

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

ผลกระทบของการนำผู้นำแห่งการเปลี่ยนแปลงสู่นวัตกรรมของทีม: กรณีศึกษา มหาวิทยาลัยเอกชน ประเทศไทย

Jidapa Chollathanrattanapong

Ph.D. Candidate, Graduate School of Management,
Siam University, 38 Petkasem Road, Phasicharoen,
Bangkok, 10160 Thailand

จิตาภา ชลธารรัตนพงศ์

นักศึกษาดุษฎีบัณฑิต สาขาวิชาการจัดการ มหาวิทยาลัยสยาม

E-mail: siamzhu@gmail.com; Ph: 086-773-0160

วันที่ได้รับตั้นฉบับทบทวน : 16 กุมภาพันธ์ 2565

วันที่แก้ไขปรับปรุงบทความ

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Dr. Chaiyanant Panyasiri

Assistant Professor of Management

Dean, Graduate School of Management, Siam University

38 Petkasem Road, Phasicharoen, Bangkok, 10160 Thailand

ดร. ไชยันันท์ ปัญญาศิริ

ผู้ช่วยศาสตราจารย์ประจำหลักสูตรการจัดการ

คณบดีบัณฑิตวิทยาลัยสาขาวิชาการจัดการ มหาวิทยาลัยสยาม

E-mail: cpanyasiri@gmail.com; Ph: 081-829-0308

Abstract

The objectives of the study were to identify the transformational leadership that impacts team innovation, and to explore the relationship between team learning and innovation culture in Thailand's private universities. The 400 respondents, who filled out questionnaires, were faculty and staff members in International Affairs Division of Thai Private Universities. The analysis of data was Confirmatory Analysis Method or CFA in order to prove hypotheses testing.

The result found that there was the direct impact to each variable relationship. However, the relationship between transformational leadership had no direct effect towards team innovation as well as team learning had no direct effect towards innovative team. On the other hand, other variables had effect team innovation. The explanation of model was revealed that 14.6 percent of team learning and 63.4 percent of innovation culture were variation of transformational leadership including the indirect impact through innovation culture to innovative team with the value of 84.3 percent. The finding clearly revealed the tendency demeans the principles of transformational leadership extension to which faculty and staff members were willing to embrace change from Coronavirus Disease 2019 or COVID-19 pandemic as well as being acceptance of accountability as a team to build innovation performance for organizational potential.

The contributions of this study will be useful for policymakers can be able to reformulate management policies on Thai private universities as well as instill cultures in order to implement team learning or innovation issues with a particular focuses on team innovation building. Moreover, the examination of productivity from the transformational leadership for improving the prevailing methods that develop another level of performance. The executives' expectation is willing to enhance the value through their alignment and teamwork for innovation accomplishment.

Keyword: Transformational leadership, Team learning, Innovation culture, Innovative team, The Private Universities

บทคัดย่อ

วัตถุประสงค์ของการศึกษาผลกระทบของภาวะผู้นำที่มีผลต่อนวัตกรรมของทีมและการสำรวจความสัมพันธ์ระหว่างการเรียนรู้เป็นทีมกับวัฒนธรรมนวัตกรรมของมหาวิทยาลัยเอกชน ในประเทศไทย โดยผู้ตอบแบบสอบถาม จำนวน 400 คน จากบุคลากรที่ปฏิบัติงานเกี่ยวกับงานด้านวิเทศสัมพันธ์ของมหาวิทยาลัยเอกชนในประเทศไทย ส่วนการทดสอบสมมุติฐาน ใช้การวิเคราะห์ห้องคปะกอบเชิงยืนยัน

ผลการวิจัยพบว่ามีผลกระทบทางตรงที่เกิดจากความสัมพันธ์ของตัวแปรแต่ละตัว อย่างไรก็ตาม ความสัมพันธ์ระหว่างภาวะผู้นำแห่งการเปลี่ยนแปลงไม่มีผลทางตรงต่อวัตกรรมกลุ่มและการเรียนรู้เป็นทีมที่ไม่มีผลทางตรงกับนวัตกรรมของกลุ่ม แต่ตัวแปรอื่นนั้นมีผลต่อนวัตกรรมของกลุ่ม นอกจากนี้ ไม่เดลได้อธิบายถึงผลการทดสอบตัวแปรว่าการเรียนรู้เป็นทีมมีผลร้อยละ 14.6 และวัฒนธรรมนวัตกรรมมีผลร้อยละ 64.3 จักความสัมพันธ์ของภาวะผู้นำแห่งการเปลี่ยนแปลงรวมถึงผลทางอ้อมของภาวะผู้นำที่ส่งผ่านวัฒนธรรมนวัตกรรมไปสู่นวัตกรรมของทีมมีผลร้อยละ 84.3 ผลลัพธ์แสดงให้เห็นชัดว่าแนวโน้มพฤติกรรมที่เป็นหลักการของภาวะผู้นำแห่งการเปลี่ยนนั้นทำให้เกิดการเปลี่ยนแปลงทั้งสถานการณ์การระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 หรือโรคโควิด-19 และยอมรับในความรับผิดชอบของทีมที่จะสร้างผลการดำเนินงานที่เป็นนวัตกรรมสำหรับศักยภาพองค์กร

การนำเสนอประโยชน์สำหรับการศึกษาครั้งนี้ สามารถทำให้ผู้บริหารในสถานศึกษากำหนดนโยบายการจัดการหลักในการบริหารจัดการของมหาวิทยาลัยเอกชนและปลูกฝังวัฒนธรรมเพื่อประยุกต์การเรียนรู้เป็นทีมและนวัตกรรมที่สร้างจากทีมรวมถึงสำรวจผลผลิตของภาวะผู้นำแห่งการเปลี่ยนแปลงเพื่อเป็นการยกระดับและพัฒนาผลการดำเนินงานไปสู่อีกระดับของความคาดหวังของผู้บริหารเพื่อเพิ่มคุณค่าผ่านการปฏิบัติงานและการทำงานเป็นทีมเพื่อผลสำเร็จเชิงนวัตกรรม

คำสำคัญ: ภาวะผู้นำแห่งการเปลี่ยนแปลง, การเรียนรู้เป็นทีม, วัฒนธรรมแห่งนวัตกรรม, นวัตกรรมของทีม
มหาวิทยาลัยเอกชน

Introduction

Thailand's private universities have continued to motivate widespread interest from 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, create research projects, deliver service to the community, and nurture national cultural pillars related to Thailand's national strategies. Innovation output from university employee relates to the measure of team accomplishment of their tasks due to investing their effort in the innovation process. Although the indicators that determine employee behavior remain aspects of practical and theoretical debates (Molefe, 2010). Lesmana and Nasution (2020) insisted 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 Buasawan (2018) argument, public and private universities in Thailand face challenges and opportunities that influence organization members performance. However, many of studies focused on private universities. Since 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 & Fridani, 2020). In addition to the extant factors that influenced performance, the new normal that occurred during the pandemic, including teaching and assessing students online, brought a new set of opportunities and challenges to staff' performance.

The management of private universities in Thailand have limited access to resources than public universities because they are not funded and supported by the government (Singagerda & Berlian, 2016). Limited access to resources adversely affects 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 transformational leadership factors could impact behavior. It was depended on performance which related to mission of educational institute. 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. The innovation culture claimed that the innovation was based on the creating value by individuals and organizations that congruence with their resources. That mean the leader could lead people for new ideas and encourage innovation performance (Bledow, Frese & Mueller, 2011). Team innovation defined the innovation performance from team. This related a unitary construct with various output indicators that could measure the team innovation. The organization must establish the goal or mission to create innovation results (Dunphy & Bryant, 1996). The comparison between individual performance and team has adhered to the stated budget plan and work schedules. The team operation is better than single person because mission, efficiency and effectiveness have equivalence with innovation goals where the team has met the desired outcomes and supported members recreate a new idea.

Contextual factors influencing the performance of university staff are centered on the nature of leadership and culture within a university. Although the study has supported transformational leadership relation on team learning, innovation culture, and team innovation as the foundational leadership style and culture that motivates staff to improve performance, studies on Thailand's private universities are scarce. Given the variations of Thailand's cultural orientations, investigating how transformational leadership and employee behavior can enhance organizational performance in the country's private universities is necessary.

Research Objectives

The purposes of this study are: (a) identify the transformational leadership in Thailand's private universities that impact to team innovation and (b) explore the relation to team learning and innovation culture.

Literature Review

Transformational leadership contains concepts that many contexts have educated because the organization has the effort to develop the innovation output from employees by giving importance to the organizational procedure and applying a new process to stimulate members in the organization. The dynamic of the educational organization brings changes to the way to manage team. Thus, the review literature is focused on the effect of transformational leadership on team innovation. This study aimed to contribute to the significance of theory by private universities context.

Transformational leadership

The original concept of transformational leadership began received from the political field with James MacGregor Burns (1978). The idea of leadership is the shift to management by Burns (1978) with reference as leaders and followers raise another to higher levels of morality and motivation. The meaning of transformational leadership goal is to raise followers' consciousness by appealing 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, and the leader looks for potential motives in followers, seeks to satisfy higher-order needs so that through a process of mutual stimulation. Transformational leadership also use in various context and characterize to four dimension as element of leader (Avolio & Bass, 1995). Transformational leadership refers to Eisenberg, Post and DiTomaso (2019) claimed that leaders use idealized influence (charisma) is the concept for effectively interacting from leaders to follower which creating the team influence and emotional contagion between them and leader, inspiration motivation is briefly meaning shared value or necessity behavior form leaders to followers, intellectual stimulation is identify the challenge task from leaders or support to team to initiate develop on team assignment, or personalized considerations to enable followers to surpass their immediate self-interest (Widtayakornbundit & Phinaitrup, 2021). 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, they will demonstrate idealized influence and inspiring leadership. Followers hope to identify with such a leader when leaders help followers become more innovative and creative.

Team learning

The fundamental of team learning is process that drive ongoing behavioral on leaning for community of practice in organization. The concept presents different style to sharing knowledge and manage notion in their team. It is the method to receive the new information between member (Ellis, Hollenbeck, Ilgen, Porter, West & Moon, 2003) which relevant with the concept from Kolb and Kolb (2011) assert that managing tasks are related to operating principles or learning conditions and interpersonal relationships to individual expressions. This mean team learning could build the group dynamics that necessary for team learning since they provide a fertile premise for the germination and growth of knowledge (Boselie, Brewster & Paauwe, 2009). Pearsall and Venkataramani (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, the group dynamics do not guarantee that there will be collective learning among the same team members. There are additional attributes that are required for organization performance (Peñarroja, Orengo, Zornoza, Sánchez & Ripoll, 2015).

Innovation Culture

The concept of innovation culture is based on organizational culture which tends to converge on the idea that culture is composed of our shared values, how we do things, language, rituals, stories, and more that we share when we bring new people into the organization (Ravasi & Schultz, 2006). The organization culture was adapted to innovation culture by social constructivism expect common beliefs to be revised regularly because members of the organization modify their interpretations in response to changes in the environment (Fiol, 1991). Research on innovation culture shows that practices, artifacts, rituals, and other cultural forms show the special thinking mode that is unique to an organization and the product of an organization's history of collective learning. Innovation is usually understood as introducing new or remarkable things improvements, such as products (goods or services) or processes. Innovation can be seen as the process from knowledge creation toward new experience in various culture. Kaasa and Vadi (2008) states the initiation phase and valuable ideas were generated, 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 needs to develop and implement it).

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, the member in the organization confronts the novel knowledge and represents it in the right way. The result of innovation can create different ideas processes to share knowledge or develop something new to the organization. It generates values for the members and organization performance as innovation output (Rau, Neyer & Mösllein, 2012). At this scope of the study, team innovation defined the innovation result from team in organization. The executive must concern interconnection among external environment, value chain and individual community in organization. The goal of this firms' innovation is to analyze the relation between the behavior of the members with the roles of the innovator and capability builder to create the new product or process for support or generate income to an organization (De Fuentes, Dutrenit, Santiago & Gras, 2015). This is that the output of innovation from team become a picture of sharing knowledge and learning as a team with differences and dependencies in various actors or contexts.

Capello and Lenzi (2015) states with 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. However, given the changes in the 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.

The research focused on finding in relation among the transformational leadership variables influencing team learning and innovation culture that influences to team innovation in the context of private universities (COVID-19 pandemic). The variables of the innovation and team behavior that integrated an impact of action and behavior on their job for improving team innovation practices and supporting new outputs. The research framework was created according to the hypotheses, as shown in Figure 1.

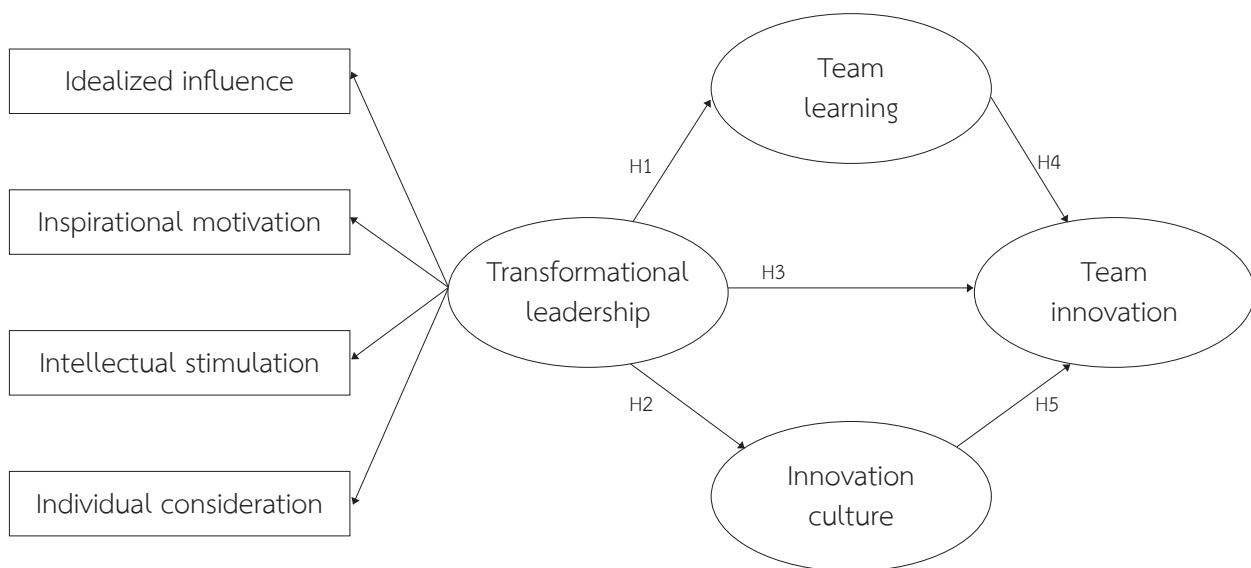


Figure 1 Research framework

H1: Transformational leadership directly impacts the team learning of employees of the private university

H2: Transformational leadership directly impacts the innovation culture of employees of the private university

H3: Transformational leadership directly impacts the team innovation of the private university

H4: Team learning of employee directly impacts the team innovation of the private university

H5: innovation culture in organization directly impacts the team innovation of the private university

The concept of this study found the less research significant in area of study. It was enough evident that transformational leadership fosters team learning and innovation issues in Thailand. The major challenge identified in the study was that no study directly addresses the concept of transformational leadership as address this research gap

Research Methodology

This study collected the data from stakeholders who respond in the international affair in Thailand private universities (full time faculty staff) and the characteristic of leaders as university's directors. The criteria for informants are the person who graduated in Bachelor's degree, fluent in English language, and has more than a year of experience in their work in the same universities. The study uses probability sampling (simple random sampling) and nonprobability sampling (purposive sampling) as the sampling strategy by collect on twenty-five university in five regions with four hundred questionnaires. The appropriate parameter estimation of this study was the Maximum Likelihood method which depended on the number of observable variables with four latent variables. Then the construct was calculated by ten times the number, and the results were 40-80 samples. The correct number of informants should be 200 or more in this method. The item measure was filtered with forty questionnaires pretest from sampling group to reduce the bias of problem. Then the collected data is tested by construct validity and discriminated validity analysis before testing on structural equation model.

The independent variable was Transformational Leadership. It was measured by the modification of Avolio and Bass (1995), with twenty questions of "multifactor leadership questionnaire (MLQ)." The questionnaire asked the respondents to involve their characteristic leader regarding idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation. The example of questions, i.e., your director talks about his/her most important values and beliefs to manage the organization, your director shows confidence that members in institute can achieve their work, or your director Advices the other options for improve work. For The dependent measurement, this study has three constructs for survey such as; Team learning behavior was measured by altering the team behavior questionnaire from Edmondson (1999). It included seven items for the surveyed questionnaire but modified to three items. The measurement was developed on learning behavior as a repetitive process of creating, fulfilling, and crystallizing the action from a human as learners, or other parts of the institution, i.e., team members go out and get all the information they possibly can from others-such, people in this team often speak up to test assumptions about issues under discussion, or your team invite people from outside the team to present information or have discussions with us. Innovation Culture has employed the questionnaire concept by adapting Chang and Lin (2007) which has six items of measurement. This study presented the innovation activity categories established naturally in the private universities, i.e., managers actively lead the staff to grow and innovate, your institutes are willing to take risks, and it is indeed an ambitious and energetic organization, and managers have courage to make innovation and take risk. Team Innovation reprocessed the ideal from the innovation performance of team working surveys (Al-Khatib, Al-Fawaeer, Alajlouni, & Rifai, 2021) containing six items, i.e., your team has developed new processes or services in education, your team has improved its administrative and organizational operations, and your team has sought to use the ideas of its teammate. The concept of questionnaire contributed to a capacity in team working that created the new market and led to competitive advantage with innovation capacity. The questionnaire was the instrument of this study to select the operational variables from literatures. The variables were tested for their validity and reliability. The questionnaire used Likert scale, ranging from five-points scale in which (1) referred to strongly disagree and (5) referred to strongly agree. The questionnaire adjusted the item by the reliability testing and the confirmatory analysis method (CFA).

Finding

The factor loading value from the confirmatory factor analysis which all constructs must have value at least 0.5. The reliability testing should more than 0.70. Then the structural validity was analyzed, the factor loading must above 0.5, average variance extracted (AVE) exceeding 0.5 (Hair, Black, Babin & Anderson, 2010) or yielding below 0.5 in some occasion (if composite reliability (CR) in that variable more than 0.6) (Fornell & Larcker, 1981), and CR exceeding 0.7. The results from other indexes shown in Table 1.

Table 1 The result of confirmatory factor analysis and construct reliability

Variable	Item	Loading	Cronbach alpha	CR	AVE
TFL1	TFL1.1	0.801	0.931	0.629	0.931
idealized	TFL1.2	0.802			
Influenced	TFL1.3	0.816			
	TFL1.4	0.821			
	TFL1.5	0.745			
	TFL1.6	0.761			
	TFL1.7	0.802			
	TFL1.8	0.795			
TFL2	TFL2.1	0.843	0.895	0.682	0.895
inspirational	TFL2.2	0.818			
motivation	TFL2.3	0.785			
	TFL2.4	0.843			
TFL3	TFL3.1	0.826	0.908	0.714	0.909
(intellectual	TFL3.2	0.859			
stimulation)	TFL3.3	0.865			
	TFL3.4	0.828			
TFL4	TFL4.1	0.848	0.900	0.691	0.900
(individual	TFL4.2	0.811			
consideration)	TFL4.3	0.811			
	TFL4.4	0.818			
Team Learning	Team1	0.789	0.933	0.840	0.940
(Team)	Team2	0.976			
	Team3	0.972			

Variable	Item	Loading	Cronbach alpha	CR	AVE
Innovation Culture	InCul1	.852	0.903	0.610	0.903
(Incul)	InCul2	.812			
	InCul3	.732			
	InCul4	.789			
	InCul5	.745			
	InCul6	.751			
Team Innovation	TeamInno1	.791	0.912	0.635	0.913
(TeamInno)	TeamInno2	.819			
	TeamInno3	.775			
	TeamInno4	.755			
	TeamInno5	.808			
	TeamInno6	.832			

The finding in table no.1 presents the construct validity value from multitrait-multimethod analysis that used convergent validity for items in measurement. The evaluation for the discriminant validity adopts from the \sqrt{AVE} which higher than correlations variable. The estimated latent variable appropriates for discriminant validity method (Fornell & Larcker, 1981) is shown in table 2.

Table 2 the discriminant validity analysis (Fornell & Larcker (1981) criterion)

Variable	\sqrt{AVE}	Transformational leadership	Innovation culture	Team learning	Team innovation
		0.824	0.781	0.916	0.797
Transformational leadership	0.824	1.000			
Innovation Culture	0.781	.740	1.000		
Team Learning	0.916	.366	.269	1.00	
Team Innovation	0.797	.701	.825	.257	1.000

The criteria of results in the structural equation analysis must: CMIN/DF should not more than 5.00; GFI suggested to reach the acceptable value must above than 0.8 (Baumgartner & Homburg, 1996), CFI should be equal or more than 0.9, PNFI and PCFI should close to 1, RMR should less than 0.05 and RMSEA must not over 0.08, which meets the specified criteria (Hair et al., 2010). This represents an appropriate structural model by the result of revealed; CMIN/DF at 2.627; p-value at 0.000; GFI at 0.820; CFI at 0.928, PNFI at 815, PCFI at 850, RMR at 0.020 and RMSEA as equal to 0.064. Thus, it could explain those structural equations operating independent variables (transformational leadership), and applied groups in mediating variable, such as team learning and innovation culture. They might be affected to team innovation in private university significantly.

It is a model that is congruent with empirical data. Therefore, the measurement model is fit with the theoretical model at an acceptable level. All values met the criteria, the results indicated the structural equations for the generated models in average fit level.

Table 3 the hypotheses testing results

Hypotheses	Estimate (β)	S.E.	t-value	p-value	Result
H1: TFL -> team learning	.463***	.062	7.460	.000	supported
H2: TFL -> innovation culture	.729***	.051	14.167	.000	supported
H3: TFL -> team innovation	.042	.060	.705	.481	not supported
H4: team learning -> team innovation	.007	.027	.263	.793	not supported
H5: innovation cul.-> team innovation	.980***	.084	11.705	.000	supported

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

The path coefficient of transformational in private university is calculated as the estimated value (β) in model. The data analysis for transformational leadership model shown the relationship among the variable. The research accept hypothesis of H1, H2, and H5. The p-value is .000 which has less significance than ***.001. It means there is significance in terms of causality between the correlation in each variable. There is effect among transformational leadership to team learning (H1) and innovation culture (H2). Another path coefficient is the direct impact between innovation to culture team innovation (H5). According to the table that shows the path of the coefficients, there are three levels of significance (p = *.05, **.01, ***.001). The effect of transformational on innovation culture is more likely to have the standardized coefficients value better than team learning (.729>.463). Although the direct impact from innovation culture to team innovation have the highest value of standard regression weight at .980.

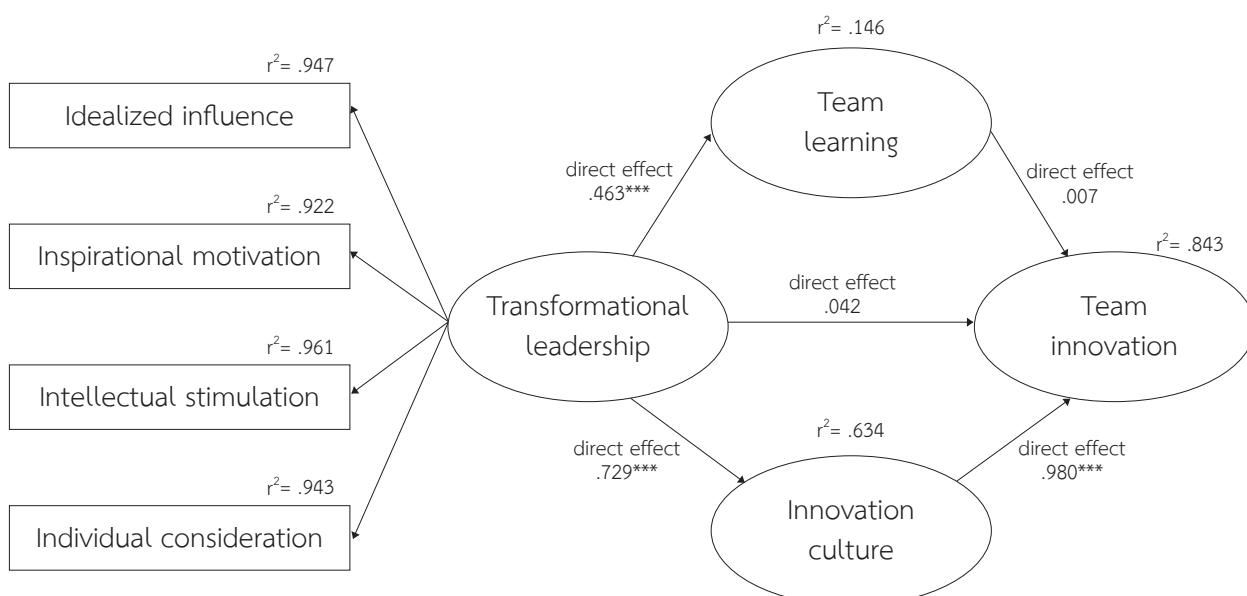


Figure 2 the structural equation model

The square multiple correlations analysis indicated that the transformational leadership model affects team learning behavior, innovation culture in institutes, and team innovation at 14.6%, 63.4%, and 84.3% respectively. The results showed that this model can forecast employee behavior in the private university (Figure 2).

Discussion and Conclusion

The significance of transformational leadership and team learning is necessary for changes in their work during COVID-19 Pandemic. According to Bucic, Robinson and Ramburuth (2010), the changes in an economic environment marked with 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. The study provides crucial information that can be applied in team learning. The direct effect between transformational leadership and team learning that the result support the member to learn and understand the meaning of assignment for organization (Hackman & Wageman, 2005). The concept of transformational leaders on team learning is ensure the team's needs for learning, the leaders must provide the suitable environment or facilities to encourage the team. According to another relationship, team learning doesn't influence to team innovation because teams can be on their learning option through the developmental phases of grouping and performing but this does not guarantee that they will create novel information through the learning process, such as the perspective or reframing integration (Bresman & Zellmer-Bruhn, 2013). This mean there is possibility that no impact from team learning activity to team innovation.

The Transformational leadership has no direct effect on team innovation but also have indirect effect to team innovation through innovation culture. The transformational leadership identified this to affect innovativeness and independent creativity, thus questioning the aspect of inspired motivation for teams to create their culture: to think beyond the box and develop innovative and creative solutions outside of their leaders' need for them (Hu, GU & Chen, 2013). Organizational structure and leadership roles are the implementations of discovery, incubation, and innovation. When an executive leader leads innovation efforts, the company may benefit from improved their team culture to market orientation, signals, and a combined effect (Bendapudi, Zhan, & Hong, 2018). Although leadership styles inspire teams, create a shared vision, and engage teams which is create innovation culture to improving the firm's innovation and performance capabilities are critical (Rao & Abdul, 2015). Transformational leadership was in the critical role of supporting exploratory and exploitation innovation culture that realized the internal context and external environment for integrated in each member. The characteristic of leader behaviors can contribute to innovation culture, and the relative of leader behaviors varies depending on context (Bledow, Frese & Mueller, 2011).

The study of team innovation usually was directed from the transformational leadership. The transformational leaderships study has instructed the significance of participation and behavioral integration. Members in the organization shared the value creation in the team. They utilized team learning resources that 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 leaders' characteristics to create an explicit environment that encourages innovation, stimulates behavior, and operates for organization performance (Supermane, 2019). The result on transformational leadership is likely to be related to adapting the follower to face high levels of dynamic change from external factors. The goals of inventiveness and improving followers' innovation competence must deal with the innovation implementation behavior. It suggests re-examining the effect of mediating variables 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 in the organization.

Research Contribution

This study specified on relationships between transformational leadership in directors or managers, combined with the context of the private university system, in reaction to the instruction organizing. The suggestion for executives, they can manage institutes extension of development when they build support with teams, along with supporting individual to perform self-management to complete their goals. From this perspective, the influence is presumed to operating result on human capital practice for manage organization by leaders, and it flows to the follower to change practice. They must give feedback as the degree of team learning, then returns the result of task or mission to the employee by opened information; the employee can use the information for their progress. Top management needs to give feedback to the employees to know which areas need to be improved, and it can lead to a better understanding of their activity nature. The challenge of managing in cultural setting, this makes it awareness of argue of leaders to implement change on the employee environment. The practice to employee must understand the culture and goal for the institution. The management must create an alignment of comprehending of innovation into organization cultures and perspectives of employee, this can be challenging to surmount conflict and misunderstandings among groups to commence the transformational leadership process to organization strategy that link to innovation performance among members.

Limitations and future research

The research methodology could require in-dept interview from all stakeholders such as; employees in institutes to survey on their opinions about the organization purposes, learners who applied for courses to feedback their outputs, and attitude from others from outside involve with university's' image or DNA. The researcher could not do the qualitative such as interview because their no evident in Thailand to do research on team innovation in private university. This study seems like to be primary data to survey on relation among the concept and theory to discover in future research. The future research may improve idea for other variables that can impact to team innovation or various performance from independence or mediating variable. This can consider the relationship between the stem of knowledge and context which gain a fruitful benefit for organization performance.

Ethics committee approval

The research article was approved by the research ethic committee of Panyapiwat Institute of Management (PIM-REC 038/2564).

Reference

Al-Khatib, A. W., Al-Fawaeer, 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

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

Azizaha, Y. N., Rijalb, M. K., Rumanurc, U. N. R., Pranajaya, S. A., Ngiuf, Z., Mufidg, A., ... & Maui, D. H. (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), 577-588. doi:10.31838/srp.2020.7.82

Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing*, 13(2), 139-161. doi: https://doi.org/10.1016/0167-8116(95)00038-0

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

Bledow, R., Frese, M., & Mueller, V. (2011). Ambidextrous leadership for innovation: The influence of culture. *Advances in Global Leadership*, 6, 41-69. doi:10.1108/S1535-1203(2011)0000006006

Boselie, P., Brewster, C., & Paauwe, J. (2009). In search of balance-Managing the dualities of HRM: An overview of the issues. *Personnel Review*, 38(5), 461-471. doi:10.1108/00483480910977992

Bresman, H., & 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.

Buaswan, P. (2018). Rethinking Thai higher education for Thailand 4.0. *Asian Education and Development Studies*, 7(2), 157-173. doi:10.1108/AEDS-07-2017-0072

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

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

Chang, S.E., & Lin, C. S. (2007). Exploring organizational culture for information security management. *Industrial Management & Data Systems*, 107(3), 438-458. doi:10.1108/02635570710734316

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

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383. doi:10.2307/2666999

Ellis, A.P., Hollenbeck, J.R., Ilgen, D.R., Porter, C.O., West, B.J., & Moon, H. (2003). Team learning: Collectively connecting the dots. *Journal of Applied Psychology*, 88(5), 821-835. doi:10.1037/0021-9010.88.5.821

Eisenberg, J., Post, C., & DiTomaso, N. (2019). Team Dispersion and Performance: The Role of Team Communication and Transformational Leadership. *Small Group Research*, 50(3), 348-380. doi:10.1177/1046496419827376

Dunphy, D., & Bryant, B. (1996). Teams: panaceas or prescriptions for improved performance?. *Human Relations*, 49(5), 677-699. doi:10.1177/001872679604900507

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

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50. doi:10.2307/3151312

Hackman, J. R., & Wageman, R. (2005). A theory of team coaching. *Academy of Management Review*, 30(2), 269-287. doi: 10.5465/amr.2005.16387885

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis*. New York.: Pearson.

Hannah, S. T., & Lester, P. B. (2009). A multilevel approach to building and leading learning organizations. *The Leadership Quarterly*, 20(1), 34-48. doi:10.1016/j.lequa.2008.11.003

Hu, H., Gu, Q., & Chen, J. (2013). How and when does transformational leadership affect organizational creativity and innovation?. Critical review and future directions. *Nankai Business Review International*, 4(2), 147-166. doi:10.1108/20408741311323344

Kaasa, A., & Vadi, M. (2008). How does culture contribute to innovation? Evidence from European countries. *Economics of Innovation and New Technology*, 19(7), 583-604 doi:10.1080/10438590902987222

Kolb, A. & Kolb, D. (2011). Experiential Learning Theory: A Dynamic, Holistic Approach to Management Learning, Education and Development. In Armstrong, S. J., & Fukami, C. (Eds.) *Handbook of management learning, education and development*. London: Safe Publications.

Lesmana, M. T., & Nasution, A. (2020). Analysis of Factors Affecting the Performance of Lecturers in Conducting Research: A Case Study on Private Universities in Medan. *Asia Pacific Journal of Management and Education*, 3(2), 33-44. doi: 10.32535/apjme.v3i1.739

Michaelis, B., Stegmaier, R., & Sonntag, K. (2010). Shedding light on followers' innovation implementation behavior: The role of transformational leadership, commitment to change, and climate for initiative. *Journal of Managerial Psychology*, 25(4), 408-429. doi:10.1108/02683941011035304

Molefe, G. (2010). Performance measurement dimensions for lecturers at selected universities: An international perspective. *SA Journal of Human Resource Management*, 8(1), 1-13.doi:10.4102/sajhrm.v8i1.243

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

Pearsall, M. J., & Venkataramani, V. (2015). Overcoming asymmetric goals in teams: The interactive roles of team learning orientation and team identification. *Journal of Applied Psychology*, 100(3), 735-748. doi:10.1037/a0038315

Peñarroja, V., Orengo, V., Zornoza, A., Sánchez, J., & 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. doi:10.1016/j.chb.2015.01.034

Rao, A. S., & Abdul, W. K. (2015). Impact of transformational leadership on team performance: an empirical study in UAE. *Measuring Business Excellence*, 19(4), 30-56. doi:10.1108/MBE-07-2014-0022

Rau, C., Neyer, A.K., & Mösllein, 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

Ravasi, D., & Schultz, M. (2006). Responding to organizational identity threats: Exploring the role of organizational culture. *Academy of Management Journal*, 49(3), 433-458. doi:10.5465/amj.2006.21794663

Singagerda, F. S., & Berlian, M. (2016, August). Improving the Capacity of Private Universities Management. *Proceedings of the 6th International Conference on Educational, Management, Administration and Leadership*. (pp. 172-185). Paris, France: Atlantis Press.

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

Widodo, H. P., Ferdiansyah, S., & Fridani, L. (2020). Introduction to International Students and COVID-19. *Journal of International Students*, 10(S3), i-xii. doi:10.32674/jis.v10iS3.3208

Widtayakornbundit, S., & Phinairup, B.-A. (2021). A study of leadership in educational institution using dual systems and the effects on personal behavior: A case study of Thailand private vocational system. *Kasetsart Journal of Social Sciences*, 42(3), 527-534. doi:10.34044/j.kjss.2021.42.3.12