



**THE EFFECTS OF TRANSFORMATIONAL LEADERSHIP ON
TEAM INNOVATION: THE CASE OF PRIVATE UNIVERSITIES
IN THAILAND**



JIDAPA CHOLLATHANRATTANAPONG

**A dissertation submitted in partial fulfillment of the requirements for
the degree of Doctor of Philosophy in Management**


The Graduate School, Siam University

2022

©Copyright of Siam University

Declaration

I, Jidapa Chollathanrattanapong, hereby certify that the work embodied in this dissertation entitled " The Effects of Transformational Leadership on Team Innovation: The Case of Private Universities in Thailand " is result of original research and has not been submitted for a higher degree to any other university or institution.


.....
(Jidapa Chollathanrattanapong)

June 9, 2022





Dissertation Approval Form
Graduate School, Siam University
Doctor of Philosophy in Management


Dissertation Title: The Effects of Transformational Leadership on Team Innovation:
The Case of Private Universities in Thailand.

Author: Mrs. Jidapa Chollathanratanapong

Student ID: 6119202002

**The examining committee approved this dissertation submitted in partial fulfillment
of the requirements for the degree of Doctor of Philosophy in Management**

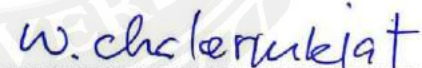
Chairman of Committee


.....
(Associate Professor Dr. Jun Jiang)


Committee


.....
(Associate Professor Dr. Tatree Nontasak)

Committee



.....
(Associate Professor Dr. Chalermkiat Wongvanichtawee)

Committee / Advisor


.....
(Assistant Professor Dr. Chaianant Panyasiri)


Committee / Co-Advisor


.....
(Assistant Professor Dr. Shun-Chieh Chang)


.....
(Assistant Professor Dr. Chaianant Panyasiri)
Dean of the Graduate School of Management

Dated July 1, 2022

Abstract

Title : The Effects of Transformational Leadership on Team Innovation: The Case of Private Universities in Thailand
By : Mrs. Jidapa Chollathanrattanapong
Degree : Doctor of Philosophy Program in Management
Major : Management
Advisor : 
 (Assistant Professor Dr. Chaivanant Panyasiri)

Dated July 1, 2022

This research aimed to study the transformational leadership of executives in private universities in Thailand and how they affect the behavior of employees in the organization. The three objectives of the study were: 1) To study mediating variables and discover the effect of transformational leadership through job characteristics, team learning behavior, and innovation culture that impact team innovation across each private university; 2) To explore leaders' approach in private universities in Thailand towards team innovation; 3) To explain the path analysis of transformational leadership through mediating factors that influence team innovation.

The population in this study consisted of employees at private universities throughout Thailand who worked full-time in the international relations unit and have served in that position and university for one year or more. Four hundred sets of questionnaires were sent to private universities in Thailand for questionnaire responses. The structural equation modeling (SEM) analysis was further conducted with the AMOS program, including confirmatory factor analysis, path analysis, and multiple regression analysis to test research hypotheses according to the established framework.

The study results can be summarized as follows: 1) Transformational leadership achieved a high level of assessment criteria from employees in every aspect; 2) Transformational leadership in educational institutions directly affected job characteristics, team learning behavior, and innovation culture in private universities in Thailand; 3) Transformational leadership in educational institutions did not directly affect team innovation in private universities in Thailand; 4) Job characteristics and innovation culture directly affected team innovation in private universities in Thailand, and 5) The path of transformational leadership which affected team innovation had to be indirectly influenced by job characteristics and innovation culture. This research framework can be further applied to other stakeholders, or it is probably necessary to adjust the measuring tools or instruments to fit the context. This study applied transformational leadership to explore how to cope with external environments and find

the relationship between leadership and the behavior of employees in educational institutions. The study revealed different correlations in each of the surveyed variables.

Keywords: transformational leadership, job characteristics, team learning, innovation culture, team innovation, private universities



Acknowledgments

First of all, I would like to express my sincere gratitude to Dr. Pornchai Mongkhonvanit, my super boss and President of Siam University for the full scholarship and support for my study and work.

I would like to express my profound gratitude to Assistant Professor Dr. Chaiyanant Panyasiri, my supervisor, time, valuable support, encouragement, supervision, and useful suggestions throughout this research work. His moral support and continuous guidance enabled me to complete my work successfully, without him; the completed dissertation would not be possible.

I would like to thank Associate Professor Dr. Jun Jiang, Associate Professor Dr. Tatree Nontasak, Associate Professor Dr. Chalermkiat Wongvanichtawee, and Assistant Professor Dr. Shun-Chieh Chang who gave me valuable comments, their time, valuable support, and encouragement when I commenced my dissertation.

I am grateful for the cooperation of those Private Universities that allowed me to collect the data. Moreover, I would like to acknowledge all my respondents who answered the survey.

Last but not least, I am ever, especially indebted to my family, my husband, and my lovely boy and girl for their love, suggestions, and support throughout my life. I wish to express my appreciation once again to everyone mentioned, who helped me to overcome my doubts in doing this research, initially.

Jidapa Chollathanrattanapong

June 9, 2022

Table of Content

	Page
Abstract.....	I
Declaration.....	III
Acknowledgements.....	III
Table of Contents.....	IV
List of Tables.....	VI
List of Figures.....	VII
Chapter 1: Introduction	
1.1 Background of the Study.....	1
1.2 Significance of the Study.....	5
1.3 Research Questions.....	9
1.4 Research Objectives.....	9
1.5 Scope of the Study.....	10
1.6 Research Methods.....	10
1.7 Expected Results.....	10
1.8 Benefits of the Study.....	11
1.9 Definition of Key Terms.....	11
1.10 Dissertation Structure.....	12
Chapter 2: Literature Review	
2.1 Introduction.....	13
2.2 Theoretical Framework.....	13
2.2.1 Transformational Leadership theory.....	13
2.2.2 Job Characteristic Theory.....	21
2.2.3 Team Learning Theory.....	25
2.2.4 Innovation Culture Concept and Theory.....	32
2.2.5 Team Innovation.....	45
2.2.6 Effect of Transformational Leadership on Team Innovation.....	47
2.2.7 Effect of Team Learning on Team innovation.....	51
2.2.8 Effect of Transformational Leadership on team learning.....	55
2.3 Conceptual Framework.....	58
2.4 Conclusion.....	59
Chapter 3: Research Methodology	
3.1 Method Used.....	61
3.2 Population and Sampling Methods.....	61
3.3 Item Analysis analyzed the quality of the measurement tool.....	62
3.3.1 Validity testing.....	62
3.3.2 Reliability testing.....	62
3.4 Operationalization of Variables.....	63
3.4.1 Independent Variable.....	63
3.4.2 Dependent Variable.....	64
3.5 Questionnaire Pretest.....	65
3.6 The hypotheses.....	68

Table of Content

	Page
3.7 An Analytical Model.....	68
3.8 Statistical Method of analysis.....	69
 Chapter 4: Research Findings	
4.1 Transformational leadership and other characteristics:	
Univariate description.....	70
4.1.1 Personal characteristics of sample.....	71
4.2 Percentage distribution of constructs.....	72
4.2.1 Transformational leadership.....	72
4.2.2 Job characteristic.....	76
4.2.3 Team learning.....	80
4.2.4 Innovation culture.....	81
4.2.5 Team innovation.....	82
4.3 Discriminatory Power, Reliability and Primary Confirmatory Factor Analysis (CFA).....	84
4.3.1 Measurement model.....	84
4.3.2 Discriminatory Power.....	88
4.4 The Structural Equation models and hypothesis testing.....	93
4.5 Conclusion.....	101
 Chapter 5: Conclusion and Recommendation	
5.1 The conclusion.....	103
5.2 Discussion.....	105
5.2.1 Discussion on variable: Transformational leadership.....	107
5.2.2 Discussion on Variable: Job characteristics.....	108
5.2.3 Discussion on Variable: Team learning.....	109
5.2.4 Discussion on Variable: Innovation culture.....	110
5.2.5 Discussion on Variable: Team innovation.....	110
5.3 Recommendations.....	111
5.4 Recommendations for future research.....	116
 Reference.....	 119
 Appendices	
- Appendix Consent forms, survey information sheet and survey instrument.....	132
 Resume.....	 140

List of Tables

Tables	Page
2.1 Types of Job Characteristic	25
3.1 Cronbach's Alpha Coefficient Result	63
3.2 The measurement of research variable	66
4.1 Percentage of all demographic variable	71
4.2 Percentage distribution of idealized influence	73
4.3 Percentage distribution of inspirational motivation	74
4.4 Percentage distribution of intellectual stimulation	75
4.5 Percentage distribution of Individual consideration	76
4.6 Percentage distribution of job autonomy	77
4.7 Percentage distribution of skill variety	77
4.8 Percentage distribution of task identity	78
4.9 Percentage distribution of task significant	79
4.10 Percentage distribution of feedback	79
4.11 Percentage distribution of team learning	81
4.12 Percentage distribution of Innovation culture	82
4.13 Percentage distribution of team innovation	83
4.14 Factor Loading of transformational leadership in measurement model	85
4.15 Factor Loading of job characteristic in measurement model	86
4.16 Factor Loading of team learning in measurement model	86
4.17 Factor Loading of innovation culture in measurement model	87
4.18 Factor Loading of team innovation in measurement model	87
4.19 Assessment results for the measurement model and the reliability for convergent validity	89
4.20 Assessment results for the measurement model and the reliability for convergent validity	90
4.21 Assessment results for the measurement model and the reliability for convergent validity	91
4.22 Assessment results for the measurement model and the reliability for convergent validity	92
4.23 Assessment results for the measurement model and the reliability for convergent validity	93
4.24 Model fit intercept	94
4.25 Hypothesis testing	96
4.26 The squared multiple correlations value	97
4.27 Hypotheses testing	99

List of Figures

Figures	Page
2.1 Conceptual Framework.....	59
3.1 An Analytical Model.....	68
4.1 The modified structural equation model.....	95
4.2 The output of the mediating effect (path analysis).....	98



Chapter 1

Introduction

1.1 Background of the Study

The performance of staff in Thailand's private Universities has continued to motivate widespread interest in research and practice, particularly during a crisis such as the current COVID-19, which requires high levels of innovation to maintain high-quality teaching. The mission of universities in Thailand was to generate a new generation of graduated students, created research projects, delivered service to the community, and nurtured national cultural pillars which related to Thailand's national strategies. This would be beneficial for academic learners in Private universities in the Thai higher education system to transform social values and culture, develop human capital at all stages of life, improve the learning process, settle up intelligence in people, and enhance the well-being of society. Performance relates to the measure of staff accomplishment of their teaching tasks due to investing their effort in the teaching process. Although the indicators that determine the performance of staff remain aspects of practical and theoretical debates (Molefe, 2010), Lesmana and Nasution (2020) insist that concentrating on factors that influence performance should be prioritized as part of continuous quality improvement contexts of university teaching amid prevailing circumstances. Based on the argument by Buasuwan (2018), both public and private Universities in Thailand face a similar set of challenges and opportunities that influence lecturer performances. However, most previous studies focused on government universities and generalized results to private universities. When the Coronavirus pandemic hit the world, all learning institutions were closed as part of the measures to curb its spread. The uncertainty relating to the timespan during which the universities could remain closed necessitated the adoption of alternative teaching methods that spurred a series of changes in universities' operations (Widodo, Ferdiansyah, and Fridani, 2020). In addition to the extant factors that influenced performance, the new normal that occurred during the pandemic, including having to teach and assess students online, brought a new set of opportunities and challenges to

staff performance (Azizaha, Rijalb, Romainurc, Pranajayae, 2020).

Individuals/foundations that manage private universities in Thailand are known to have limited access to resources compared to public universities because they are not funded and supported by the government (Singagerda and Berlian, 2016). Limited access to resources tends to adversely affect their academic performance, particularly staff productivity when additional resources are required. Moreover, staff performance is not a factor that can be immediately measured based on observable variables such as grades that the student achieves and transition to higher levels of learning (Azizaha et al., 2020). Nevertheless, Thailand expects staff to meet the desired level of excellence and provide satisfactory teaching services consistent with the expectations of both students and faculty. The necessity of lecturer performance motivates intensive exploration of the nature of leadership and organizational culture that private universities in Thailand should adopt to raise staff to higher productivity levels.

The higher education policy of Thailand encourages the opening and operating of private universities. The emergence of private universities occurred after the passing of the Private College Act in 1969 which allowed the private sector to establish higher learning institutions (Rungfamai, 2019). However, establishing private colleges has been under strict regulations, including each college having its council responsible for the functioning and internal administrative structure. The number of private universities grew during the 1990s following the Private Higher Education Act. In which regulations increased the flexibility and proliferation of private higher educational institutions. Although private universities have been instrumental in helping the government reduce the currency outflow of currency overseas, the quality of education offered in some institutions remains a primary concern among most of the key stakeholders. Furthermore, Crocco (2018) argues that lack of research and reduced publications indicate the non-performance of the university teaching staff.

Khampirat, Ayudhayaand Bamrungsin (2020) noted that regardless of Thailand being successful in advancing the quality of higher education, several specific requirements have not been implemented to enhance its level of accountability. Accountability requires that Universities remain to maintain quality, accomplish tasks

and satisfy the country's quest for high-quality education. The reformers' perspective is based on the tenet that Universities should continuously innovate new ways through which they can enhance learning. The core aspects that are considered when measuring performance are objectives and verifiable indices (Narayan, 2020). It is worth noting that measuring performance alone without considering factors in the context of teaching that influence performance may lead to biased results. Contextual factors that influence the performance of staff in the Universities are centered on the nature of leadership and culture existing within a university. Although previous research has supported transformational leadership and team learning as the foundational leadership style and culture that motivate staff to improve performance, studies focusing on Thailand's private universities are scarce. Given the variations between Thailand's cultural orientations and the cultures of the West, investigating how transformational leadership and team learning can enhance staff performance in the country's private universities is necessary.

Burns (1978) defined transformational leadership as leadership where leaders and followers raise one another to higher levels of morality and motivation. Another definition is given by Chou et al. (2013), who view transformational leadership as one that creates positive change and value in its followers. However, the definition by Chung and Li (2018) contrasts that of Chou et al. (2013), but similar to Burns (1978), it depicts transformational leadership as leadership behavior or trait. In contrast, motivating subordinates and being a role model inspires improved performance through self and the organization. The study, therefore, takes the definition by Burns (1978), which was simplified by Chung and Li (2018) as a leadership involving leaders and followers raising one another to higher levels of morality and motivation. Transformational leadership and work systems that promote high performance are significantly associated with motivation, which positively affects job performance. This dissertation will find the effects of transformational leadership in terms of innovation, which leads to the development of the concept of academic leader in the future.

The dimensions of transformational leadership include individualized consideration, idealized influence, inspirational motivation, and intellectual stimulation. The focus of idealized influence is to create loyalty, confidence, and identities with the followers such that they follow the leader's example of courage, dedication, and self-sacrifice (Yukl, 2010). Through inspirational motivation, university leaders share their vision to inspire followers (such as staff) to enhance their efficiency and effectiveness when performing their teaching duties. The 'can-do' attitude resulting from inspirational motivation helps team members achieve an organization's targets because it provides explicit purposes for the task and specific goals pursued. Intellectual stimulation helps to increase followers' awareness of problems from a new perspective (Yukl and Mahsud, 2010). This requires support, encouragement, and training from the leaders to sharpen followers. Individualized consideration involves the leader attending to each follower's needs in terms of learning experiences, respect, coaching, and expressing concern for individual needs. Giving due consideration to people's needs at the individual level is a catalyst for improved motivation and high performance (Hu, Gu & Chen, 2013)). However, Sukirno and Siengthai (2011) contend that people's needs are dynamic and exhibit subjectivity such that it is complicated to meet each need. Notwithstanding this challenge, transformational leadership has been linked to high motivation in corporate organizations and public learning institutions (Singagerda and Berlian, 2016; Pongpearchan, 2016).

Transformational leadership is used by leaders to motivate their staff so that they are inspired in their work (Pongpearchan, 2016). This leadership style imparts morality, confidence, and a sense of responsibility in the staff to lead change, innovation, and entrepreneurial capability. The factors that influence staff performance include leadership style, organizational culture, and motivation (Singagerda and Berlian, 2016). Although the study was based on a different national context rather than Thailand, the research findings from Singagerda and Berlian (2016) provided insights relating to the necessity of leaders making efforts to improve staff motivation by availing opportunities to improve their professional career advancement. This can be achieved through developing the existing system through training programs and

policy reformulations to encourage the staff to pursue career advancement.

While the study is not entirely focused on the Thai context, Tagg (2012) observed that in addition to faculties' unwillingness to remove leaders that fail to commit to improving the prevailing methods of education, faculties tend to resist determined efforts seeking to examine their productivity and question standard methods of teaching and learning. This tendency not only demeans the principles of transformational leadership but also questions the extent to which staff is willing to embrace change and accept accountability for their actions. One of the core features of transformational leaders is that they are always willing to accept change to transmit it to others. Embracing transformational leadership in the higher levels of management is important in guiding staff through change (Sukirno and Siengthai, 2011). Changing the teaching methods and learning methods means delivering education using effective methods, which is crucial in assuring staff performance.

1.2 Significance of the Study

The study will provide crucial information that can be applied in team management. The ability of an individual or organization to achieve effective administration and coordination of a group of employees to perform a task is based on empirical evidence. Team management primarily includes the processes of coordinating, communicating, setting objectives, and performing appraisals in an organization. The study seeks to unravel how leaders initiate and guide actions to ensure that the employees achieve the predetermined objectives. Based on the findings from the study, the management teams of organizations will recognize areas of weaknesses in team management that have continued to undermine the functionality of their teams. Given that the findings will come from individual employees, it will be possible to identify exact issues in team learning that deter team performance, hence, enhancing the amount of information available for decision-making processes. The management and leaders in organizations will appreciate the role that they need to play as part of addressing the challenges in team management. Eventually, the functionality of teams will be actualized, hence, leading to improved organizational performance.

The international relations/affairs team need to learn differences in views, values, cultures, and perspective of international students who seek admission to private universities in Thailand. Findings from this study will provide a rich source of information that provides guidance on the needs of students and staff from the international landscape. They will know how to apply the dimensions of transformational leadership such as individualized consideration, idealized influence, inspirational motivation, and intellectual stimulation to influence all staff members regardless of their social, cultural, and economic background toward becoming the best in their areas of specialization or operation. The study will lead to the generation of data regarding the relationship between transformational and team learning and their relationship to team performance. These findings will provide sources for reference for the international relations/affairs team when they want to make decisions about enhancing team performance. Eventually, the quality of service provided by the international relations/affairs team will improve, hence, making them effective in the delivery of their services. The positive ratings will help them get promotions and improve their personal and professional development endeavors.

Team learning of leaders is viewed by Hannah and Lester (2009) continuous evolution of an action, dialogue, and thinking that includes modification of behavior essential and ongoing interaction between team members. Similarly, Chen and Agrawal (2018) viewed it as the process by which individuals acquire new knowledge, develop specific competencies and skills, form experience, and integrate previous knowledge in memory to make information useful in non-routine and routine actions. Finally, team performance is defined as integrated individual expertise efforts by each team member that leads to the desired outcomes (Rao and Kareem Abdul, 2015). Whereas past studies have concentrated on how teamwork among staff helps improve performance, research has ignored the relationship between team learning of faculty leaders and lecturer performance in private universities.

The related effect of Transformational leaders can form employees' perception of job characteristics. Fernet, Trépanier, Austin, Gagné, and Forest (2015) explained the meaningful rationale of sub-dimensions in transformational leadership response in

different option to job characteristic. The leaders can design the job for expected behavior by applying the subjective experience to the work environment of employees. This presents the crucial role of transformational leadership to control the function of the job that motivates the productivity of the employee. The perception in the job always relates to leader behavior. Especially, the employee tendencies to engage in their job, depends on characteristics to manage the organization by leaders. Transformational leadership would encourage the more engaged, more dedicated, and give more authority to employees to perform the outer expectations to the organization (Purvanova, Bono, & Dzieweczynski, 2006).

The significance of leadership and team learning/working is necessary for changes that occur in the operation context. According to Bucic Robinson & Ramburuth (2010), the changes in an economic environment marked by a competitive business environment face firms' ability to adjust and improve their performance. The need for reformed teaching methods in private universities amid the COVID-19 pandemic calls upon leaders in Thailand's private universities to adapt them to suit the new environment. According to Rao and Kareem (2015), to successfully address changes in the business environment, contemporary leadership styles that would inspire teams, create a shared vision, and engage teams in improving the firm's innovation and performance capabilities are critical.

The innovation culture was defined as enhancing the capability benefits implanted in an idea of people in the organization. H. Soken and Kim Barnes (2014) claimed that the innovation was based on the creation of value by individuals and organizations that congruence with their resources. The leaders or organizations must embrace people for new ideas and encourage them to innovative performance. The hierarchy in organizational structure always focuses on the top-down function and this is relevant to the balance between the organization process and leader response. The innovation culture is a particular perspective that extends from the organization element but appears to leader capacity. The concept of leaders to innovation is based on an understanding of innovation and perception to act on it. The characteristic of leader behaviors can contribute to innovation culture and the relative of leader

behaviors varies depending on context (Bledow, Frese, & Mueller, 2011). Transformational leadership was in a critical role to support exploratory and exploitation innovation which realized the internal context and external environment for integrated organizational culture.

The study of team innovation usually was directed by the organizational leaders. The transformational leadership study has instructed the significance of participation and behavioral integration. Members in the organization shared the value creation in the team and utilized team resources which designate information, idea, and perspective to high-quality output because the leader factors support the teams to critically consider ideas for innovations and implement the ideas (Nijstad, Berger-Selman, & De Dreu, 2014). The institutional executive should attempt this kind of leadership characteristic to create an explicit environment that encourages the innovation stimulate behavior as well as operate for organizational performance (Supermane, 2019). Although, the literature on transformational leadership is likely to be related to adapting the follower to face high levels of dynamic change from an external factor. The goals of inventiveness and improving followers' innovation competence must deal with the innovation implementation behavior. It suggests re-examining the effect of mediating variable that could enhance the positive outcome that directly influences the only independence factor (Michaelis, Stegmaier, & Sonntag, 2010). Thus, the transformational leaders have responded to transform their employees to commit the change-relevant behavior for extraordinary performance such as innovation among members of the organization.

Thus, Chen and Agrawal (2018) found that a transformational modern leadership style has been critical in implementing work systems that would allow teams to learn and come up with strategies to adapt to changes in the business environment and ensure the success of the organization. Therefore, this study intends to enhance how the new/modern leadership can help institutional leaders adapt themselves to suit a new environment and enhance team learning, performance, and organizational success. Thus, findings from the study will enable Thailand's private universities to identify ways of applying transformational leadership and team learning

to maintain the performance of staff during the COVID-19 pandemic and beyond.

This study aims to identify relationship of transformational leadership and others. The analysis of model could answer the desired behavior for staff in private universities in Thailand. The university directors must create the human resource management practices and reformulate organization policy for implement on administrative process. Additionally, the findings will open up new debates and survey the links of each variables in the literature that can be addressed in the transformational leadership model for private universities. Thus, the results will not only contribute to the literature on transformational leadership, job characteristics, team learning behavior, innovation culture, and team innovation. The results will also provide background information for future researchers and academicians with an interest in similar themes.

1.3 Research Questions

1. What is the effect of transformational leadership through job characteristic, team learning behaviour, and innovation culture that impact team innovation across each private university?
2. What is the approach of leaders in private universities in Thailand towards team innovation?
3. What is the best path of relationship from transformational leadership principles to team innovation?

1.4 Research Objectives

This study aims to investigate the impact of transformational leadership and team learning of leaders on the performance of lectures in private universities in Thailand. To achieve this aim, the study seeks to focus on three specific objectives, namely:

1. To study mediating variable and discover the effect of transformational leadership through job characteristic, team learning behaviour, and innovation culture that impact team innovation across each private university.
2. To explore the approach of leaders in private universities in Thailand towards team innovation.

3. To explain the path analysis of transformational leadership through mediating factor that influence to team innovation.

1.5 Scope of the Study

Thematically, this study is centre on the three thematical areas of transformational leadership, team learning, and team performance.

1. Contextually, this study is limited to only private universities in Thailand. All other private universities outside Thailand and government universities within Thailand will not be included in this study.

2. Methodologically, the study will use mixed methods, which will involve collecting and analysing quantitative data.

3. Data collection, this study will collect data from Team International Affairs, Admission Team and Recruitment team only

1.6 Research Methods

This research is quantitative research primarily using a structural equation modelling (SEM) statistical tool to test the hypotheses and the validity of the constructs and the proposed model. The participants are instructor and officer of private universities in Thailand (72campuses). The universities were selected criteria on the international affair or international program. The questionnaire used in this research has 66, 7-point Likert-Scale, items based on transformational leadership in executives, managers or supervisors and employee behaviour factors which related topics.

1.7 Expected Results

The dissertation investigates the impact of transformational leadership and team innovation on staff performance in private universities in Thailand. It is expected that there will be a positive relationship among transformational leadership, job characteristic, team learning, innovation culture and team innovation behaviour in

Thailand's private universities. The supposed finding that transformational leadership will lead a better performing to team innovation through employee behaviors' mediating variable. Furthermore, the intentions to deliver the private university administrators or instructors with empirical and practical guidelines in how to survive competition in the private and public educational institute with attitude of leaders. This thesis can also expect the root of the construct that leading to team innovation performance. Finally, the possibility of educational leadership makes a clear understanding for applying their policy with context of employee relationships in the private university.

1.8 Benefits of the Study

1. The study releases a new management guideline that will help leaders of private universities in Thailand enhance staff performance.
2. Findings from the study are pertinent to other learning institutions. The learning institutions can adopt the ideals of leadership and team learning spelt out in this report to enhance their staff's performance.
3. The results from this research can act as a guideline for future researchers interested in unravelling the true nature of transformational leadership and leaders' team innovation concerning staff behaviour within and outside Thailand.

1.9 Definition of Key Terms

Term	Definitions
Transformation leadership	Leadership where leaders and followers raise one another to higher levels of morality and motivation (Burns, 1978)
Job Characteristic	The employee condition to accept the intrinsically motivated when performing a job (J. R. Hackman & Oldham, 1976).

Team Learning	The continuous evolution of an action, dialogue, and thinking include modifying behaviour and ongoing interaction between team members (Hannah and Lester, 2009).
Innovation culture	The set of shared notions, values, beliefs, attitudes, and behaviours among the organizational members that could assist to invent and to improve new products, services, or process innovation (Ali & Park, 2016).
Team innovation	The new idea from the team member that integrated between innovation perspective and valuable performance for organization (Li, Li, & Lin, 2018).
Private university	A higher institution of learning is not operated by the government but is subject to government regulation (Purwanto et al., 2019).

1.10 Dissertation Structure

This thesis has five chapter. Chapter 1 is introducing of background study, significance of the study, research objective, research question, scope of the study, methodology introduction, expected results, benefit of study, and definition of key terms. In chapter 2, This is including all review literature on related of definition, concept, theory, and conceptual framework. The research methodology is in chapter 3 which has research design, questionnaire detail, and hypothesis. The descriptive analysis, structural equation model, and other characteristic of statistic are in chapter 4. The last chapter is the conclusions of study and discuss all the result for this dissertation.

Chapter 2

Literature Review

2.1. Introduction

Transformational leadership is a concept that has been educated in many contexts because the organization has an effort to develop employee performance by giving importance to the organizational procedure and applying a new process to stimulate members in the organization. The dynamic of the education system brings changes to the learners. Thus, in this study, the review literature is focused on the effect of transformational leadership on team innovation. The chapter first illustrates the concept of transformational leadership, job characteristics, team learning behavior, innovation culture, and team innovation, through the theories that explain each of them. Secondly, the chapter evaluates the effect of transformational leadership on job characteristics, team learning behavior, innovation culture, then the effect of transformational leadership on team innovation. Thirdly, the study looks at how transformational leadership effect team innovation and finally provides a conclusion summarizing the chapter findings. The objective of this chapter is to contribute to the significance of theoretical concepts in the private university. In brief, this study attempted to find the result of the transformational leadership model in another set of education context.

2.2 Theoretical Framework

2.2.1 Transformational Leadership theory

The original concept of transformational leadership began received in the political field with a work by James MacGregor Burns (1978). The idea of leadership is shifted to management by Burn (1978) refers to leaders and followers raising one another to higher levels of morality and motivation. The meaning of transformational leadership goal is to raise followers' consciousness through the appeal of moral values and ideas, i.e., humanitarianism, peace, justice, liberty, and equality. The notion of

transformational leadership elevates the followers to their better selves. Transformational leadership is an uplifting process with high-order goals, the leader looks for potential motives in followers, and seeks to satisfy higher-order needs so that through a process of mutual stimulation they ‘unite in the pursuit of higher goals, the realization of which is tested by the achievement of significant change’ (1978, p. 425). Therefore, Burns leadership is a mobilization process by persons with motives and values, various ‘resources in a context of competition and conflict, in order to realize goals independently or mutually held by leaders and followers’ (1978, p. 425).

The theory of transformational leadership was developed by Burns (1985) from his early ideas in 1978. The theory of transformational leadership has two different kinds of processes of leadership, which are transactional leadership and transformational leadership. In transformational leadership which leaders influence followers through admiration, trust feeling and respect towards their leaders, the followers are expected to perform even more than they are expected to do.

Transformational leadership refers to that leaders use idealized influence (charisma), inspiration, intellectual stimulation, or personalized considerations to enable followers to surpass their immediate self-interest. It increases the maturity and ideal level of followers, as well as attention to achievement, self-realization, and the well-being of others, organizations, and society. It increases the maturity and ideal level of followers, as well as attention to achievement, self-realization, and the well-being of others, organizations, and society. When leaders envision an ideal of the future, articulate how to achieve it, set an example to followers, set high-performance standards, and show determination and confidence, the followers will demonstrate idealized influence and inspiring leadership. Followers hope to identify with such a leader. When leaders help followers become more innovative and creative, they show intellectual stimulation. Individualized consideration is displayed when leaders pay attention to the developmental needs of followers and support and coach the development of their followers. The leader's delegate assignments as opportunities for growth. (Bass 1999)

What the transformation leader does, as viewed by Khan and Khan (2014), is that the leader focuses on followers' motivation through three strategies. Firstly, the transformational leader makes the followers aware of the critical role of outcomes of tasks. Secondly, by doing these, the followers are induced to transcend their personal self-interest and instead focus on the team or organizational goals. Finally, the leaders activate the high-order needs such as a sense of belonging and identity, and through this, teams are inspired and motivated to work together towards common goals rather than individual goals. From this view, it can be argued that the transformational leadership theory's major premise is motivation and inspiring followers to enhance their performance as a group or overall organizational performance rather than the transactional view of individual performance. (Wang & Howell, 2012)

Different studies have focused on transformational leadership such as Howell and Avolio (1993), Bass (1999), and Avolio et al. (1999), who identified that transformational leaders have the idea that rather than focusing on individualized self-interest, the organization can get greater outcomes when teams work together rather than having followers pursue their self-interest first. In relation to team effectiveness, Murphy and Ensher (2008) were of the view that leadership had a significant role to play, the leader focuses on the behavior and traits of their followers and presents an innovative vision to the followers through powerful communication channels of delivering individual thoughts. Mainly, the premise under which transformational leadership is critical in job characteristics, team learning behavior, innovative culture, and team innovation is that the leader acts as a role model and motivates the followers to achieve work performance goals. (Sosik, 2005)

The significance of using transformational leadership theory in the study is understanding what transformational leadership is and why transformational leadership is important for job characteristics, team learning behavior, innovative culture, and team innovation. There is a high relationship identified in the study by Paulsen, Maldonado, Callan, and Ayoko (2009) between transformational leadership and team performance that exists as the leader tries to idealize motivation to the followers as a role model. The idea of a transformational leader is that by being the role model and motivating the

followers to follow in the footsteps of the leader, the leader is able to influence higher learning and team performance. Indeed, a transformational leader was found by Babcock-Roberson and Strickland (2010) to positively influence the performance of the followers through behaviors of organizational citizenship, innovation, satisfaction, commitment, and performance. The aspect of team learning comes when the team wants to be innovative, which requires the team to work together and learn to create new ideas, take a risk and employ such ideas in the workplace for superior performance. Therefore, the theory of transformational leadership is critical for mission teams as it helps them to learn to do things in a unique way, increase their commitment and enhance their performance not as individuals but as a group.

Leaders don't need to be formally elected, provided that the particular leader can guide subordinates and aligns their efforts towards realizing a central objective, and then they will become acceptable as leaders (Hoch, Bommer, Dulebohn, and Wu, 2018). Unfortunately, this perspective does not accommodate for the power gained by leaders through motivating their followers. It is later explained by Lee (2010) that leaders are capable of inspiring others to perceive and interpret reality from a different perspective, and this stimulates followers to exert additional efforts to actualize organizational objectives. In a similar vein, Guevara (2016) opines those leaders are capable of inspiring confidence in their subordinates; they achieve this by either motivating them through speeches and messages or by cultivating a positive emotional atmosphere. Studying leadership is concerned with the manner of leading done by leaders and the manner of inspiring, motivating, and influencing their followers. (Smith, 2015)

Therefore, transformational leaders inspire their followers to undertake more than they had initially been expected to undertake (Andriani, Kkesumawati, and Kristiawan, 2018). Similar to most leaders, transformational leaders set their objectives for their followers to achieve; however, transformational leadership moves further than basic central objectives and requests the followers to go beyond their self-interest and realize a common goal (Buil, Martinez, and Matute, 2019). While doing that, they can also formulate their skills to realize the target that is beyond the said central goal. Thus, transformational leadership theory is predicated on changing followers into individuals

who are self-motivated and selfless. Boamah, Laschinger, Wong, and Clarke (2018) further add that transformational leadership takes place after at least one person engages with others in a manner that followers and leaders raise each other to enhanced levels of morality and motivation. From this perspective, transformational leadership ought to provide different aspects of moral uplift to those around them.

At times, transformational leaders are deemed as quiet leaders; instead, they always lead by proving these active behavior examples. Bernarto, Bachtiar, Sudibjo, Suryawan, Purwanto, and Asbari (2020) add that their empathy, rapport, or inspiration to engage followers; possess confidence, courage, and a desire to sacrifice for the greater good. They have a blinkered focus to streamline or alter things that are no longer contributing to productivity. Transformational leadership enhances workers and comprehends how to create them into important units that work well with other people (Anderson, 2017). Transformational leaders tend to create cultures in the workplace, where active thinking through stimulating them from an intellectual perspective and the subsequent culture incentivizes followers to become more involved within the organization (Mahmood, Uddin, and Fan, 2019). The benefits of the transformational theory are that it emphasizes organizational integrity and tasks, which assists in focusing their attention on tasks that are more appropriately defined. Zuraik and Kelly (2019) contend that the theories emphasize cooperation, ethics, and community, over and above the higher human values. Nonetheless, transformational leadership theories can enhance harmony in situations that could otherwise be enhanced by organizations that are quarrelsome. This is because transformational leadership theories are adaptive and can be tailored to assist the fulfillment of the most pressing needs of people. (Bernarto et al., 2020)

2.2.1.1 Criticism of Transformational Leadership Theory

Though extant research by Para-Gonzalez, Jimenez-Jimenez, Martinez-Lorente (2018) and Yue, Men, and Ferguson (2019) revealed that transformational leadership has a tendency to over spreading to positivism in any organization, Niessen, Mader, Stride, and Jimmieson (2017) argue that there are significant limitations of transformational leadership. For instance, there is a widespread tendency to

contextualize leaders as 'great men.' Of a similar opinion, Jiang, Zhao, and Ni (2017) add that transformational leadership is characterized by a strong heroic bias; in their assertion, transformational leadership is an idealized, perfect, and leadership form of leadership. Nevertheless, in responding to the criticisms that rallied at transformational leadership, Bednall, Rafferty, Shipton, Sanders, and Jackson (2018) distinguish between pseudo-transformational leadership and transformational leadership. For example, the 'Hitler problem' is many times debated in literature on leadership, and scholars who criticize transformational leadership assert that Hitler contextualized a transformational leader who negatively exploited their emotional appeal. To Bass (1999) asserts that the transformational leader who is unethical is pseudo-transformational. These leaders differ from transformational leaders based on moral development in an essential attribute of a truly transformational leader. Nonetheless, Bass (1999) falls short of specifying how to address pseudo-transformational leaders or, more significantly, the manner of identifying such leaders who hide behind the guise of transformational leadership. Similarly, the pseudo-transformational leader behaves like a transformational leader. But the immoral or unethical side of this remark only shows up in the latter stages (Amor, Vazquez, and Faina 2020). Underpins the fact that transformational leadership theory is similar to the 'Great Man Theory' in some ways that conflict with the similar perspective of transformational leadership. Heroic leadership bias could naturally have dire ramifications, in such a case that followers blindly adhere to everything the leader states (Stewart, 2006).

According to Stewart (2006), the transformational leader is always highlighting what one can do for their country; this means transformational leadership is concerned with how and what followers can contribute to the organization, and not the other way round. Ideally, transformational leaders encourage their followers to focus and exert exceptional and extra efforts to realize central objectives or common goals (Bednall et al., 2018). From this point of view, the influence is presumed to lack direction, and it flows to the follower from the leader. The risk of such influence that lacks direction makes the followers more vulnerable and open to deception (Jiang et al., 2017). Furthermore, transformational leaders are keen on shifting the mindset of the followers away from distributional questions and refocusing them on communal interests or

common goals. This inference asserts that leaders are placing themselves above the needs of their followers, and therefore it is considered undemocratic (Crede, Jong, and Harms 2019). However, Hoch et al. (2018) disagree with this criticism contending instead that the transformational leadership theory can be participative and democratic; but this does not take away the nuance that the anti-democratic and autocratic assertion still remains.

Hetland, Hetland, Bakker, and Demerouti (2018) opine that transformational leadership is idealized and this often culminates into a blind trust in the leader. The heroic leadership bias is exaggerated by the blinkered obsession of the leader. The risks and dangers are significant, particularly where the vision and mission of the transformational leader are unethical and deceiving (Crede et al, 2019).

Moreover, transformational leadership theory is criticized for lacking conceptual clarity. In turn, this leads to ambiguity in measuring and assessing the efficacy of transformational leadership. The four attributes of transformational leadership theory as advanced by Bass (1999) have significant overlap.

Transformational Leadership Style Definition

1. Idealized Influence The leader's ability to affect follower to characterize the leader and organization
2. Inspirational Motivation The leader's ability to convey mission, vision, or organization goal which are attract to follower
3. Intellectual Stimulation The leader's ability to give a challenge mission, take a possible chance, and concern employee's ideas
4. Individualized Consideration The leader's interest to followers' needs, behave as coaches or mentors, and be a good listener for follower

Authoritative scholars on the transformational leadership (such as Hetland et al, 2018; Lee, 2014) apply terms like 'intellectual stimulation', 'idealized influence', 'individualized consideration, and 'inspirational motivation.' to transformational leadership. However, Stewart (2006) argues that these terms should not be employed interchangeably, because they are unique from a conceptual perspective. In reality, Amor et al (2020) contend that it is not common to envision a leader that is capable of demonstrating consideration to the followers (such as exhibiting idealist considerations) but is unable to show confidence and power (such as exhibiting idealized influence). Thus, Bednall et al (2018) note that there is ambiguity in explaining the four attributes of transformational leadership, and their employment generates doubts regarding construct validity.

Leaders possessing the ability to influence and engage others can employ transformational leadership theory (Jiang et al, 2017). Such leaders are charismatic because they can inspire others and this attribute is pertinent in forging dynamic relationships between followers and leaders. To many scholars (such as Bednall et al, 2018; Amor et al, 2020) the elements of transformational leadership are characterized by individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence. These aspects are premised on a particular behavioral set in leaders to create a central vision and attain organizational objectives.

Zuraik and Kelly (2019) opine that many limitations emerge from transformational leadership if the leaders at the workplace fail to prioritize equity and multiculturalism. The value of transformational leadership theory is experienced from a multicultural point of view because it permits different viewpoints of understanding how issues and needs are identified in different workplace environments. However, as Anderson (2017) argues, the absence of cultural understanding and awareness makes it leaders challenging to implement change. Without comprehending the backgrounds, cultures, and perspectives, it can be challenging to surmount conflict and misunderstandings among groups to commence the transformational leadership theories process. When all the scholarly contributions are combined, it is noteworthy that culture influences the shared vision in modern workplaces; it also influences how to motivate leaders to adopt positive behavior to work toward equity. (Bernarto et al,

2020)

Transformational leadership theory is often criticized for over-simplifying motivation because, in instances where all persons within the workplace are motivated to undertake a particular task, it does not assure them of successful completion of tasks (Boamah et al, 2018). When the leader is over-enthusiastic, it is quite easy for the crowd to be judged regarding whether the objectives and goals of the organization are realistic. This is further exacerbated by the fact that it is possible for there to be over-dependent on the leader (Anderson, 2017). The organizational members can resent their ability to act as individuals is restricted. More so, modern workplaces are dynamic, and people have varied personalities, and some could be more ambitious compared to their counterparts, and there is a danger that they will feel that they are being pushed beyond what they are capable of handling (Zuraik and Kelly, 2019). Further, some employees tend to work better as individuals, as opposed to collaborating within a team environment.

Additionally, there are instances where it is challenging to evaluate whether the workers are merely cooperating or conforming to what is expected of them because of the general target and focus on achieving central goals by transformational leadership theory; there is a risk that people merely want to go along, to get along, and this can mean less productivity (Buil et al, 2019).

2.2.2 Job Characteristic Theory

The Job Characteristics Theory, also known as the Core Characteristics Model, is a theory of work design developed by Greg R. Oldham and J. Richard Hackman in 1974. It is widely used as a framework to study job design, and how job outcomes, including job satisfaction, are affected by particular job characteristics. The basic instrument described in the theory is called the Job Diagnostic Survey (JDS). The JDS taken by employees who work on any given job and provides measures of each concept in the theory sketched above for that job. In addition, the instrument provides several supplementary measures of the respondent's reactions to his or her work (Hackman & Oldham, 1974), and the specific measures obtained from the JDS are described below.

1) Job Dimensions. The JDS provides five core dimensions measurement, which is described as the following:

Job autonomy. Autonomy refers to “The degree of job which provides the freedom to an employee with self-determination to working in the organization” (Hackman & Oldham, 1974)

Skill variety. Skill variety concerns “The degree of job which was in a various activity to complete the job. The employee must use numerous skills and talent in personnel” (Hackman & Oldham, 1974).

Task identity. Task identity is described as “The degree of job which necessitates completing the entire work and recognizable amount of job —that is, doing a job from beginning to end with a visible outcome” (Hackman & Oldham, 1974)

Task significant. Task significance describes “The degree of job which extensively influence to the other lives or work in an organization or the external environment” (Hackman & Oldham, 1974)

Feedback. Feedback is described as “The degree of job which returns the result of job to the employee by opened information. The employee can use the information for their progress in work” (Hackman & Oldham, 1974).

2) Critical psychological states. The JDS provides three psychological states of measures, which are viewed as the mediating between the core job dimensions and the outcomes of the work. Which are:

Experienced Meaningfulness of the Work. The degree to which employees perceive as a generally meaningful, valuable, and valuable work.

Experienced Responsibility for Work Outcomes. The degree to which the employee feels personally responsible and responsible for the results of his or her work

Knowledge of Results. The degree to which the employee continues to know and understand the efficiency of his or her work.

- 3) **Affective reactions to the job.** The JDS provides measures of some personal, emotional reactions or feelings that a person obtains from performing work. Those can be found in the contexts of the theory, called “personal outcomes” obtained from doing the work. The instrument measurement did not measure the actual work productivity or employee perceptions of their productivity, it measured from the below concepts:

General Satisfaction. The employee’s satisfaction with the job and the overall measure of satisfaction.

Internal work Motivation. The degree to which the employee is, self-motivated to work hard and perform effectively on the work. i.e., the employee got positive internal feelings when they work effectively on their work and got the negative internal feeling when work ineffectively.

Specific Satisfaction. A number of small, short scales provide separate measures of satisfaction with job security; pay and other compensation; social satisfaction; supervision, and opportunities for personal growth and development on the job ("growth" satisfaction)

- 4) **Individual growth needs strength.** Finally, the JDS found out the strength of the respondent's desire to achieve “growth” satisfaction from his or her work. This measure is regarded as a malleable characteristic of individual differences, which is expected to affect the degree of positive response of employees to jobs with an objective and high motivation potential.

- 5) **Development Strategy.** The JDS itself has been under development and refinement for years, the following strategic considerations have guided its development:

1. Linking the instrument to a specific theory of work design and worker motivation closely.
2. Providing more than one methodological format for assessing the theory-specified variables.

3. Maintaining a clear distinction between descriptions of the job and affective reactions to the job.

6) Refinement of the Instrument. The revision is based on psychological measurements and consideration of revisions. On the one hand, the format of the project has been added, deleted, and changed general and general contempt scales. However, in one place, detailed analysis is used as a conceptual presentation of the theory discussed by the assessment tool based on, collecting data for revising and perfecting the theory and simultaneously with equipment, launch, possible quantity, and size not essential difference from the final version of the instrument then repair it from an immediate investment.

A fundamental classification in the job characteristics literature is Hackman and Oldham's (1974) Job Characteristics Model, JCM includes five job characteristics: autonomy, skill variety, task significance, task identity, and feedback. Using the research evidence of the model, the multiplication or addition index of the job characteristic that shows the job characteristic predicts the psychological result of the model better than any kind of work characteristic action (Fried & Ferris, 1987). The five dimensions in the Job Characteristics Model are mainly related to personal work experience, which is different from other parties, such as subordinates, colleagues, supervisors, or customers.

Most research has supported the validity of the Job Characteristics Model (JCM), (Hackman and Oldham's (1974)) as the degree to which a job requires various activities in carrying out its work, which involves the use of many skills and talents of employees. Coelho and Augusto (2010) stated that task identity encourages people to think that work is meaningful and worthwhile, thereby inspiring employees to work smartly. Task significance has been defined by Hackman and Oldham (1974) as the degree of job which extensively influences the other lives or works in an organization or the external environment. Hackman and Oldham (1974) further explained that autonomy is the degree of job which provides the freedom to employees with self-determination to working in the organization. It is a vertical extension of responsibility, allowing for the amount of decision-making and independence of employees. According to Coelho and Augusto, (2010) autonomy can be motivated and

enable employees to try new ideas and learn new things from the consequences, and expand their domain-relevant skills. Hackman and Oldham (1974) defined feedback as the degree of job which returns the result of the job to the employee by opening information, the employee can use the information for their progress in work. Top management needs to give feedback to the employees so that they know which areas need to be improved and it can lead to a better understanding of their work nature. (Coelho & Augusto, (2010). The five main types of Job characteristics are shown as below (See table 2.1 below).

Table 2.1 Types of Job Characteristics. (Hackman & Oldham, 1974)

1. Job characteristic	Job characteristic can define the specific to a job in a particular organization. It is best articulated under five main types:
1.1) Job autonomy	The degree of job which provides the freedom to employee with self-determination to working in organization.
1.2) Skill variety	The degree of job which was in a various activity to complete the job. The employee must use numerous skills and talent in personnel.
1.3) Task identity	The degree of job which necessitates to complete the entire work and recognizable amount of job.
1.4) Task significant	The degree of job which extensively influence to the other lives or work in organization or the external environment.
1.5) Feedback	The degree of job which return the result of job to employee by opened information. The employee can use the information for their progress in work.

2.2.3 Team Learning Theory

Despite the fact that there exists vast literature relating to team learning, there is no definite definition of team learning. However, early studies by Levitt and March (1988) and Cook and Yanow (1993) view team learning to be measured as an outcome, but should not be confused with the performance thus it means that team learning is achieved when there is a change achieved. Edmondson (1999) and Argyris and Schon (1996) focused on the team learning theory with the goal of understanding the activities of team learning carried out by teams through which the members of the team are able to acquire and process data that is responsible for teams to improve and to adapt, thus ensuring better performance of teams. According to Huber (1991), team learning activities include acquiring information, distributing, interpreting, retrieving,

and storing information that can help teams to improve performance.

Team learning to Van Woerkom and Croon (2009) is defined as a permanent change in the collective level of team skills and knowledge produced through teams' shared experience. However, learning according to Wilson, Goodman, and Cornin (2007) and Hackman and Wageman (2005) does not involve team performance change, same as improved performance in the team is not always a result of learning. This makes it important to differentiate between the learning process of teams and outcomes from such a team learning process. However, information distribution and acquisition are viewed by van Woerkom and van Engen (2009) to be intertwined and thus, the team learning process can include accusation of information, processing, storage, and retrieval for purpose of team skills and knowledge development as well as team growth to achieve the desired outcomes.

Team learning is an interrelated process that has 5 procedures whereby collective thinking is indirectly connected to collective practice and action (Bunderson and Sutcliffe, 2003). These procedures include integrating perspectives, crossing boundaries, experimenting, reframing, and framing. Ellis, Hollenbeck, Ilgen, Porter, West, and Moon (2003) insist that despite differentiating the different processes in this interaction, it is imperative to appreciate that they are interdependent, and they interact with each other intending to generate new knowledge. According to van Offenbeek (2001) teams can experience at least three stages of learning: synergistic, pooled, and fragmented. This means that there is a certain configuration of learning conditions and processes that characterize the learning state of the team. However, using 'stage' in adult development theory means that progression takes place when the needed tasks are undertaken, and issues are resolved. After solving one stage, focus and effort are shifted to the next stage, and it is never revisited (van der Haar, Koeslag-Kreunen, Euwe, and Segers, 2017). Nevertheless, in the case of team learning, the stages are often non-linear, which means that groups could shift from one side to the next as conditions changed. For instance, by changing the goals, or introducing new members to the team (Zellmer-Bruhn and Gibson, 2006).

In the segmented phase, people often learn as separate entities, and this means that the group does not learn holistically (Hawkins, 2014). Members of the same team will always retain their unique views. In the pooled segment, the team members commence sharing information and viewpoints for the sake of efficiency and effectiveness of the entire team. At times, small teams of individuals gain knowledge by combining meanings from selections within the pooled information database. As a unit, the group does not learn because they are yet to reach the point where the processes and conditions permit them to create shared meanings that are uniquely their own (Yoon and Kayes, 2016). These alterations when the segment moves to the synergistic phase where mutual knowledge and creation take place. Divergent points of view are combined through dialectical processes that create meaning. To know that the group has moved into the synergistic stage is through the presence of metaphors made through dialogue. (Hawkins, 2014)

Raes, Decuyper, Lismont, Van den Bossche, Kyndt, and Dochy (2012) showed that the process of team learning is strongly related to the type of leadership adopted by organizations. The team is more likely to learn and perform better when they have to enable leadership than when the same teams operate in an environment where leadership cannot enable learning. This is where the transformational leadership theory is strongly related to the team learning theory. Eagly and Hohannessen-Schmidt (2003) indicated that transformational leadership theory provides a viable climate needed for team learning by empowering team members to move beyond the notion of self-interest to provide charisma or idealized influence, inspiring motivation, intellectual stimulation, and individualized consideration that directly ensure learning. Specifically, idealized influence relates to qualities that motivate pride and respect in associating with the leader while individualized consideration relates to a particular focus on the monitoring and development of team members that also ensure that the individual needs of the team for learning are enhanced (Hackman & Wageman, 2005). Further, intellectual stimulation is where the leader motivates or challenges followers to take risks, challenge assumptions and solicit ideas of team members which ensures that learning is enhanced in the organization (Mengesha, 2015). Finally, it is through inspirational motivation that the leaders facilitate and articulate a vision that inspires

and appeal to the team members to continue learning so that they can adapt and at the same time work towards the outcomes that are desired by the organization. Therefore, transformational leadership as identified by Raes et al. (2013) has a visionary aspect that allows leaders to inspire motivation among the followers who in this case are team members to learn and provide meaning to the assigned tasks.

The link between transformational leadership and learning theory is significant to this study because it shows how transformational leadership impacts both learning and team performance by challenging teams to continue taking risks and being creative in a manner that enhances their performance. Specifically, Janse, Vera, and Crossan (2009) were of the view that transformational leadership theory can be employed in the context of team learning because it supports innovation, which must be supported by learning where the members of the team are encouraged to think outside the box. For team members to feel free and safe Zaccaro, Ely, and Shuffler (2008) further added that the team members search for critical information and share such information that supports innovative performance and ensures that teams are searching for new knowledge to understanding the changing market demands and thus meeting such demand. In the context of mission teams, such teams deal with people from different cultural orientations, and thus, through team learning, the teams are able to innovatively create solutions for students from different backgrounds and orientations (Hackman & Wageman, 2005). The reasoning behind transformational leadership and team learning is that the transformational leaders challenge the teams to take on new challenging tasks and do things in a unique way which requires continuous learning through exploration of new knowledge and brainstorming (Hannah & Lester, 2009).

2.2.3.1 Group dynamics and team learning theory

Kolb and Kolb (2009) assert that capacities for managing tasks are related to operating principles or learning conditions, and interpersonal relationships to individual expressions. Healthy group dynamics are a necessary ingredient for team learning since they provide a fertile premise for the germination and growth of knowledge. For instance, conflicts can happen in instances when members of the same

team cross boundaries to gain new points of view (Boseli, Brewster, Paauwe, Van Woerkom, and Croon 2009). Pearsall and Venkatramani (2015) opine that before members can gain knowledge through conflict, they need procedures for working out their differences; these are the operating principles. They also need to consider and hear the ideas of other people (appreciating the teamwork of other persons), and all people in the group have the chance to provide input (an expression of the individual). Nevertheless, Penarroja, Orengo, Zornoza, Sanchez, and Ripoll (2015) contend that healthy group dynamics in place do not provide assurances that there will be collective learning among the same team members. There are additional attributes that are required.

For instance, the team learning process cultivated by supportive conditions entails cognitive processes (integrating perspectives, reframing, and framing), and two behaviors that are interconnected (experimenting and crossing boundaries). According to Bresman and Zellmer-Bruhn (2013) teams can work their way through the developmental phases of performing, storming, norming, and forming; but this does not guarantee that they will create novel information through the learning process, such as the perspective or reframing integration.

Team learning occurs over time, and this means that it is imperative to appreciate teams in the context of the time (Gibson and Vermeulen, 2003). As indicated, team learning takes place when it is shared among the team members, where is scaffolded and discussed against existing knowledge; these are then stored and retrieved later. However, team learning does not occur instantly, or in one single moment; rather, it takes place over time in a series of different interactions (Rauter, Weiss, and Hoegl 2018). Thus, there is a need to understand team learning as a process, and team learning as an outcome.

Team learning as a process

Processes are what drive team learning over time; it is an ongoing behavioral process. The processes are premised on team learning behavior, which Ellis et al (2003) categorize as fundamental, inter-team, and intra-team learning behaviors. Regarding

intra-team behaviors of learning, these illustrate the internal processes that are within teams, identifying and filling in the gaps within the collective knowledge, as well as challenging, testing, and exploring assumptions (Zellmer-Bruhn and Gibson, 2006). Examples of intra-team learning behaviors include experimenting, making inquiries, constructive criticism, discussing outcomes and errors, and exploration; this shows that intra-team learning behaviors do not reflect the actions of different forms of sharing knowledge with the team, rather it is concerned with how the team sources new information from their team members and how this knowledge is infused into their collective knowledge (Hawkins, 2014). Regarding inter-team learning, behaviors take place when the teams search and incorporate information from individuals who are not their team members. Behaviors like seeking feedback and asking questions can be indistinguishable from intra-team learning behaviors; the ramifications of these actions are quite different. Non-team members are likely to introduce novel and different viewpoints to the dynamic of the teams compared to the team members (Yoon and Kayes, 2016).

Hawkins (2014) supports such learning because different perspectives can easily promote innovation, and aid in understanding intricate problems, new points of view can inject expertise about certain issues that none of the team members has fully grasped. The risk of this is that there might be drastic changes in the collective knowledge of the team, which can either be helpful or they can contribute to decrements in coordination and a rise in conflicts (van Offenbeek, 2001). Fundamental learning behaviors are the basic process of learning that promotes learning within the teams; these are actions that individual members of the team take to retrieve, store and share information (Hawkins, 2014).

Team learning as an outcome

To appreciate how teams learn over time, appreciate that learning is a phenomenon that is temporarily infused, whereby the knowledge state is shifted from one point to another. Therefore, it is logical for any team learning conceptualizations to possess the same temporal properties. Team learning outcomes require showcasing a change in collective knowledge over a stipulated time frame (Boon et al, 2013).

According to Colenso (2012), this is often approached from two points of view; team learning and learning curves. Team learning is a change in the collective information and knowledge; which is the knowledge that the entire team possesses as a unit, and it is not limited to one individual. Thus, when one individual or more individuals leave the team, the collective knowledge should remain (Rauter et al, 2018). The premise of this is that when individuals leave their group, and subsequently the group is unable to access their learning, then the group has been unable to learn. This means, that for collective knowledge to take place, the team members must integrate and interact to access the different information that is individually held, in the collective knowledge of the state (Pandey et al, 2019).

Nevertheless, whereas the team learning conceptualizations represent the most direct form of learning within teams, it is impossible to assess the information directly (van Offenbeek, 2001). One must identify the precise instant moment when knowledge left one person and it became held by the entire group. Thus, it is unsurprising that different proxies such as transactive memory systems and the team shared models are more commonly employed in inferring team learning (Ellis et al, 2003). Transactive and team mental model systems reflect the safeguarding of the team's collective knowledge; though in myriad ways. The collective understanding of different aspects of the operational systems of the teams is impacted by team mental models, concerning structure (relationships between the different elements of knowledge) and content (what the teams know) (Bunderson and Sutcliffe, 2003). Thus, team learning can be assumed from the mental model through mental model similarity at one point, and in tracking the convergence of the mental models with time. Transactive memory systems are another team learning proxy that is representative of shared information storing, retrieval, and encoding process among the team members (Dechant, Marsick, and Kasl 2000). It also reflects who knows what within the team. Cross-pollination of knowledge within teams ensures that all members of the team learn new things all the time through interactions. Learning curves are used to underpin the occurrence of team learning; learning curves are a ramification of team learning, which is increased performance owing to the application of collective knowledge (van der Haar et al, 2017).

2.2.4 Innovation Culture Concept and Theory

The fundamental of innovation culture is based on organizational culture. The reason is organizational culture concept was the primary subject in recent converted actions by organizations. This is a crucial role to survey in dept of culture definition before collaborating with innovation concept. the organizational identity is proposed by Albert and Whetten (1985) on the basis of social identity theory and psychology and encourages organizations to respond differently. (Albert & Whetten, 1985) Organizational identity is a collective construct of "As an organization, who are we? How are we different from other organizations? For us, what is the most important", it has three characteristics: centrality, enduringness, and distinctiveness. Therefore, organizational identity refers to some organizational characteristics in the view of the members of the organization. These characteristics are core to the role of the organization or the self-image of the organization, can distinguish the organization from other organizations, and are considered to be sustainable for a long time.(Gioia, Patvardhan, Hamilton, & Corley, 2013)

(1) The centrality of the Organizational Identity

The centrality of an organization's identity refers to those characteristics that are deeply considered important to the organization's perception of "who we are in society" rather than dispensable and random. These characteristics are carefully protected by members and never questioned. Centrality is probably the most important feature of the three characteristics of organizational identity, because if you don't perceive it as the core feature, then there is almost no way to conceive the idea of identity. The centrality is embodied in the organization's main values, labels, products, services or practices, etc.. It is the key part of the organization's self-definition of "who am I" and the soul of the organization. (Brewer, 1991)

(2) Enduringness of the Organizational Identity

The second characteristic of organizational identity is enduringness. Identity enduringness refers to those organizational characteristics that can remain the same for a long time. The persistence of the organization's identity means that the organization's identity is sustainable, permanent, and unchanging over a long period of time. The

characteristic of identity enduringness has been controversial. In the era when changes are common in modern organizations, more and more scholars are studying whether the identity of the organization can indeed be lasted or changed in a relatively short period of time. After a lot of research, scholars pointed out that the identity of an organization can also change in a relatively short period of time. The reason why the members of the organization believe that the identity of the organization is durable is that they tend to think that the identity is stable. Even if it is changing, they still continue to use the same labels to describe their identity without noticing the meaning of these labels variety. (Brewer, 1991)

(3) The distinctiveness of the organizational Identity

Organizational distinctiveness refers to the characteristics that distinguish an organization from other organizations, and the degree to which the core or key attributes of an organization differ from other organizations. As Albert and Whetten pointed out that the particularity of identity does not require that every feature of an organization must be different from other organizations, but only that the particularity of some organizations is different from other organizations. (Albert & Whetten, 1985) The current benchmarking and business mergers will promote the homogeneity of the organization. Therefore, the system theory believes that organizations will become more and more similar to each other. This requires the organization to find the best point in similarity and difference-the best particularity- optimal distinctiveness. (Brewer, 1991)

According to the definition of organizational identity by Albert & Whetten (1985), scholars in the field have developed different views of the phenomenon, and thus different interpretations of dynamism and change in organizational identities (Corley, Harquail, Pratt, Glynn, Fiol, & Hatch, 2006; Gioia, 1998; Ravasi & van Rekom, 2003; Whetten, 2006; Whetten & Godfrey, 1998). They have found two principal lines of thought about organizational identity, which are the social actor perspective on organizational identity and the social constructionist perspective on organizational identity. (Ravasi & Schultz, 2006)

(1) A Social Actor Perspective on Organizational Identity

Scholars have emphasized the functional properties of self-definitions in satisfying the basic requirements of individuals and organizations as social actors: continuity, enduringness, and distinctiveness. (Albert, 1998; Whetten & Mackey, 2002; Whetten, 2003) Those scholars conceive of identity as "those things that enable social actors to satisfy their needs to be the same yesterday, today, and tomorrow and to be unique actors or entities. According to this view, the identity of an organization exists in a set of institutional claims, that is, a representative of a clear statement of what the organization is and what the organization is expecting to influence its members to the continuity, enduringness, and distinctiveness of the organization by providing them with legitimate and consistent narratives that allow them to construct a collective sense of self (D. Whetten & A. Mackey, 2002)

According to the research the scholars, proponents of this concept tend to emphasize the meaning-giving function of organizational identity, linking identity construction with the need to provide coherent guidance on how members of an organization should behave and how other organizations should relate to them. (Albert & Whetten, 1985) Then, through a formal identity statement, organizational leaders and/or spokespersons try to influence how internal and external audiences define and interpret the organization by placing the organization in a set of legal social categories.

(2) Social Constructionist Perspective on Organizational Identity

According to Fiol, the social constructionist approach emphasizes the sense-making process that underlies the social construction of organizational identities, as "meanings and meaning structures ... are negotiated among organizational members". Scholars embracing this perspective have observed how substantial organizational changes, tend to require the members of the organization to interpret what is central and distinctive about their organization. Substantial changes require members to "make new sense" to develop new interpretations of what their organization is about. (Fiol, 1991)

Research in the traditional study examines how members develop a collective understanding of their organization and how these affect organizational changes and

strategic decisions. (Fiol, 1991) In fact, proponents of social constructivism expect common beliefs to be revised regularly because members of the organization modify their interpretations in response to changes in the environment. Therefore, these scholars usually downplay endurance as an attribute of organizational identity and observe how organizational leaders envision and promote new concepts in the organization to promote strategic responses to environmental changes. (Corley & Gioia, 2004)

In the past, the relationship between organizational identity and culture was mainly studied at the conceptual level. Advocates of the perspective of social actors have observed how organizational culture serves as an important source of the distinction between the self and the other and the "signifier" of organizational identity. (D. A. Whetten & A. Mackey, 2002) In other words, for these scholars, unique values, beliefs, rituals, and artifacts may help members of the organization confirm their identity claims and express their perceived uniqueness (Albert & Whetten, 1985). As Albert said: "From this perspective, the relationship between identity and culture is very clear: a particular culture [...] may or may not be part of the answer to the question of identity: Who am I? What kind of company is this?"

According to Fiol (1991), organizational identity helps members understand what they do—related to their understanding of what an organization is. Therefore, organizational identity provides a background for members to interpret and give deep meaning to surface behavior. Seriously consider the idea of organizational culture as the background for meaning-building efforts, and subsequent contributions emphasize how these efforts (Hatch & Schultz, 2002) "Identity involves how we define and experience ourselves, which is at least partly influenced by our activities and beliefs, which are based on and explained culture as assumptions and values."

These contributions emphasize the interrelationship between organizational identity and culture, manifested in the use of organizational culture and other meaning-making systems (professional culture, national culture, etc..) to define "Who are we? The organization" (Hatch & Schultz, 2002) With this emphasis, these scholars and the supporters of the social actor's perspective have jointly advanced the view that

organizational culture provides members with clues to understand what their organization is? And "giving the meaning" as well.

2.2.4.1 Organizational Culture

The concept of organizational culture tends to converge on the idea that culture is composed of our shared values, the way we do things, language, rituals, stories, and more that we share when we bring new people into the organization. (Ravasi & Schultz, 2006). Research on organizational culture shows that practices, artifacts, rituals, and other cultural forms obviously show the special thinking mode unique to an organization and the product of an organization, the history of collective learning. In terms of its nature, then, cultural forms such as stories, legends, corporate architecture and dress, and other physical forms of artificial Products tend to reflect and interpreted by members as evidence of the uniqueness of the organization. (Ravasi & Schultz, 2006). In organizations, the visible, tangible, and audible manifestations of culture, such as language, stories, visual images, material products, and established practices, are the most powerful symbols on which members build meaning and organizational actions. As organizational leaders participate in perceptual action, so they can use a cultural expression as an influential discourse resource to produce meaningful interpretations of new claims and resolve possible differences in the interpretation of core and unique characteristics.(Ravasi & Schultz, 2006)

Organizational culture is the core structure for understanding the evolution of organizational identity in the face of environmental changes, which indicates that collective history or organizational symbols and integrated practices provide clues to help members have a new understanding of the true meaning of the organization The new meaning of others. In addition, our research results emphasize the role of culture in maintaining uniqueness and continuity, because the identity of the organization is clearly reassessed. (Ravasi & Schultz, 2006).Organizational culture is widely regarded as one of the most important factors in the reform and modernization of public administration and service provision. In fact, it needs to be explored and understood culture in the public sector researchers and practitioners. Researchers are looking for explanations. They are trying to understand and conceptualize organizational culture,

its nature, its key determinants and predictions, and the relationship between culture's diverse set of variables. Practitioners are interesting in the management of organizational culture; they are looking for answers and solutions: how can the culture of an organization be changed and adjusted to meet the organization's needs? (Jung et al., 2009)

The research of (Jung et al., 2009), used quantitative tools to explore the organizational culture. There are seventy instruments are identified, of which 48 could be submitted to psychometric assessment. The conclusion of the study is that there is no ideal tool for cultural exploration. The extent to which any measure is considered "fit for purpose" depends on the specific reason for its use and the context in which it is applied.(Jung et al., 2009). Organizational culture is likely to remain a complex and controversial concept. Although it is widely used by researchers, managers, and policy makers, it is conceptualized in many different ways. (Ott, J. Steven. 1989) In addition to this conceptual diversity, only limited accumulated knowledge is evident. Therefore, the debate on how to explore this concept continues. This is reflected in the different nature and characteristics of the identified tools, which provide dimensions, types, quantitative methods, and combinations thereof. In light of these choices, it is important to reflect on their utility and the questions they pose for those interested in choosing the right tools for cultural exploration (Jung et al., 2009). The advantage of the dimensional approach is that it can focus on specific cultural variables of interest in a specific organizational environment, such as innovation, job satisfaction, or values. In view of the anthropological background of organizational culture, the inspiration for studying it often comes from the study of national culture. However, the transfer of this method and the dimensions of its use may lack effectiveness or possible limited effectiveness. (Hofstede, 2001) believes that there are two important differences between national and organizational cultures: values and practices. Values are acquired in youth, and practice is acquired through the socialization of the workplace. Therefore, a dimensional approach that focuses on values rather than practice may not be of much use in organizational culture research.

Organizational culture is just one of many parts that make up the problem of public sector organizations. Therefore, it should not be regarded as the answer to all

organizational questions, nor should it be applied to all organizational aspects. (Caroselli, 1992) As already emphasized, the field is highly fragmented and growing. Although the insights from the cultural assessment may be helpful. Their improper use can easily put the organization at a disadvantage (Caroselli, 1992). Cultural assessment can be a starting point for problem-solving, and it is also a way to create problems solution.(Jung et al., 2009)

2.2.4.2 Innovation Culture

Innovation is usually understood as the introduction of new or remarkable things improvements, such as products (goods or services) or processes. Innovation can be seen as the process divided into two main stages: innovation initiation and innovation implementation. During the initiation phase, generated new and useful ideas, which will be adopted and utilized in the implementation stage. In addition to possible organizational support, initiation mainly depends on individual creativity (once an idea is generated, an organization is needed to develop and implement it). (Kaasa & Vadi, 2010)

Previous studies have shown that innovation requires specific conditions (innovation environment), and culture is considered an important determinant of innovation.(Westwood & Low, 2003) Cultural influence stems from facts dealing with different situations and is related to two opposing processes: tradition and innovation, and some cultures have accumulated experience and prefer the former and the others the latter. In other words, the openness towards new experiences varies in different cultures. Besides, this is not a simple dilemma that other cultures' deep-rooted beliefs (i.e., understanding of the roles of individuals and organizations) play an important role in determining whether a new idea or object can be introduced people will encounter puzzling situations in their lives. (Kaasa & Vadi, 2010)

According to Williams (1976, 87) 'culture' is one of the most complicated words. There are many ways to determine the boundaries of this phenomenon, and different research fields use different definitions, such as sociology, anthropology, and humanities. Hofstede (2001) treats culture as " the idea of distinguishing the members

of one group or class of people from the members of another group or class". He explained that the "mind" represents thinking, feeling, and action. Hall (1976) in his groundbreaking book asserts that beliefs and values determine the way people think, behave, and solve problems, questions, decisions, etc.

2.2.4.2.1 The impact of culture dimensions on innovation initiation

According to the definition and understanding of what culture is, culture can be characterized by different dimensions and each culture can be described as a point of a multi-dimensional model. The dimensions proposed by Hofstede (1980), who pointed out that the most important differences between cultures can be captured by finding out the extent to which disparate cultures differ with respect to four dimensions – power distance, uncertainty avoidance, individualism-collectivism, and masculinity-femininity. Hofstede's dimensional approach means that culture is a unified model that crosses the realm of life and people, or in other words: culture is superorganic. Four dimensions are shown as below:

- 1) *Power distance*- Reveals the extent to which power and hierarchical relationships are considered essential in a specific culture. It discloses the scope of its accepted powers uneven distribution of organizations and institutions, or uneven hierarchical systems cause psychological alienation. The large power distance is characterized by a centralized decision-making structure and extensive use of formal rules. In the case of small power distances, the chain of command is not always followed.

In the case of a large power distance, the sharing of information can be constrained by the hierarchical structure (Van Everdingen & Waarts, 2003). However, innovation largely depends on the dissemination of information. In cultures with small power distances, communication across functional or hierarchical boundaries is more common (Williams and McGuire 2005), it is possible to link different ideas and ideas, resulting in unusual combinations and even fundamental breakthroughs. When the power distance is small, the trust between different levels is higher. When employees think it's appropriate to challenge the status quo, creativity is higher. Societies with large power gaps

tend to be more fatalistic and therefore less motivated to innovate (Herbig and Dunphy, 1998).

- 2) *Uncertainty avoidance*- Explain whether and to what extent tension and ambiguity can be tolerated or avoided. This dimension is related to accepting hard and uncomfortable situations, and Hofstede believes that "what is different, it is dangerous." In a society with a low degree of uncertainty avoidance, organizational rules may be violated for pragmatic reasons, conflict is seen as a natural part of life, and ambiguity is seen as natural and interesting. In the case of strong uncertainty avoidance, the opposite situation often prevails. In working relationships, rules play an important role and are carefully observed.

On the one hand, because innovation is related to certain changes and uncertainties, a culture with strong uncertainty avoidance is more resistant to innovation (Van Everdingen & Waarts, 2003). To avoid uncertainty, these cultures use rules to minimize ambiguity. In turn, rules and reliance on them may limit opportunities for developing new solutions. Uncertainty aversion also means that there is less motivation to come up with new ideas that may be rejected. On the other hand, there is no contradiction between following rules and creativity (Rizzello and Turvani 2002). The certainty provided by a rule-following culture may promote and encourage creativity. In addition, it can be assumed that patents tend to protect intellectual property rights in a culture with greater uncertainty avoidance. However, creation and patent innovation are continuous phenomena: if there is no innovation, there is nothing patentable.

- 3) *The individualism–collectivism* dimension, shows whether personal interests or a group is more important. This dimension reflects the strength of the connections between individuals, or probably the degree to which people in a country learn to act as individuals rather than as members of a cohesive group: from collectivist to individualist. According to Hofstede (2001), the characteristics of an individualistic society are individuals assume that everyone's responsibility is to take care of themselves. On the contrary, in a collectivist society, people connect with each other through strong and cohesive groups and protect them in their lives; assuming that people are loyal

to these groups. "Collectivism" has no political significance here: it refers to groups rather than countries. People associate their identity with the group, not with other personality traits.

Contrary to innovation implementation, innovation initiation is usually regarded as an individual's behavior (Williams and McGuire 2005): the initial idea appears in the individual's mind, and the team can only support it or not. Individualist culture values freedom more than collectivist culture (Van Everdingen & Waarts, 2003). Therefore, in an individualistic society, employees have more opportunities to try new things. Another important aspect is that in a collectivist society, the contribution of the individual does not belong to the organization. In an individualistic society, the individual has more reasons to expect compensation and recognition than in a collectivist society. Also, there is less emphasis on loyalty to the organization in individualistic societies. (Herbig & Dunphy, 1998)

- 4) *Masculinity–femininity*, this shows how much culture leading by male values such as the pursuit of achievement and competition. Self-affirmation and testing of other "masculine" values, such as independence and career mean masculinity, and discretion, humility, tolerance, and unity describe women's behavior. Male society is dominated by masculinity and "masculine" values— independence and career.

There are some people who argue that masculinity has no effect on economic creativity (Williams and McGuire 2005). This proposition has also been confirmed by some empirical evidence. Shane (1993) proved that masculinity has no effect on the number of trademarks per capita. Williams and McGuire (2005) found that masculinity has no significant effect on a country's economic creativity. However, some possible effects must be considered. In women's society, the focus is on people and more support for the climate can be checked. A warm climate, low conflict, trust, and social-emotional support help employees cope with the uncertainty associated with new ideas.

The social nature of innovation puts culture in an important position from which it can explain the innovation process. Economic activities can be shaped by common beliefs, opinions, attitudes, and abilities held and put into practice by most social groups through interaction, interpersonal communication, and social negotiation (Zelizer, 2010).

The sociological use of the term "institution" as a system of social rules helps to clarify the role of cultural elements in innovation because cultural aspects are generally understood as part of the institutional realm. Sociological perspective supplements systemic methods that emphasize the more formal and visible aspects of the innovation system, and thus help to expand the set of observations related to the system component (Casper & Waarden, 2005). It involves the study of faith and values, norms, and perceptions of key participants involved in innovation skills, combined with other influencing factors that affect innovation.

2.2.4.2.2 The Moderating Role of Cultural Values

The creative innovation process in the knowledge and creative industries is affected by the following factors: multiple factors from internal and external sources of the organization, which include market and social environment (Anderson, Potočnik, & Zhou, 2014). National culture is a specific background factor closely related to innovation (Shane 1993) because it provides a general motivational guide to the way how people behave to keep the old one and create the new one. Culture is conceptualized as a set of shared knowledge, values, norms, and beliefs that exist in a collective group. Culture shapes cognition and motivation, and influences a series of cultural phenomena including education (Bendapudi, Zhan, & Hong, 2018).

An important way that culture influences people's behavior is culturally recognized values. The value system drives behavior by encouraging behavior that is consistent with recognized and internalized values. Values are desirable cross-contextual goals that guide individual behavior; evaluate actions, people, policies, and events; and justify their actions and evaluations. The transformation of values is driven into ideal goals that can be used for consciousness, and therefore can be used

for conscious planning and decision-making (Bendapudi et al., 2018).

A successful innovation process requires strong relevant knowledge and elements of the creative ability to produce innovative products (Smith, S. M., Ward, T. B., & Finke, R. A. 1995). By analogy, knowledge can be compared to an indispensable raw material as well as the innovative ability of the formula, allowing the combination of raw materials in a certain way, this will turn them into a novel and viable dish or final product. It's important to have raw materials alone that will not produce creative dishes. In terms of creativity, this means the recognized value model determines the direction of motivation, which in turn promotes or inhibits creative behavior. In addition to relevant knowledge, you also need to recognize values that encourage unconventional experimentation and contempt for tradition and the status quo. Consistent with this view, previous research has shown that individuals who agree with values such as self-direction and stimulation exhibit more creative behaviors than opponents who agree with values such as tradition, conformity, security, and prisoners of war.

2.2.4.2.3 Leadership and Innovation Outcomes

Executive leadership is a key driver of organizational learning, innovation process, and performance (Bendapudi et al., 2018). Successful innovation combines internal capabilities with external requirements. Organizational structure and leadership roles are the implementation of discovery, incubation, and innovation. When an executive leader leads innovation efforts, the company may benefit from improved market orientation, signals, and collaborative effect. The executive leader's guidance and authority may emphasize the behavior of consumers and competitors, this helps to identify and take advantage of new opportunities. When executive leaders are in charge of the innovation process, their actions and communication may send employees research signals about the importance of marketing and marketing strategies, ensuring that more market-centric innovation methods are adopted. The company-wide innovative executive leadership may link the company's capabilities to previously undeveloped products or market segments.

Conversely, innovative executive leaders may be overly focused on short-term customer needs and indicators. The role of the leader is traditionally associated with customer satisfaction, new product launches, and advertising (Srinivasan & Hanssens, 2009). The resources used to initiate and maintain marketing efforts may limit investment in research and development. Excessive emphasis on existing customers may hinder the company from making breakthrough innovations. Focusing too much on current competitors and customers, rather than promoting innovation, may lock the company into existing relationships and transaction patterns. In addition, many executive leaders are directly responsible for implementing recent marketing plans and solving urgent customer satisfaction issues, excessive attention to direct problems with customers, suppliers, or competitors may inhibit the development of strategic innovation. Executive leaders in the top management team usually increase the management use of marketing indicators, but it does not lead to improved revenue results.

From the previous study, scientists proposed that organizational culture is the determinant of organizational innovation. They also claim that organizations benefit from their organizational culture, which tends to have fewer problems and less reliance on coordination and formal control. However, the research on the influence of organizational culture on organizational innovation using a management control system as an intermediary factor between these two concepts is still limited, and there are still problems that organizational culture and management control system can bring or hinder innovation (Alharbi, Jamil, Mahmood, & Shaharoun).

The management literature contains a wealth of research that shows that organizational culture has an impact on organizational innovation. At the same time, management scholars claim that the management control system is an important tool that affects organizational innovation. Although there may be overlaps between research structures, the progress of knowledge is often isolated (Alharbi et al.).

Innovation culture is integrated into both meaning of the innovation concept and organization culture definition. This concept represents the type of activities naturally occurring in the organization which provides values and beliefs to support new ideas,

novelty, and creative processes resulting in new and innovative products, technology, or processes for organizational functioning as well as norms for behaviors (Ernest Chang and Lin (2007)

2.2.5 Team Innovation

2.2.5.1 Team innovation

The perspective of innovation is realized as the interpretative challenges of information system management that transform the boundaries of knowledge in the network. Whereas the innovation concept is supported by the member of the organization confronting the novel knowledge and representing it in the right way, the result of innovation can create a different angle of ideas, the process to share knowledge or develop something new for the organization. This generates value for the members and the organization's performance. (Rau, Neyer, & Möslein, 2012) At this scope of the study, innovation is a picture of knowledge, as well as learning about differences and dependencies in various actors or contexts. The innovation on the said of Capello and Lenzi (2015) involves “information and communication technology paradigm and designate knowledge option, the conceptualizing and interpreting the systemic, dynamic and interactive nature of innovation, and self-reinforcing feedbacks from innovation to knowledge and from economic growth to innovation and knowledge play an important role in innovation processes.”

The article by De Fuentes, Dutrenit, Santiago, and Gras (2015) explained the linkage of innovation and service labor that related to this thesis as educational services. The service-oriented innovation approach was based on organizational innovation and knowledge-based services innovation. The executive must concern about interconnection among the external environment, value chain, and individual community in firms. The goal of this firm's innovation is to analyze the relation between the behavior of the members with the roles of the innovator and capability builder to create a new product or process for support or generate income for an organization. Innovation is reflected to be an economic development that includes all stages of business activity. Innovation is not an incomplete option to just initial

innovative patterns, but it also includes, all sorts of new product and service improvements, flexible and sustainable production organizations, and market and marketing approach. (Vinig & Bossink, 2015)

Team innovation has been treated as a performance by innovation output. The literature of Dunphy and Bryant (1996) explained that unitary construct but with diverse indicators of output that can be used in measuring team innovation, the organization must establish the goal or mission in the option of innovation output from members. The team innovation study is defined by van Woerkom and Croom (2009) have identified as efficiency, effectiveness, and innovation capability. Although the efficiency and effectiveness of the team in executing their duties are often confused, these two terms have different meanings. For instance, Hoegl and Gemuenden (2001) view team effectiveness as the absolute level of attaining the expectations and goals set by the leader to teams, it is dependent on the degree of innovativeness that the work process and products are configured for market demand and must free from defect and error. As a result, there are high levels of customer satisfaction and other stakeholders with the value of services and products that the team provides.

Team innovation on the other hand refers to the comparison between input and output. For example, the team has adhered to the stated budget and work schedules. In the definition of team mission, the team efficiency and effectiveness have to congruence with the innovation goal which the team has not only met the desired outcomes but supporting members to recreate a new idea. This should be done within the shortest time possible to ensure that the employee who lives in the new environment is not only affected negatively but also, does not experience extended cultural shock which may lead to poor performance and less satisfaction with the new environment (Yao & Mwangi, 2017). However, given the changes in a new environment, teams need to be innovative in order to apply ideas, procedures, and processes in order to address the needs of the employees by designing improved processes that ensure the individualized needs of the students are addressed by the teams (Anderson & West, 1996). Nevertheless, the team efficacy was also found by Krishna (2011) to determine the overall performance of the team as a result of

transformational leadership.

Krishna (2011) study focusing on the effect of transformational leadership on team performance identified that team leaders have a general role of raising the efficacy of the teams to the extent that the team has the belief that they will be able to perform the required task. Because transformational leadership advocates for inspiring followers to work together towards achieving the stated goals of the organization, the leaders in mission teams need to exhort their followers to do well and work hard by empowering them to have a shared perception of collective capability and thus members tend to believe in each other which makes them work towards common goals. (Chen & Agrawal, 2018)

2.2.6 Effect of Transformational Leadership on Team Innovation

Studies have found a positive relationship between transformational leadership and team performance. Among these studies is the study by Krishna (2011) who studied the impact of transformational leadership on the performance of the team using 39 teams. The study by Krishna (2011) identified that there was a positive relationship between transformational leadership and team performance where the team tended to be more effective, put extra effort, and were more satisfied with what they did due to transformational leadership. Mainly, Krishna (2011) identified that because the transformational leader inspired trust among the followers and wanted the followers to give their best towards meeting the goals of the organization, then the followers were encouraged by their leaders to implement creative solutions that ensured the team goals were met effectively and innovatively and thus leading to greater performance and higher satisfaction by customers.

Similar to Krishna (2011), Rao and Abdul (2015) investigated the transformational leadership impact on team performance among 182 members of teams in the UAE. The study found that transformational leadership has positive impact on team performance as it ensured the psychological empowerment that followers need from their followers to be effective. The desire to please their role models, which is who in this case is the transformational leader made the teams

achieve success through collective efficacy, which requires team workers to work collectively towards common goals rather than individual interests. As a result, Rao and Abdul (2015) recommended the use of transformational leadership for its support of team cohesion and team innovation which led to more effectiveness and efficiency in executing their duties and meeting the needs of their customers. Supporting the views of Rao and Abdul (2015), Bucic, Robinson, and Ramburuth (2010) studying the effect of leadership on team performance found transformational leadership best supports team performance. The qualitative research that used a case study of three team leaders and six teams identified transformational leadership to best influencing team performance compared to transactional leadership. Although the aspect of reward was found to influence team efficiency and effectiveness, and also creative thinking in addressing the needs of customers and team task performance, the aspect of collective efficacy was only achieved through transformational leadership since transactional leadership focused on self-efficacy through its individualized rewards focus. Therefore, for higher team outcomes, Bucic et al. (2010) recommended the use of transformational leadership which was found to be a strategic resource for high team performance.

Furthermore, a theoretical model of transformational leadership was provided by Rebecca et al. (2008) with the goal of understanding the performance of diverse teams. As Wang, Singh, Bird, and Ives (2008) identified, teams, tend to be from diverse backgrounds especially when it comes to dealing with customers from diverse backgrounds. Rebecca et al. (2008) identified transformational leadership to be ideal as it ensures collective efficacy where teams see themselves as one and working towards achieving common goals which encourage teams to work collaboratively towards such goals. Thus, in their summaries, Rebecca et al. (2008) found team effectiveness and efficacy to be enhanced through transformational leadership, the leaders had the ability to make their followers believe that the only way that the customer needs can be addressed most effectively and efficiently is if the teams work together. In this case, Guruz (2011) added that the transformational leader was ideal for such diverse teams because the leader focused on a common goal rather than the diversities between the members of the team, which helped address the challenges

associated with competing interests. For example, in the Western cultural context, the individual needs come first unlike in the Eastern Asian cultural context where team needs are emphasized due to collect rewards and benefits. As such, transformational leadership advocates for common grounds between members of teams from the two different orientations, ensuring that the transformational leader inspires them to work innovatively towards the interest of the organization rather than their self-interest. (Gutierrez-Gutierrez, Barrales-Molina, and Kaynak 2018)

Chou, Lin, Chang, and Chuang (2013) focused on the Chinese context of transformational leadership and team performance as mediated by collective efficacy and cognitive trust. Using 39 teams to identify how team leaders fostered cognitive trust among their followers, Chou et al. (2013) found that the team members with high cognitive trust in their leaders have high efficacy, a sense of togetherness critical for the team performance. Indeed, the summaries from the study showed that although the area of transformational leadership, cognitive trust, and collective efficacy needs further research, transformational leadership was more applicable in ensuring that teams were working together for a common purpose and trusted transformational leaders more than other forms of leadership. (Chou et al., 2013)

However, unlike the aforementioned studies in this section that showed a positive relationship between transformational leadership and team performance, other studies have criticized the use of transformational leadership. For example, transformational leadership tends to be affected by situational factors which can neutralize or enhance the effect of transformational leadership (Lesmana and Nasution, 2020). When dealing with teams that have high motivation intrinsically, desire autonomy, and have high expertise, then the transformational leader tends to face challenges relating to the dislike of being influenced by their leaders or supervisors. As a result, because the transformational leader is seen by these group of teams who have intrinsic motivation and desire for autonomy as a leader who interferes with their autonomy, then they see the leader be a potential threat to this which may lead to resistance or non-compliance. (Conger, 1999)

Furthermore, the point of view of social and self-identification is another area that has been criticized when it comes to transformational leadership and team performance. In East Asian Cultures such as Chinese and Thailand Cultures, the workers tend to associate themselves with their leaders and due to high power distance, they tend over-rely on their leaders or supervisors. The leaders as Martin-Chua (2009) identifies in this cultural context of high-power distance tend to be seen to be exceptional and outstanding and thus the teams tend to depend on the inspiration and guidance of the leaders to perform their tasks. However, the key limitation of this attribute of the charisma of transformational leaders is that the subordinate may increase depending on their leaders. As a result, Hu, GU and Chen (2013) identified this to affect innovativeness and independent creativity and thus questioned the aspect of inspired motivation for teams, which is to think beyond the box and come up with innovative and creative solutions outside what they are needed by their leaders. The problem mainly occurs as added by Hu et al. (2013) when the subordinates decrease their motivation towards their leaders, in this case, the team may have a sense of loss and thus their effectiveness in meeting the desired goals may also be negatively affected.

On the other hand, looking at the perspective of disruptive leadership by Einarsen, Aasland, and Skogstad (2007) it is evident that transformational leaders may encourage their teams to act in an unethical way that in turn end up harming the organization. In relation to international mission teams that are assigned with the role of ensuring that the students adjust quickly, transformational leaders with self-interest goals may make this less achievable to the point that the team cohesion is negatively affected. For example, an early study by Krasikova, Green, and LeBreton (2013) were of the view that when transformational leader manipulates their teams without empowering them and creating a conflict deliberately between teams for self-interest-seeking purposes may affect the team performance.

The motivational aspect of the team by transformational leadership works both ways where teams can be motivated to perform well or poorly based on what the leader is doing as their role model. With this in mind, personalized transformational

leader negatively affects the collective efficacy of teams since they tend to be selfish and narcissistic, and pursue their personal interest without considering the goals of the organization (Moynihan, Wright, and Pandey, 2012). In such cases, in relation to the international mission teams where the teams are assigned with the role of ensuring that the students joining universities adjust appropriately, the transformational leader may lack the commitment to understand the individualized needs of different students from different cultural orientations which as a result may lead to lack of creativity in addressing their needs. The self-interest of the leader, in this case, is using shortcuts to perform the tasks assigned rather than aligning their tasks with the goal of the organization which may require individualized attention to each student who has special needs rather than addressing the needs of each team separately.

Nevertheless, in disagreeing with the identified dark side of transformational leadership, Chung and Li (2018) identified that it is easy to eliminate such dark side of transformational leadership. The study by Chung and Li (2018) focusing on 307 members of a team, 51 project teams, and 51 team leaders identified that it is easy to promote innovative behavior of workers and avoid the individualized interest of transformational leaders by ensuring that immoderate transformational leadership is avoided. This however was found by Chung and Li (2018) to require the leaders to maintain proper levels of transformational leadership and team learning to be enhanced as a way of shaping and maximizing the innovative behavior in the workplace.

2.2.7 Effect of Team Learning on Team innovation

The Team learning behaviour was identified by Decuyper, Dochy, and Van den Bossch, (2010) and Akkerman, Van den Bossche, Admiraal, Gijsselaers, Segers, Simons and Kirschner (2007) to incorporate both the social-cultural and cognitive models of learning. Decuyper et al. (2010) therefore explained the integrative model of team learning with three core- team learning behaviors in relation to facilitating behaviors, basic and storage, and retrieval behaviors. While the basic behavior leads to change, such change does not mean improvement but facilitating behaviors means that the team is in the right direction. Retrieval and storage behavior plays a critical role in ensuring

that learning behavior is persistent in the organization. Also, team learning relates to Team Mental Models (TMM) aspects that include knowledge sharing, boundary spinning, team reflexivity, and storage and retrieval. While knowledge sharing is an aspect that ensures the circulation of knowledge, experience, and information among team members, the team reflexivity and boundary spinning have a direct relation to facilitating behavior and include rethinking strategies and gathering information that cannot be found within the team for creating the new innovation to an organization. (Hoeg & Parboteeah, 2006; Allerman et al., 2007)

Indeed, studies by Vangrieken, Dochy, and Raes (2016; 2017) identified that there is a positive relationship between team learning behaviors, team mental models, and team learning. The notion is that the mentor model of the teams relates to shared cognition and shared mental focus on the aspects of the team such as shared understanding of the work of the team, shared knowledge of the task requirement, awareness of team characteristics, and understanding the interaction process and role of each team thus identifying the aspect of learning important for the team.

For instance, a study by Widmann and Mulder (2019) identified that the mental model is critical in team learning because it aligns the team in terms of the understanding of each other which makes knowledge creation and sharing possible. The mental model therefore as explained by Widmann and Mulder (2019) tells the team what they have in common, and what they don't have in common and evaluates what knowledge is critical for learning behavior and enhancing the performance of the teams. Therefore, the first thing that team learning is shaping the mental model of the team members to understand the commonalities within the team such as shared behavior, relations, tasks, and experience establishing a reference point from which learning can commence and continue through knowledge sharing and adaptation. In line with these views, Dolinska (2015) and Vangrieken, Grosemans, Dochy, and Kyndt (2017) identified knowledge to be very essential for innovativeness and effectiveness in performing tasks. Because the success of mission teams depends on collective efficacy, the team learning behavior ensures this by making sure that individual knowledge is available for each member of the team, enabling the creation of knowledge,

combination of knowledge, and use of knowledge to enhance the team performance.

Similarly, Team learning is essential for team innovation as Doughery (2017) identifies because team learning as found in this study is that team members are able to share ideas, information and knowledge in terms of who knows what, and such knowledge is utilized in teams to identify team needs, problems facing the teams and evaluating the available solutions that can aid solution to the problems identified. Furthermore, Messmann and Mulder (2015) identified the critical role of reflecting on shared knowledge on team innovation.

Team reflexivity is critical for team assimilation and the use of knowledge to enhance performance because not all knowledge is useful in enhancing team performance. As identified from the mental model of teams, the teams get information from external sources outside the team and internal sources within the team. Therefore, it is not all knowledge is useful in the context of a team role. Thus, the relevant knowledge has to be selected, which ensures that teams accomplish their tasks efficiently and ensure that the teams are able to achieve the overreaching goals using the best approach. Mainly, the reflexivity of the team ensures that there is flexibility when teams respond to novel challenges by transferring the relevant knowledge to unexpected situations (Messmann & Mulder, 2015). Putting this in the context of international mission teams, the teams may be faced with different uncertainties such as calamities, late admission, depleted accommodations, and students with special cases consistent with the explanation of Vangrienken et al., 2016, which suggests the importance of team reflexivity enhanced by team learning ensures that the teams use best available knowledge to effectively, efficiently and innovatively address the challenges relating to the work tasks and enabling the teams to adjust the workforce to meet the team demands and changes that may be required from unexpected situations.

Further, Widmann and Mulder (2018) identified that when a team does not have specific essential knowledge, then they may not be able to perform as effectively. However, the role of team learning helps the teams to understand that they are lacking in a specific area and start gathering information outside the team. Such bounded spinning ensures that new perspectives and new information is gathered on team

problem and tasks that arise when working. For example, the international mission team may have admission requests from students of new nationalities which comes with challenges of visa processing and travel patterns from such countries. Widmann and Mulder (2018) study although did not focus on the mission teams identified that new perspectives and new information gathered stimulate new innovativeness and ideas that can help teams address problems that they are not conversant with such as the admission of students from a new different country from one the mission teams are used to.

However, it is identified by Van Woerkom and Croon (2009) that team learning energy, time and cost may hinder team effectiveness. Nevertheless, with time Van Woerkom and Croon (2009) identified that temporal expenditure can be reduced over time through high engagement in the behavior of team learning and use of the ideas generated to avoid commonly occurring errors, exploiting previous challenging work results, and distributing tasks efficiently to the team based on the extent to which the knowledge is relevant to their roles. Indeed, Widmann, Messmann, and Mulder (2016) was of the view that as the team store information and knowledge gathered from inside and outside the team, then the information ensures that the team has high efficiency and effectiveness needed to reduce or entirely avoid the mistakes that they would have done previously.

However, this area of team learning and team innovation through the mental model remains understudied as identified by Widmann and Mulder (2019). Nevertheless, Widmann and Mulder (2019) identified that at first, a search for relevant information and new knowledge within and outside the organization is costly, time-consuming, and consumes the energy of teams thus there is a need to search for the right information needed for learning based on roles and tasks of teams. In line with these views, Hoegl and Parboteeah (2006) identified that because it is not all knowledge is needed to improve performance or change teams, then it is not all information or learning that ensures team performance. Indeed, Decuyper et al. (2010) and Hoegl and Parboteeah (2006) noted that even when employees are working or teams are working, they continue learning but only information that teams gather and share and have direct

relations with what they do has direct relations with performance.

2.2.8 Effect of Transformational Leadership on team learning

Harris (2011) identified team leadership as a critical factor that supports learning behaviors among teams. This is because team leadership behaviors relate to facilitating and influencing others to agree and understand what requires to be done and how it can be done effectively. With this in mind, the leadership style was found by Ensley, Hmieleski, and Pearce (2006) to facilitate collective and individual efforts in the team to accomplish specific shared goals and objectives. Koeslag-Kreunen, Van der Klink, Van den Bossche, and Gijsselaers's (2018) study focusing on the impact of leadership behavior on team learning identified that there is no specific leadership style that is recommended for team learning. However, in their studies, they reviewed the impact of both transformational and transactional leadership on organizational and team learning. Citing Bass and Avolio (1994) study, Koeslag-Kreunen et al. (2018) identified that there are two perspectives of leadership style that has been practically and theoretically found to support learning and include transactional and transformational leadership via shared and vertical learning.

The premise of transformational leadership in team learning was therefore identified by Koeslag-Kreunen et al. (2018) to relate to leadership that motivates its members and changes the way they see things including their learning style through setting high expectations, articulating a vision, supporting individual needs even as the status quo is questioned. In relation to this view, Bron, Endedijk, van Veelen, and Veldkamp (2018) supported that in order to question the status quo and set high expectations, the teams must be willing to learn and must in fact engage in the learning process. In contrast to transformational leadership, transactional leadership enables learning by establishing agreements on tasks, rewards for achievement, and providing the needed facilities including needed knowledge and learning to perform difficult and challenging tasks and adapt to changes. However, Day, Gronn, and Salas (2004) were of the view that the shared team leadership approach that is facilitated through transformational leadership ensures that the leaders do not only monitor their team members but also educate their members on how to perform their tasks without

mistakes given the role of transformational leader as a role model.

However, although studies by Koeslag-Kreunen et al. (2018) and Bass and Avolio (1994) tend to focus on identifying transformational leadership as viable leadership for team learning, studies by Nicolaides, LaPort, Chen, Tomassetti, Weis, Zaccaro and Cortina (2014) were of the view that there is no consensus on the most appropriate leadership that support team learning. On the other hand, Moolenaar et al. (2010) tend to disagree with Nicolaides et al. (2014) by stating that vertical transformational leadership is very effective in stimulating team learning especially when it comes to innovative tasks.

Moolenaar et al. (2010) study found that such behavior supported teachers to recognize features of innovative tasks and identify the sense of urgency, and willingness of developing new knowledge collectively. In line with the international mission teams, the transformational leadership taken from Moolenaar et al. (2010) ensures that teams work collaboratively together to come up with ideas that can best support their work. Indeed, vertical transformational leadership was also found by Lee et al. (2010) to ensure that team learning was enhanced and supported through team efficacy and psychological safety. The reason for this was shown in the study by Lee et al. (2010) who identified that transformational leader because of their good positioning where the workforce trusts them and tend to follow them, can be able to provide new information and advise the team workers by building interpersonal trust and safety, which explains knowledge variance of the team by 69% in Lee's et al. (2010) study.

Furthermore, just as Timperley, Wilson, Barrar, and Fung (2007) emphasizes on the role of transformational leadership in structuring collaborative learning among teams, it can also ensure collaborative learning among international mission team. Ideally, Bucic et al. (2010) highlighted that transformational leadership encourages teachers to learn as a team by structuring tasks and challenging them to share new knowledge they have, and feel can support the team. This argument tends to be consistent with the role of transformational leadership on collective efficacy where the teams are supported to develop interpersonal relations and not to act in their own

interest but put the interest of their teams, organization, and the goals assigned first.

Nicolaides et al. (2014) identified that rather than the teams focusing on hiding information and new ideas so that they outperform their team members, the leadership style encourages the team to face different situations together, learn from past experience and support each other. Although to date there is no supporting evidence that effective leadership ensures teams learn through the situation that they face, Moolenaar et al. (2010) and Koeslag-Kreunen et al. (2018) together agreed that transformational leadership is responsible for building collective trust between team members, monitoring performance and ensuring supportive decision making between the team members and the leader. Bryman (2007) on the other hand added that such an environment ensures that teams are able to solve complex problems as they are encouraged by transformation leadership to generate creative and innovative ideas through learning that can best help them perform the tasks assigned.

To understand how transformational leadership affects team learning, Bass (1985) identified that because transformational leadership helps teams to deal with a rapidly changing environment and thus teams are encouraged to come up with solutions that are creative to help them address the complex problems that face the teams. Although the limitation of transformational leadership in the present study on the effect of transformational leadership, team learning on team performance is that the studies have focused on the impact of transformational leadership on performance outcomes of the employees individually, studies have shown that transformational leadership can positively impact the outcomes of teams and the team learning process. (Wang et al., 2012; Bouwmans, Runhaar, Wesselink, and Mulder 2017)

Bouwmans et al. (2017) particularly in the context of education highlighted that there are three dimensions of transformational leadership that support team learning. The first dimension relates to identifying and initiating vision, transformational leaders are known for vision development among teams and increasing commitment of teams towards the organization and as the commitment increases so does their willingness to learn increase as they put more effort to realize the goals of an organization.

The identification and initiation of vision work as a charismatic component of transformational leadership whose goal is influencing and inspiring through ideas expression and empowering teams to come up with innovative ideas and creative solutions that may help the organization realize its vision (Zhang, Zheng & Darko, 2018). The second aspect relates to Individual consideration and support, and in this case, the focus of a transformational leader is monitoring and developing each individual of the team with the goal of ensuring that they take part in the knowledge creation and learning. For instance, Thoonen, Slegers, Oort, Peetsma, and Geijsel (2011) identified that transformational leaders enhance learning to delegate to teams challenging tasks, giving feedback to both individuals and teams as well as meeting and recognizing the individual and group needs for growth and development. This participative aspect of transformational leadership is where team creativity is stimulated and enhanced through collective problem-solving.

Early studies by De Hoogh, Den Hartog, and Koopman (2004) identified teams learn when they are given challenging tasks that require them to be creative in order to perform them, which makes employees learn to perform such challenging tasks by enhancing their abilities to solve a complex problem through knowledge sharing. Finally, intellectual stimulation is where the transformational leader stimulates professionalization and creativity by encouraging teams to question their personal values and beliefs and enhance their problem-solving abilities (Raes et al., 2013; Chou et al., 2013). Therefore, the role of transformational leadership is empowering the teams towards realizing their own abilities and limitations and working towards enhancing their ability to address problems and efficiently perform their tasks by challenging the status quo and increasing the desire to do things better and more efficiently.

2.3 Conceptual Framework

The researcher reviews the related literature and theories, which are transformational leadership, job characteristics, innovation culture, team learning, and team innovation proposes a model, and a conceptual framework. The review of literature allows the author to formulate a comprehensive framework for the private

university employee performance (Figure 2.1).

The relationship of this model comprises the connection of transformational leadership to four constructs. The four constructs are hypothesized to have a direct positive impact on transformational leadership and there are also relationships among themselves.

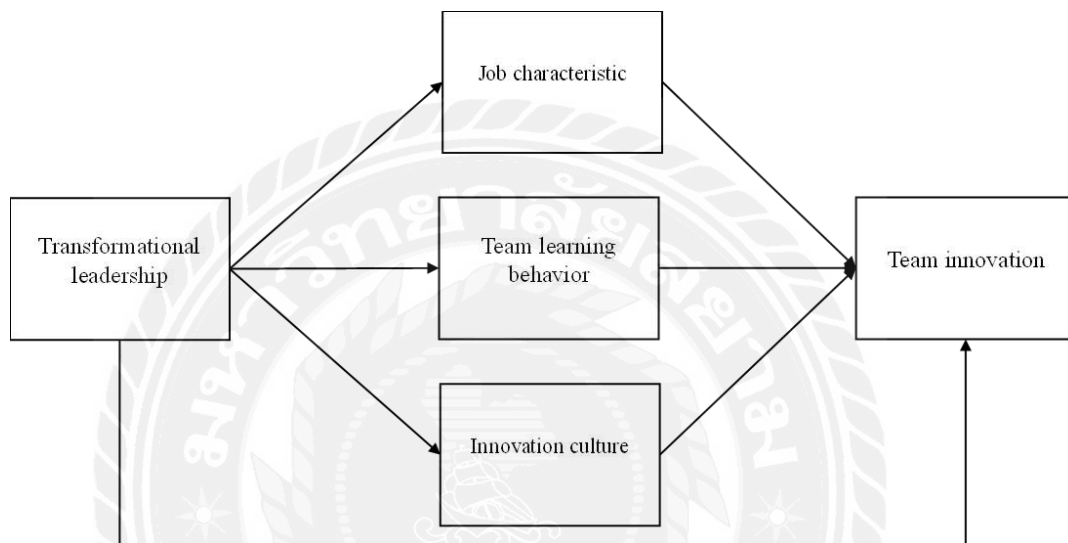


Figure 2.1 Conceptual Framework

2.4 Conclusion

The purpose of chapter two was to review of literature on the effect of transformational leadership, job characteristic, team learning behavior, and innovation culture on team innovation. To do this, the chapter first illustrated the concept of transformational leadership, job characteristic, team learning behavior, and innovation culture on team innovation through the theories that inform them. Secondly, the chapter evaluated the effect of transformational leadership on job characteristics, transformational leadership on team learning behavior, transformational leadership on innovation culture, and then the effect on team innovation. Thirdly, the study looked at how transformational leadership effect team learning. The transformational leadership theory by Burns (1978) informed the adoption of transformational leadership in this study with team learning theory being informed by transformational

leadership that also impacts the process of team learning. The investigation of the impact of transformational leadership on team performance identified that transformational leadership enhanced team performance in terms of efficiency, team effectiveness, and collective efficacy. However, the transformational leadership was also criticized as the leaders may be self-interest seeking which may affect the team's performance towards the organizational goals.

Also, team learning was found to influence team performance by challenging workers to take on challenging tasks be innovative, and gather new ideas to address challenges that require them to adapt. The mental model of teams was found to be informed by team learning where the team identified the team knowledge, relations, tasks, and goals and engaged in innovative techniques that supports the superior performance of the teams. Further, transformational leadership was found to provide a positive environment that inspires teams to take on challenging tasks through learning and innovation. Thus, although the study found this area less studied, it was evident that transformational leadership fosters team learning. However, the major challenge identified in the study is that there was no study that directly addresses the concept of transformational leadership, team learning, and performance in the Thai private universities to address this research gap.

Chapter 3

Research Methodology

This chapter discusses the method used, the population and sampling methods, data collection, operationalization of variables, the questionnaire pretest, research hypotheses, the analytical model, and the statistical method of analysis.

3.1 Method Used

To fulfill the objectives of this study, survey research was deemed the most appropriate method.

3.2 Population and Sampling Methods

Thai/foreign Instructors and staff of the international program in Thailand private university were chosen as the study population. Thus, this study's target population is “Stakeholders or officers who involve with the international affair of private universities in Thailand.” According to the official institutional data from The Office of the Higher Education Commission, The Ministry of Education, on the date of October 2020, there were 72 educational institutes still running their university (retrieve on <http://www.mua.go.th>) as listed in the index.

This thesis collects the samples from informants from all private universities in Thailand. The study used probability sampling (simple random sampling) and nonprobability sampling (purposive sampling) as sampling strategies. Simple random sampling was used to scope the private university by choosing only five universities in each region (a total of 25 universities). Then, the sampling size for interpreting data must be 400 with purposive sampling for the multiple regression analysis, analysis of covariance, and part analysis. The sample size for the model's structural equation modeling method should follow the variable rule in statistics. The appropriate size of the informant must be more than 200. The proposed model has 66 parameters (54 questionnaire items, five constructs, and seven estimated relationships). The

appropriate parameter estimation for this study is the Maximum Likelihood method (Lindeman, Merenda, & Gold, 1980). This multivariate analysis depended on the number of observable variables, which have five latent variables. Then the construct is calculated by ten times the number. The results were 50-100 samples. This method's correct number of informants should be 200 or more (Hair, Black, Babin, & Anderson, 2010). Hence, several samples would be ideal. Therefore, the proposed samples are sufficient to formulate the private university instructors and staff on the transformational model. The samples are also enough to develop models for the university.

3.3 Item Analysis analyzed the quality of the measurement tool

3.3.1 Validity testing

1) Content Validity; The researcher examined the items or indicators at the practical level, whether they have the right and complete contents as indicated in operational definitions and conceptual definitions of the sub-concepts and concepts. And the researcher adjusted all the items after the pretest by deleting some words in the things with no content validity.

2) Logical Validity or Face Validity; five experts (namely, Dr. Tanakorn Limsarun (management), Dr. Zhang Li (human resource management), Associate Professor Qiu Chao (health development), Dr. Titanun Sun (marketing), Professor Dr. Ku-Hsien Chen (finance economic)) evaluated the logical Validity of each Itemitem and the researcher adjusted all the items by deleting inappropriate words and adding suitable words in the things as suggested by these experts with Item Objective Congruence Index (IOC) or Content Validity Ratio (CVR).

3) Construct Validity: To ensure the Validity, the researcher examined whether the concepts and sub-concepts had construct validity or theoretical Validity

3.3.2 Reliability testing

The reliability assessment aims to evaluate the consistency of the questionnaires from the literature study. An item in the questionnaire is valid when the Itemitem -the coefficient correlation is more than 0.7-0.6 is calculated. Each variable

will be measured and explained in the section on the evaluation of reliability. The Cronbach's Alpha Coefficient is expected that the measurement of the questionnaires should be in the correct aim of internal consistency reliability. The correlation coefficients are equal to or more than 0.7-0.6. The pretest for the initial stages will be surveyed with 40 copied questionnaires as a pilot-test study.

Table 3.1 Cronbach's Alpha Coefficient Result.

	Variable	number of questions	Cronbach's alpha
Transformational leadership	Idealized influenced	8	0.917
	Inspirational motivation	4	0.862
	Intellectual Stimulation	4	0.864
	Individual consideration	4	0.924
Job Characteristic	Job autonomy	3	0.845
	Skill variety	3	0.757
	Task identity	3	0.700
	Task significant	3	0.865
	Feedback	3	0.710
Team learning	-	7	0.876
Innovation culture	-	6	0.813
Team innovation	-	6	0.811

3.4 Operationalization of Variables

3.4.1 Independent Variable:

The independent variable was Transformational Leadership. It was measured by the modification of Avolio and Bass (1995) with twenty questions of the "multifactor leadership questionnaire (MLQ)." This transformational leadership questionnaire has a 7-point scale of strongly agree to disagree strongly. The questionnaire asked the respondents to involve their characteristic leaders regarding

idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation.

The MLQ has been applied extensively in transformational leadership research, including the work in the education context such as; Hallinger (2018), Leithwood and Jantzi (1999), and Bass and Avolio (1994)

3.4.2 Dependent Variable:

The questionnaires were adapted from the works of four researchers, and some of the instruments were modified by discussion among researchers' advisers and the dissertation committee members.

3.4.2.1 Job characteristics were adopted in the concept of the questionnaire by applying J. Richard Hackman and Oldham (1975)'s the Job Diagnosis Survey (JDS) with five sub-dimension and fifteen items. This research used job characteristics to describe the job design that affects employee behavior in an organizational context. The study also revised the finalized version of the job characteristic instrument, including aspects of 1) job autonomy, 2) skill variety, 3) task identity, 4) task significance, and 5) feedback.

1) Job autonomy: "The job consistent with institute's employee for initiative or judgment in carrying out the work."

2) Skill variety: "The job requires the employee to use several complex or high-level skills.

3) Task identity: "This job is arranged for each organizational member to do an entire project from the beginning until the end with respected."

4) Task significant: "This job is one where a lot of other people can affect by how well the work gets done"

5) Feedback: "The actual work provides clues about how well you are doing with good feedback from managers and supervisors may provide"

3.4.2.2 Team learning behavior was measured by altering the team behavior questionnaire from Edmondson (1999). It includes seven items for the surveyed questionnaire. The measurement was developed on learning behavior as a repetitive process of creating, fulfilling, and crystalizing the action of humans. The

process was acquired interaction between team members. For clarity, the purpose of this term is to explain a work as a team to avoid the error outcome, which uses a notion from the learning outcome.

3.4.2.3 Innovation Culture has employed the questionnaire concept by adapting Ernest Chang and Lin (2007)'s the Organizational Culture instrument with six items. This study presented the innovation activity categories established naturally in the organization. Innovation culture is a part of the function of organization culture. It is taking the response by finding the suitable solution through shared cultural values among organization members.

3.4.2.4 Team Innovation was reprocessed the ideal from the innovation performance of team working surveys (Al-Khatib, Al-Fawaeer, Alajlouni, & Rifai, 2021) which contain six items. The concept of questionnaire contributed to a capacity in team working that created a new market and lead to a competitive advantage with innovation capacity. Teamwork was addressed by organization culture and innovation context for integrated performance. Thus, this concept leads to the creation of sustainable outcomes for team innovation.

3.5 Questionnaire Pretest

In terms of Validity, the first version of the questionnaire was proposed to the advisory committee. After the verification from the committee, the questionnaire will send it back to the researcher for further revision.

The revised questionnaire will enter the pretest process by sending it to forty informants in a private university. Then the research will use the SPSS program for reliability testing. In general, The Cronbach's Alpha Coefficient is used to test the internal consistency and reliability of the question. This calculation was applied to measure the internal consistency of the measurement items and revealed that each Itemitem was reliable since the reliability value must be higher than 0.7, which designated the standard of reliability for the instrument.

Table 3.2 The measurement of the research variable

Variable	Description	Indicators	Question number
Independent Variable			
Transformational leadership	The meaning is defined as a method for leaders who motivate their followers to be expected to perform or outperform a critically level and to exceed the individual interests of followers with the intention of the organization's success.	Avolio and Bass (1995)	1-20 (20 items)
1) idealized influence	The leader's ability to affect followers characterizes the leader and the organization.		1-8
2) inspirational motivation	The leader's ability to convey a mission, vision, or organizational goal which are attractive to follower		9-12
3) intellectual stimulation	The leader's ability to give a challenging mission, take a possible chance, and concern employees' ideas.		13-16
4) individualized consideration	The leader's interest in followers' needs, behave as a coach or mentor, and be an excellent listener to the follower.		17-20
Dependent Variables			
1. Job characteristic	Job characteristic can define the specific to a job in a particular organization. It is best articulated under five main types:	J. Richard Hackman and Oldham (1975)	21-35 (15 items)
1.1) Job autonomy	The degree of job which provides the freedom to employee with self-determination to working in the organization.		21-23
1.2) Skill variety	The degree of job which was in a various activity to complete the job. The employee must use numerous skills and talent in personnel.		24-26
1.3) Task identity	The degree of job which necessitates to complete the entire work and recognizable amount of job.		27-29

Variable	Description	Indicators	Question number
1.4) Task significant	The degree of job which extensively influence to the other lives or work in organization or the external environment.		30-32
1.5) Feedback	The degree of job which return the result of job to employee by opened information. The employee can use the information for their progress in work.		33-35
2. Team learning behavior	Team learning behavior is the process and attempt to articulate the behaviors through which such outcomes as adaptation to change, greater understanding, or improved performance in teams can be achieved	Edmondson (1999)	36-42 (7 items)
3. Innovation Culture	Innovation culture is integrated in both meaning of innovation concept and organization culture definition. This concept represents the type of activities naturally occurring in the organization which provides values and beliefs to supporting new ideas, novelty, and creative processes resulting in new and innovative products, technology, or processes for organizational functioning as well as norms for behaviors.	Ernest Chang and Lin (2007)	43-48 (6 items)
4. Team Innovation	Team innovation is defined as the outcome or impact of an organization's various innovation activities on production and operation processes by received from the team. It can be argued that team operation can assess an organizational innovation output.	Al-Khatib et al. (2021)	49-54 (6 items)

3.6 The hypotheses

The conceptual model was applied from the literature review in chapter 2. The hypotheses and questions were derived from the model mentioned above.

Hypothesis 1: Transformational leadership has a direct impact on the job characteristic of employees of a private university.

Hypothesis 2: Transformational leadership has a direct impact on the team learning behavior of employees of the private university.

Hypothesis 3: Transformational leadership has a direct impact on the innovation culture of employees of the private university.

Hypothesis 4: Transformational leadership has a direct impact on the team innovation of employees of the private university.

Hypothesis 5: The job characteristic has a direct impact on the team innovation of employees of the private university.

Hypothesis 6: The team learning behavior has a direct impact on the team innovation of employees of the private university.

Hypothesis 7: The innovation culture has a direct impact on the team innovation of employees of the private university.

3.7 An Analytical Model

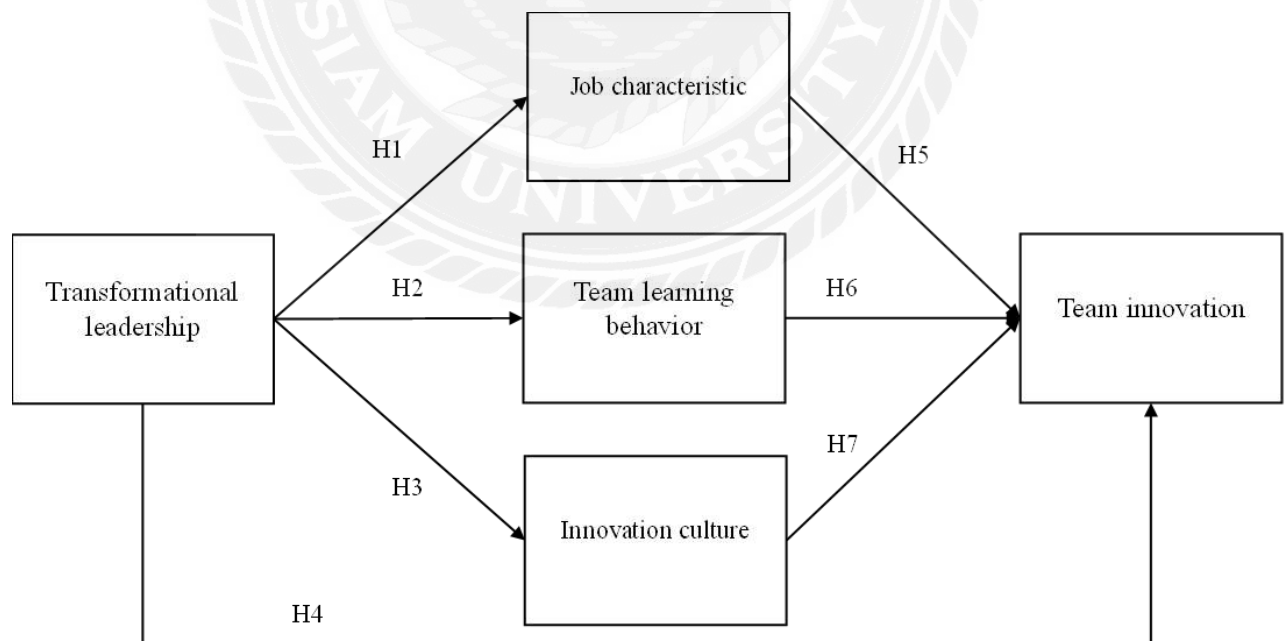


Figure 3.1 An Analytical Model

3.8 Statistical Method of analysis

The data will analyze through the SPSS program and structural equation model testing the Hypotheses in this thesis. The statistical methods used in this study are:

3.8.1 Descriptive statistics, including frequency, percentage, mean, and standard deviation to describe the sample of the study.

3.8.2 Confirmatory factor analysis: this model starts with the analysis of the measurement construct correlation validity by using the value of factor loading. It must test before analyzing the structural equation model.

3.8.3 Structural equation model: to present the relationship between the structural and the construct. This is to test relations by using the theories discussed in the literature review by using criteria of fitness index such as; Chi-square, GFI, CFI, and RMSEA. The testing model can calculate for other outputs to explain Correlation Coefficients and Multiple Regression. The limitation of structural equation model analysis is relevant with approximate the estimated value for constructs. The observed variables are normal distribution in the model. In case of latent variables are not normally distributed, the standard errors and estimates of fit might not be accurate outputs. The extended exogenous variables that shaped the model are highly correlated. This problem still addresses an estimated asymptotic covariance matrix calculation, in which the former approaches might include biased and inefficient estimates in different specific constructs. Although This mean the parameter estimates might not be allowed for consistent procedures if the latent variable present not normally distributed effects.

Chapter 4

Research Findings

This chapter presents the findings of studies the data collected concerning the purpose of the research. This study aimed to determine the relationship between transformational leadership and job characteristics, team learning, innovation culture, and team performance in a private university. The data has been categorized as descriptive analysis using SPSS and an analysis of the structural equation model (SEM) with the AMOS program.

The statistic operation process in this chapter begins with data analysis by descriptive analysis to provide the primary statistic from demographic data and variables as a percentile. Then the information later tested the validity of items on estimated value (factor loading). The factor loading of variables in the measurement model is primary analysis to confirmatory factor analysis (CFA). This analysis was taken discriminatory power and reliability. The secondary confirmatory analysis was part of the initial stage of the analysis. Once the factors meet the criterion, they are used in the analysis in the following step with the AMOS program to build an appropriate model.

4.1 Transformational leadership and other characteristics: Univariate description

The description in this part is to fulfill purpose number 1, that is, to study the current level of transformational leadership among officers who work for a private university. The statistics used for the description are percent, \bar{x} SD, Min, and Max. Nine variables were included in this study, excluding four variables: demographic (gender, age, education background, and tenure (year), transformational Leadership, Job characteristics, team learning, and team innovation. Values, frequencies, percentages, standard deviation, and means were used to describe these values.

4.1.1 Personal characteristics of sample

4.1.1.1 Gender

26.3 percent were male officers and 73.8 were female officers of international affairs. The ratio of male respondents to female respondents was approximately one to four.

4.1.1.2 Age

55.3 percent were the ranged in age from 21 to 30. The second group aged from 31 to 40, was 32.2 percent. 41-50 years was 10.3 percent, and the last was Above 51 at 2 percent.

4.1.1.3 Education status

78.9 percent of the informants received bachelor's degrees, and 17 percent were master's degrees. Another 3.3 percent were doctoral degrees.

4.1.1.4 Tenure

Tenure can be seen that the year of work in current position who works less than 5 years at 52.5 percent, 5-10 was 36.8 percent, 11-15 was 7.8 percent, and 15 above was 3 percent.

Table 4.1 Percentage of all demographic variable.

Variables	Percentage
Gender	
Male	26.3 (105)
Female	73.8 (295)
Age	
21-30	55.3(221)
31-40	32.5(130)
41-50	10.3(41)
Above 51	2(8)
Education	
Bachelor degree	79.8(319)
Master degree	17(68)
Doctoral degree	3.2(13)
Tenure	
Less than 5	52.5(210)
5-10	36.8(147)
11-15	7.8(31)
15 above	3(12)

The survey results showed that most respondents were female, 295, which was 73.8 percent, and male, 105 (26.5 percent). Meanwhile, most informants aged between 21 and 30 can be calculated as 55.3 percent. Second-order are aged 31-40, which can be 32.5 percent. The third range of respondents was aged between 41 and 50, 10.3 percent. The highest education level was a bachelor's degree, 78.9 percent, a total number of 319, and the second group was a master's degree at 68 of informants and 17 percent. The last rank was a doctoral degree, with 13 respondents (3.2 percent). The tenure of work experience position was 210 people (52.2 percent), which is the most number. The other groups are 5-10 (147 people or 36.8 percent), 11-15 (31 people or 7.8 percent), and 15 above (12 people or 3 percent).

4.2 Percentage distribution of constructs

4.2.1 Transformational leadership

This section describes the informants' perception of their leaders with transformational leadership, consisting of four dimensions and twenty questions.

As indicated in Table 4.2 of idealized influence, a majority of 86 percent that leaders bring the organization's values and beliefs to the organization, 86.3 percent leaders could solve the current problem, 87.6 percent claimed that the leaders have moral and ethical decisions, 86.6 percent could explain the organization's mission. In contrast, 87.3 percent clearly understood the teamwork concept in the organization; 85.8 percent instilled pride for being associated with them; 86.5 percent which leader goes beyond self-interest; the informants, 86.5 percent knew how to respect the team; and 87.5 percent presented a sense of leader confidence to be role model.

According to table 4.2, the percentage of respondents who agree or highly agree mostly answers in part to the idealized influence dimension. The employees in private universities have a positive attitude toward their manager or director in international affairs.

Table 4.2 Percentage distribution of idealized influence (Transformational leadership)

	Statement	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Talks about his/her most important values and beliefs to manage the organization	0.5	0.5	13.0	40.5	45.5
2	Suggests the urgent purpose for solving the problem in current	0.3	1.5	12.0	35.0	51.3
3	Considers the moral and ethical consequences of decisions	0.3	0.8	12.5	34.3	52.3
4	Emphasizes the importance of teamwork to complete the institutes' mission	0.5	1.0	11.3	32.3	55
5	Instills pride in me for being associated with him/her	0.5	0.8	13.0	39.0	46.8
6	Goes beyond self-interest for the good of the group	0.3	0.8	12.5	42.5	44.0
7	Respect for the team when working in organization	0.5	0.8	12.3	39.5	47.0
8	Presents a sense of leader confidence to be role model	0.8	0	11.8	37.5	50.0

This part is a percentage of inspirational motivation with four items to question the respondents. The manager or leaders in their division create the positive awareness among employees in the organization at 86.6, one question showed a significant level of attitude to leaders' support the energetic circumstance to fulfill the administrative team request in work at 86.3 percent, the leader could connect the admirative team with a vision of the future at 94.3 percent. Finally, managers show confidence that members of the institute can achieve their work at 94 percent.

According to table 4.3, the percentage of respondents who agree or highly agree was answered mainly by inspirational motivation. The employees in private universities have a positive attitude towards their manager or director in international affairs.

Table 4.3 Percentage distribution of inspirational motivation. (Transformational leadership)

Statement		Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Gain the positive awareness to people in the organization	1.3	0	12.3	39.8	46.8
2	Support the energetic circumstance to fulfill the administrative team request in work	0.3	1.3	12.3	32.0	54.3
3	Connects the administrative team with vision of the future	0.3	0.5	16.0	43.8	60.5
4	Shows confidence that members in institute can achieve their work	1.8	0	14.3	39.0	45.0

For this section, there are four questions in table 4.4 containing intellectual stimulation. The executives presented their ideas for correcting the situation at 85.3. The question states that managers know how to show their solution for situation plan at 82 percent. The findings imply that managers can present a source of the problem to their employees at 86.6 percent. However, their manager advised the other options for improving work at 84.8 percent.

According to table 4.4, the percentage of respondents who agree or highly agree mainly were answered in part of the inspirational motivation. The employees in private universities have a positive attitude to their manager or director in international affairs.

Table 4.4 Percentage distribution of intellectual stimulation. (Transformational leadership)

Statement		Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Displays his/her ideas for corrected the situation	1.0	0	13.8	42.0	43.3
2	Shows his/her in every angle of problems for better solution	0.3	0.8	17.0	37.5	44.5
3	Surveys the source of institutional dilemma from resolve the root of problem	0.3	1.3	12.0	38.8	47.8
4	Advice the other options for improve work	0.3	0.3	14.8	39.5	45.3

There are four questions in table 4.5 containing individual considerations for this section. The executives present spend time teaching and coaching employees regarding the pandemic at 86.1. The question claimed that Treats employee as an individual rather than just as a group member at 86.1 percent. The findings imply that leaders consider the author having different needs, abilities, and aspirations from others at 85.6 percent. Finally, their manager advised the other options for improving work at 83.3 percent.

According to table 4.5, the percentage of the respondents who agree or highly agree mostly answers part of the inspirational motivation. The employees in private universities have a positive attitude to their manager or director in international affairs.

Table 4.5 Percentage distribution of Individual consideration. (Transformational leadership)

Statement		Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Spends time to teach and to coach that employee need regard the pandemic	0.3	0.3	13.5	38.8	47.3
2	Treats employee as an individual rather than just as a member of a group	0	0.3	13.8	32.3	53.8
3	Considers me as having different needs, abilities, and aspirations from others	0	1.5	13.0	44.8	40.8
4	Encourages me to develop my strengths	0.8	0.5	15.5	42.8	40.5

4.2.2 Job characteristic

This section describes the informants' perception of their leaders with job characteristics consisting of five categories. This section defines the respondents' attitudes about job characteristics in a private university, consisting of fifteen questions. (Containing three items in each category)

Three questions are measuring to job autonomy (table 4.6). Among all these questions, the item detailing the job gives autonomy and extent the permission to decide about the work at 97.3 percent. The respondents stated that the employee perception level that the job respects employee initiative or judgment in carrying out the work at 87.8 percent. The last item, the job that gives employees considerable the opportunity for independence and freedom in how they do the work, was 87.1 percent. These findings show that the respondents agreed and strongly agreed to their autonomy.

Table 4.6 Percentage distribution of job autonomy. (Job characteristic)

Statement		Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Your job gives you the autonomy and extent the permission to decide about the work	0	1.3	11.5	45.8	41.5
2	Your job respects your initiative or judgment in carrying out the work.	0	0.3	12	37.0	50.8
3	Your job gives you considerable opportunity for independence and freedom in how you do the work.	0.3	0	12.8	40.3	46.8

Three questions measure skill variety (Table 4.7). Among all these questions, the item detailing jobs assigned by leaders with different tasks. Then the employee uses a variety of skills and talents at 85.5 percent. The respondents stated the level of employee perception that the job requires them to use several complex or high-level skills at 84.8 percent. Finally, the job that they receive from the manager or director. It was a challenge and was customized to them to finish at 84.6 percent. These findings show that the respondents agreed and strongly agreed with their skill variety.

Table 4.7 Percentage distribution of skill variety. (Job characteristic)

Statement		Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Your job requires you to do many different things at work, using various skills and talents.	0.3	0	14.3	40.0	45.5
2	Your job requires me to use several complex or high-level skills.	0.3	0.8	14.3	40.3	44.5
3	Your job is a challenge and customize.	0.3	0.5	14.8	34.8	49.8

Three questions measure task identity (table 4.8). Among all these questions, the item describes how jobs were completed as a piece of work. The employee knows all the obvious procedures from the beginning until the end at 88.1 percent. The

respondents know the job is dependent on their own decision; thus, they have a complete chance to do an entire work from beginning to end at 87.0 percent. Finally, the job provides them with a success chance their work at 87.8 percent. These findings show that the respondents agreed and strongly agreed with their task identity.

Table 4.8 Percentage distribution of task identity. (Job characteristic)

Statement		Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Your job is a complete piece of work with an obvious beginning until the end.	0.3	0	11.8	40.8	47.3
2	Your job is depended on your decision, so you have the chance to do an entire piece of work from beginning to end.	0.3	0.5	12.3	42.0	45.0
3	Your job provides you with a chance to finish the pieces of work.	0	0.5	11.8	38.8	49.0

Three questions measure task significance (table 4.9). Among all these questions, the item defines the significance of work by presenting the results of employee output which is likely to affect the lives or well-being at 89.1 percent significantly. The respondent's job can affect the employee when they do the work with a great result of 86.6 percent. Finally, the job itself is significant in the broader scheme of things at 87.8 percent. These findings show that the respondents agreed and strongly agreed that their task was significant.

Table 4.9 Percentage distribution of task significant. (Job characteristic)

	Statement	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Your job presents the results of your work, which are likely to significantly affect other people's lives or well-being.	0.3	0.5	10.3	39.3	49.8
2	Your job is one where many other people can be affected by how well the work gets done.	0.3	1.0	12.3	42.8	43.8
3	Your job itself is significant in the broader scheme of things.	0.3	0.3	11.8	48.0	39.8

Three questions measure feedback (Table 4.9). Among all these questions, the item explaining their actual work provides the clues about how well they can do with any feedback or suggestion from their co-workers and supervisors at 76.8 percent. The respondent can do the organization's work, which provides many chances for university. This option made employees figure out how well they are doing their work at 80.0 percent. Finally, the job itself provides very few clues to make employees perform well at 72.0 percent. These findings show that the respondents agreed and strongly agreed with their feedback.

Table 4.10 Percentage distribution of feedback. (Job characteristic)

	Statement	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Your actual work provides the clues about how well you are doing—aside from any “feedback” co-workers and supervisors may provide?	0.3	2.3	20.8	47.8	29.0
2	You can do the work required by the job provides many chances for you to figure out how well you are doing	0.3	2.5	27.3	46.5	23.5
3	Your job itself provides very few clues about whether you are performing well.	0.5	2.3	25.3	46.0	26.0

4.2.3 Team learning

This section has the purpose of finding the level of team learning of the respondents' attitude toward their leader's idea to create their team learning design which content of seven items of measurement. This section defines the respondents' attitudes about team learning in a private university.

Seven questions measure team learning (table 4.11). Among all these questions, the item detailing about team regularly taking time to figure out ways to improve work processes at 75.0 percent, the team tends to handle differences of opinion privately or offline, rather than addressing them directly as a group at 76.3 percent, Team members go out and get all the information they possibly can from others-such as learners, or other parts of the institution at 76.0 percent, the team frequently seeks new information that leads us to make an essential change at 75.5 percent. In their team, they always make sure that they reflect members' ideas to improve the team's work process at 75.8 percent. People in the team always open their minds to test assumptions about issues under discussion at 85.6 percent. Finally, team members can invite people from outside the team to join and work together at 76.8 percent. These findings show that the respondents agreed and strongly agreed to team learning.

Table 4.11 Percentage distribution of team learning.

	Statement	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Your team regularly takes time to figure out ways to improve work processes.	1.8	2.5	20.8	45.0	30.0
2	This team tends to handle differences of opinion privately or offline rather than addressing them directly as a group.	0.3	1.0	22.5	48.5	27.8
3	Team members go out and get all the information they possibly can from others-such as learners, or other parts of the institution	0	2.5	21.5	48.5	27.5
4	This team frequently seeks new information that leads us to make a necessary change	0.3	2.0	20.3	52.0	25.5
5	In this team, someone always makes sure that we stop to reflect on the team's work process	0.3	2.3	21.8	49.0	26.8
6	People in this team often speak up to test assumptions about issues under discussion	0	0.8	13.8	53.8	31.8
7	Your team invite people from outside the team to present information or have discussions with us	0.3	2.3	20.8	47.8	29.0

4.2.4 Innovation culture

In this section, the purpose was to find the level of innovation culture that leads by the interaction of leaders with members of the organization to apply innovation knowledge. This dimension shows the questionnaire involves the manager's support and presents the ideal of employee reaction by their attitude level. This section defines the respondents' attitude about the Innovation culture in a private university.

Seven questions measure team learning (table 4.12). Among all these questions, the item detailing managers dare to make innovation and take the risk at 85.0 percent, Managers actively lead the staff to grow and innovate at 86.3 percent,

managers have vision and insights to create new educational opportunities at 81.3 percent, employees always have to face challenges, and they can learn and grow from the challenges at 85.6 percent. Institutes pay attention to employees' uniqueness and encourage innovation from employees at 85.6 percent. Institutions are willing to take risks, and it is indeed an ambitious and energetic organization at 88.3 percent. These findings show that the respondents agreed and strongly agreed with an innovation culture.

Table 4.12 Percentage distribution of Innovation culture.

	Statement	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	Managers have courage to make innovation and take risk	0.3	0.8	14.0	47.5	37.5
2	Managers actively lead the staff to grow and innovate	0.3	0.5	13.0	41.8	44.5
3	Managers have vision and insights to create new education opportunities	0.8	0.5	17.5	47.8	33.5
4	Employees always have to face challenges, and they can learn and grow from the challenges	0.5	0.5	13.5	46.5	39.3
5	Your institutes pay attention to the uniqueness of employees and encourages the innovation from employees	0.3	0.8	13.5	50.8	34.8
6	Your company is willing to take risks, and it is indeed an ambitious and energetic organization	0.5	0.3	11.0	43.8	44.5

4.2.5 Team innovation

This section aims to find the level of team innovation that integrates the team learning method effect and innovation culture. This variable involves employee behavior performance toward their culture on the mission of leaders. This section defines the respondents' attitude about the Innovation culture in a private university.

Six questions measure team learning (table 4.13). Among all these questions,

the item detailing about the university has developed new processes or services in education at 85.8 percent, the university has improved its administrative and organizational operations at 86.8 percent, the university has sought to use the ideas of its staff at 78.8 percent, the university administration encourages the initiatives and creative ideas launched by its employee's better way than competing universities at 86.8 percent, the university introduced new methods and improvements to the educational process in a better way than competing universities at 83.0 percent, and students registration increased because of the introduction of new services 84.3 percent. These findings show that the respondents agreed and strongly agreed to team innovation.

Table 4.13 Percentage distribution of team innovation.

	Statement	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
1	The university has developed new processes or services in education	0.3	1.0	13.0	49.0	36.8
2	The university has improved its administrative and organizational operations	0.5	0.3	12.5	46.0	40.8
3	The university has sought to use the ideas of its staff	1.0	1.8	18.5	47.0	31.8
4	The university administration encourages the initiatives and creative ideas launched by its employees better way than competing universities	0.3	0.3	12.8	42.3	44.5
5	The university introduced new methods and improvements to the educational process in a better way than competing universities	0.3	1.5	15.3	44.5	38.5
6	Student registration increased because of the introduction of new services	0.3	1.0	14.5	47.0	37.3

4.3 Discriminatory Power, Reliability and Primary Confirmatory Factor Analysis (CFA)

This section was used to analyze the validity and modify by confirmatory factor analysis from 400 total samples. The confirmatory factor analysis was conducted on the AMOS program to observable variables (transformational leadership, job characteristic, team learning, innovation culture, and team performance). For analysis in this section, the researcher uses calculations to find the fitness for CFA, standard regression weight (λ), and construct reliability in each factor load.

4.3.1 Measurement model

The fundamental tool employed in this research by experts to test the validity and reliability. After data was collected, it was analyzed with the elements of CFA. The sample of 400 people is illustrated in five latent variables as follows.

4.3.1.1 Transformational leadership presents four factor loading in the questionnaire as; (1) TFL1 (idealized influenced), TFL2 (inspirational motivation), TFL3 (intellectual stimulation), and TFL4 (individual consideration). The items which have the factor loading value (standard estimated regression weight) less than 0.5 are not included. Although the value in the transformational leadership model was met on criteria in Table 4.14;

Table 4.14 Factor Loading of transformational leadership in measurement model.

Variable	Item			Estimate
Idealized influenced (TFL1)	TFL1.1	<---	TFL1	0.801
	TFL1.2	<---	TFL1	0.802
	TFL1.3	<---	TFL1	0.816
	TFL1.4	<---	TFL1	0.821
	TFL1.5	<---	TFL1	0.745
	TFL1.6	<---	TFL1	0.761
	TFL1.7	<---	TFL1	0.802
	TFL1.8	<---	TFL1	0.795
Inspirational motivation (TFL2)	TFL2.4	<---	TFL2	0.855
	TFL2.3	<---	TFL2	0.818
	TFL2.2	<---	TFL2	0.785
	TFL2.1	<---	TFL2	0.843
Intellectual stimulation (TFL3)	TFL3.4	<---	TFL3	0.828
	TFL3.3	<---	TFL3	0.865
	TFL3.2	<---	TFL3	0.859
	TFL3.1	<---	TFL3	0.826
Individual consideration (TFL4)	TFL4.4	<---	TFL4	0.818
	TFL4.3	<---	TFL4	0.811
	TFL4.2	<---	TFL4	0.848
	TFL4.1	<---	TFL4	0.848

4.3.1.2 Job characteristic presents five variables in factor loading value which follows as: (1) JOB1 (job autonomy), JOB2 (skill variety), JOB3 (task identity), JOB4 (task significance) and JOB5 (feedback). All constructs have the factor loading value (standard estimated regression weight) under 0.5 are not included. The job characteristic model reached to estimated value. (table 4.15)

Table 4.15 Factor Loading of job characteristic in measurement model.

Variable	ITEM			Estimate
Job autonomy (JOB1)	J1.3	<---	JOB1	.884
	J1.2	<---	JOB1	.856
	J1.1	<---	JOB1	.775
Skill variety (JOB2)	J2.3	<---	JOB2	.818
	J2.2	<---	JOB2	.816
	J2.1	<---	JOB2	.823
Task identity (JOB3)	J3.3	<---	JOB3	.767
	J3.2	<---	JOB3	.726
	J3.1	<---	JOB3	.773
Task significant (JOB4)	J4.3	<---	JOB4	.728
	J4.2	<---	JOB4	.767
	J4.1	<---	JOB4	.806
Feedback (JOB5)	J5.3	<---	JOB5	.690
	J5.2	<---	JOB5	.770
	J5.1	<---	JOB5	.642

4.3.1.3 Team learning presents seven items in questionnaires. The items in this dimension must have the factor loading value (standard estimated regression weight) over or equal to 0.5. The items that were less than 0.5 were not included (the underline items). They are Team1, Team5, Team6, and Team7. The team learning component shows the estimated value as follows (Table 4.16);

Table 4.16 Factor Loading of team learning in measurement model.

Variable	Item			Estimate
Team learning (TEAM)	<u>Team1</u>	<---	team	<u>.458</u>
	Team2	<---	team	.789
	Team3	<---	team	.976
	Team4	<---	team	.972
	<u>Team5</u>	<---	team	<u>.485</u>
	<u>Team6</u>	<---	team	<u>.301</u>
	<u>Team7</u>	<---	team	<u>.444</u>

4.3.1.4 Innovation culture presents six items in questionnaires. The items in this dimension must have the factor loading value (standard estimated regression weight) over or equal to 0.5. The items that were less than 0.5 were not included (the underline items). The innovation culture component shows estimated value as follows (table 4.17);

Table 4.17 Factor Loading of innovation culture in measurement model.

Variable	Item			Estimate
Innovation culture (INCUL)	InCul1	<---	INCUL	.852
	InCul2	<---	INCUL	.812
	InCul3	<---	INCUL	.732
	InCul4	<---	INCUL	.789
	InCul5	<---	INCUL	.745
	InCul6	<---	INCUL	.751

4.3.1.5 Team innovation presents six items in questionnaires. The items in this dimension must have the factor loading value (standard estimated regression weight) over or equal to 0.5. The items that were less than 0.5 were not included (the underline items). They are Team1, Team5, Team6, and Team7. The team innovation component shows estimated value as follows (table 4.18);

Table 4.18 Factor Loading of team innovation in measurement model.

Variable	Item			Estimate
Team innovation (TEAMINNO)	Teaminno1	<---	TEAMINNO	.791
	Teaminno2	<---	TEAMINNO	.819
	Teaminno3	<---	TEAMINNO	.775
	Teaminno4	<---	TEAMINNO	.755
	Teaminno5	<---	TEAMINNO	.808
	Teaminno6	<---	TEAMINNO	.832

The primary measurement model is the first step to modifying factors in the structural model. This method eliminated all the factor loading below 0.5 until the model completely standardizes the value.

The researcher would like to validate the model before validating the model by using discriminatory power. This research selected the filtered data to calculate on Structural Equation Model. The primary screening determines the relevant information generated on multiple variables in the transformational leadership model.

4.3.2 Discriminatory Power

The data was calculated to determine the convergent validity associated with value weighting factors derived from standardized regression weight obtained through the confirmatory factor analysis. The weight of each variable should be at least 0.5. The reliability was tested by a Cronbach' s alpha coefficient of greater than 0.70 (0.60 is allowed in some cases) (Nunnally, 1967). The average variance extracted (AVE) had to be greater than 0.5 (significant at ≥ 0.5) (Hair, Black, Babin, & Anderson, 2010) or less than 0.5 if the composite reliability (CR) was higher than 0.6. (Fornell & Larcker, 1981). The CR value should be greater than 0.7 (significant at ≥ 0.7) or meet an acceptable

4.3.2.1 Transformational Leadership (TFL)

The discriminatory power and reliability of the measurement of transformational leadership.

Table 4.19 Assessment results for the measurement model and the reliability for convergent validity.

Variable	Component	Corrected Item Total Correlation	Cronbach's Alpha	Average Variance Extracted (AVE)	Construct Reliability (CR)
TFL1 (Idealized influenced)	TFL1.1	.921	0.931	0.629	0.931
	TFL1.2	.920			
	TFL1.3	.920			
	TFL1.4	.919			
	TFL1.5	.925			
	TFL1.6	.925			
	TFL1.7	.921			
	TFL1.8	.924			
TFL2 (Inspirational motivation)	TFL2.1	.857	0.895	0.682	0.895
	TFL2.2	.881			
	TFL2.3	.859			
	TFL2.4	.860			
TFL3 (Intellectual stimulation)	TFL3.1	.890	0.908	0.714	0.909
	TFL3.2	.873			
	TFL3.3	.866			
	TFL3.4	.891			
TFL4 (Individual consideration)	TFL4.1	.876	0.900	0.691	0.900
	TFL4.2	.867			
	TFL4.3	.872			
	TFL4.4	.868			

Table 4.19 shows the discriminate power through the value of the corrected item-total correlation in the transformational leadership that the criterion in each equation has the Cronbach's Alpha over 0.7. The idealized influenced (TFL1) values from 0.919-0.925, with the reliability score at 0.931, average variance extracted (AVE) score at 0.629 and construct reliability (CR) score at 0.931. The inspirational motivation (TFL2) ranges from 0.857 to 0.881, with the reliability score at 0.985, average variance extracted (AVE) score at 0.682, and construct reliability (CR) score at 0.895. the intellectual stimulation (TFL3) ranges between 0.866-0.891, with the reliability score at 0.909, average variance extracted (AVE) score at 0.908, and construct reliability (CR) score at 0.714. The individual consideration (TFL4) ranges between 0.867-0.876, with a reliability score of 0.900, average variance extracted (AVE) score of 0.691, and

construct reliability (CR) score of 0.900. This study presented those items in the transformational questionnaire that pass the criteria. The transformational leadership measurement can use in structural equation model analysis.

4.3.2.2 Job Characteristic (Job)

The discriminatory power and reliability of the measurement on the job characteristic.

Table 4.20 Assessment results for the measurement model and the reliability for convergent validity.

Variable	Component	Corrected Item Total Correlation	Cronbach's Alpha	Average Variance Extracted (AVE)	Construct Reliability (CR)
Job1	J1.1	0.869	0.874	0.705	0.877
	J1.2	0.799			
	J1.3	0.798			
Job2	J2.1	0.815	0.860	0.671	0.860
	J2.2	0.719			
	J2.3	0.802			
Job3	J3.1	0.719	0.799	0.571	0.800
	J3.2	0.742			
	J3.3	0.717			
Job4	J4.1	0.781	0.815	0.590	0.811
	J4.2	0.702			
	J4.3	0.749			
Job5	J5.1	0.692	0.743	0.493	0.744
	J5.2	0.620			
	J5.3	0.660			

Table 4.20 shows the discriminate power through the value of the corrected item total correlation in the job characteristic. The criterion in each equation has Cronbach's Alpha over 0.7. The job autonomy (Job1) values from 0.798-0.869, with the reliability score at 0.874, average variance extracted (AVE) score at 0.705 and construct reliability (CR) score at 0.877. The skill variety (Job2) ranges from 0.719 to 0.815, with the reliability score at 0.860, average variance extracted (AVE) score at 0.671, and construct reliability (CR) score at 0.860. the task identity (Job3) ranges

between 0.717- to 0.742, with the reliability score at 0.799, average variance extracted (AVE) score at 0.571, and construct reliability (CR) score at 0.800. The task significant (Job4) ranges between 0.702 to 0.781, with a reliability score of 0.815, average variance extracted (AVE) score of 0.590, and construct reliability (CR) score of 0.811. The feedback (Job5) ranges between 0.620-0.660, with the reliability score of 0.743, average variance extracted (AVE) score at 0.493, and construct reliability (CR) score of 0.744. The result met the criteria for testing in the structural equation model. Then the finding could improve the relationship among the variables.

4.3.2.3 Team learning (TEAM)

The discriminatory power and reliability of the measurement on the job characteristic.

Table 4.21 Assessment results for the measurement model and the reliability for convergent validity.

Variable	Component	Corrected Item Total Correlation	Cronbach's Alpha	Average Variance Extracted (AVE)	Construct Reliability (CR)
TEAM	Team2	0.974	0.933	0.840	0.940
	Team3	0.859			
	Team4	0.871			

Results from table 4.21 show the discriminate power through the value of the corrected item-total correlation in the team learning that the criterion in each equation has the Cronbach's Alpha over 0.7. The team learning values from 0.859 to 0.974, with the reliability score at 0.933, average variance extracted (AVE) score at 0.840 and construct reliability (CR) score at 0.940. Team learning calculation for factor loading was adopted, and three met the criteria.

4.3.2.4 Innovation Culture (InCul)

The discriminatory power and reliability of the measurement on innovation culture.

Table 4.22 Assessment results for the measurement model and the reliability for convergent validity.

Variable	Component	Corrected Item Total Correlation	Cronbach's Alpha	Average Variance Extracted (AVE)	Construct Reliability (CR)
InCul	InCul1	0.877	0.903	0.610	0.903
	InCul2	0.883			
	InCul3	0.893			
	InCul4	0.883			
	InCul5	0.889			
	InCul6	0.890			

Table 4.22 shows the discriminate power through the value of the corrected item-total correlation in the innovation culture that the criterion in each equation has the Cronbach's Alpha over 0.7. The innovation culture values from 0.877 to 0.890, with the reliability score at 0.903, average variance extracted (AVE) score at 0.610, and construct reliability (CR) score at 0.903.

4.3.2.5 Team innovation (TEAMINNO)

The discriminatory power and reliability of the measurement on the team innovation.

Table 4.23 Assessment results for the measurement model and the reliability for convergent validity

Variable	Component	Corrected Item Total Correlation	Cronbach's Alpha	Average Variance Extracted (AVE)	Construct Reliability (CR)
TEAMINNO	Teaminno1	.897	0.912	0.635	0.913
	Teaminno2	.893			
	Teaminno3	.900			
	Teaminno4	.901			
	Teaminno5	.894			
	Teaminno6	.891			

Table 4.23 shows the discriminate power through the value of the corrected item total correlation in the team innovation. The criterion in each equation has Cronbach's Alpha over 0.7. The team innovation from 0.891-0.901, with the reliability score at 0.912, average variance extracted (AVE) score at 0.635 and construct reliability (CR) score at 0.913.

This study intended to confirm the constructs for the model (reliability and validity), which followed the framework. The appropriate value is based on the construct validity of the measurement model by using each questionnaire item's standardized factor loading. The testing of the measurement model was achieved. Hence, the finding could be concluded to qualify for appropriate model fitness.

4.4 The Structural Equation models and hypothesis testing

This research has articulated the hypothesis that has the relations between structural constructs of transformational leadership in private universities and their influences on team innovation. The analysis was categorized into three groups; structure, path analysis, and the separation of the independent variable (transformational leadership). The equation in the model explained all the relationships. The level of the number classified to was indicated. Then they employed the analysis that fits with the model. Results in the tables provided the information on path coefficients (standardized

regression weight), p-value (testing significance), R^2 (the squared multiple correlations), endogenous construct, and exogenous variables. Finally, the paths with statistical significance with each model will be presented.

The results in the structural equation analysis must: CMIN/DF should not be more than 5.00; IFI, GFI, CFI should be equal to or more than, PNFI and PCFI should be close to 1, and RMSEA must not be over 0.08, which meets the specified criteria. This represents an appropriate structural model. Therefore, it could tell those structural equations operating independent variables (transformational leadership) and applied groups in mediating variables, such as team learning, innovation culture, and job characteristic. They all affect team performance in private universities significantly. It is a model that is congruent with empirical data. Therefore, the measurement model fits the theoretical model at an acceptable level. All values met the criteria, which indicated that the structural equations of the generated models had a very good fit (Table 4.24). This met the fit measurement criteria as required.

Table 4.24 Model fit Intercept (N=400).

	Model fit Indices	Threshold Range	Observed Values
Tested Model	CMIN/DF (χ^2/df)	below 5.00	2809.204/1154 = 2.434
	IFI	above 0.90	0.906
	GFI	above 0.70	0.767
	CFI	above 0.90	0.904
	RMSEA	below 0.08	0.060
	PNFI	almost 1	0.798
	PCFI	almost 1	0.851

The method of path coefficients was used in the model; p-value and R^2 appear as indicated in table 4.24. This can clarify the path of the impact of variable in the model as follow

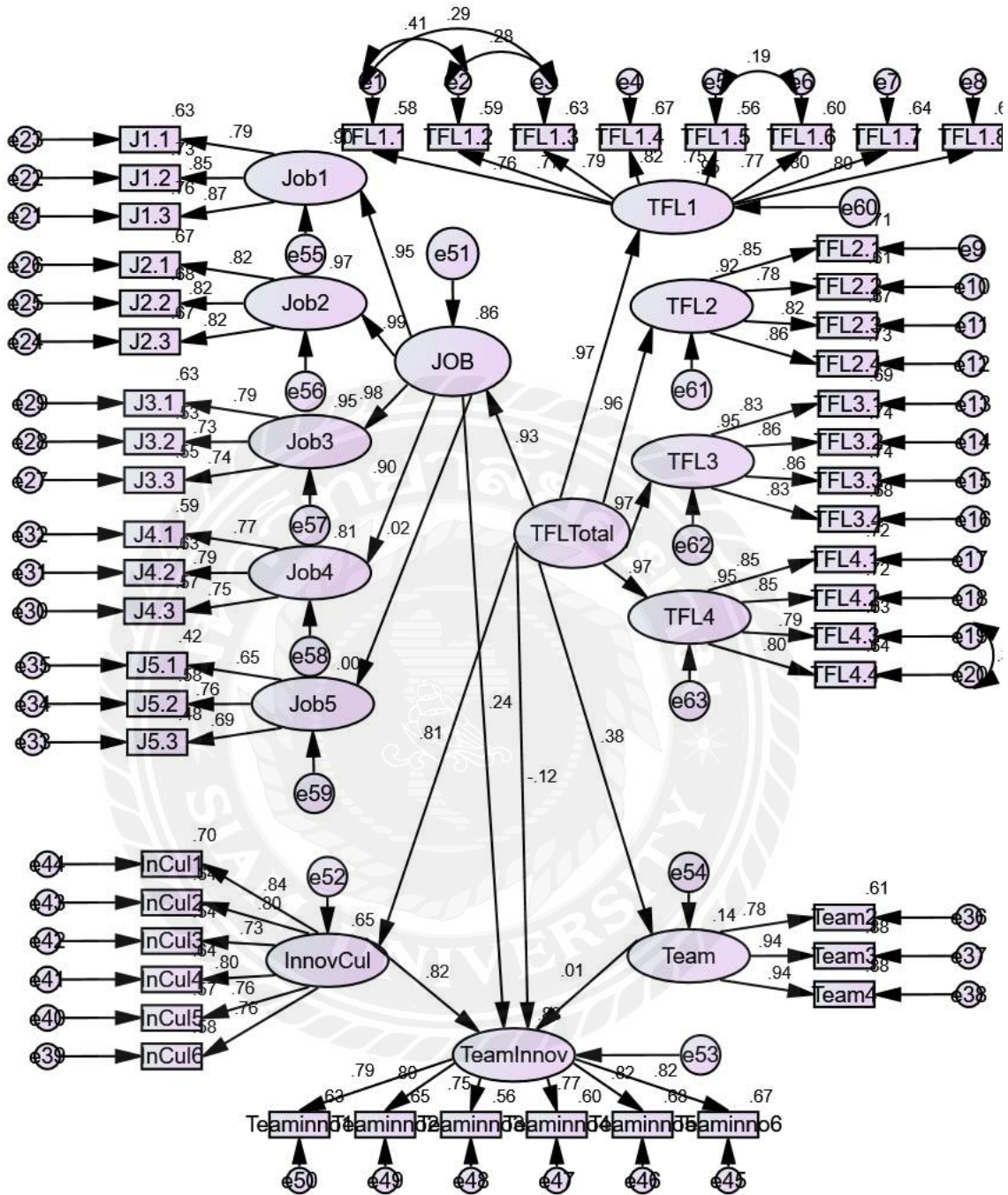


Figure 4.1 The modified structural equation model

The path coefficient of transformational in a private university was calculated as the model's estimated value(β). The data analysis for the transformational leadership model shows the relationship among the variable. The research accepts the hypothesis

of H1, H2, H3, H5, and H7. The p-value is 0.00, which has less significance than $***.001$. It means there is significance in causality between the correlation in each variable. There was an effect between transformational leadership to job characteristics (H1), team learning (H2), and innovation culture (H3), this effect includes job characteristics (H5) and innovation culture (H7) with team innovation. According to the table that shows the path of the coefficients, there were three levels of significance ($p = *.05, **.01, ***.001$). For example, the direct effect of transformation leadership on innovation culture was more likely to have the standardized regression weight that would be better than transformational leadership's effect on team learning ($0.741 > 0.461$).

Table 4.25 Hypothesis testing.

Hypotheses	Estimate (β)	S.E.	t-value	p-value	Result
H1: TFL -> Job	.953***	.054	17.581	.000	supported
H2: TFL -> Team	.461***	.062	7.432	.000	supported
H3: TFL -> InCul	.741***	.051	14.432	.000	supported
H4: TFL -> Teaminno	-.121	.118	-1.022	.307	not supported
H5: Job -> Teaminno	.232*	.100	2.308	.021	supported
H6: Team -> Teaminno	.011	.027	.431	.666	not supported
H7: InCul -> Teaminno	.900***	.081	11.151	.000	supported

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The employees in the private university in Thailand with internal affair has the R^2 value (squared multiple correlations) in each construct. The variation of each construct occurs because of the influencing variable of Transformational Leadership and can be calculated in figure 4.2 and the result in table 4.26.

Table 4.26 The squared multiple correlations value.

	Variable	Estimate
1	Transformational leadership	
1.1	Idealized influenced (TFL1)	0.945
1.2	Inspirational motivation (TFL2)	0.922
1.3	Intellectual stimulation (TFL3)	0.950
1.4	Individualized consideration (TFL4)	0.945
2	Job characteristic	0.860
2.1	Job autonomy (job1)	0.905
2.2	Skill variety (job2)	0.973
2.3	Task identity (job3)	0.954
2.4	Task significant (job4)	0.812
2.5	Feedback (job5)	0.001
3	Team learning	0.144
4	Innovation culture	0.651
5	Team innovation	0.828

The result presented the value among variable in the transformational leadership has direct variation towards sub-dimension which can be calculated as 94.5% (TFL1), 92.2% (TFL2), 95.0 (TFL3), and 94.5% (TFL4). The squared multiple correlations value (R^2) towards the job characteristic as 86.0% that also the internal variable has direct effect from latent variable as 90.5% (job 1), 97.3% (job2), 95.4% (job3), 81.2% (job4), and 0.1% (job5). The study shown other dependent variable effect value as 14.4% (team learning), 65.1% (innovation culture), and 82.8% (team innovation).

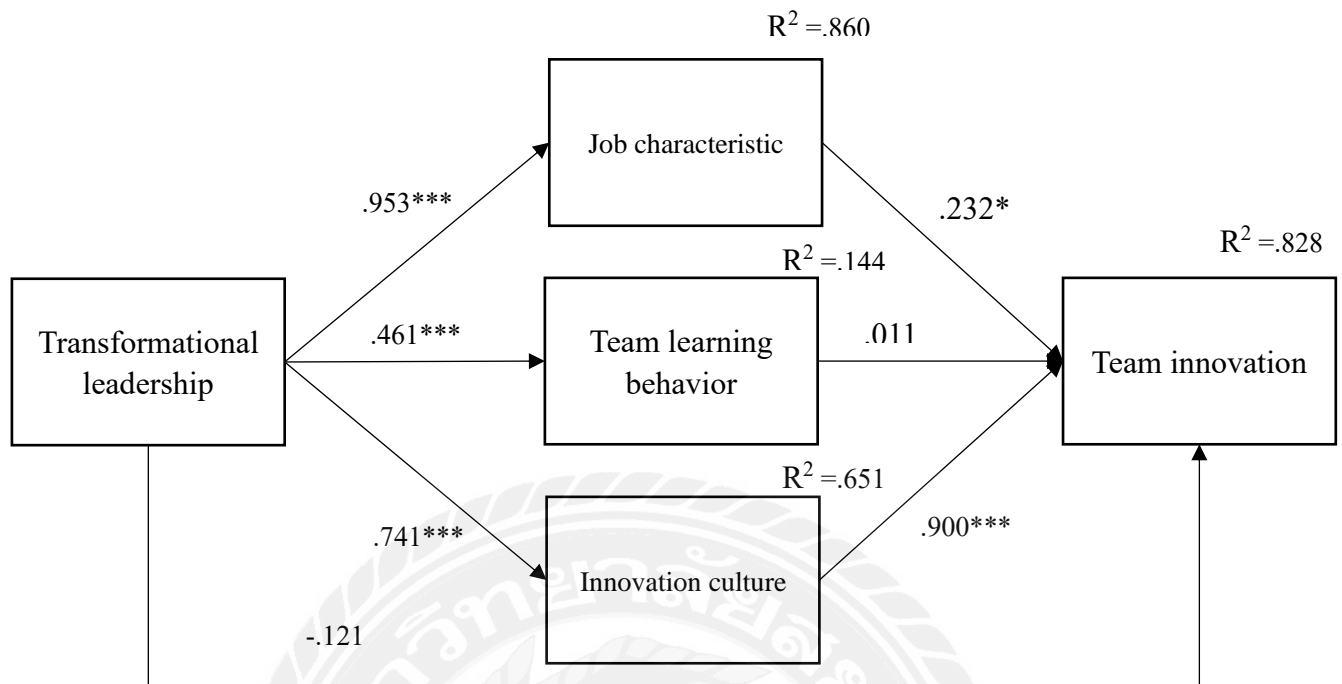


Figure 4.2 The output of the mediating effect (path analysis).

The findings are shown in the model that relates Transformational Leadership, Job characteristics, team learning behavior, innovation culture, and team innovation in a private university. The causal relations among each variable will be apparent. According to Picture 4.2, the path of coefficients can be witnessed as the direct impacts between the variables indicated in the research framework. However, some variables do not have relations with others, i.e., Transformational Leadership has no effects on team innovation. Another is team learning behavior and team innovation, which do not directly affect variables. The rest indicates the relations as presented in the figure.

From the leadership models, the hypotheses testing is discussed in table 4.27

Table 4.27 Hypotheses testing.

Hypotheses		TFL
H1	Transformational leadership has a significant direct effect on job characteristic	✓
H2	Transformational leadership has a significant direct effect on team learning behaviour	✓
H3	Transformational leadership has a significant direct effect on innovation culture	✓
H4	Transformational leadership has a significant direct effect on team innovation	X
H5	Job characteristic has a significant direct effect on team innovation	✓
H6	Team learning behaviour has a significant direct effect on team innovation	X
H7	Innovation culture has a significant direct effect on team innovation	✓

(✓) accepted hypothesis (x) rejected hypothesis (-) none hypothesis in that model
The conclusion of hypothesis testing on Transformational Leadership (TFL) is as follows;

H1: Transformational Leadership has a significant direct effect on job characteristics (*accepted hypothesis*).

This hypothesis explains that Transformational Leadership encouragement can contribute to arranging the organizations' job characteristics in that private universities. Transformational leadership has significance on job characteristics (path coefficient is indicated at 0.927 t-value = 17.581 and $P \leq 0.000$). This is shown in Table 4.25. It is the model used to study the relationship over the parts that have significance on the Transformational Leadership at private universities and forecast the result of the organizations' job characteristics in that university.

H2: Transformational Leadership has a significant direct effect on team learning behavior (*accepted hypothesis*).

This hypothesis explains that Transformational Leadership support can contribute to arranging the employees' team learning behavior in that private universities. Transformational leadership has significance on team learning behavior

(path coefficient is indicated at 0.380 t-value = 7.432 and $P \leq 0.000$). This is shown in Table 4.25. It is the model used to study the relationship over the parts that have significance on the Transformational Leadership at private universities and to forecast the result of the employees' team learning behavior in that university.

H3: Transformational Leadership has a significant direct effect on innovation culture (*accepted hypothesis*).

This hypothesis explains that Transformational Leadership support can contribute to arranging the university's innovation culture in that private universities. Transformational Leadership has significance impact on innovation culture (path coefficient is indicated at 0.807 t-value = 14.432 and $P \leq 0.000$). This is shown in Table 4.25. It is the model used to study the relationship over the parts that have significance on the Transformational Leadership at private universities and to forecast the result of the university's innovation culture in that institutes.

H4: Transformational Leadership has a significant direct effect on team innovation (*rejected hypothesis*).

This hypothesis explains that Transformational Leadership cannot implement to arrange the university's team innovation in private universities. Transformational Leadership has no significance effect on innovation culture (path coefficient is indicated at -.120 t-value = -1.022 and $P \leq 0.307$). This is shown in Table 4.25. The model used to study the relationship over the parts has no significance on the Transformational Leadership at a private university and team innovation in that institute.

H5: Job characteristic in a private university directly affects team innovation (*accepted hypothesis*).

This hypothesis explains that job characteristic support can contribute to arranging the university's team innovation in that private universities. Job characteristics significantly impact team innovation (path coefficient is indicated at 0.236 t-value = 2.308 and $P \leq 0.021$). This is shown in Table 4.25. It is the model used

to study the relationship over the parts that have significance on the job characteristic at private universities and to forecast the result of the university's team innovation in that institutes.

H6: Team learning behavior in private universities directly affects team innovation (*rejected hypothesis*).

This hypothesis explains that team learning behavior cannot contribute to arranging the university's team innovation in that private universities. Team learning behavior has no significant impact on team innovation (path coefficient is indicated at 0.014 t-value = 0.431 and $P \leq 0.666$). This is shown in Table 4.25. The model used to study the relationship over the parts has no significance between team learning and team innovation in the university.

H7: Innovation culture in private universities has a significant direct effect on team innovation (*accepted hypothesis*).

This hypothesis explains that innovation culture can contribute to arranging the university's team innovation in that private universities. Innovation culture has significance impact on team innovation (path coefficient is indicated at 0.819 t-value = 11.151 and $P \leq 0.000$). This is shown in Table 4.25. It is the model used to study the relationship over the parts that have significance on the innovation culture at private universities and to forecast the result of the university's team innovation in that institutes

4.5 Conclusion

This chapter presents the result of the transformational leadership model shown in chapter 3. The quantitative method in the structural equation model (SEM) presented the hypothesis testing using confirmatory factor analysis to determine the construct validity before testing. Then the finding showed the relationship among variables by path analysis to qualify the fit index of the structure. The result also fulfills the value in

regression analysis of transformational leadership that affects job characteristics, team learning behavior, innovation culture, and team innovation. The path analysis could answer the significant effect of the model. Transformation leadership has a direct effect on team learning behavior and innovation culture. Then transformational leadership creates an indirect effect through team innovation. The next chapter can explain the reason for the relationship among variables from the result in this chapter.



Chapter 5

Conclusion and Recommendations

This chapter presents the conclusion of the study based on the findings analyzed and interpreted. It initially explains the results of the study then analyze and summarize the structural equation modeling (SEM) and the path analysis. The final part will present the study's conclusion and discussion with research findings, policy recommendations, and future research recommendations.

5.1 Conclusion

This study aimed to provide answers to 3 main research questions:

(1) What are the effects of transformational leadership through job characteristics, team learning behavior, and innovation culture that impact team innovation across each private university?

The data manipulation followed a model of exploring the relationship between variables with the structural equation modeling analysis, which found that some variables did not correlate with one another.

(2) What is the leaders' approach in private universities in Thailand toward team innovation?

It was found that transformational leadership had no direct impact on team innovation. However, it indirectly affected team innovation through mediator variables, namely, job characteristics and innovation culture.

(3) What was the best relationship path relating transformational leadership principles to team innovation?

According to the result from path analysis, summary of the results revealed

that transformational leadership has a more significant sum of effects of innovation culture on team innovation.

The respondents were a sample groups of employee in the international relations units of 25 private Universities and higher educational institutions that have provided teaching and learning for one year and over in each region. The number of samples from the research was estimated using the maximum likelihood method, which uses the number equivalent to 10-20 times of 5 observed variables, resulting in 50-100 samples. However, applying it to the structural equation requires more than 200 variables. As a result, this study used 400 samples for the online data collection.

The objectives of this study had two folds. First, to identify transformational leadership in Thailand's private universities that improve team innovation, and second, to explore the relation of transformational leadership on job characteristics, team learning, and innovation culture. The research examined the level of each variable in 400 employees in 25 private Universities in Thailand. There were seven hypotheses in this study specifying independent variables to measure the constructs exist in the conceptual framework.

Research on the influence of transformational leadership on employee behavior outcome in private universities in Thailand. The private universities were led to develop transformational leadership in top management. Statistic techniques used in the study's analysis were descriptive and structural equation model (SEM) to qualify the framework. The descriptive statistics for basic information was used in this study and offered the following conclusions : 1) the employees of the private Universities in demographic information reveals the majorities of female 73.8, the range of age between 21-30, held a bachelor's degree at 78.9, and had served in the universities less than five years; 2) the effect of multiple regression matrices between the four independent variables (transformational leadership, job characteristics, team learning, and innovation culture) and one dependent variable (team innovation) yielded the

result that almost all of them had a relationship among variables, excluding the direct impact from transformational leadership on team innovation, and team learning behavior on team innovation. The fit index was presented using the validity of item measurement by specializing in statistics, organization management, and human resource management.

The goodness of fit was presented based on data from the questionnaires, of which the validity was measured by statistical and business administration experts. In addition, confidence was measured by the testing program. As for the analysis of the results, the structural equation modeling (SEM) analysis was conducted to prove the hypothesis in this study. The statistical programs in this study consisted of SPSS and AMOS. The descriptive explanation was applied in the research methodology. The confirmatory factor analysis (CFA) was also conducted from the questionnaires to analyze the factor loading and errors in the questions to prove the consistency of the questions in each variable.

Path analysis was the main approach in analyzing independent and dependent variables to find the regression of the relationship in the structural equation for the hypothesis testing purpose. The path analysis approach provides a causal inference for each correlated variable to be able to answer the hypothesis that has been determined from all five sub-variables retrieved from the key variables, aiming to answer the questions in this study.

5.2 Discussion

As presented in Chapter 4, based on the survey of employees at private universities, it was found that executives with transformational leadership affected job characteristics, team learning, and innovation culture without directly affecting team innovation but had an indirect effect instead. The research questions could explained as follow;

Research question 1: What were effects of transformational leadership through job characteristics, team learning behavior, and innovation culture impact team innovation across each private university?

The effect of the transformational leadership affects the following variables: job characteristics (path coefficient is indicated at 0.927 t-value = 17.581 and $P \leq 0.000$), team learning behavior (path coefficient is indicated at 0.380 t-value = 7.432 and $P \leq 0.000$), and innovation culture (path coefficient is indicated at 0.807 t-value = 14.432 and $P \leq 0.000$), all of which have a direct effect. There were only two variables that indirectly affected team innovation: job characteristics (path coefficient is indicated at 0.236 t-value = 2.308 and $P \leq 0.021$); and innovation culture (path coefficient is indicated at 0.819 t-value = 11.151 and $P \leq 0.000$). It can be concluded that transformational leadership cannot directly affect team innovation. The adjustment needs to be made between variables for better relationship outcomes.

Research question 2: What is leaders' approach in private universities in Thailand towards team innovation?

The effect of transformational leadership and team innovation has no direct effect on each other (path coefficient is indicated at -0.120 t-value = -1.022 and $P \leq 0.307$). This is because transformational leadership merely represents the qualities of a leader with the versatility to adapt oneself to a changing context, emphasizing motivating the followers with the influence of the leader. It is impossible to state that leadership drives innovative performance generated by teams. But instead, it is driven by identifying the instruments that will support the work or the guideline for promoting it. Therefore, intervening variables were used to support and expand the understanding to achieve the desired results for leaders.

Research question 3: What is the best relationship path from transformational leadership principles to team innovation?

A comparison of relationship outcomes found that the path to team innovation consisted of two variables: transformational leadership, which affects job characteristics, and innovation culture. According to the sum of the path analysis, the results revealed that the path that most affected team innovation was innovation culture. The reason is that the innovation culture comprises people who share the same belief. If they are reinforced by leaders who can enhance the group's performance, it would possibly lead to the improvement or invention. There is often personnel with similar missions within educational institutions, especially to enhance learners' knowledge and modern knowledge management. Education is considered a type of service, so innovation is more than just a product. It helps foster a culture of teamwork, aiming to improve innovative performance among a group of people with the understanding and belief that lead to innovative educational success.

5.2.1 Discussion on variable: Transformational leadership

Both leadership studies explained that transformational leadership had unique abilities, could adapt to different situations, and get access to followers. Most organizations believe that transformational leadership will lead to success. The results of this study were consistent with the study of Wu and Wang (2012), which revealed employee motivation with a leadership style that understands and empathizes with employees, resulting in well-being at work and collaboration between leaders and followers. In addition, this type of leader will understand the principles of organizational management and manage staff to gain knowledge, enhance skills, and encourage employees to achieve targets set by the organization (Bass & Avolio, 1994). Educational personnel believes that the executives will improve the organization by creating and cultivating cultural practices that are beneficial to the performance in compliance with the missions set by the organization. Hence, they emphasize working methods to achieve the desired results of the leaders (Brandt & Uusi-Kakkuri, 2016). Thus, transformational leadership must understand the principles of working and

managing the emotional state of the organization. Guidelines must accompany the operating results to support personnel progress. Therefore, transformational leadership should adapt to situations in which the educational institution has set its mission without neglecting all stakeholders in the organization.

5.2.2 Discussion on Variable : Job characteristics

The job characteristics has various internal dimensions, which involve the job description and the context of the job applied within the organization. Educational organizations will have different forms of the job description. Knowledge, skills, and other abilities may be necessary to adapt to the job description. Employee behaviors are related to emotional state, which causes motivation at work. Individual demands related to work for oneself and the organization respond to the operating results. Transformational leadership is the driving force that motivates and understands employees who perform tasks (Purvanova, Bono, & Dzieweczynski, 2006). In this study, leadership, as an independent variable, affected the job type management. The job is adjusted to be in a format that employees can operate. Management decisions in planning the direction and the requirements of executives should be anticipated under the assigned tasks of the followers. These decisions should be based on their positions respectively, while maintaining cultural needs in order to promote positive behaviors, such as job retention and work commitments that lead to the operating results of individual and group (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). The results provided for the organization will rely on managing the organization's work.

The type of work does not only affect the outcome of work, but the feedback given to improve performance is part of managing to improve the work quality (Rai & Maheshwari, 2020). Therefore, the variable arrangement utilized job characteristics as a mediating variable to communicate the results and come up with the outcome required by the organization, especially the results of team innovation. This reveals that working in the organization requires communication in many directions, the

overall task management reflects the leader's leadership and the organization's overall results.

5.2.3 Discussion on Variable: Team learning

Leadership was related to team learning. Transformational leadership affects educational institutions. It was learned that everyone wants to take action to achieve missions in many sectors, ranging from learning achievement, the mission of the educational institution, and the rules set by the government. The concept of team learning is to create activities where team members reflect and share knowledge. Teams will build productivity and innovation through assignments. Under this consideration, the study results found that team learning did not affect team innovation.

Regarding the task assignments based on the conceptual framework, it was found that only leadership influenced the teamwork process, but there was no clear purpose. As a result, team innovation results appeared to be reduced (Leicher & Mulder, 2016). Team learning focuses on adaptation at work rather than creating innovation, so team learning contributes to supporting operations (Senge, 2006). However, the concept of the relationship between transformational leadership and team learning in educational institutions is implied in the dimension of leadership that connects the specific needs of each individual where such a person takes control of their work to be able to cope with change in leadership. Leaders are similar to bumpers that absorb the impact of the external environment. This type of leadership understands how to make connections between work and employees (Asencio, 2016). Leadership helps support teamwork in terms of innovation and solutions. Therefore, executives should not overlook the ability of personnel in educational institutions to continuously respond to work in the community to promote good working behaviors.

5.2.4 Discussion on Variable: Innovation culture

The innovation culture is based on the organizational culture in which the integration of values and beliefs is based on the assumption that the organization's members can share appropriate behavior. Therefore, the innovation culture reflects the image that the local community unites to develop innovation despite opposition from many parties. Culturally strong organizations would promote the creation of innovation to encourage work engagement, resulting in work that is produced with innovative components. With organizational values and beliefs, new opportunities for innovation development will be explored, including the behavior of the organization's members to stimulate innovative outcomes (Sattayaraksa & Boon-itt, 2016). Therefore, the creation of culture comes from the organization's leadership by leaders who are knowledgeable and competent. Transformational leadership is appropriate because of its competent management that convinces others to participate in the work and perform their assignments. In various organizations, such leaders are at the management level and omniscient. In some organizations, leaders may not be managers, but they have the unique ability to lead the team to get through changes (Supermane, 2019).

5.2.5 Discussion on Variable : Team innovation

Creating innovation from teamwork requires understanding that performance comes from integrating measurements of team assignments. It leads to two forms of assessment: team performance and innovative performance. This process requires a clear assignment from leaders to staff members or innovative working culture in the organization to achieve targeted responses (Ali & Park, 2016; Sattayaraksa & Boon-itt, 2016). However, the transformational leadership in this process cannot be directly reflected in team innovation because it needs to adapt to the desirable mission. Therefore, cultivating innovation in organizational culture is better than enhancing teamwork. This is because the deep cultivation within educational institutions will

encourage people to have the working idea rather than adding it as a practice (Chamtitigul & Li, 2021). Thus, the overview of this rational relationship is to compare instruments that can be that better ensure achievement of team innovation. The learning at work must derive from a leader who can communicate about the work and cooperate with everyone in the organization to make them learn simultaneously (Lahkim, Skulmoski, & Bruhn, 2009), creating contributions that will advance educational institutions through team-based innovation.

5.3 Recommendations

Based on the empirical findings of the research, the recommendations on policy and strategic aspects are elaborated and comprehensively explained as follows :

1. Recommendations of the transformational leadership management approach to executives in private universities

Findings: The management of leadership in executives affected employees' work in private universities. They have ability to arrange the work format, training to work together as a team, and creating an innovative culture for members of educational institutions.

Recommendations: Executives would probably have to focus on communication at the organizational level. They should make everyone understand the mission of the organization. When facing a crisis, executives must understand how to manage the problem proactively. The policy that should be adjusted in terms of leadership may not be only transformational leadership; contingency leadership or cultural leadership may be equally important. Therefore, the leadership in the organization must be adjusted adequately by executives or someone who can manage each area, including the creation of leadership for employees in educational institutions. This will enable leaders to deal with immediate problems quickly. Additionally, the formulation policy of the organization should focus on management

at the organizational level.

2. Recommendations for proper job classification Findings:

(1) It was found that the group of employees who received authority to work were likely to achieve the highest level, however, the opinions towards the feedback aspect were not at a high level.

(2) It was found that the transformational leadership among the executives of higher educational institutions in the private sector affected the job classification of employees.

(3) Job classification influenced innovation created by teams in private universities.

Recommendations:

1. The working style showed more independence due to the management of executives or situational approach. However, the working style must be arranged appropriately with the competence of the employees in each organization. Therefore, establishing a high-performance work system is part of the human capital management and human development process, which would be compatible with performance and creates sustainability of job management in the long run.

2. The job classification must be based on the management in which the job is designed, and the strategy is appropriate for the initial stage of work, followed by the understanding of executives to ensure proper job classification in the organization. The job description must be appropriate to the positions in the market, and other duties outside the assignment must be clearly defined by the job specification. Nevertheless, this is not the sole duty of executives as every employee in the organization should know the work system.

3. Recommendations for team learning to promote good behaviors of employees and the performance of private universities.

Findings:

1. Team learning incorporate shared opinions and experiences are found contributed to work improvement.
2. Transformational leadership is associated with team learning, whereas team learning is not related to innovative performance performed within a team.

Recommendations:

1. Some interesting issues of team learning are comprehensive knowledge management, identifying the knowledge per competence, and achieving results according to the particular requirements of educational institutions. Knowledge management must take into account the sharing of knowledge and the allocation of knowledge to suit the organizational members. Moreover, to search for new knowledge, organizations may need to plan the development by dispatching employees for training, study trips, or joining teams in other universities to apply best practices to their organization.
2. The information networks in the organization should be consistently developed to be up to date all the time. As the pandemic crisis forced people to work from home, the information systems were proven of helping distribute information. Team working needs to know how to manage, use, and enter the center. This is called knowledge storage, which integrates the human resource information system and knowledge management. Thus, the organizational policy must encourage all employees to know the integration.
3. Team learning has not contributed to innovation because there may be too many management units according to organization management principles. Working cross-functionally and reinforcing innovation-related policies as stipulated in the National Development Plan will help enable all relevant departments to foster innovation jointly.
4. Recommendations on innovation culture for innovative productivity generated by teams at private universities.

Findings:

1. Having executives encourage employees to be creative and motivate employees to drive growth were key success factors in team innovation.

2. Transformational leadership influenced innovation culture and further affected team innovation.

Recommendations:

1. Strategic management by educational institutions must consider the National Development Plan, which emphasizes BCG, to achieve innovative educational outcomes. Cultural management policies must foster an understanding of innovation management consistent with working at the national level, not only at the educational institution level.

2. Human development, therefore, involves collectively creating an innovative culture, establishing guidelines for the community of practitioners, and understanding the knowledge import system, all in consideration of the fundamental policy of managing people on the same basis. Nevertheless, it is strongly recommend organizing employee's career path that lead to the professional development of each individual, as well as bringing innovative results to form a group of personnel with similar abilities in order to create better values and belief at work.

3. The morale-building policy should makes employees feel that they are essential to driving the educational institution's strategy. An essential resource of educational institutions lies in the individual who creates learners and responds to the policies of the educational institutions and the public sector. The guideline should be designed consistently with the overall operation.

4. Recommendations for innovative productivity generated by teams at private universities.

Findings: The team innovation would affect the transformational leadership only through job characteristics and innovation culture, which are indirect effects of mediating variables.

Recommendations:

1. Policies will be characterized by performance feedback and all relevant parties' assessment. The goal of this policy is to ensure effective employee retention. The executives must consider employing people to make them sufficient for the job or the number of learners in educational institutions. Career development planning should consider training or expanding knowledge to keep up with economic trends. A survey should be conducted to explore personnel requirements in educational institutions and how to enhance job efficiency and design a positive working environment.

2. The organization management policy - This may be a return in the form of investments only in human capital to disseminate knowledge in educational institutions. As employees are assigned to face real problems, The loyalty would be acquired through social exchange processes or internal community practices. The executives must effectively deal with the problem and develop an overall guideline, leading to employees' stability in their jobs, individuals, and educational institutions.

In conclusion, regarding the implementation of the policy in private universities nationwide, it was found that this study explored the leadership of executives in educational institutions with the transformational leadership influencing job characteristic, team learning, innovation culture, and team innovation. Most private universities need to rely on leaders who give guidance about flexible and situational human resource management by taking the individualized influence as a role model for followers. Leaders must demonstrate how to manage the work system within the organization. And show how to be ethical at work so the Followers then set goals to become as competent as leaders. Idealized influence is to bring knowledge or experience to suggest or explain, resulting in the followers' creativity. Inspirational motivation helps motivate people to wish to get things done. When it is a goal with a limited scope of work, team learning will have a quick job allocation, resulting in the stimulation of work inspiration. Intellectual stimulation is to simulate the challenges

of existing problems. Thus, The study results revealed that leadership in private universities that executives must have the qualities that are ready to manage behaviors for human resource development in educational organizations to be ready for change. The literature review on mediating variables found that team learning and innovation culture were associated with change leaders in the same way as job classification. However, considering the results, it was found that only job classification and innovation culture influenced team innovation. The possibility of this research emerged during teaching and working during the epidemic situation. The job management must be systematic and understand the model of job management for university employees. The relationship is that the executives understand the overview of working in the university and the purpose of creating team innovation. Utilizing the flexibility of private organizations makes it possible to solve problems quickly. As a result, a team should return a culture of collaborative works that based on the organizations' vision, As being led by executives to the desired outcomes.

5.4 Recommendations for future research

According to the research results, it was found that when using structural equation analysis, inferential statistical analysis, and analysis of variance, it comes up with the conclusion of further research directions aims for empirical knowledge in management

First, transformational leadership variables, including idealized influence, inspirational motivation, intellectual stimulation, and individual consideration, all showed clear results in private universities, causing changes that affect personnel throughout the organization. The guidelines for further development should be the executives' attitude in the educational institutions reflected in the policies that will promote the human resource development process. Choose one should be based on research methodology and research instruments testing other types of leadership that

may be appropriate for the context at private universities. As this study has a different context as it measured work in private universities. The model should be further applied to develop public universities in the future. The researcher realized that the transformation leadership model of other educational institutions in other contexts might be apart from different leadership styles.

Second, this research is a cross-sectional study that focuses on conducting research during the epidemic. Whereby online education management is widespread, and the entire work system management is flexible. Consequently, the literature review and data collection is done at a certain time beyond regular teaching time. A study should look at future trends while on-site and online systems are currently implemented. This indicates that the employee's opinion level may change. The results will measure whether the transformational leadership model is effective enough to manage the working system or whether factors for enhancing work processes, such as team learning, innovation culture, or job characteristic should be involved. The cross-validation of each variable is different over each period. After changing the standard working system. The future research may need to collect data from employees to compare and explore employee behaviors suitable for the human resource development process.

Third, the structural equation modeling (SEM) testing determined whether the model has the goodness of fit should be further developed to add variables related to personnel development or business processes that enhance operations. It should focus on the variables that may respond to learning outcomes or entrepreneurial performance issues, such as human resource development strategies, and the external environment, such as culture, technology, and society. Measurement can combine variables assessed within private universities to serve as indicators of learning success or financial performance to create a dimension of work suitable for the private sector. It can also link the causality of each variable through a literature review in order to find a more complex dimension to adapt the conceptual framework to a specific context.

Fourth, the development of a conceptual framework may extend to the behavior of learners or stakeholders, such as parents or establishments associated with private universities accepting international students in order to measure the all-round quality of the transformational leaders. The framework is aiming to acknowledge which dimensions of the leader that have a positive effect on the behavior. In addition, the assessment based on the external perspective of the surveyed educational institutions showed weaknesses and obstacles that affected performance at a higher education level. This process creates an integrated synthesis of internal and external opinions to provide a conceptual framework on leadership quality and other behaviors necessary for the development of educational institutions and all stakeholders.

Fifth, collect data should be further elaborated through the in-depth interviews with executives, instructors, and employees, apart from the first interview group, the second interview group was the learners, and the last group was the public sector which formulated the education policy. The interview was to examine the quantitative data and create in-depth research. This is like seeking reasons from quantitative research results to know statistical answers in detail, along with giving opinions from the actual practice as feedback to all relevant sectors. The objectives are to explore the possibilities of the best learning management and take a look at the model of future work to consider the model of management in private universities for accessing human resources in educational institutions, with an emphasis on creating desirable cultures and behaviors for developing quality education.

Reference

- Akkerman, S., Van den Bossche, P., Admiraal, W., Gijsselaers, W., Segers, M., Simons, R. J., & Kirschner, P. (2007). Reconsidering group cognition: From conceptual confusion to a boundary area between cognitive and socio-cultural perspectives?. *Educational Research Review*, 2(1), 39-63.
- Albert, S., & Whetten, D. (1985). Organizational identity. In L. Cummings & B. Staw (Eds), *Research in organizational behavior* 7.
- Alharbi, I. B., Jamil, R., Mahmood, N. H. N., & Shaharoun, A. M. Exploring the Relationships Between Organizational Culture, Management Control System and Organizational Innovation. *Global Business Review*, 0(0), 0972150919870341. doi: 10.1177/0972150919870341.
- Ali, M., & Park, K. (2016). The mediating role of an innovative culture in the relationship between absorptive capacity and technical and non-technical innovation. *Journal of Business Research*, 69(5), 1669-1675. doi: <https://doi.org/10.1016/j.jbusres.2015.10.036>.
- Al-Khatib, A. W., Al-Fawaer, M. A., Alajlouni, M. I., & Rifai, F. A. (2021). Conservative culture, innovative culture, and innovative performance: a multi-group analysis of the moderating role of the job type. *International Journal of Innovation Science, ahead-of-print*(ahead-of-print). doi: 10.1108/IJIS-10-2020-0224.
- Amor, A.M., Vázquez, J.P.A. and Faña, J.A., (2020). Transformational leadership and work engagement: Exploring the mediating role of structural empowerment. *European Management Journal*, 38(1), 169-178.
- Anderson, M., (2017). Transformational leadership in education: A review of existing literature. *International Social Science Review*, 93(1), 4.
- Anderson, N., Potočník, K., & Zhou, J. (2014). Innovation and Creativity in Organizations: A State-of-the-Science Review, Prospective Commentary, and Guiding Framework. *Journal of Management*, 40(5), 1297-1333. doi: 10.1177/0149206314527128
- Andriani, S., Kesumawati, N. and Kristiawan, M., (2018). The influence of the transformational leadership and work motivation on teachers performance. *International Journal of Scientific & Technology Research*, 7(7), 19-29.
- Argyris, C. and Schön, D.A. (1996). *Organizational learning II: Theory, method and practice*. Addison-Wesley, Reading, MA.
- Asencio, H. (2016). Leadership, trust, and job satisfaction in the public sector: A study of US federal employees. *International Review of Public Administration*, 21(3), 250-267.

- Avolio, B. J., & Bass, B. M. (1995). Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership. *The Leadership Quarterly*, 6(2), 199-218. doi: [https://doi.org/10.1016/1048-9843\(95\)90035-7](https://doi.org/10.1016/1048-9843(95)90035-7).
- Azizaha, Y.N., Rijalb, M.K., Romainurc, U.N.R., Pranajayae, S.A., Ngiuf, Z., Mufidg, A., Purwantoh, A. and Maui, DH, 2020. Transformational or Transactional Leadership Style: Which Affects Work Satisfaction and Performance of Islamic University Lecturers During COVID-19 Pandemic. *Systematic Reviews in Pharmacy*, 11(7), pp.577-588.
- Azorín, J. M., & Cameron, R. (2010). The application of mixed methods in organisational research: A literature review. *Electronic Journal of Business Research Methods*, 8(2), 95.
- Babcock-Roberson, M. E., & Strickland, O. J. (2010). The relationship between charismatic leadership, work engagement, and organizational citizenship behaviors. *The Journal of Psychology*, 144(3), 313-326.
- Bass, B. M., & Avolio, B. J. (1994). Transformational Leadership And Organizational Culture. *International Journal of Public Administration*, 17(3-4), 541-554. doi:10.1080/01900699408524907.
- Bednall, T.C., E. Rafferty, A., Shipton, H., Sanders, K. and J. Jackson, C. (2018). Innovative behaviour: How much transformational leadership do you need? *British Journal of Management*, 29(4), pp.796-816.
- Bendapudi, N., Zhan, S., & Hong, Y.-y. (2018). Cultural values differentially moderate the benefits of basic education on two types of national innovation outputs. *Journal of Cross-Cultural Psychology*, 49(2), 199-222. doi: 10.1177/0022022116650259.
- Bernarto, I., Bachtiar, D., Sudibjo, N., Suryawan, I.N., Purwanto, A. and Asbari, M., (2020). Effect of transformational leadership, perceived organizational support, job satisfaction toward life satisfaction: Evidences from indonesian teachers. *International Journal of Advanced Science and Technology*, 29(3).
- Bledow, R., Frese, M., & Mueller, V. (2011). Ambidextrous leadership for innovation: the influence of culture. In W. H. Mobley, M. Li & Y. Wang (Eds.), *Advances in Global Leadership* (Vol. 6, pp. 41-69). Emerald Group Publishing Limited.
- Boamah, S.A., Laschinger, H.K.S., Wong, C. and Clarke, S., (2018). Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nursing outlook*, 66(2), 180-189.
- Boselie, P., Brewster, C., Paauwe, J., van Woerkom, M. and Croon, M., (2009). The relationships between team learning activities and team performance. *Personnel Review*, 38, 560-477.
- Bouwman, M., Runhaar, P., Wesselink, R., & Mulder, M. (2017). Fostering teachers' team learning: An interplay between transformational leadership and participative decision-making?. *Teaching and Teacher Education*, 65, 71-80.

- Brandt, T., & Uusi-Kakkuri, P. (2016). Transformational leadership and communication style of Finnish CEOs. *Communication Research Reports*, 33(2), 119-127. doi:10.1080/08824096.2016.1155045.
- Bresman, H. and Zellmer-Bruhn, M. (2013). The structural context of team learning: Effects of organizational and team structure on internal and external learning. *Organization Science*, 24(4), 1120-1139.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17(5), 475-482. doi: 10.1177/0146167291175001.
- Bron, R., Endedijk, M. D., van Veelen, R., & Veldkamp, B. P. (2018). The joint influence of intra- and inter-team learning processes on team performance: A constructive or destructive combination?. *Vocations and Learning*, 11(3), 449-474.
- Bryman, A. (2007). Effective leadership in higher education: A literature review. *Studies in Higher Education*, 32(6), 693-710.
- Buasawan, P. (2018). Rethinking Thai higher education for Thailand 4.0. *Asian Education and Development Studies*, 7(2), 157-173.
- Bucic, T., Robinson, L., & Ramburuth, P. (2010). Effects of leadership style on team learning. *Journal of Workplace Learning*, 22(4), 228-248. DOI:10.1108/13665621011040680.
- Buil, I., Martínez, E. and Matute, J., (2019). Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *International Journal of Hospitality Management*, 77, 64-75.
- Bunderson, J.S. and Sutcliffe, K.M., (2003). Management team learning orientation and business unit performance. *Journal of Applied Psychology*, 88(3), 552.
- Burns, J. M. (1978) *Leadership*. New York: Harper & Row.
- Capello, R., & Lenzi, C. (2015). Knowledge, innovation and productivity gains across European regions. *Regional Studies*, 49(11), 1788-1804. doi:10.1080/00343404.2014.917167.
- Caroselli, C. (1992). Assessment of organizational culture: a tool for professional success. *Orthop Nurs*, 11(3), 57-63. doi: 10.1097/00006416-199205000-00010.
- Casper, S., & Waarden, F. (2005). Innovation and Institutions. A multidisciplinary review of the study of innovation systems.
- Chamtitigul, N., & Li, W. (2021). The influence of ethical leadership and team learning on team performance in software development projects. *Team Performance Management: An International Journal*, 27(3/4), 240-259. doi:10.1108/TPM-02-2020-0014.
- Chen, M.-H., & Agrawal, S. (2018). What leads to effective team learning performance within university students? The moderating effects of “Guanxi.” *The International Journal of Management Education*, 16(3), 432-445. DOI:10.1016/j.ijme.2018.07.002.

- Chou, H. W., Lin, Y. H., Chang, H. H., & Chuang, W. W. (2013). Transformational leadership and team performance: The mediating roles of cognitive trust and collective efficacy. *Sage Open*, 3(3), 2158244013497027.
- Chung, D. S., & Li, J. M. (2018). Curvilinear effect of transformational leadership on innovative behaviour among R&D teams in South Korea. *Journal of Organizational Change Management*. DOI:10.1108/jocm-01-2017-0017.
- Corley, K. G., & Gioia, D. A. (2004). Identity Ambiguity and Change in the Wake of a Corporate Spin-off. *Administrative Science Quarterly*, 49(2), 173-208. doi: 10.2307/4131471.
- Conger, J. A. (1999). Charismatic and transformational leadership in organizations: An insider's perspective on these developing streams of research. *The Leadership Quarterly*, 10(2), 145-179.
- Cook, S.D.N. and Yanow, D. (1993). "Culture and organizational learning", *Journal of Management Inquiry*, 2(3), 373-99.
- Crede, M., Jong, J. and Harms, P., (2019). The generalizability of transformational leadership across cultures: A meta-analysis. *Journal of Managerial Psychology*, 34(3), 139-155.
- Crocco, O.S., 2018. Thai higher education: Privatization and massification. In *Education in Thailand* (pp. 223-255). Singapore: Springer.
- Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, 15(6), 857–880.
- De Fuentes, C., Dutrenit, G., Santiago, F., & Gras, N. (2015). Determinants of innovation and productivity in the service sector in Mexico. *Emerging Markets Finance and Trade*, 51(3), 578-592. doi:10.1080/1540496X.2015.1026693.
- Dolinska, M. (2015). Knowledge based development of innovative companies within the framework of innovation networks. *Innovation: Management, Policy & Practice*, 17, 323–340.
- De Hoogh, A. H., den Hartog, D. N., & Koopman, P. L. (2004). De ontwikkeling van de CLIO: Eenvragenlijst voor charismatisch leiderschap in organisaties. *Gedrag en Organisatie*, 17(5), 354-382.
- Dechant, K., Marsick, V. and Kasl, E., (2000). Team learning: A model for effectiveness in high performing teams. In *Advances in interdisciplinary studies of work teams*. Bingley, West Yorkshire Emerald Group Publishing Limited.
- Decuyper, S., Dochy, F., & Van den Bossche, P. (2010). Grasping the dynamic complexity of team learning: An integrative model for effective team learning in organizations. *Educational Research Review*, 5, 111–133.
- Dunphy, D., & Bryant, B. (1996). Teams: Panaceas or prescriptions for improved performance?. *Human Relations*, 49(5), 677-699.

- Eagly, H. A., & Johannesen-Schmidt, M. C. (2003). Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing woman and men. *Psychological Bulletin*, 129(4), 569–591.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383. doi: 10.2307/2666999.
- Einarsen, S., Aasland, M. S., & Skogstad, A. (2007). Destructive leadership behaviour: A definition and conceptual model. *The Leadership Quarterly*, 18(3), 207-216.
- Ellis, A.P., Hollenbeck, J.R., Ilgen, D.R., Porter, C.O., West, B.J. and Moon, H., (2003). Team learning: Collectively connecting the dots. *Journal of applied Psychology*, 88(5), 821.
- Ensley, M. D., Hmieleski, K. M., & Pearce, C. L. (2006). The importance of vertical and shared leadership within new venture top management teams: implications for the performance of start-ups. *The Leadership Quarterly*, 17(3), 217–231.
- Ernest Chang, S., & Lin, C. S. (2007). Exploring organizational culture for information security management. *Industrial Management & Data Systems*, 107(3), 438-458. doi: 10.1108/02635570710734316.
- Fernet, C., Trépanier, S.-G., Austin, S., Gagné, M., & Forest, J. (2015). Transformational leadership and optimal functioning at work: On the mediating role of employees' perceived job characteristics and motivation. *Work & Stress*, 29(1), 11-31. doi: 10.1080/02678373.2014.1003998.
- Fiol, C. M. (1991). Managing culture as a competitive resource: An identity-based view of sustainable competitive advantage. *Journal of Management*, 17(1), 191-211. doi: 10.1177/014920639101700112.
- Gibson, C. and Vermeulen, F., (2003). A healthy divide: Subgroups as a stimulus for team learning behavior. *Administrative Science Quarterly*, 48(2), 202-239.
- Gioia, D. A., Patvardhan, S. D., Hamilton, A. L., & Corley, K. G. (2013). Organizational identity formation and change. *Academy of Management Annals*, 7(1), 123-193.
- Guevara, F. (2016). *How to become a transnational leader*. [Online] Available at: <https://buildandbattle.wordpress.com/2016/06/24/how-to-become-a-transformational-leader>.
- Guruz, K. (2011). *Higher education and international student mobility in the global knowledge economy: Revised and updated second edition*. Albany, NY: Suny Press.
- Gutierrez-Gutierrez, L. J., Barrales-Molina, V., & Kaynak, H. (2018). The role of human resource-related quality management practices in new product development. *International Journal of Operations & Production Management*, 38(1).
- H. Soken, N., & Kim Barnes, B. (2014). What kills innovation? Your role as a leader in supporting an innovative culture. *Industrial and Commercial Training*, 46(1), 7-15. doi: 10.1108/ICT-09-2013-0057.

- Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60(2), 159-170. doi:10.1037/h0076546.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 250-279.
- Hackman, J. R., & Wageman, R. (2005). A theory of team coaching. *Academy of Management Review*, 30(2), 269–287.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data analysis*. New York: Pearson.
- Hallinger, P. (2018). Principal instructional leadership: *The Wiley handbook of teaching and learning* (pp. 505-528).
- Hannah, S. T., & Lester, P. B. (2009). A multilevel approach to building and leading learning organizations. *The Leadership Quarterly*, 20, 34–45.
- Harris, A. (2011). System improvement through collective capacity building. *Journal of Educational Administration*, 49(6), 624–636.
- Hatch, M. J., & Schultz, M. (2002). The dynamics of organizational identity. *Human Relations*, 55(8), 989-1018. doi: 10.1177/0018726702055008181.
- Hawkins, P. ed., (2014). *Leadership team coaching in practice: Developing high-performing teams*. Kogan Page Publishers.
- Herbig, P., & Dunphy, S. (1998). Culture and innovation. *Cross Cultural Management: An International Journal*, 5(4), 13-21. doi: 10.1108/13527609810796844.
- Hetland, J., Hetland, H., Bakker, A.B. and Demerouti, E., (2018). Daily transformational leadership and employee job crafting: The role of promotion focus. *European Management Journal*, 36(6), 746-756.
- Hoch, J.E., Bommer, W.H., Dulebohn, J.H. and Wu, D., (2018). Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis. *Journal of Management*, 44(2), 501-529.
- Hoegl, M., & Gemuenden, H. G. (2001). Teamwork quality and the success of innovative projects: A theoretical concept and empirical evidence. *Organization Science*, 12(4), 435-449.
- Hoegl, M., & Parboteeah, K. P. (2006). Team reflexivity in innovative projects. *R&D Management*, 36(2), 113-125.
- Hofstede, G. (2001). Culture's recent consequences: Using dimension scores in theory and research. *International Journal of Cross Cultural Management*, 1(1), 11-17.
- Hu, H., Gu, Q., & Chen, J. (2013). How and when does transformational leadership affect organizational creativity and innovation?. *Nankai Business Review International*, 4(2), 147-166.
- Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization Science*, 2(1), 88-115.

- Jansen, J. J. P., Vera, D., & Crossan, M. (2009). Strategic leadership for exploration and exploitation: The moderating role of environmental dynamism. *The Leadership Quarterly*, 20, 5–18.
- Jiang, W., Zhao, X. and Ni, J., (2017). The impact of transformational leadership on employee sustainable performance: The mediating role of organizational citizenship behavior. *Sustainability*, 9(9), 1567.
- Jung, T., Scott, T., Davies, H. T. O., Bower, P., Whalley, D., McNally, R., & Mannion, R. (2009). Instruments for Exploring Organizational Culture: A Review of the Literature. *Public Administration Review*, 69(6), 1087-1096.
- Kaasa, A., & Vadi, M. (2010). How does culture contribute to innovation? Evidence from European countries. *Economics of Innovation and New Technology*, 19(7), 583-604. doi: 10.1080/10438590902987222.
- Khampirat, B., Ayudhaya, N. H. N., & Bamrungrsin, P. (2020). Pedagogy and quality assurance in Thai Higher Education Institutions. In *From pedagogy to quality assurance in education: An international perspective*. Bingley: emerald Publishing Limited.
- Khan, S. N. (2014). Qualitative research method: Grounded theory. *International Journal of Business and Management*, 9(11), 224-233.
- Koeslag-Kreunen, M. G., Van der Klink, M. R., Van den Bossche, P., & Gijsselaers, W. H. (2018). Leadership for team learning: The case of university teacher teams. *Higher Education*, 75(2), 191-207.
- Kolb, A.Y. and Kolb, D.A., (2009). Experiential learning theory: A dynamic, holistic approach to management learning, education and development. In *The SAGE handbook of management learning, education and development*, 42, 68.
- Krasikova, D. V., Green, S. G., & LeBreton, J. M. (2013). Destructive leadership: A theoretical review, integration, and future research agenda. *Journal of management*, 39(5), 1308-1338.
- Krishna, Y. R. (2011). Effects of transformational leadership on team performance. *International Journal of Business Management and Economic Research*, 2(1), 152-157.
- Lahkim, M. B., Skulmoski, G. J., & Bruhn, R. E. (2009). Improving IT education through leadership development. *Learning and Teaching in Higher Education: Gulf Perspectives*, 6(1), 30-52. doi:10.18538/lthe.v6.n1.03.
- Lee, P., Gillespie, N., Mann, L., & Wearing, A. (2010). Leadership and trust: their effect on knowledge sharing and team performance. *Management Learning*, 41(4), 473–491.
- Leicher, V., & Mulder, R. H. (2016). Team learning, team performance and safe team climate in elder care nursing. *Team Performance Management*, 22(7/8), 399-414. doi:10.1108/TPM-04-2016-0017.
- Leithwood, K., & Jantzi, D. (1999). Transformational School Leadership Effects: A Replication. *School Effectiveness and School Improvement*, 10(4), 451-479. doi:10.1076/sesi.10.4.451.3495.

- Lesmana, M.T., and Nasution, A.E., 2020. Analysis of factors affecting lecturersstaff performance in conducting research: A case study on private universities in Medan. *Asia Pacific Journal of Management and Education*, 3(2), pp.33-44.
- Levitt, B., & March, J. G. (1988). Organizational learning. *Annual review of sociology*, 14(1), 319-338.
- Mahmood, M., Uddin, M.A. and Fan, L., (2019). The influence of transformational leadership on employees' creative process engagement. *Management Decision*, 57(9).
- Li, C.-R., Li, C.-X., & Lin, C.-J. (2018). How and when team regulatory focus influences team innovation and member creativity. *Personnel Review*, 47(1), 95-117. doi:10.1108/PR-09-2016-0236.
- Lindeman, R. H., Merenda, P. F., & Gold, R. Z. (1980). *Introduction to bivariate and multivariate analysis*. Glenview, Ill.: Scott, Foresman.
- Martin-Chua, E. (2009). *Maximizing human capital in Asia: From the inside out*. London: John Wiley & Sons.
- Mengesha, A. (2015). Impact of leadership approaches on employee motivation: An empirical investigation in Haramaya University. *AshEse Journal of Business Management*, 1(3).
- Messmann, G., & Mulder, R. H. (2015). Reflection as a facilitator of teachers' innovative work behaviour. *International Journal of Training and Development*, 19, 125–137.
- Michaelis, B., Stegmaier, R., & Sonntag, K. (2010). Shedding light on followers' innovation implementation behavior. *Journal of Managerial Psychology*, 25(4), 408-429. doi:10.1108/02683941011035304.
- Moolenaar, N. M., Daly, A. J., & Slegers, P. J. C. (2010). Occupying the principal position: Examining relationships between transformational leadership, social network position, and schools' innovative climate. *Educational Administration Quarterly*, 46(5), 623–670.
- Moynihan, D. P., Wright, B. E., & Pandey, S. K. (2012). Working within constraints: Can transformational leaders alter the experience of red tape?. *International Public Management Journal*, 15(3), 315-336.
- Murphy, S. E., & Ensher, E. A. (2008). A qualitative analysis of charismatic leadership in creative teams: The case of television directors. *The Leadership Quarterly*, 19(3), 335-352.
- Narayan, A.K., 2020. The development and use of performance measures in New Zealand tertiary education institutions. *Accounting History*, 25(2), 193-218.
- Nicolaidis, V. C., LaPort, K. A., Chen, T. R., Tomassetti, A. J., Weis, E. J., Zaccaro, S. J., & Cortina, J. M. (2014). The shared leadership of teams: A meta-analysis of proximal, distal, and moderating relationships. *The Leadership Quarterly*. doi:10.1016/j.leaqua.2014.06.006.

- Niessen, C., Mäder, I., Stride, C. and Jimmieson, N.L., (2017). Thriving when exhausted: The role of perceived transformational leadership. *Journal of Vocational Behavior*, 103, 41-51.
- Nijstad, B. A., Berger-Selman, F., & De Dreu, C. K. W. (2014). Innovation in top management teams: Minority dissent, transformational leadership, and radical innovations. *European Journal of Work and Organizational Psychology*, 23(2), 310-322. doi:10.1080/1359432X.2012.734038.
- Para-González, L., Jiménez-Jiménez, D. and Martínez-Lorente, A.R., (2018). Exploring the mediating effects between transformational leadership and organizational performance. *Employee Relations*, 40(1).
- Paulsen, N., Maldonado, D., Callan, V. J., & Ayoko, O. (2009). Charismatic leadership, change and innovation in an R&D organization. *Journal of Organizational Change Management*, 22(5), 511-523.
- Pearsall, M.J. and Venkataramani, V., (2015). Overcoming asymmetric goals in teams: The interactive roles of team learning orientation and team identification. *Journal of Applied Psychology*, 100(3), 735.
- Peñarroja, V., Orengo, V., Zornoza, A., Sánchez, J. and Ripoll, P., (2015). How team feedback and team trust influence information processing and learning in virtual teams: A moderated mediation model. *Computers in Human Behavior*, 48, 9-16.
- Pongpearchan, P. (2016). Effect of transformational leadership and high-performance work system on job motivation and task performance: Empirical evidence from business schools of Thailand universities. *Journal of Business and Retail Management Research*, 10(3), 93-105.
- Purvanova, R. K., Bono, J. E., & Dzieweczynski, J. (2006). Transformational leadership, job characteristics, and organizational citizenship performance. *Human Performance*, 19(1), 1-22. doi:10.1207/s15327043hup1901_1.
- Purwanto, A., Wijayanti, L.M., Hyun, C.C. and Asbari, M., 2019. The effect of transformational, transactional, authentic and authoritarian leadership style toward lecture performance of Private University in Tangerang. *Dinasti International Journal of Digital Business Management*, 1(1), 29-42.
- Raes, E., Decuyper, S., Lismont, B., Van den Bossche, P., Kyndt, E., Demeyere, S. and Dochy, F., (2013). Facilitating team learning through transformational leadership. *Instructional Science*, 41(2), 287-305.
- Rai, A., & Maheshwari, S. (2020). Exploring the mediating role of work engagement between the linkages of job characteristics with organizational engagement and job satisfaction. *Management Research Review*, 44(1), 133-157. doi:10.1108/MRR-10-2019-0442.
- Rao, A. S., & Kareem Abdul, W. (2015). Impact of transformational leadership on team performance: an empirical study in the UAE. *Measuring Business Excellence*, 19(4), 30-56. DOI:10.1108/mbe-07-2014-0022.

- Rao, A. S., & Kareem Abdul, W. (2015). Impact of transformational leadership on team performance: an empirical study in the UAE. *Measuring Business Excellence, 19(4)*, 30–56. DOI:10.1108/mbe-07-2014-0022.
- Rau, C., Neyer, A.-K., & Möslein, K. M. (2012). Innovation practices and their boundary-crossing mechanisms: A review and proposals for the future. *Technology Analysis & Strategic Management, 24(2)*, 181-217. doi:10.1080/09537325.2012.647647.
- Rauter, S., Weiss, M. and Hoegl, M., (2018). Team learning from setbacks: A study in the context of start-up teams. *Journal of Organizational Behavior, 39(6)*, 783-795.
- Ravasi, D., & Schultz, M. (2006). Responding to organizational identity threats: exploring the role of organizational culture. *The Academy of Management Journal, 49(3)*, 433-458. doi: 10.2307/20159775.
- Rizzello, S., and M. Turvani. 2002. Subjective diversity and social learning: A cognitive perspective for understanding institutional behavior. *Constitutional Political Economy, 13*; 197–210.
- Sattayaraksa, T., & Boon-itt, S. (2016). CEO transformational leadership and the new product development process: The mediating roles of organizational learning and innovation culture. *Leadership & Organization Development Journal, 37*, 730-749. doi:10.1108/LODJ-10-2014-0197.
- Shane, S. 1993. Cultural influences on national rates of innovation. *Journal of Business Venturing, 8*; 59–73.
- Singagerda, F.S., and Berlian, M., 2016. Improving the capacity of Private Universities Management. *ICEMAL, 206*.
- Smith, S. M., Ward, T. B., & Finke, R. A. (Eds.). (1995). *The creative cognition approach*. Cambridge, MA: MIT Press.
- Sosik, J. J. (2005). The role of personal values in the charismatic leadership of corporate managers: A model and preliminary field study. *The leadership Quarterly, 16(2)*, 221-244.
- Srinivasan, S., & Hanssens, D. M. (2009). Marketing and firm value: Metrics, methods, findings, and future directions. *Journal of Marketing Research, 46*, 293 - 312.
- Stewart, J. (2006). Transformational leadership: An evolving concept examined through the works of Burns, Bass, Avolio, and Leithwood. *Canadian Journal of Educational Administration and Policy, (54)*.
- Sukirno, D.S. and Siengthai, S., 2011. Does participative decision-making affect lecturer performance in higher education. *International Journal of Educational Management, 25(5)*, 498-505.
- Supermane, S. (2019). Transformational leadership and innovation in teaching and learning activities: The mediation effect of knowledge management. *Information Discovery and Delivery, 47(4)*, 242-250. doi: 10.1108/IDD-05-2019-0040.

- Tagg, J. (2012). Why does the faculty resist change?. *Change: The Magazine of Higher Learning*, 44(1), 6-15.
- Thoonen, E. E., Slegers, P. J., Oort, F. J., Peetsma, T. T., & Geijsel, F. P. (2011). How to improve teaching practices: The role of teacher motivation, organizational factors, and leadership practices. *Educational Administration Quarterly*, 47(3), 496-536.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development*. Retrieved from http://www.educationcounts.govt.nz/__data/assets/pdf_file/0017/16901/TPLandDBESentire.pdf.
- Tomarken, A., & Waller, N.G. (2005). Structural equation modeling: strengths, limitations, and misconceptions. *Annual review of clinical psychology*, 1, 31-65.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress*, 22(3), 277-294. doi:10.1080/02678370802393672.
- Van der Haar, S., Koeslag-Kreunen, M., Euwe, E. and Segers, M., (2017). Team leader structuring for team effectiveness and team learning in command-and-control teams. *Small Group Research*, 48(2), 215-248.
- Van Everdingen, Y. M., & Waarts, E. (2003). The effect of national culture on the adoption of innovations. *Marketing Letters*, 14(3), 217-232.
- Van Woerkom, M., & Croon, M. (2009). The relationships between team learning activities and team performance. *Personnel Review*, 38(5), 560–577.
- Vangrieken, K., Dochy, F., & Raes, E. (2016). Team learning in teacher teams: team entitativity as a bridge between teams-in-theory and teams-in-practice. *European Journal of Psychology of Education*, 31, 275–298.
- Vangrieken, K., Grosemans, I., Dochy, F., & Kyndt, E. (2017). Teacher autonomy and collaboration: A paradox? Conceptualising and measuring teachers' autonomy and collaborative attitude. *Teaching and Teacher Education*, 67, 302–315.
- Van Offenbeek, M., (2001). Processes and outcomes of team learning. *European Journal of Work and Organizational Psychology*, 10(3), 303-317.
- Vinig, T., & Bossink, B. (2015). China's indigenous innovation approach: the emergence of Chinese innovation theory? *Technology Analysis & Strategic Management*, 27(6), 621-627. doi:10.1080/09537325.2015.1036537.
- Wang, C. W., Singh, C., Bird, B., & Ives, G. (2008). The learning experiences of Taiwanese nursing students studying in Australia. *Journal of transcultural nursing*, 19(2), 140-150.
- Wang, X. H. F., & Howell, J. M. (2012). A multilevel study of transformational leadership, identification, and follower outcomes. *The Leadership Quarterly*, 23(5), 775-790.

- Westwood, R., & Low, D. (2003). The Multicultural MuseCulture, Creativity and Innovation. *International Journal of Cross Cultural Management*, 3, 235-259. doi: 10.1177/14705958030032006.
- Whetten, D., & Mackey, A. (2002). A Social Actor Conception of Organizational Identity and Its Implications for the Study of Organizational Reputation. *Business & Society - BUS SOC*, 41, 393-414. doi: 10.1177/0007650302238775.
- Widmann, A., & Mulder, R. H. (2018). Team learning behaviours and innovative work behaviour in work teams. *European Journal of Innovation Management*, 21, 501–520.
- Widmann, A., & Mulder, R. H. (2019). The effect of team learning behaviours and team mental models on teacher team performance. *Instructional Science*. doi:10.1007/s11251-019-09500-6.
- Widmann, A., Messmann, G., & Mulder, R. H. (2016). The impact of team learning behaviours on team innovative work behavior: A systematic review. *Human Resource Development Review*, 15, 429–458.
- Widodo, H.P., Ferdiansyah, S. and Fridani, L., 2020. Introduction to International Students and COVID-19. *Journal of International Students*, 10(S3), pp. i-xii.
- Williams, L.K., and S.J.J. McGuire. (2005). Effects of national culture on economic creativity and innovation implementation. In *paper presented at the International Society for New Institutional Economics Conference, The Institutions of Market Exchange, 22–24 September*. Barcelona, Spain.
- Williams, T. R. (2005). Exploring the impact of study abroad on students' intercultural communication skills: Adaptability and sensitivity. *Journal of Studies in International Education*, 9(4), 356-371.
- Wilson, J.M., Goodman, P.S. and Cronin, M.A. (2007). Group learning. *Academy of Management Review*, 32, 1041-1059.
- Wu, M., & Wang, J. (2012). Developing a charismatic leadership model for Chinese organizations: the mediating role of loyalty to supervisors. *The International Journal of Human Resource Management*, 23(19), 4069-4084. doi:10.1080/09585192.2012.703420.
- Yao, C. W., & Mwangi, C. A. G. (2017). Role of student affairs in international student transition and success. *Journal of International Students*, 7(4), I-III.
- Yoon, J. and Kayes, D.C., (2016). Employees' self-efficacy and perception of individual learning in teams: The cross-level moderating role of team-learning behavior. *Journal of Organizational Behavior*, 37(7), 1044-1060.
- Yue, C.A., Men, L.R. and Ferguson, M.A., (2019). Bridging transformational leadership, transparent communication, and employee openness to change: The mediating role of trust. *Public Relations Review*, 45(3), 101779.
- Yukl, G. (2010). *Leadership in organizations*. Upper Saddle River, NJ: Prentice-Hall.

- Yukl, G. and Mahsud, R. (2010). Why flexible and adaptive leadership is essential. *Consulting Psychology Journal: Practice and Research*, 62(2), 81-93.
- Zaccaro, S. J., Ely, K., & Shuffler, M. (2008). The leader's role in group learning. In I. V. Sessa & M. London (Eds.), *Work group learning* (pp. 193–214). United Kingdom: Taylor & Francis Group.
- Zelizer, V. (2010). *Economic lives: How culture shapes the economy*. Princeton, NJ: Princeton University Press.
- Zellmer-Bruhn, M. and Gibson, C., (2006). Multinational organization context: Implications for team learning and performance. *Academy of Management Journal*, 49(3), 501-518.
- Zhang, Y., Zheng, J., & Darko, A. (2018). How does transformational leadership promote innovation in construction? The mediating role of innovation climate and the multilevel moderation role of project requirements. *Sustainability*, 10(5), 1506.
- Zuraik, A. and Kelly, L., (2019). The role of CEO transformational leadership and innovation climate in exploration and exploitation. *European Journal of Innovation Management*. 22(1), 84-104.

The logo of Siam University is a circular emblem. It features a central five-pointed star with a crown on top, surrounded by a wreath. The emblem is set within a circular border containing the university's name in Thai script at the top and "SIAM UNIVERSITY" in English at the bottom. The entire logo is rendered in a light gray, semi-transparent style.

Appendices

Appendix Consent Forms, Survey Information Sheet and
Survey Instrument



ใบรับรองจริยธรรมการวิจัยในมนุษย์
สถาบันการจัดการปัญญาภิวัฒน์

หมายเลขใบรับรอง: PIM-REC 038/2564

ข้อเสนอการวิจัยนี้ และเอกสารประกอบของข้อเสนอการวิจัยตามรายการแสดงด้านล่าง ได้รับการพิจารณาจากคณะกรรมการจริยธรรมการวิจัยในมนุษย์ สถาบันการจัดการปัญญาภิวัฒน์แล้ว คณะกรรมการฯ มีความเห็นว่าข้อเสนอการวิจัยที่จะดำเนินการมีความสอดคล้องกับหลักจริยธรรมสากล ตลอดจนกฎหมาย ข้อบังคับและข้อกำหนดภายในประเทศ จึงเห็นสมควรให้ดำเนินการตามข้อเสนอการวิจัยนี้ได้

ชื่อข้อเสนอโครงการ: The Effects of Transformational Leadership on Team Innovation: The case of Private Universities in Thailand

รหัสข้อเสนอการวิจัย (ถ้ามี): ไม่มี

หน่วยงาน: มหาวิทยาลัยสยาม

ผู้วิจัยหลัก: อาจารย์จิตาภา ชลธาร์รัตนพงศ์

ลงนาม.....
(อาจารย์ ดร.พิเชษฐ นุ้สึกะโปดก)
ประธานกรรมการ

ลงนาม.....
(อาจารย์อริญชัย โชคเสรีสุวรรณ)
กรรมการและเลขานุการ

วันที่รับรอง: 1 ธันวาคม 2564

วันหมดอายุ: 1 ธันวาคม 2565

เอกสารที่คณะกรรมการรับรอง

1. โครงการวิจัย
2. ข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัยและยินยอมจากกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย
3. ผู้วิจัย
4. แบบสอบถาม

เงื่อนไขการรับรอง

1. นักวิจัยดำเนินการวิจัยตามที่ระบุไว้ในโครงร่างการวิจัยอย่างเคร่งครัด
2. นักวิจัยรายงานเหตุการณ์ไม่พึงประสงค์ร้ายแรงที่เกิดขึ้นหรือเปลี่ยนแปลงกิจกรรมวิจัยใดๆต่อคณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ภายในกำหนด
3. นักวิจัยส่งรายงานความก้าวหน้าต่อคณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ตามเวลาที่กำหนดหรือเมื่อได้รับการร้องขอจากคณะกรรมการฯ
4. หากการวิจัยไม่สามารถดำเนินการเสร็จสิ้นภายในกำหนดผู้วิจัยต้องยื่นขออนุมัติใหม่ก่อนอย่างน้อย 1 เดือน
5. หากการวิจัยเสร็จสมบูรณ์ ผู้วิจัยต้องแจ้งปิดโครงการตามแบบฟอร์มที่กำหนด

No. SU 0210.7/42



Graduate School of Management,
Siam University
38 Petkasem Rd., Bang-wa,
Phasi-charoen, Bangkok, 10160

August 18, 2021

Subject: Request for Data Collection via Questionnaire Distribution
To Whom It May Concern:

Mrs. Jidapa Chollathanratanapong Student ID # 6119202002, a doctoral student of the Graduate School of Management, Siam University (Mobile Phone No. +6686-773-0160 and email: siamzhu@gmail.com) is currently working on the Ph.D. Dissertation entitle: "The Effects of Transformational Leadership on Team Innovation: a Case of Private Universities in Thailand" under the supervision of Assistant Professor Dr. Chaiyanant Panyasiri and Assistant Professor Dr. Shun-Chieh Chang.

In this regard, the Graduate School of Management would like to request for you cooperation by corresponding the attached questionnaire form. The completion of this questionnaire form will allow Mrs. Jidapa to further proceed on her research with data accuracy and overall quality. Your kind assistance is fully appreciated.

Best Regards,

A handwritten signature in black ink, appearing to read "Chaiyanant P.".

(Assistant Professor Dr. Chaiyanant Panyasiri)
Dean of the Graduate School of Management

Graduate School of Management
Telephone +662-867-8000 ext 5311
E-mail: phd_m1@siam.edu



**The Effects of Transformational Leadership on Team Innovation:
The case of Private Universities in Thailand**

To Questionnaire Respondent

This questionnaire is divided into 2 parts. The first part deals with characteristics of dual system and organizational structures. The second part focuses on demographic and relational factors. The information you have shared with the researcher today will be for the use of this study and for academic purposes only. The personal information will be kept confidential. The use of other information you provide will be for the purpose of developing the education innovation system in any participating private university.

I would like to thank you for your respond, if you shall need further information or there is anything we can do to assist you to complete or improve this questionnaire, please do not hesitate to contact me.

Mrs. Jidapa Chollathanratanapong, Ph.D. Student
Siam University

Part 1 Demographic information

Remark: Please choose by using ✓ in or fill information in the blank.

1. Gender Male Female
2. Age(year)
3. Education 1. Bachelor degree 2. Master degree
 3. Higher than Master degree
4. Place of study 1. Thailand 2. Other country
5. Position 1. Operation 2. Manager/senior
 3. Lecturer/instructor 4. Other.....
6. Tenure in current position (year)
 1. Less than/or equal 5 2. Between 5-10
 3. Between 11–15 4. 15 and over

Part 2 Relational factors

The questionnaire used Likert scale, ranging from 1 to 5 in which 1 = Strongly disagree/ 3 = neutral / 5 = Strongly agree

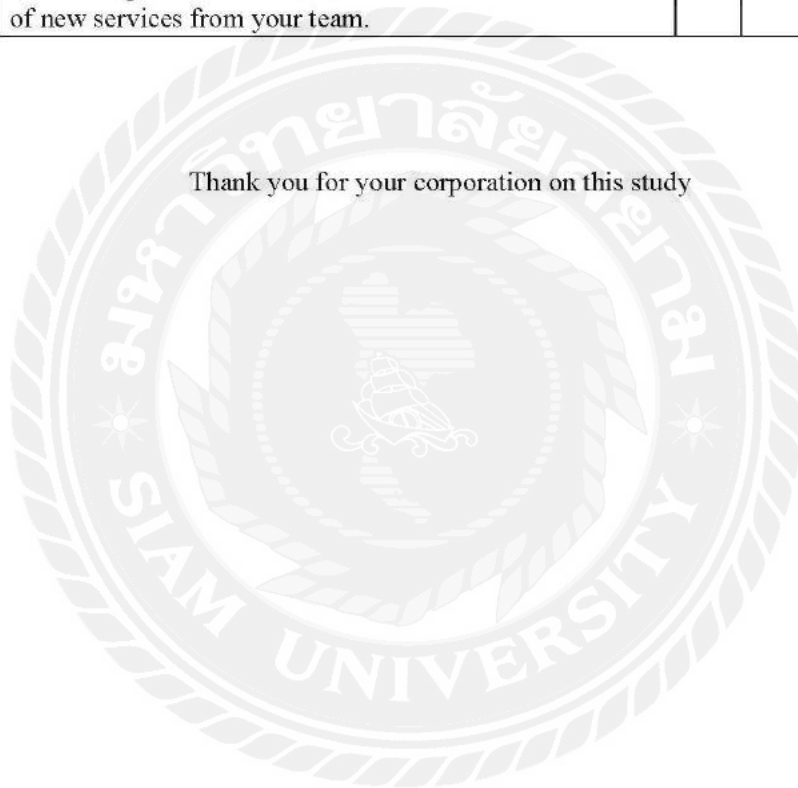
Item	Your Manager/Executive.....	Alternative Answer				
		1	2	3	4	5
Transformational leadership						
1.1	Idealized influence					
1	Talks about his/her most important values and beliefs to manage the organization					
2	Suggests the urgent purpose for solving the problem in current					
3	Considers the moral and ethical consequences of decisions					
4	Emphasizes the importance of teamwork to complete the institutes' mission					
5	Instills pride in me for being associated with him/her					
6	Goes beyond self-interest for the good of the group					
7	Respect for the team when working in organization					
8	Presents a sense of leader confidence to be role model					
1.2	Inspirational motivation					
9	Gain the positive awareness to people in the organization					
10	Support the energetic circumstance to fulfill the administrative team request in work					
11	Connects the admirative team with vision of the future					
12	Shows confidence that members in institute can achieve their work					
1.3	Intellectual stimulation					
13	Displays his/her ideas for corrected the situation					
14	Shows his/her in every angle of problems for better solution					
15	Surveys the source of institutional dilemma from resolve the root of problem					

Item	Your Manager/Executive.....	Alternative Answer				
		1	2	3	4	5
16	Advices the other options for improve work					
1.4	Individual consideration					
17	Spends time to teach and to coach that employee need regard the pandemic					
18	Treats employee as an individual rather than just as a member of a group					
19	Considers me as having different needs, abilities, and aspirations from others					
20	Encourages me to develop my strengths					
Job characteristic						
2.1	Job autonomy					
21	Your job gives you the autonomy and extent the permission to decide about the work.					
22	Your job gives your initiative to carrying out the work.					
23	Your job gives you considerable opportunity for independence and freedom in how you do the work.					
2.2	Skill variety					
24	Your job requires you to do many different things at work, using a variety of skills and talents.					
25	Your job requires me to use several complex or high-level skills.					
26	Your job is challenge and customize.					
2.3	Task identity					
27	Your job a complete piece of work that has an obvious beginning until end.					
28	Your job is depending on your decision, so you have the chance to do an entire piece of work from beginning to end.					
29	Your job provides you with a chance to finish the pieces of work you begin.					
2.4	Task significant					
30	Your job presents the results of your work which likely to significantly affect the lives or wellbeing of other people.					
31	Your job is one where a lot of other people can be affected by how well the work gets done.					
32	Your job itself is very significant or important in the broader scheme of things.					

Item	Your Manager/Executive.....	Alternative Answer				
		1	2	3	4	5
2.5	Feedback					
33	Your actual work provides the clues about how well you are doing—aside from some “feedback” coworkers and supervisors.					
34	You can do the work required by the job provides many chances for you to figure out how well you are doing					
35	Your job itself provides very few clues about whether you are performing well.					
Team learning behavior						
36	Your team regularly take time to figure out ways to improve work processes.					
37	This team tends to handle differences of opinion privately or off-line, rather than addressing them directly as a group.					
38	Team members go out and get all the information they possibly can from others-such as learners, or other parts of the institution					
39	This team frequently seeks new information that leads us to make important change					
40	In this team, someone always makes sure that we stop to reflect on the team's work process					
41	People in this team often speak up to test assumptions about issues under discussion					
42	Your team invite people from outside the team to present information or have discussions with us					
innovation culture						
43	Managers have courage to make innovation and take risk					
44	Managers actively lead the staff to grow and innovate					
45	Managers have vision and insights to create new education opportunities					
46	Employees always have to face challenges and they can learn and grow from the challenges					
47	Your institutes pay attentions to the uniqueness of employees and encourages the innovation from employees					
48	Your institutes are willing to take risks, and it is indeed an ambitious and energetic organization					
Team Innovation						
49	Your team has developed new processes or services in education					

Item	Your Manager/Executive.....	Alternative Answer				
		1	2	3	4	5
50	Your team has improved its administrative and organizational operations					
51	Your team has sought to use the ideas of its teammate					
52	Your team administration encourages the initiatives and creative ideas launched by its employees' better way than competing universities					
53	Your team introduced new methods and improvements to the educational process in a better way than competing universities					
54	Student registration increased because of the introduction of new services from your team.					

Thank you for your corporation on this study



Resume

Jidapa Chollathanrattanapong

Date of birth: November 15, 1985
Nationality: Thai
Phone Number: +66-86-7730160
E-mail: siamzhu@gmail.com
Major: International Business Management and
International Marketing Management



Education

2019-Present Ph.D. in Management, Siam University, Thailand.
2006-2008 M.B.A. in International Business Management and
Marketing Management, Siam University, Thailand.
2002-2006 B.B.A. in International Business Management,
Siam University, Thailand

Training

October 2021 Basic Human Subject Protection Course, Naresuan University
July-August 2021 Cintana Pedagogical Development Program Training
November 2019 Workshop on Communication Styles and Culture, Iwate University
July 2019 Erasmus+, the 9th staff exchange week at Mykolas Romeris
University, Lithuania
June 2016 Teaching Chinese as Second Language, Xi An Jiaotong University
August 2009 Young Leader's International Seminar in Iwate University,
Morioka, Japan

Professional Experience

2007-Present Deputy Director of International Affairs, Siam University
Associate Dean of International College, Siam University
2020-Present ACTU Secretariat, Bangkok Office

Publishing Research

Jidapa Chollathanrattanapong and Chaiyanant Panyasiri. (2022). The Effects of Transformational Leadership on Team Innovation: The Case of Private Universities in Thailand. *Journal of Association of Private Higher Education Institutions of Thailand (APHEIT)*, 11(1), 91-105. (TCI Tier 1)



Research Publication

1. Chollathanrattanapong, J. & Zhao, R. (2017). A Comparative study of financing issues for small and micro enterprises in Thailand and China. The 9th National Academic Conference of 2017, Siam University, Bangkok, Thailand, pp. 399-409.
2. Zhao, R & Chollathanrattanapong, J. (2017). Research on the trust problem of internet business behavior in C2C e-commerce mode. The 9th National Academic Conference of 2017 Siam University, Bangkok, Thailand, pp. 186-193.
3. Chollathanrattanapong, J. & Lu. (2019). An Empirical Study on Impact of PSM on Work Satisfaction in Government: Person/Organization Fit as a Moderating Variable. The 11th National Academic Conference of 2019 “Professional Management in a disruptive world”, Siam University, Bangkok, Thailand, pp. 1192-1207.
4. Chollathanrattanapong J. & Guo. (2020). Study on The Relationship Between the Leadership Style of Township Leaders and The Achievement Motivation of Subordinate Civil Servants. The 1st National and International Academic Conference Innovation and Management for Sustainability ,9-10 July, 2020, Eastin Grand Hotel, Bangkok, Thailand, pp. 1312-1321.
5. Chollathanrattanapong J. & Suksai. (2020). The Influence of Customer Relationship Management Strategies on the Walmart’s Customer Loyalty. The 2nd National and International Academic Conference Innovation and Management for Sustainability, Eastin Grand Hotel, Bangkok, Thailand.

6. Zhao, R & Chollathanrattanapong, J. (2021). Trends and Future Development of International Education under the Influence of the Epidemic. The 11th BENJAMITRA Network National & International Conference, 27 May, 2021, Southeast Bangkok College, Bangkok, Thailand, pp. 410-415.
7. Zuo, CL & Chollathanrattanapong, J. (2021). The Effects of The Psychology State of Employees on Enterprise Innovation Management in The Period of Covid-19. National and International Academic Conference “Empowering Innovation and Sustainability in the Next Normal” 27-28 November, 2021, Siam University, Bangkok, Thailand, pp. 1875-1886.
8. Zhang, L., Li, LY., Chollathanrattanapong, J & Lu, GL. (2022). Organizational Commitment, Job Insecurity and Job Involvement and Mediation Effects of Positive Emotion. “The EUrASEANs:journal on global socio-economic dynamics” Vol. 1(32); January-February, 2022;ISSN 2539-2645, pp. 85-98.
9. Chollathanrattanapong, J & Panyasiri, C. (2022). The Effects of Transformational Leadership on Team Innovation: The Case of Private Universities in Thailand. Journal of Business Administration, Vol.11 No.1 January-June 2022, ISSN (Online): 2673-0529, pp. 91-105.
10. Zhang, L., Titanan, S., Chollathanrattanapong, J., Guo, X. (2022). Research on Apple’s Marketing Strategy in China, Journal of Buddhist Education and Research, Vol. 8(3). (TCI) (in the press) (July-December, 2022).

Project Incharged

- All short term & long term exchange program between Chinese Universities and Siam University.
- Develop the corporation relations between Chinese Universities and Siam University.