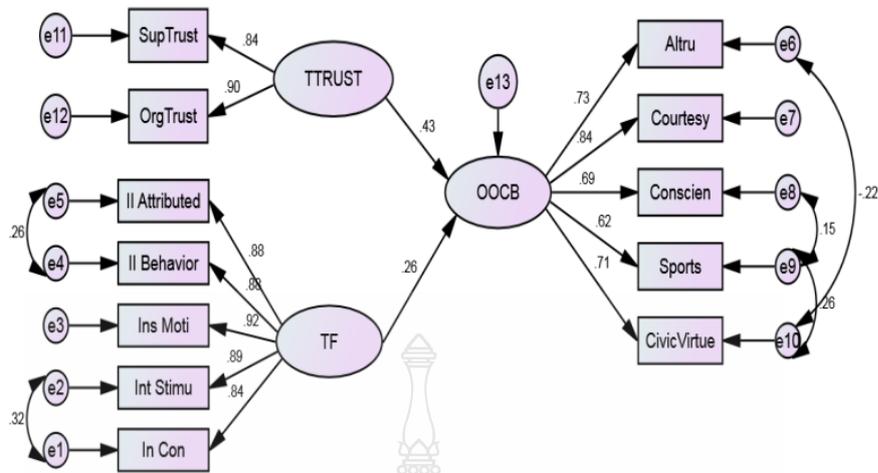


Figure 4.13 Model 1a

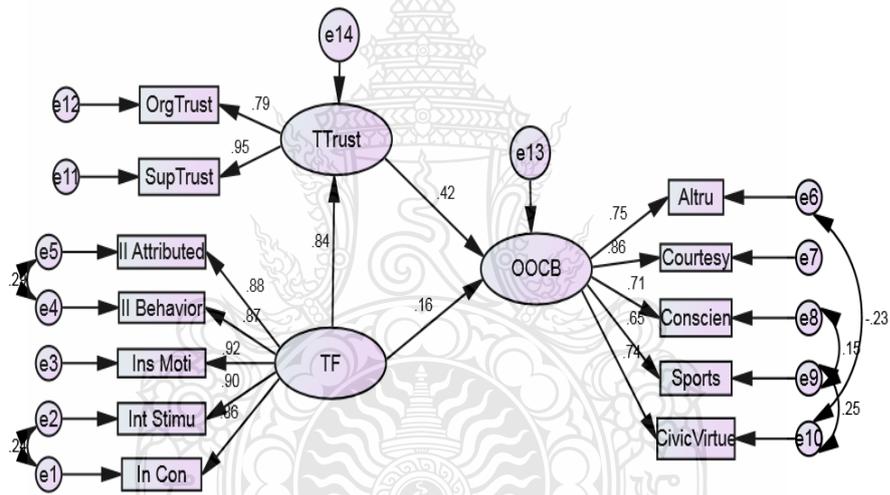


Figure 4.14 Model 1b

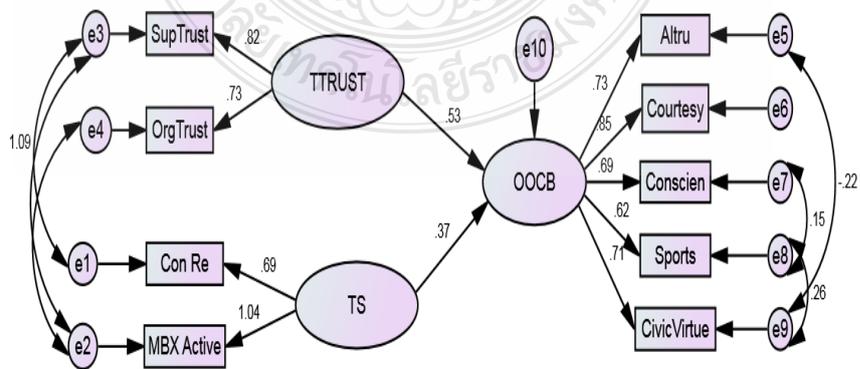


Figure 4.15 Model 2a

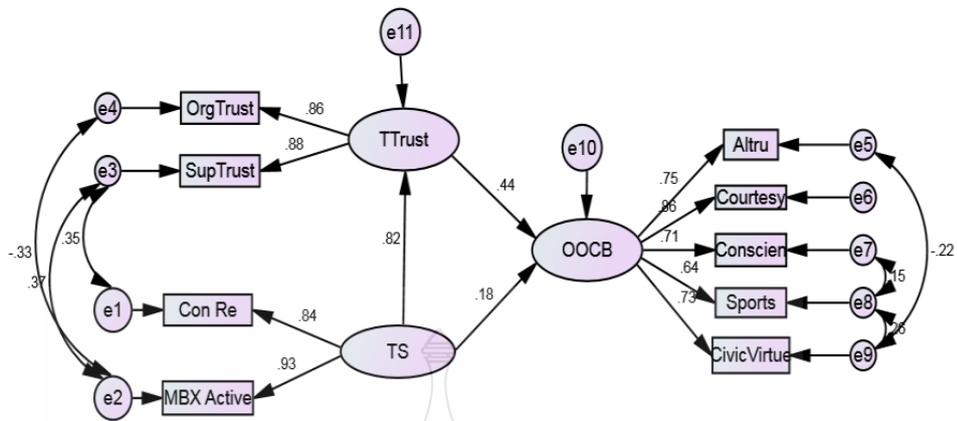


Figure 4.16 Model 2b

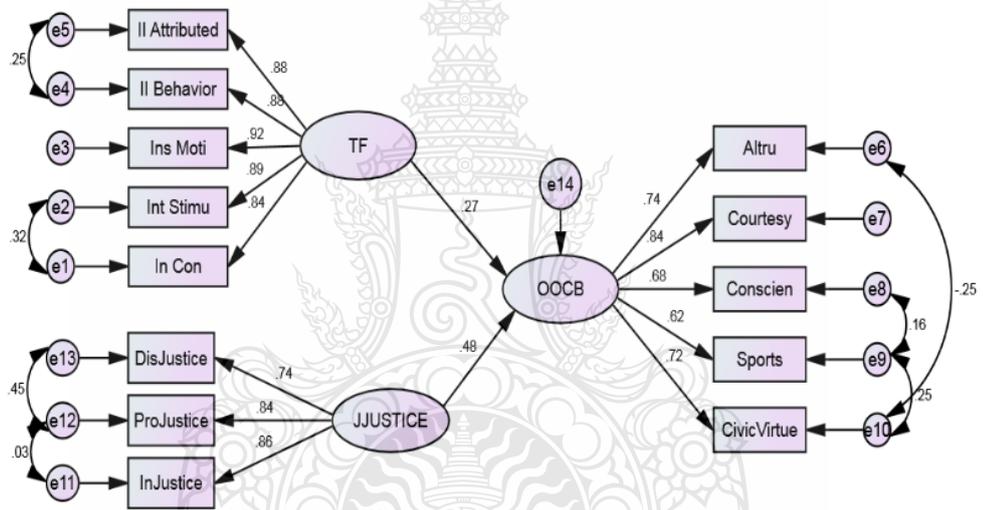


Figure 4.17 Model 3a

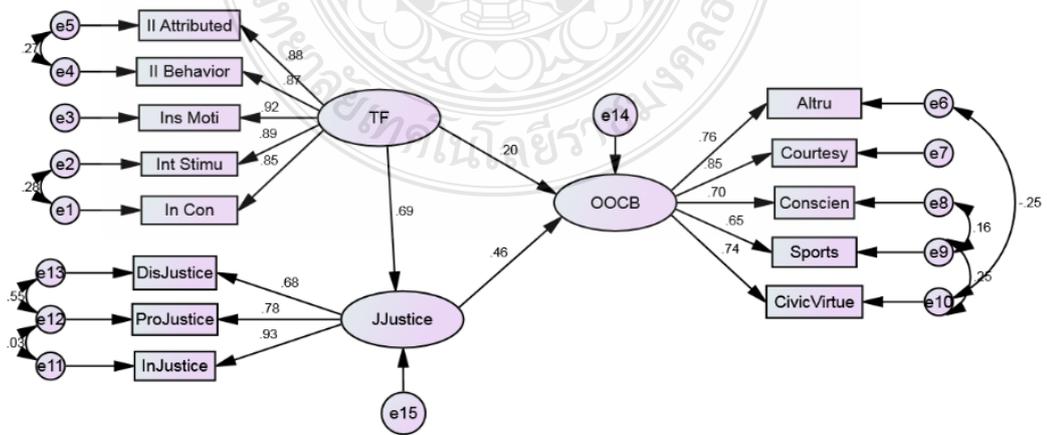


Figure 4.18 Model 3b

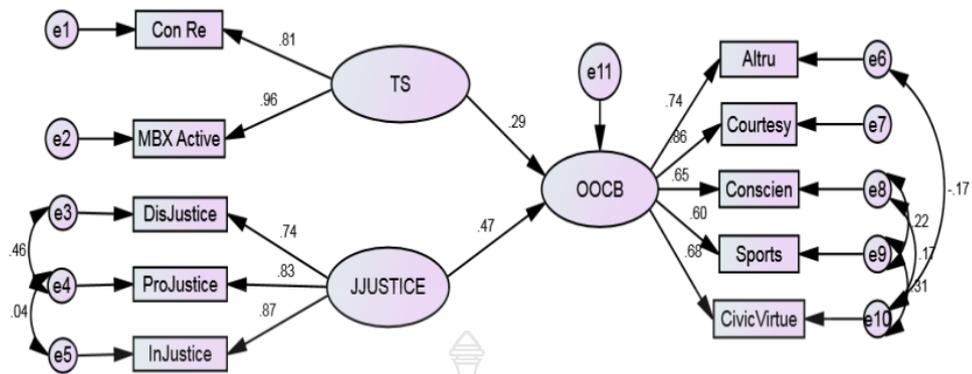


Figure 4.19 Model 4a

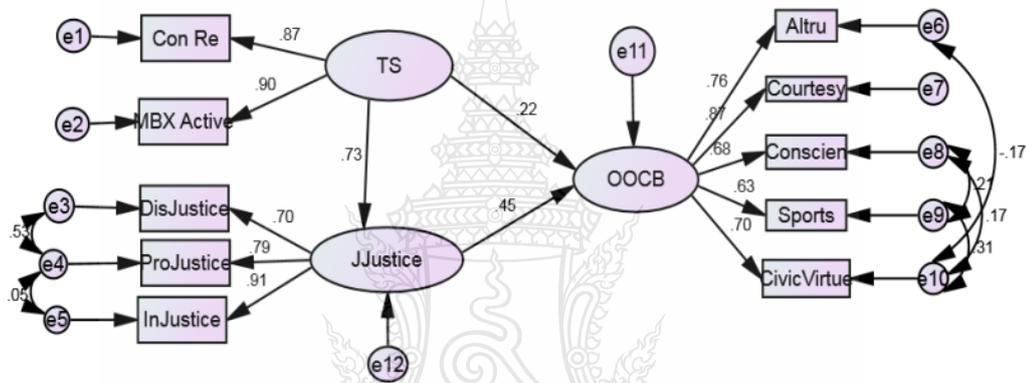


Figure 4.20 Model 4b

Table 4.26 Summary chi-square different

Model	X ²	df	p-value	GFI	CFI	RMSEA	Δx ²	Δdf
Model 1a	538.277	47	0.000	0.885	0.889	0.149		
Model 1b	113.320	46	0.000	0.961	0.985	0.056	424.957	1
Model 2a	238.640	19	0.000	0.914	0.911	0.157		
Model 2b	31.348	18	0.000	0.986	0.995	0.040	207.292	1
Model 3a	345.264	56	0.000	0.914	0.938	0.105		
Model 3b	111.990	55	0.000	0.965	0.988	0.047	233.274	1
Model 4a	290.182	27	0.000	0.909	0.904	0.144		
Model 4b	45.210	26	0.011	0.981	0.993	0.040	244.972	1

Note X²(1) = 3.84

Table 4.26 shows the chi-square difference in each model. Comparing chi-square between model a and b, each pair has a different df =1. In the chi-square table found that df at 1, chi -square = 3.84 compared with chi-square difference. The result is that trust is a mediator between transformational leadership, transactional leadership and organizational citizenship behavior. For justice, it is not a mediator between transformational leadership, transactional leadership and organizational citizenship behavior. Then, the researcher tested the nature of the mediator as a full or partial mediator. The results appear as follows:

Table 4.27 Mediating effect of trust in the relationship between transformational leadership and organizational citizenship behavior.

Model	Causal path	Regression weight	Result
1a	TFL → OCB	0.225***	Full mediator
	Trust → OCB	0.429***	
1b	TFL → OCB	0.164	
	TFL → Trust	0.839***	
	Trust → OCB	0.419***	

Note: TFL=Transformational Leadership, OCB=Organizational Citizenship Behavior, ***p-value<0.001

The testing results of the role of the mediator variable of trust with an influence of transformational leadership on organizational citizenship were as follows. Table 4.27 presents the role of the mediator variable of trust from model 1b. To test hypothesis 1, it was found that the influence of transformational leadership on organizational citizenship behavior was changed by the influence of transformational leadership on organizational citizenship behavior, which declined and they had no influence on each other ($\beta = 0.164$, $p > 0.01$). This shows that the role as the mediator variable of trust had a full mediating effect. Thus, H1 was supported.

Table 4.28 Mediating effect of trust in the relationship between transactional leadership and organizational citizenship behavior.

Model	Causal path	Regression weight	Result
2a	TSL → OCB	0.366***	Full mediator
	Trust → OCB	0.525***	
2b	TSL → OCB	0.177	
	TSL → Trust	0.824***	
	Trust → OCB	0.442***	

Note: TSL=Transactional Leadership, OCB=Organizational Citizenship Behavior, ***p-value<0.001

The testing results of the role of the mediator variable of trust with an influence of transactional Leadership and organizational citizenship behavior were as follows. Table 4.28 presents the role of the mediator variable of trust from model 2b. To test hypothesis 2, it was found that the influence of transactional leadership on organizational citizenship behavior was changed by the influence of transactional leadership on organizational citizenship behavior, which declined and they had no influence on each other ($\beta = 0.177$, $p > 0.01$). This shows that the role as the mediator variable of trust had a full mediating effect. Thus, H2 was supported.

Table 4.29 Mediating effect of justice in the relationship between transformational leadership and organizational citizenship behavior.

Model	Causal path	Regression weight	Result
3a	TFL → OCB	0.274***	Partial mediator
	Justice → OCB	0.483***	
3b	TFL → OCB	0.199**	
	TFL → Justice	0.689***	
	Justice → OCB	0.460***	

Note: TFL=Transformational Leadership, OCB=Organizational Citizenship Behavior, **p-value<0.01, ***p-value<0.001

In Table 4.29, the mediator role of justice from model 3b was used to test hypothesis 3. It was found that the influence of transactional leadership on organizational citizenship behavior was changed by the influence of transactional leadership on organizational citizenship behavior, which was reduced and having an influence on each other ($\beta = 0.207$, $p > 0.01$). This demonstrates that the role of the mediator of justice had a partially mediating effect. Thus, H3 was supported.

Table 4.30 Mediating effect of justice in the relationship between transactional leadership and organizational citizenship behavior.

Model	Causal path	Regression weight	Result
4a	TSL → OCB	0.292***	Partial mediator
	Justice → OCB	0.473***	
4b	TSL → OCB	0.220**	
	TSL → Justice	0.734***	
	Justice → OCB	0.448***	

Note: TSL=Transactional Leadership, OCB=Organizational Citizenship Behavior, **p-value<0.01, ***p-value<0.001

In Table 4.30, the mediator role of justice from model 4b was used to test hypothesis 4. It was found that the influence of transactional leadership on organizational citizenship behavior was changed by the influence of transactional leadership on organizational citizenship behavior, which was reduced and having an influence on each other ($\beta = 0.221$, $p > 0.01$). This demonstrates that the role of the mediator of justice had a partial mediating effect. Thus, H4 was supported.

Overall, in testing the variable presenting model, it is shown that the influence of the mediator variable trust can be a full mediating variable. Therefore, if an organization wants its employees to reflect better organizational citizenship behavior, the organization must develop in the aspects of trust and justice. At the same time, when an organization integrates the two forms of leadership, the reflection of organizational citizenship behavior can be increased with the joint development with trust. According to the results mentioned in Tables 4.27-4.30, the results fall in the

accepted standard values range, which means that the proposed model was a suitable model in the RMUT context.

4.4.2 Hypothesis Testing

The research processed the forms and results obtained from the calculation which leads to hypothesis testing. All the results are examined to consider the impact of transformational leadership, transactional leadership, trust, and justice on the organizational citizenship behavior in the nine RMUT campuses. In this study, there were nine hypotheses to be tested using transformational leadership and transactional leadership as the exogenous and the hypotheses with mediators that consisted of trust and justice. In addition, exogenous variables and mediators were tested on the relationships with the endogenous variables of organizational citizenship behavior.

Conclusion of Hypotheses

Regarding the research questions relating to the influence of transformational leadership, transactional leadership, trust and justice to support organizational citizenship behavior, results of the eight hypotheses are as follows:

H5: Transformational leadership has a positive effect on organizational citizenship behavior.

The standardized regression weight was -0.191, t-value was 2.180 and p-value was 0.214. This shows that transformational leadership does not have a significant effect on organizational citizenship behavior. Thus, it can be concluded that H5 was not supported.

H6: Transactional leadership has a positive effect on organizational citizenship behavior.

The standardized regression weight was 0.134, t-value was 0.779 and p-value was 0.436. This shows that transactional leadership does not have a significant effect on organizational citizenship behavior. Thus, it can be concluded that H6 was not supported.

H7: Transformational leadership has a positive effect on trust.

The standardized regression weight was 0.433, t-value was 4.193 and p-value was less than 0.05. This shows that transformational leadership has a significant effect on trust. Thus, it can be concluded that H7 was supported.

H8: Transformational leadership has a positive effect on justice.

The standardized regression weight was 0.277, t-value was 2.180 and p-value was 0.029. This shows that transformational leadership has a significant effect on justice. Thus, it can be concluded that H8 was supported.

H9: Transactional leadership has a positive effect on trust.

The standardized regression weight was 0.465, t-value was 4.431 and p-value was less than 0.05. This shows that transactional leadership has a significant effect on trust. Thus, it can be concluded that H9 was supported.

H10: Transactional leadership has a positive effect on justice.

The standardized regression weight was 0.473, t-value was 3.614 and p-value was less than 0.05. This shows that transactional leadership has a significant effect on justice. Thus, it can be concluded that H10 was supported.

H11: Trust has a positive effect on organizational citizenship behavior.

The standardized regression weight was 0.338, t-value was 2.875 and p-value was 0.004. This shows that trust has a significant effect on organizational citizenship behavior. Thus, it can be concluded that H11 was supported.

H12: Justice has a positive effect on organizational citizenship behavior.

The standardized regression weight was 0.408, t-value was 5.498 and p-value was less than 0.05. This shows that justice has a significant effect on organizational citizenship behavior. Thus, it can be concluded that H12 was supported.

Table 4.31 Summary of Hypothesis Testing

Hypothesis and Description	Result
H1: Trust is the full mediator of transformational leadership and organizational citizenship behavior	Supported
H2: Trust is the full mediator of transactional leadership and organizational citizenship behavior.	Supported
H3: Justice is partial mediator of transformational leadership and organizational citizenship behavior	Supported
H4: Justice is partial mediator of transactional leadership and organizational citizenship behavior.	Supported
H5: Transformational leadership has a positive effect on organizational citizenship behavior.	Not supported
H6: Transactional leadership has a positive effect on organizational citizenship behavior.	Not supported
H7: Transformational leadership has a positive effect on trust.	Supported
H8: Transformational leadership has a positive effect on justice.	Supported
H9: Transactional leadership has a positive effect on trust.	Supported
H10: Transactional leadership has a positive effect on justice.	Supported
H11: Trust has a positive effect on organizational citizenship behavior.	Supported
H12: Justice has a positive effect on organizational citizenship behavior.	Supported

Summary of Model Analysis

The objective of this study was to investigate the influence of transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior. The SEM approach was used to analyze the hypothesis. The result is presented in Figure 4.21 below.

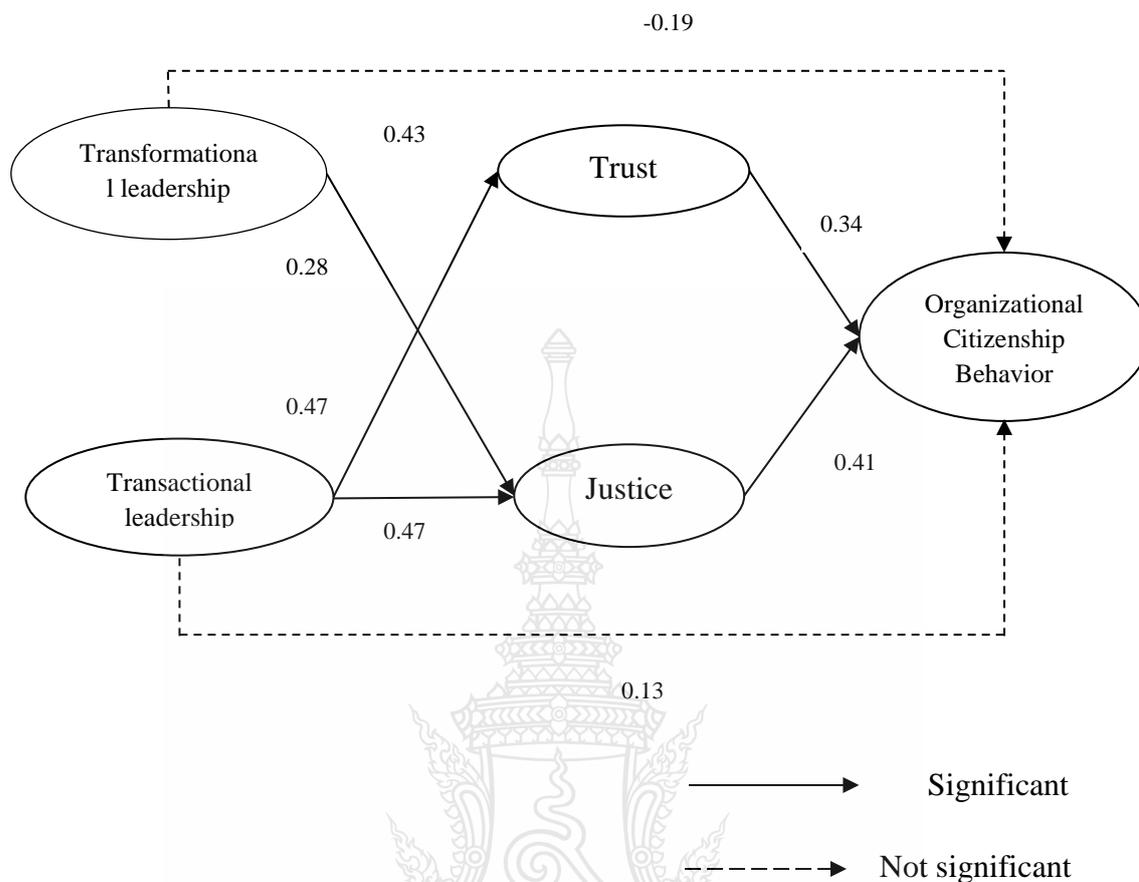


Figure 4.21 Model 1 Research Finding

Figure 4.21 show that transformational leadership and transactional leadership have a positive significant effect on trust and justice. Moreover, the justice factor also has a positive significant effect on organizational citizenship behavior. On the other hand, transformational leadership and transactional leadership have no significant relation with organizational citizenship behavior, which means that the role of trust and justice has a mediated effect on transformational leadership, transactional leadership, and organizational citizenship behavior. Trust is the full mediator of transformational leadership, transactional leadership and organizational citizenship behavior, justice is a partial mediator of transformational leadership, transactional leadership and organizational citizenship behavior.

Based on the results of this research, a second model for this research was obtained as figure 4.22.

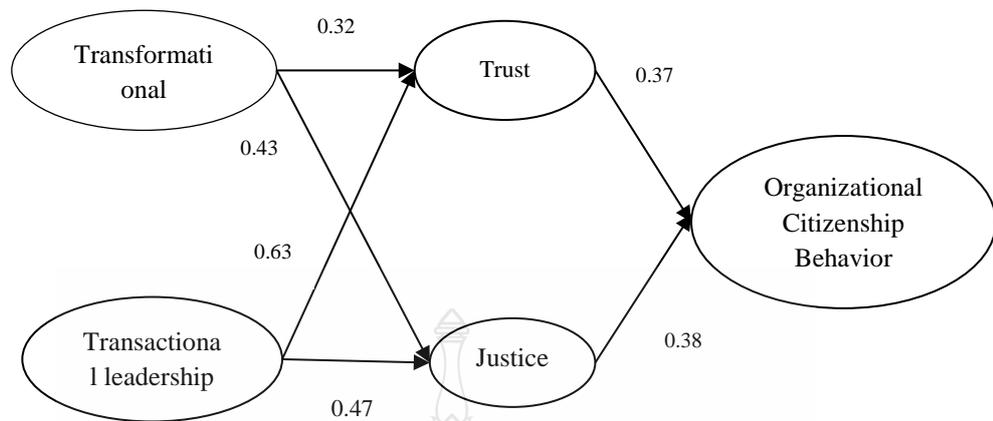


Figure 4.22 Model 2 Research Finding

Figure 4.22, it is to present the second model to show all the relationships with influence each other at the statistical significance.

4.4.3 Testing for multiple groups invariances (Lecturers and Staff Group)

To examine how well the data fits to the model, the author conducted model with the model specification requirement to test the moderate influence of organizational citizenship behavior on the relationship between transformational leadership, transactional leadership, trust and justice. In order to test the moderating effect, the author employed a multi-group path analysis (Bagozzi & Yi, 1989).

The multi group path analysis is an especially proper technique for the significantly different covariance matrices study across treatment (Voss, Parasuraman, & Grewal, 1998). The invariance measurement could be done as it was crucial to make sure that the analyzed variables were indeed comparable constructs across various groups in lecturers and staffs model. The organizational citizenship behavior moderating effect was observed and tested on the relative change in model fit (Osterhus, 1997).

For the difference evaluation between lecturers and staffs model, parameter constrained path was the constraint in the relationship between transformational leadership, transactional leadership, trust and justice constructs. Significant interaction effect can be noticed from the significant change in the Chi-square value. For lecturers group versus staffs group, the Chi-square value of 223.909 with *df* 180 was provided

from the unconstrained model. Then, that the chi-square value and degree of freedom were equal with the respective structural model sums separately of two estimated groups (Byrne, 2013). The model with equality constraints resulted from a common relationship from chi-square value in eight paths as illustrated in table 4.32 which found transformational leadership had effect on trust ($\Delta x^2=16.276$, $\Delta df=1$), transformational leadership had effect on justice ($\Delta x^2=6.166$, $\Delta df=1$), transactional leadership had effect on trust ($\Delta x^2=10.162$, $\Delta df=1$). In conclusion there were no major differences found between the lecturers and staff groups as only three latent variables showed a difference.

Table 4.32 Testing the moderating influence of employee type

			Unconstrained		Constrained		Difference		sig
			x^2	df	x^2	df	Δx^2	Δdf	
Trust	<---	TFL	223.909	180	240.185	181	16.276	1	sig
Justice	<---	TFL	223.909	180	230.075	181	6.166	1	sig
OCB	<---	TFL	223.909	180	223.972	181	0.063	1	no
Trust	<---	TSL	223.909	180	234.071	181	10.162	1	sig
Justice	<---	TSL	223.909	180	226.190	181	2.281	1	no
OCB	<---	TSL	223.909	180	223.909	181	0	1	no
OCB	<---	Trust	223.909	180	223.970	181	0.061	1	no
OCB	<---	Justice	223.909	180	227.264	181	3.355	1	no

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior, $p>0.05(3.84)$.

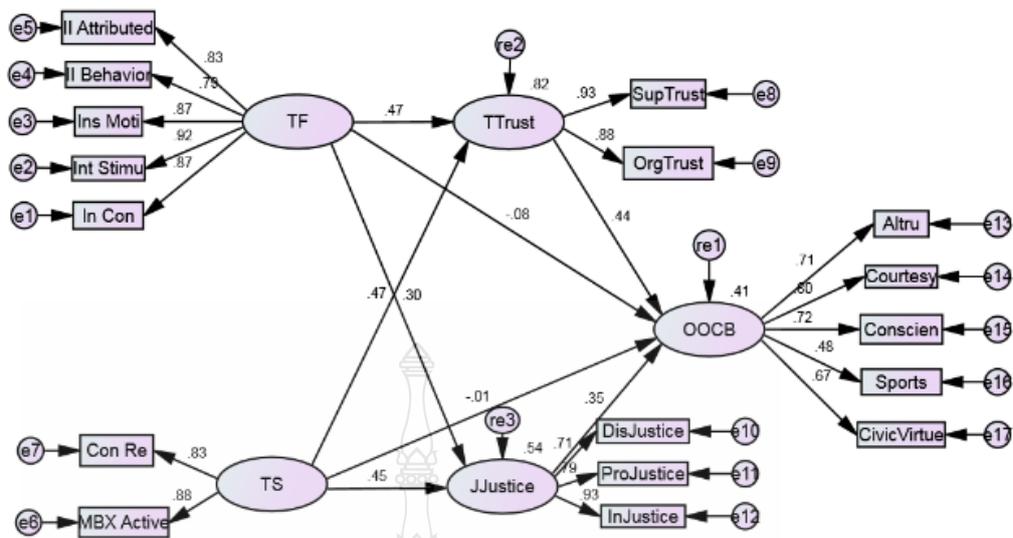


Figure 4.23 Model of Lecturers group Unconstraint test

Table 4.33 Regression Weights: (Lecturers group - Unconstrained)

	Effect		Coefficient	S.E.	C.R.	P
Trust	<---	TFL	0.467	0.086	4.960	***
Justice	<---	TFL	0.301	0.112	2.089	0.037
OCB	<---	TFL	-0.084	0.134	-0.432	0.666
Trust	<---	TSL	0.468	0.097	5.132	***
Justice	<---	TSL	0.454	0.136	3.051	0.002
OCB	<---	TSL	-0.007	0.184	-0.029	0.977
OCB	<---	Trust	0.442	0.151	2.219	0.026
OCB	<---	Justice	0.347	0.088	3.470	***

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior

From table 4.33, it was found that regression weights in model lecturers group showed that there were the statistical significance variables such as transformational leadership effect on trust and justice(***),(0.037), transactional leadership effect on trust and justice (***),(0.002), trust (0.026) and justice (***) effect on organizational citizenship behavior.

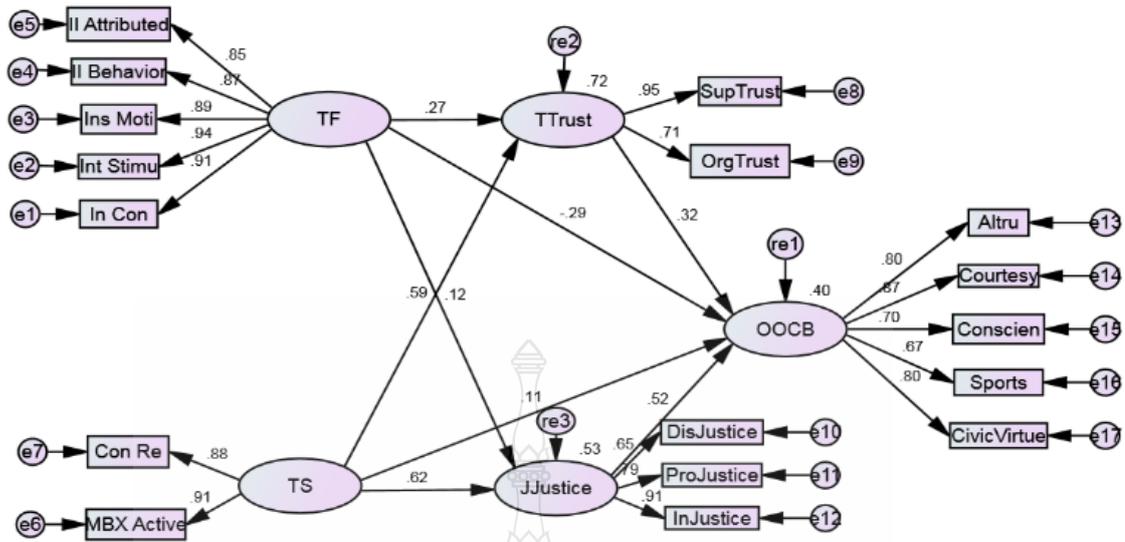


Figure 4.24 Model of Staff group Unconstraint test

Table 4.34 Regression Weights: (Staff group - Unconstrained)

	Effect		Coefficient	S.E.	C.R.	P
Trust	<---	TFL	0.271	0.101	2.275	0.023
Justice	<---	TFL	0.115	0.116	0.625	0.532
OCB	<---	TFL	-0.291	0.180	-1.322	0.186
Trust	<---	TSL	0.594	0.097	5.132	***
Justice	<---	TSL	0.624	0.122	3.197	0.001
OCB	<---	TSL	0.108	0.227	0.383	0.701
OCB	<---	Trust	0.323	0.155	2.002	0.045
OCB	<---	Justice	0.518	0.156	4.309	***

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior

From table 4.34, it was found that the regression weights value in model staffs group showed that were the statistical significance such as transformational leadership (0.023) effect on trust, transactional leadership (***),(0.001) effect on trust and justice, trust (0.045) and justice(***) effect on organizational citizenship behavior.

Table 4.35 Critical ration results (t-value) between lecturers and staff group

Effect			Lecturers group		Staff group	
			Coefficient	t-value	Coefficient	t-value
Trust	<---	TFL	0.467	4.960***	0.271	2.275*
Justice	<---	TFL	0.301	2.089*	0.115	0.625
OCB	<---	TFL	-0.084	-0.432	-0.291	-1.322
Trust	<---	TSL	0.468	5.132***	0.594	5.132***
Justice	<---	TSL	0.454	3.051**	0.624	3.197***
OCB	<---	TSL	-0.007	-0.029	0.108	0.383
OCB	<---	Trust	0.442	2.219*	0.323	2.002*
OCB	<---	Justice	0.347	3.470***	0.518	4.309***

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior, *** (p-value<0.001), ** (p-value<0.01), *(p-value<0.05)

H13: The relationship among transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior differ according to the types of employees in higher education institutions. Table 4.35 shows that the differences between lecturers group and staff group are related to the variable found that the effect of transformational leadership on trust, the effect of trust on organizational citizenship behavior, lecturers group more than staffs. Moreover, found that the effect of transactional leadership on trust, the effect transactional leadership on justice, and the effect of justice on organizational citizenship behavior, staffs group more than lecturers group.

4.4.4 Testing for multiple groups invariances (Generation X and Y model)

To examine how well the data fit to the model, the author conducted a model with the model specification requirement to test on the moderate influence of organizational citizenship behavior on the relationship between transformational leadership, transactional leadership, trust and justice. In order to test on the moderating effect, the author employed a multi-group path analysis (Bagozzi & Yi, 1989).

The multi group path analysis is an especially proper technique for the significantly different covariance matrices study across treatment (Voss et al., 1998). The invariance measurement could be done as it was crucial to make sure that the analyzed variables were indeed comparable constructs across various groups in generation X and Y model. The organizational citizenship behavior moderating effect was observed and tested on the relative change in model fit (Osterhus, 1997).

For the difference evaluation between generation X and Y model, parameter constrained path was the constraint in the relationship between transformational leadership, transactional leadership, trust and justice constructs. Significant interaction effect can be noticed from the significant change in the Chi-square value. For generation X versus generation Y, the chi-square value of 258.677 with *df* 180 was provided from the unconstrained model. Then, that the chi-square value and degree of freedom were equal with the respective structural model sums separately of two estimated groups (Byrne, 2009). The model with equality constraints resulted from a common relationship from chi-square value in eight paths as illustrated in table 4.36 which found transformational leadership effect on organizational citizenship behavior with statistical significance ($\Delta x^2 = 8.804, \Delta df = 1$). In conclusion there were no major differences found between generation X and Y as only one latent variable was different.

Table 4.36 Testing the moderating influence of path analysis

			Unconstrained		Constrained		Difference		
			x^2	df	x^2	df	Δx^2	Δdf	sig
Trust	<---	TFL	258.677	180	261.041	181	2.364	1	No
Justice	<---	TFL	258.677	180	259.109	181	0.432	1	No
OCB	<---	TFL	258.677	180	267.481	181	8.804	1	sig
Trust	<---	TSL	258.677	180	259.688	181	1.011	1	No
Justice	<---	TSL	258.677	180	259.579	181	0.922	1	No
OCB	<---	TSL	258.677	180	258.922	181	0.245	1	No
OCB	<---	Trust	258.677	180	262.137	181	3.460	1	No
OCB	<---	Justice	258.677	180	261.803	181	3.126	1	No

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior, $p > 0.05(3.84)$.

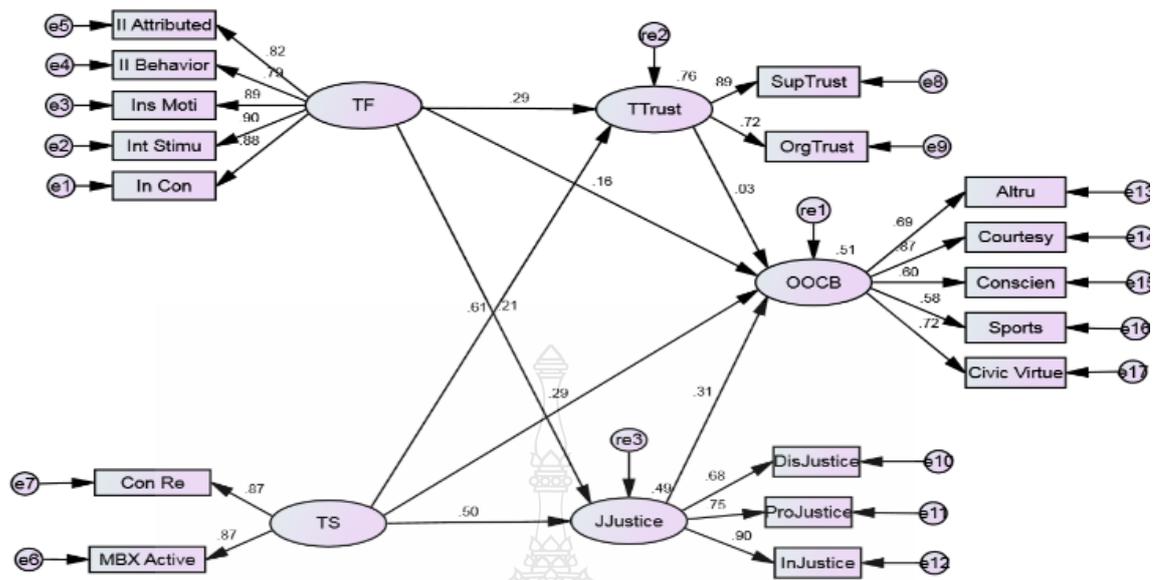


Figure 4.25 Model of Generation X Unconstraint test

Table 4.37 Regression Weights: (X - Unconstrained)

			Coefficient	S.E.	C.R.	P
Trust	<---	TFL	0.285	0.141	1.672	0.095
Justice	<---	TFL	0.214	0.158	1.084	0.279
OCB	<---	TFL	0.159	0.138	0.813	0.416
Trust	<---	TSL	0.611	0.149	3.462	***
Justice	<---	TSL	0.504	0.169	2.427	0.015
OCB	<---	TSL	0.286	0.192	1.065	0.287
OCB	<---	Trust	0.032	0.172	0.158	0.875
OCB	<---	Justice	0.311	0.100	2.748	0.006

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior

Table 4.37, it was found that regression weights in model generation X showed that there were the statistical significance variables such as transactional leadership (***), (0.015) effect on trust and justice, and justice (0.006) effect on organizational citizenship behavior.

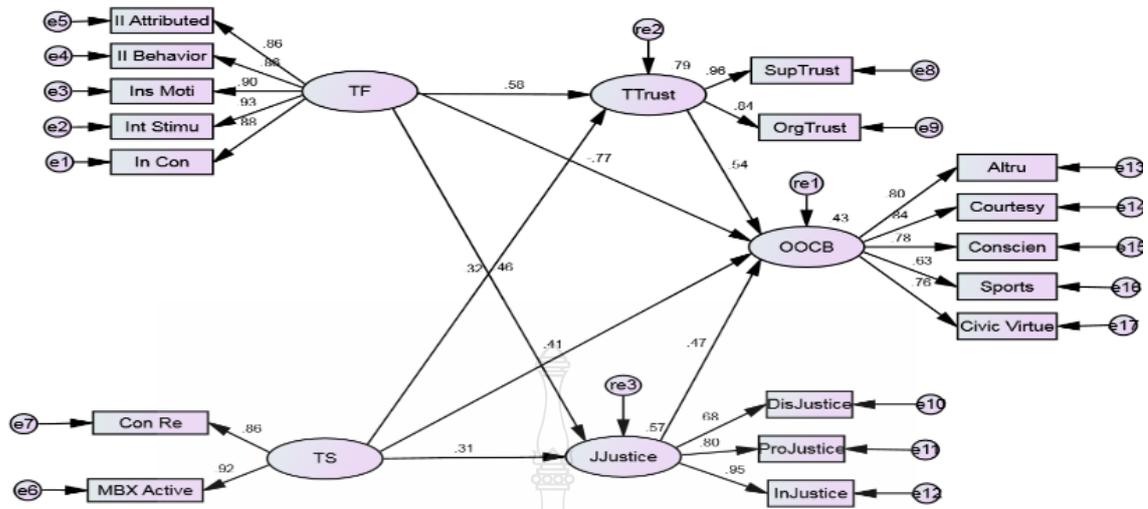


Figure 4.26 Model of Generation Y Unconstraint test

Table 4.38 Regression Weights: (Y - Unconstrained)

			Coefficient	S.E.	C.R.	P
Trust	<---	TFL	0.581	0.126	4.235	***
Justice	<---	TFL	0.459	0.115	2.615	0.009
OCB	<---	TFL	-0.771	0.205	-2.971	0.003
Trust	<---	TSL	0.325	0.132	2.359	0.018
Justice	<---	TSL	0.309	0.120	1.767	0.077
OCB	<---	TSL	0.414	0.197	1.741	0.082
OCB	<---	Trust	0.542	0.137	3.431	***
OCB	<---	Justice	0.471	0.120	4.746	***

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior

From table 4.38, it was found that the regression weights value in model Y showed that there were six variables with the statistical significance such as transformational leadership(***), transactional leadership (0.018) effect on trust, transformational leadership(0.009) effect on justice, transformational leadership (0.003) effect on organizational citizenship behavior, trust (***) and justice (***) effect on organizational citizenship behavior.

Table 4.39 Critical ration results (t-value) between generation X and Y

			Generation X		Generation Y	
			Coefficient	t-value	Coefficient	t-value
Trust	<---	TFL	0.285	1.672	0.581	4.235***
Justice	<---	TFL	0.214	1.084	0.459	2.615*
OCB	<---	TFL	0.159	0.813	-0.771	-2.971*
Trust	<---	TSL	0.611	3.462***	0.325	2.359**
Justice	<---	TSL	0.504	2.427**	0.309	1.767
OCB	<---	TSL	0.286	1.065	0.414	1.741
OCB	<---	Trust	0.032	0.158	0.542	3.431***
OCB	<---	Justice	0.311	2.748*	0.471	4.746***

Note: TFL=Transformational leadership, TSL=Transactional leadership, OCB=Organizational Citizenship Behavior, ***(p-value<0.001), **(p-value<0.01), *(p-value<0.05)

H14: Generation X and Y differently affect transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior. Table 4.39 shows that the differences between generations X and Y are related to the variable found that the effect of justice and organizational citizenship behavior, generation Y more than generation X, whereas generation X emphasizes transactional leadership on trust more than generation Y.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

Chapter five presents a summary of the research results, discussions, and recommendations. Firstly, this section presents the research conclusions. Secondly, a discussion of the findings and limitations. Finally, suggestions for future research are given. The objectives of this research were as follows:

1) To investigate the effects of transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior. 2) To explore the role of trust and justice mediating on organizational citizenship behavior. 3) To investigate the different effects of transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior between generation X and Y model, employees in higher education institutions lecturers and staffs model.

5.1 Conclusions

It was found that most of the questionnaire respondents were female 74.30 percent; 33.60% of them were aged between 32-36 years old. 52.10% of them graduated with a Master's Degree and 44.50% of them had been working in Rajamangala University for between 1-5 years. The conclusions about the average of these variables were as follows: transformational leadership was found to have averages between 4.01-4.20, transactional leadership had averages between 3.99-4.03, trust had averages between 4.01-4.05, justice had averages between 3.84-4.01 and organizational citizenship behavior had averages between 4.06-4.39.

5.1.1 Research Question 1: Do transformational leadership, transactional leadership, trust, and justice have an effect on organizational citizenship behavior?

The result of the hypothesis testing to answer this research question found that transformational leadership and transactional leadership does not have a positive effect on organizational citizenship behavior (H5 and H6, not supported). However, Transformational leadership has a positive effect on trust and justice (H7 and H8, supported). In relation to transactional leadership this research found that transactional leadership has a positive effect on trust and justice (H9 and H10, supported). Trust has

a positive effect on organizational citizenship behavior (H11 supported). And justice has a positive effect on organizational citizenship behavior (H12 supported).

5.1.2 Research Question 2: Do trust and justice mediate the effect between transformational leadership, transactional leadership and organizational citizenship behavior?

The mediator variable testing found that trust is the full mediator effect between transformational leadership and transactional leadership with regard to organizational citizenship behavior while justice is the partial mediator effect between transformational leadership and transactional leadership toward organizational citizenship behavior.

The results of the analysis on the influence of the variables found that transformational leadership had a total effect toward the organizational citizenship behavior at 0.068. Primarily they are indirect effects while the direct effect between transformational leadership and organizational citizenship behavior are mostly negative influences. Besides, it was found that the total effect of transactional leadership on organizational citizenship behavior is at 0.483. The direct effect between transformational leadership and trust is at 0.433 while the direct effect between transformational leadership and justice is at 0.277. The direct effect from transactional leadership toward trust is at 0.465 and justice at 0.473. The direct effect between trust and organizational citizenship behavior is at 0.338 and on justice at 0.408.

5.1.3 Research Question 3: Do generation (X and Y) and type of employees in higher education institutions (lecturers and staff) moderate the effect of transformational leadership, transactional leadership, trust, justice, on organizational citizenship behavior?

Multi group analyses were used to examine the differences between generations X and generation Y employees in higher education institutions over the organizational citizenship behavior. But the differences between groups were tested by group separations in each generation, where the generation with the influence over organizational citizenship behavior will be tested and observed on the changed relationship in form of the model fit. The influences between them where these were significant changes in chi-square values. For generation X and generation Y,

employees in higher education institutions lecturers and staff towards organizational citizenship behavior, the unconstrained model gave equal chi-square and degree of freedom values at all levels.

The structural model is separated to assess the values of the two groups. The results from the multi group path analysis showed the verification of models to fit suggestions of the empirical data, according to the influences of the variables between generation X and generation Y employees. For the measurement to compare the across-group indicators between generation X and generation Y when considering separation between the influences on the variables from both generations; it was found that generation X can perceive more influence of transactional leadership on trust rather than generation Y. While generation Y, perceive justice to be more influential on the organizational citizenship behavior than generation X.

The measurement to compare the across-group indicators between the lecturers group and the staff group when considering the separate comparison between the influences on both groups of variables, it was found that the staff group perceived greater value of transactional leadership toward trust and justice, and the influence of justice toward organizational citizenship behavior more so than the lecturers group. While the lecturers groups believed that transformational leadership has a greater impact on trust, and in turn that trust is more important in developing organizational citizenship behavior.

5.2 Discussion of Findings and Limitations

5.2.1 Discussion of Findings

The key objectives during this study were to investigate the effects of transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior. From the hypotheses, the researcher can discuss the results as follows.

H1: Trust is the full mediator of transformational leadership and organizational citizenship behavior.

Based on the influences of the mediator variable; trust affected transformational leadership and organizational citizenship behavior. It was found that

trust worked as the full mediator variable allowing it influence over the dependent variable, and organizational citizenship behavior. That means the employees believed that organizational citizenship behavior resulted from transformational leadership should rely on the amount of trust that comes into play with the job in which it conforms to Aryee, Budhwar, and Chen (2002) found that trust worked as the full mediator variable of the relationship between variables and the organizational citizenship behavior. This was confirmed by Zhu, Newman, Miao, and Hooke (2013) who found that trust was the full mediator variable that resulted in transformational leadership and organizational citizenship behavior.

In the context of RMUT, trust was found to be the main influencer on transformational leadership. Staff believes that transformational leadership has a significant impact on organization citizenship behavior. Take for example the dean of a faculty. A dean, who possesses enthusiasm, suggests new working methods and takes an active interest in the needs and wants of his/her employees will improve trust within the organization. Employees will come to understand that the dean treats all employees equally. They believe that he/she will develop best practises and activities that will further the organizations opportunities for success. This in turn fosters trust in the dean's abilities and allows organization citizenship behaviour to flourish. Under these circumstances employees are more likely to help their co-workers, to cooperate in organizational activities and develop a sense of identity and pride within their role.

H2: Trust is the full mediator of transactional leadership and organizational citizenship behavior.

Trust was found to be the full mediator variable with regard to organization citizenship behavior. Organization citizenship behavior was discovered to be as a result of trust in transactional leadership. This confirms the study of Asgari, Silong, Ahmod, and Samah (2008) which stated that trust was the mediator variable that worked as the full mediator variable for the independent variable transactional leadership and the dependent variable organizational citizenship behavior.

With regard to RMUT, Transactional leadership can be used to form trust within the organization. Transactional leadership can influence employees in such a way as to encourage them to become practitioners of organizational citizenship

behavior. For example, a dean may inform staff that there will be some form of compensation if they achieve the goals set by the organization. A prime example of this is the encouragement shown to lecturers to further their education to Ph.D. level. While completing their Ph.D. lecturers are supported by the dean and the faculty. They are encouraged to complete their Ph.D. and to return to the faculty so that they may help to develop the faculty further. The dean may also offer opportunities for additional academic advancement in the form of research papers in the future which would create a chance to have their work critiqued by experts in their given field. Feedback and suggestions in such circumstances can be invaluable in relation to improving their understanding of the topic. The behavior of a transactional leader fosters a perception of trust and confidence in employees. It results in loyalty being felt towards the organization and develops employees who are happy to give back to the organization in the form of organizational citizenship behavior.

Based on the role of trust as a mediator, it can be seen in RMUT that perceptions of transformational leadership and transactional leadership can have a positive influence on the implementation, or encouragement of organizational citizenship behavior. The different groups of employees within the institution have faith in their leaders. They perceive them to be honest and loyal in the manner in which they carry out their operations. They have implemented open channels of communication, which allow for advice to be sought and for opinions to be heard. They have also constructed an environment in which career advancement and development is not only possible but is actively encouraged. Employees believe that they will be treated fairly within the organization. For all of these reasons the ground is fertile to allow good organizational citizenship behavior to flourish.

H3: Justice is a partial mediator of transformational leadership and organizational citizenship behavior.

Justice was found to be a partial mediator variable that would have an effect on organizational citizenship behavior. This means that the perception of justice plays a linking role between transformational leadership and organizational citizenship behavior. This was confirmed by Carter, Mossholder, Feild, and Armenakis (2014)

who found that justice was the mediator variable between the relationship of transformational leadership and organizational citizenship behavior.

Justice is another factor that plays a part in the context of RMUT. If transformational leadership is viewed as being just it can have a positive influence on employees desire to behave in a way that displays organizational citizenship behavior. An example of this could be a dean increasing the number of opportunities for lectures to complete academic research papers. The dean may open additional channels for lecturers to utilize their skills in this way. To foster trust the dean would have to support this idea through a number of means; namely, reducing the number of lecturing hours to ease the lecturers workload, supporting lecturers by giving them sufficient time to complete their work, enabling lecturers to seek expert opinions or advice when necessary and to create a mentor program with other lecturers already writing academic papers so it is possible to seek guidance from them in relation to academic writing. Through this it can be seen that transformational leadership utilizes justice in its treatment of employees to achieve the organizational goals. This in turn allows good organizational citizenship behavior to prosper.

H4: Justice is a partial mediator of transactional leadership and organizational citizenship behavior.

Based on the influence of the mediator variable justice on the relationship between transactional leadership and organizational citizenship behavior, it can be seen that justice works a partial mediator variable that has an effect on organizational citizenship behavior. This means that organizational citizenship behavior was displayed as a result of the perception of justice within the transactional leadership models. This is confirmed by Krafft, Engelbrecht, and Theron (2004) who found that justice worked as the partial mediator variable for the relationship between transactional leadership and organizational citizenship behavior. This was further supported by Walumbwa, Wu, and Orwa (2008) who also found this to be true.

In relation to RMUT, financial rewards are offered to lecturers for completing academic papers. These rewards are presented in a clear manner and awarded on the individual merits of each paper. This creates transparency in the process. The transparency of the process creates a feeling that it is being conducted in an open and

just manner. This leads people to believe that there is justice within the system. When employees perceive justice in the transactional leadership model they are far more likely to behave in a manner conducive to organizational citizenship behavior.

Due to the role of justice as a mediator, the belief among employees that the transformational leadership and the transactional leadership models are being conducted in just manner leads employees towards organizational citizenship behavior. Employees have faith in the justice that is inbuilt into these systems. They believe that they will receive fair consideration, adequate compensation and that they will be supported through clear lines of communication. They also understand that they will be fairly treated through appropriate performance appraisals, where they can exchange their thoughts and opinions with their supervisors.

H5: Transformational leadership had a positive effect on organizational citizenship behavior.

H6: Transactional leadership had a positive effect on organizational citizenship behavior.

Hypothesis H5 and H6 were not supported by the data. The data showed that there was no meaningful relationship between transformational leadership and transactional leadership on the expression of organizational citizenship behavior at just 0.05. Organizational citizenship behavior was not increased as a direct result of either leadership method. Employees showed organizational citizenship behavior from other factors; such as the perception of justice and levels of trust within the organization. Though transformational leadership and transactional leadership had no direct impact on organizational citizenship behavior, the variables did have a role to play. When examining the independent and dependent variable it shows that the influence of transformational leadership and transactional leadership on organizational citizenship behavior must pass through the influences of the mediator variables; namely, trust and justice. This was confirmed during research on the casual factors that resulted in organizational citizenship behavior by Podsakoff, MacKenzie, Moorman, and Fetter (1990) who studied the impact of trust in transformational leadership on followers' satisfaction and organizational citizenship behavior.

The study found that both transformational leadership and transactional leadership had indirect influences on organizational citizenship behavior rather than direct influences. This conformed to the study by Zhu et al. (2013) on the role of trust as a mediator variable in transformational leadership as having an indirect impact on organizational citizenship behavior. Thus it can be concluded that organizational citizenship behavior was derived from transformational leadership and transactional leadership through the mediator variables and not directly derived from the leadership models.

In this research the mediator variables consisted of the perception of trust and justice within the organization. The transformational leadership and the transactional leadership must display an element of trust and justice in the duties. This will allow employees to understand that justice and trust exist in the organization and therefore create an environment or culture whereby organizational citizenship behavior can become the norm. This can be viewed through employees' willingness to help others and to go beyond the remit of their job description to enable the organization to achieve its goals.

Based on hypothesis 5 and 6 the staff of RMUT are not directly influenced by transformational leadership or transactional leadership. Instead organizational citizenship behavior in RMUT is derived from other factors. Staff are happy to help one another and to go above and beyond the work that they are required to complete because they believe in the trust and justice that is evident in the organizations structure. Staff are prepared to fully participate in the activities of RMUT. Staff behaviors are not a direct consequence of either leadership style but staff exhibit organizational citizenship behavior as a result of other factors.

H7: Transformational leadership has a positive effect on trust.

H9: Transactional leadership has a positive effect on trust.

Hypothesis 7 and 9 were supported by this research. It was found that transformational leadership and transactional leadership had a relationship with trust at a significance level of 0.05. Employees form trust in their leaders through positive experiences. These positive experiences can take many forms, such as, seeking clarification on a problem that they are presented with, the leader offering clear lines of

communication to listen to subordinates views and opinions to improve the organization and so forth. Employees then believe that their leader is capable of supporting them and the organization in both the short term and the long term.

The research into H7 showed that transformational leadership did have a positive effect on trust. When a dean is observed to be punctual, hard-working, willing to participate in the organizations activities, always prepared for lectures, helping their students and their staff through encouragement to further their academic knowledge. This behavior has a positive impact on trust within the organization. Employees will see this behavior and attempt to model themselves off of the dean's example.

H9 was also supported by the research. Transactional leadership has a positive impact on trust. For example, actions such as the dean presenting awards or certificates for a job well done, or public praise of some description, or financial rewards for completing further study, or giving employees opportunities to present their research at international conferences etc. These methods can provide a positive result in terms of trust.

As a result of trust being sought by the deans, through various transformational leadership methods, employees will develop trust towards the organization as a whole. As the organization grows the employees will be able to work with confidence and reassurance that they will be treated fairly and ethically in their role. The organization can grow confidently as it knows that its staff trusts the organization to behave in a trustworthy and ethical manner towards its employees. This confirmed the research by Podsakoff et al. (1990) who studied the impact of trust towards the leader and transformational leadership models with regard to employee satisfaction and organizational citizenship behavior.

The results of this research found that transformational leadership had a positive impact on trust. This confirmed the research by Ismail, Mohamad, Mohamed, Rafiuddin, and Zhen (2010) who studied both transformational and transactional leadership models. It was found that both leadership models could have a positive influence on trust in an organization. This was further confirmed by Zhu et al. (2013) who studied the roles of the mediator variables of trust on transformational leadership. They found that trust had a significant impact on the success of a transformational

leadership model. Lin and Hsiao (2014), also found a significant link between transformational leadership, knowledge sharing, trust and organizational citizenship behavior. But they highlighted transformational leadership important role in developing trust.

Based on the results from H7 and H9, it can be concluded that the staff of RMUT believe that both transformational leadership and transactional leadership play a crucial role in nurturing trust within RMUT. By the leaders in RMUT developing and implementing policies of best practice and then holding themselves and their subordinates to said best practice also, employees learn to trust the organization. The fair, transparent and equitable use of the both transformational and transactional leadership models forms an excellent base to develop trust in the organization. Once trust has been formed people become happier in their roles and will aim to achieve the organizations goals.

H8: Transformational leadership has a positive effect on justice.

H10: Transactional leadership has a positive effect on justice.

Hypothesis 8 and 10 were supported by this research. It was found that both transformational leadership and transactional leadership had a causal relationship with justice at a significance level of 0.05. When employees feel that they are fairly compensated for their efforts and time, they will develop trust in the organization. Both transformational and transactional leadership methods can be utilized to incorporate this feeling of fairness or justice. Adequate compensation for an employee's knowledge, and ability as well as setting criteria that are achievable within the circumstances can all help to harbor a feeling of justice. The setting of clear guidelines around pay structure and appraisal criteria gives all employees an understanding of what is expected of them within their roles and what they must do if they want to progress further within their role. There are also clear procedures to be followed if an employee feels that they have been unfairly compensated or unfairly appraised. Employees that are satisfied that these processes are clear, honest and transparent will believe in the justice in the organization. Leaders also have a responsibility in this regard to ensure that employees understand these processes and that information related to these processes is made available to them.

In relation to H8, Transformational leadership was found to have a positive effect on the perception of justice in an organization. For example, when there is an alteration in a process such as applying to write a new academic paper, the dean makes this information available to all concerned employees. The information is clear and precise. If employees have further questions then there is a clear channel which they can follow to seek additional clarification on any issues that they may have. This clearly creates a sense of justice in the process which employees will appreciate.

H10 showed that transactional leadership can also have a positive impact on the perception of justice in an organization. For example, when the guidelines for an increase in salary are made clear to all employees ahead of their evaluations, then everyone is aware of what they must do or achieve within their role if they wish to gain an increase. Also if there are any concerns about the fairness of the criteria to be used, then employees have an opportunity ahead of time to raise their concerns and perhaps even gain some input into how the criteria could be constructed in a fairer manner. This will benefit the realization of justice in the system and lead towards better organizational citizenship behavior.

When appraisal methods and criteria are presented to employees and employees are given an opportunity to openly discuss said criteria, then this creates a sense of justice in the system. Employees will perceive justice when they can openly and directly express their thoughts and ideas. This confirmed the study of Walumbwa et al. (2008) who researched transactional leadership, work attitudes and OCB. It was found that transactional leadership had a significant role to play in the perception of fairness in an organization. The study of Ismail et al. (2010) further confirmed this point and also found that transformational leadership formed an important aspect in the perception of fairness. Krafft et al. (2004) discovered that transformational leadership, transactional leadership and trust all had a relationship with organizational justice as the mediator variable. The study also found that both leadership models had an impact on fairness in the organization also.

In the context of RMUT both H8 and H10 were found to have a positive influence on justice in the institution. Through RMUT's operations both transformational leadership and transactional leadership were both viewed to

incorporate justice. Employees believe that they will be treated, compensated and appraised in a just manner. The various levels of compensation were deemed to be a fair reflection of education levels, ability and the potential of each individual. Employees are given clear guidelines as to what they must achieve if they wish to gain additional compensation. These guidelines may include work outcomes or additional education. Also employees have faith in the system which has been implemented to administer this process. They are offered the opportunity to challenge an appraisal if they feel that they have been unfairly treated in the appraisal process. There are clear lines of communication so that all employees receive any news or updates that are pertinent to their role within the organization. Leaders in RMUT are viewed as conducting themselves in a polite and professional manner as they go about their duties.

H11: Trust has a positive effect on organizational citizenship behavior.

Hypothesis 11 was supported by the data in this research. That is that trust has a causal effect on organizational citizenship behavior at a significance level of 0.05. Employees will display organizational citizenship behavior when they believe that they can trust their leader. Therefore it can be said that trust acts as a mediator variable that can pass on the influences of transformational leadership and transactional leadership models. This confirmed the study of Aryee et al. (2002) who researched the role of organizational fairness and work performance. It was found that trust worked as the full mediator variable between the relationships that had an influence on organizational citizenship behavior. This was then further confirmed by Zhu et al. (2013) who found that trust was the mediator variable with the most positive influences on organizational citizenship behavior.

An example of H11 in action could be when an employee is experiencing some difficulty in completing a task. If the leader makes himself/herself available to help by offering guidance or by offering a creative solution this will further enhance the employees feeling of trust in the organization. When employees understand that they can trust their leaders to help them in times of difficulty or when they trust that their leader will help them to develop their career, then this will be displayed through positive organizational citizenship behavior.

H12: Justice has a positive effect on organizational citizenship behavior.

Hypothesis 12 was supported by the findings of this research. The research found that the perception of justice had a causal relationship with organizational citizenship behavior at a significance level of 0.05. It shows that when staff believes that there is justice in the organization they will be more inclined to exhibit organizational citizenship behavior. This confirmed the research of Organ (1988) who suggested that the perception of organizational fairness can have an impact on organizational citizenship behavior, particularly with regard to the social exchange between employees and the organization. When the exchange was deemed to be fair and just employees were more inclined to produce organizational citizenship behavior.

The reflection of organizational citizenship behavior was voluntary by employees who perceived that the exchange was fair and just. However if employees deemed the exchange to be unfair or unjust then they would only perform the tasks that were specifically assigned to them, so as to avoid punishment. Therefore if an organization can present a fair and just social exchange between employees and the organization, they are much more likely to be rewarded with organizational citizenship behavior. This agreed with the research of Aryee et al. (2002) who found that justice had an important role in organizational citizenship behavior. It also confirmed the study of Zeinabadi and Salehi (2011) who studied the relationship between fairness, trust, job satisfaction and organizational ties. It was found that organizational citizenship behavior was a result of employees feeling of being treated with justice. Nadiri and Tanova (2010) also confirmed that justice was a key factor in organizational citizenship behavior. Khan and Rashid (2015) studied the influence of the mediator variable and its links to organizational culture, leadership, fairness and organizational citizenship behavior. They found that organizational fairness had an impact on organizational citizenship behavior. This was further confirmed by Tahseen and Akhtar (2016) who found that fairness had a significant role in the production of organizational citizenship behavior.

An example of H12 is the use of standardized appraisals for all members of the same faculty. This means that all employees within the faculty are judged and

appraised on the same set of criteria. This leads to a sense of justice in the process and can therefore lead to an increase in organizational citizenship behavior.

Based on the outcomes of both H11 and H12 it can be concluded that in RMUT the employee's perception of justice in the manner in which the organization conducts itself in various ways, leads to better organizational citizenship behavior. Due to staff believing that they can trust their leader, they are more inclined to assist their colleagues if and when they need assistance. They will also work harder to solve any conflict through negotiation or creative solutions. They will also be respectful of the organizations rules and regulations as well as being punctual. Employees can derive a sense of pride from seeing the organization achieve its goals.

H13: The relationship among transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior differ according to types of employees in higher education institutions.

It was found that lecturers and staff had different perceptions of the important variables. The study considered the impact and relationships between transformational leadership, transactional leadership, trust, justice and organizational citizenship behavior. Staff perceived transactional leadership to build trust, justice and therefore create organizational citizenship behavior. However the lecturers group felt that justice was the main contributing factor.

The staff group earns lower salaries than the lecturer group as a result of this they were more concerned with transactional leadership, particularly in terms of financial rewards for a job well done. However they also believe that praise and recognition are important. The lecturer group earns higher salaries. They also have the potential to work overtime for an additional payment, move into management positions or complete academic papers. It is not surprising that they have a different view as a result. Consider Maslow's Hierarchy of Needs, the lecturer group have moved beyond the basic needs and towards self-esteem and self-actualization, as a result lecturers are more concerned with acknowledgement and praise for achievements than with financial benefits alone. The staff group however are more concerned with their basic needs and as such place greater importance on financial rewards. This is an understandable difference in the perception of the variables by the two groups. Both groups are

prepared to exhibit organizational citizenship behavior but for different reasons, which need to be considered when deciding on a management style or structure. Both groups believe that their leader will treat them fairly according to set criteria, which helps to develop trust in the organization among both groups. However they differ on how they wish to be rewarded for organizational citizenship behavior.

H14: Generation X and Y differently moderate the effect of transformational leadership, transactional leadership, trust and justice on organizational citizenship behavior.

The research investigating the views of gen X and gen Y on the moderating effects of transformational leadership, transactional leadership, trust, justice and organizational citizenship behavior found that both generations perceived the influence of different variables as being of greater importance, particularly in relation to transformational leadership. Generation X viewed transactional leadership as being more important to the creation of trust than generation Y did. While generation Y perceived the influence of justice to be a greater contributor to organizational citizenship behavior than generation X did.

Generation X and generation Y are at different points in their careers progression. Generation Y employees require the help and guidance of generation X employees to learn and advance in their roles. However as we live in an increasing technological world, generation X may rely on generation Y to help and assist them in relation to things such as, social media, uploading and downloading documents or sending data via CHE QA. This shows that both generations can offer something new to each other. Generation Y are more concerned with praise and recognition for a job well done, whereas generation X are more concerned with financial rewards.

In respect of RMUT, it was found that differences do exist between the perceptions of both generations. Generation X views transactional leadership as having a greater impact on their perception of trust in the organization, by contrast generation Y view justice as being a larger contributing factor. The belief among generation X employees is that they will be fairly compensated for their work and fairly rewarded if they go above and beyond their duties. They believe that when the level of compensation and the methods for achieving rewards are clearly stated, then they

develop increasing levels of trust in their leader. Generation Y employees are more concerned with transformational leadership and their perception of justice. They believe that they should be rewarded through encouragement, praise and opportunities to train and develop. Generation Y derive a sense of achievement and enjoyment from sharing their knowledge with others and are therefore happy to volunteer to help others, thus creating organizational citizenship behavior.

5.2.2 Limitation

Across the nine Rajamangala universities there are a variety of different staffing positions. These can be broken down into government officers, employees in higher education, support staff and temporary staff. But this research only studied the opinions or perceptions of employees in higher education, lecturers and the staff groups with regard to their views on transformational leadership, transactional leadership, trust, justice and organizational citizenship behavior.

5.3 The Implication for Practice and Suggestion for Future Research

5.3.1 Theoretical Implications

This study examined the characteristics of transformational leadership and transactional leadership with regard to their implications on organizational citizenship behavior. It was found that neither leadership model held any significant direct power over organizational citizenship behavior. It was discovered that both leadership models need to consider other factors to gain organizational citizenship behavior. This conformed to the research conducted by Zhu et al. (2013) which suggested that to achieve OCB other factors needed to be included to encourage staff to develop organizational citizenship behavior.

It was found that the variable factors of trust and justice held more of an influence over the incorporation of organizational citizenship behavior into employees work routine. Podsakoff et al. (1990) found that transformational leadership could not impact on organizational citizenship behavior alone but rather through the inclusion of the variable trust. Also Zhu et al. (2013) stated that transformational leadership had an important role to play in the creation of trust, which in turn could further organizational citizenship behavior objectives. Ismail et al. (2010) suggested that transformational

leadership was crucial in the creation of justice within organizations systems. This justice can then encourage employee's participation in organizational citizenship behavior. They also agreed that transactional leadership possess the potential to incorporate justice into organizations systems, which will also benefit organizational citizenship behavior.

The theory explains the links between the leadership models and organizational citizenship behavior, but it cannot explain it in all contexts. This research discovered that transformational leadership and transactional leadership have no direct relationship with the creation of organizational citizenship behavior. In order to raise organizational citizenship behavior levels within the Universities, leaders need to focus their attention on the development of trust and justice in the systems that they apply to their leadership methods and the systems that the employ.

This is the first time that research has been conducted on the all nine Rajamangala Universities, with regard to the role of transformational leadership and transactional leaderships influence on the organizational citizenship behavior within RMUT universities. It has shown that employee's perception of their leaders as people who will create and in force trust and justice in the working environment offers a much better opportunity to create organizational citizenship behavior. If the leaders conduct themselves in a manner whereby they are supportive, helpful, trustworthy, and incorporate justice into their practices, then employees will exhibit organizational citizenship behavior in return. Fair compensation, fair conditions to achieve goals and the implementation of support channels to assist those who need them all further enhance the potential for organizational citizenship behavior. All of these points need to be communicated and conducted in a clear and transparent manner, whereby employees fully understand what is expected of them and how they can strive to achieve more in the organization.

From the above points we can derive that the practices and systems that incorporate trust and justice into both transformational leadership and transactional leadership models in RMUT universities would be good for organizational citizenship behavior. If the employees perceive trust and just in the systems they will display organizational citizenship behavior in their work life. Employees will be happy to go

above and beyond their job remit to help their colleagues, their respective departments and faculties to achieve the overall organizational objectives of RMUT. This behavior will allow RMUT to grow and develop into the future by creating a solid foundation among its personnel on which to build its future success. This level of dedication among staff will build the reputation of RMUT both internally and externally in the eyes of stakeholders.

This is the first research paper focusing on the role of trust and justice in RMUT universities. It supports the assertions of Aryee et al. (2002) that trust in leadership is the full mediator variable in the relationship between interactional justice and organizational citizenship behavior. In the instance of RMUT, justice is the partial mediator variable that causes employees to conduct themselves in a manner that is conducive to organizational citizenship behavior. This conforms to the research conducted by Walumbwa et al. (2008) who studied the relationship between transactional leadership and organizational citizenship behavior by using justice as the mediator variable. They found that procedural justice was the partial mediator between contingent rewards and organizational citizenship behavior.

The results show that trust is a full mediator. Theoretically trust acts as a mediator that leads to organizational citizenship behavior. Justice is a partial mediator. In theory justice can lead to organizational citizenship behavior. It is important to note that as we see there are variables which impact on organizational citizenship behavior, so it must be considered that there may be additional variables in the mediator role that could also have an influence on organizational citizenship behavior. Further study on this may be required or further study into the complete impact of justice and trust on organizational citizenship behavior.

This study is the first study in RMUT to research the differences in perceptions of the lecturers and the staff groups. It has found that both groups consider different influences to be the most important in generating organizational citizenship behavior. The staff group perceives transactional leadership to have the most important impact on the creation of trust and justice, thus leading to organizational citizenship behavior. This is understandable given their position on Maslow's Hierarchy of Needs. It is supported by the work of Jafari and Bidarian (2012) who studied staff in

universities and found that organizational justice had a positive relationship with organizational citizenship behavior. However the lecturer group was more concerned with transformational leadership.

There is also a generational difference among employees. Generation Y was observed to be more concerned with justice in an organization and how it leads to organizational citizenship behavior than generation X was. Generation X was more concerned with justice through compensation thus creating organizational citizenship behavior. The most important factor of compensation as a measure of justice was that the guidelines and procedures for obtaining the compensation were clear and fair to all. Providing these conditions were met then it would lead to positive feeling towards the leaders and as such generate organizational citizenship behavior. Leaders who praise good, efficient work and offer help and support when necessary were also a contributing factor to organizational citizenship behavior. Both generations agreed that leaders who manage their expectations and rewards in a clear and open manner were far more likely to develop organizational citizenship behavior among their employees.

So as such it can be observed that there is a difference of opinion between the different groups, i.e. lecturers and staff, and also between the different generations, i.e. generation X and generation Y. It is important to note that this research proclaims these differences to exist in RMUT universities only and it cannot be used to proclaim that these differences exist in a broader, more general or main stream sense.

To apply the theory in a useful or meaningful way to academics, it is important to consider what the end objective of RMUT is. That end objective is to foster and develop qualified graduates who will add to the labor market, by possessing the requisite skills that the labor market demands. This can be better achieved through positive organizational citizenship behavior. The effectiveness of employees in both the academic branch and the support staff branch can aid in this overall objective coming to fruition. To achieve this objective the universities need to consider both transformational leadership and transactional leadership models to reach the differing views among the employees. Changes and implementations need to come from the top down. Everybody within the organization needs to be clear in what the operational procedures are, what the rewards may be and how to achieve their desired rewards.

This will foster an environment which is conducive to organizational citizenship behavior. The end result of which will be employees who are prepared to work harder for longer to enable their organization to achieve its goals. Leaders need to understand the differences between the various groups and how best to reach them in a meaningful way. Leaders need to inspire trust and justice through their actions and through the policies that they enact.

This research leads to the ideas of leadership theory, trust, justice and organizational citizenship behavior being the platform on which the organizations future success can be built. The implementation of policies that incorporate these ideas will get the most out of the employees in the organization. If employees feel that they are cared for, correctly compensated and given opportunities to advance then they will be prepared to work harder to give back to the organization that has given them these rewards and opportunities. Also guidelines should be in place to allow for greater integration between generations so that they can support each other with their respective skill sets.

5.3.2 Managerial Implications

This research, into the role of trust and justice as the mediator variables between transformational leadership, transactional leadership and organizational citizenship behavior can offer a number of suggestions to people in managerial roles within RMUT.

RMUT's employees have various perceptions of transformational leadership, such as, idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation and individualized consideration. As a result there are a number of considerations that leaders in RMUT should aim to employ. Leaders in RMUT should aim to be a role model to their respective department or faculty; they can achieve this by conducting themselves in a trustworthy manner. They can lead by example, in that they display the required work rate to be worthy of praise from executive management; this will give their subordinates a leader that they can be proud of. They need to be good communicators, so that they can disseminate information related to their vision and objectives in a clear and precise way. Leaders must show that they are working for the team's mutual benefit and not simply their own personal

benefit. The onus is on the leader to show that they can work well with others who are under their authority as well as people from other areas of the university. They must behave in a manner befitting their title; they can do this by conducting themselves in a displaying good morality and ethics while making management decisions. Leaders will communicate aims and objectives and devise clear step by step indicators related to milestone achievements. They must provide pathways for their subordinates who are interested in career advancement opportunities. Leaders must be capable of inspiring those who work for them and explain how each individual's role will play a part in achieving the overall objective. They must conduct risk analysis in order to anticipate future problems and display creative thinking in resolutions of existing problems. Leaders will also encourage creativity in others. RMUT should aim to encourage their leaders to keep abreast of current best practice in their respective fields and to utilize the knowledge of their subordinates for this purpose. They should also take into the consideration the different influences on employee motivation, be they lecturers versus staff or generation X versus generation Y. There are a lot of factors to consider, which is why it is important to periodically review managerial practices and guidelines.

RMUT employees value transactional leadership in the form of contingent rewards and management by exception (active). So RMUT should actively encourage leaders to improve their knowledge as to how to best utilize these aspects of leadership. They can be used to motivate employees to work their maximum potential to achieve their goals and objectives. Leaders should offer praise and convey their gratitude and satisfaction when a task is completed to their standards. They should implement clear guidelines as to how additional compensation can be achieved through hard work and effort on behalf of the employees. Leaders should regularly check up on the progress being made by their subordinates and offer help and support if necessary. They should make themselves available to employees who are experiencing problems and implement best practice in an effort to avoid future problems.

The employees of RMUT value trust as one of the major factors affecting organizational citizenship behavior. By designing and following set guidelines to ensure fairness in appraisals and the distribution of additional compensation, leaders can build trust into their systems and work practices. They can create pathways for career

development which are concise and applied equally to all; employees who take advantage of such mechanisms will form a stronger bond with the organization. Leaders must instill in their employees that everyone's opinions are valid and that they are willing and prepared to listen to all viewpoints. RMUT should invest in their leaders; giving them the skills and knowledge to confidently overcome adversity and form a clear path to achieving both short term and long term goals. Finally, RMUT should educate their leaders about best practice in areas such as knowledge transfer and operational processes, thereby giving them the required skills to benefit the organization.

Trust in a leader is of vital importance to employees. Employees need to feel that they can approach their leader in times of need, be they professional or personal, and feel that they will be treated fairly, with dignity and respect. Leaders can display this to their employees by showing an active interest in how their employees are progressing in their work etc. In showing this level of care for individual employees, leaders can foster organizational citizenship behavior in their respective areas of operations.

RMUT employees consider justice in the organization to be an important factor concerning motivation. They particularly care about distributive justice, procedural justice and interactional justice. Therefore, RMUT should develop clear, transparent guidelines about how compensation payments are made. These guidelines should include all pertinent information, such as information related to amounts of compensation versus the overall workload as well as the complexity of the work to be undertaken. Employees must be made aware of what form the compensation will come in and at what stages during the process that compensation will be paid, i.e. will it be a staged payment or a payment on completion. If it is a stage payment what are the stages and what compensation will be paid at each stage. The criteria for obtaining additional work, so that employees can acquire additional compensation should be created and set in such a way as to remove any possibility of bias. Also suitable mechanisms must be put in place to allow an employee to appeal a decision if they feel that they have been unfairly treated. RMUT have to ensure that their leaders treat all employees equally. Leaders must be able to communicate any potential negative feedback during appraisals

in such a way as to not diminish the employee's confidence or work rate. Finally, RMUT must ensure that appropriate time is allowed for all stakeholders in any given activity are allowed the time to meet to discuss the activity and express their views and opinions on it.

Employees of RMUT have expressed their views on organizational citizenship behavior. They have shown that there are five key aspects in their view of organizational citizenship behavior; which are civic virtue, conscientiousness, courtesy, sportsmanship and altruism. It is important to consider that if employees are all experiencing excessive workloads then they will not have time to engage in organizational citizenship behavior. Situations such as this can give rise to altruism, not through the fault of the individual employee but merely due to time constraints to achieve the organizations objectives. Leaders must consider this when assigning tasks. They must aim to spread the workload as evenly as possible between all of their subordinates. Leaders need to be strong in protecting their employees from being overworked to achieve short term objectives, instead understanding the value of each employee to the organizations long term goals. Leaders can develop an operations manual of best practice to aid employees to work efficiently and to use their time effectively. The operations manual shall be improved and updated for current situations to ensure the best use of limited resources. This can create an environment suitable for organizational citizenship behavior.

Transformational leadership and transactional leadership both have implications on trust, which in turn has implications on organizational citizenship behavior. So it is important that leaders generate trust among their employees. If employees trust their leader this will become the cultural norm, thus employees will trust one another also. This develops ideal conditions for organizational citizenship behavior. It has been show that the perception of justice also affects organizational citizenship behavior. Therefore it is imperative that leaders conduct themselves in such a way as to display justice in their decision making.

Based on the results of this research it can be concluded that between the different groups, of lecturers and staff each leadership model is valued by different elements within the groups. That is to say that both groups perceive transformational

leadership as being important with regard to building trust. Both groups see transactional leadership as being important towards both trust and justice and then in turn they see trust and justice as being important towards organizational citizenship behavior. They may differ in relation to the importance that they place on each consideration but this research has shown that to examine leadership holistically for all stakeholders then each aspect must be considered. Therefore mechanisms should be incorporated to give the staff group increased opportunities with regard to transactional leadership, as this is their preferred choice to achieve trust. Also mechanisms need to be put in place to allow lecturers to achieve their desired outcomes, thus creating a sense of justice among them.

Within the lecturer group there are two distinct camps. Generation Y have shown that they are more willing to respond to transformational leadership methods. Clear and fair implementation of transformational management techniques will foster organizational citizenship behavior among generation Y. Giving generation Y employees opportunities to utilize their creative skills and giving them time and space to do so; can help develop organizational citizenship behavior. Leaders must be available to them if they are in need of guidance or if they have reached an obstacle that they cannot overcome alone. This support will help further enhance organizational citizenship behavior among generation Y employees.

In contrast to generation Y, generation X view transactional leadership as being more pertinent to developing trust towards the organization. Therefore leaders need to consider the generation X employees that desire a work life balance. Also leaders should listen to the opinions of their employees and encourage them to achieve their objectives. This would further benefit human resource management and enable great trust among employees towards the organization.

The influencing factors on justice among generation X and generation Y differ slightly also. Generation Y appears to derive a sense of justice from clear lines of communication, being treated with honor, respect and fairness. Therefore leaders should incorporate this into their practices and guidelines, to enable them to maximize the potential of the younger generation. Also it should be incorporated into areas such as appraisal methods.

It is imperative for the success of any organization that leaders are capable of maximizing the potential of their employees. As this research shows there is no single way in which to achieve that. Leaders need to be able to consider a multitude of factors that can aim to meet the needs and wants of a diverse range of employees.

5.3.3 Future Research

This study focused on a limited sample group, namely academics and support staff in RMUT, it then further divided them into two groups, generation X and generation Y respectively. There is the potential to expand the scope of this research if future research is conducted.

This research also used a limited number of variables. There is the potential to investigate other variables in the future, such as engagement, working conditions, organizational culture etc.

There is also the possibility to conduct this research on more specific samples, such as executive management, or across a larger sample to include various levels within the organization.

This research found that the perceived influence of transformational leadership on organizational citizenship behavior among generation Y employees is strong. This may merit future research.

There is also the potential to revisit this research at a future date when generation Y employees represent a larger segment of the workforce to see if policies or styles have been changed.

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Declaration

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