

Influences of Transformational leadership, Organizational climate, Human resource management, Organizational structure, and Job satisfaction on the Innovative creation of employees for the Faculty of Medicine Ramathibodi hospital, Mahidol University

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Abstract: At present, the system for healthcare service quality improvement which strives for excellence and sustainability is very important to the operation of the Faculty of Medicine Ramathibodi Hospital, Mahidol University. What the organization needs to do is keeping pace with changes by creating new innovations, both in terms of service and medical modernization. The objectives of this research were to :1 (study the levels of transformational leadership, organizational climate, human resource management, organizational structure, job satisfaction, and creation of innovations of the personnel of the Faculty of Medicine Ramathibodi Hospital, Mahidol University; 2 (examine the influences of transformational leadership, organizational climate, human resource management, organizational structure, and job satisfaction on the creation of innovations of the personnel of the Faculty of Medicine Ramathibodi Hospital, Mahidol University; and 3 (develop a model for the creation of innovations of the personnel of Faculty of Medicine Ramathibodi Hospital, Mahidol University. This research employed a mixed research methodology combining quantitative and qualitative methods. For the quantitative research part, the sample consisted of 420 respondents including doctors, nurses, pharmacists and supporting staff. The sample size was determined based on the criterion of 20 times the observed variables. They were selected via stratified sampling. Data were collected with the use of a questionnaire and analyzed with a structural equation model. As for the qualitative research component, in-depth interviews were conducted with 17 key informants including doctors, nurses, and supporting staff. Data were analyzed with content analysis. The findings showed that: 1) transformational leadership, organizational climate, human resource management, organizational structure, job satisfaction, and creative innovations of the personnel of the Faculty of Medicine Ramathibodi Hospital, Mahidol University were rated at a high level; 2(transformational leadership, organizational climate, human resource management, organizational structure, and job satisfaction had an influence on the creation of innovations of the personnel of the Faculty of Medicine Ramathibodi Hospital, Mahidol University, with a .05 level of statistical significance and the equation could predict the creation of innovations by 71 percent; and 3(the model for the creation of innovations of the personnel of the Faculty of Medicine Ramathibodi Hospital, which was developed by the researcher, conformed to the empirical data. The model was known as the T O H O J C model (T referring to transformational leadership, O referring to organizational climate; H referring to human resource management, O referring to organization structure, J referring to job satisfaction, and C referring to creation of innovations of personnel). The model for the creation of innovations that can establish sustainable competitive advantage needs to be adjusted in terms of the paradigm in which every stakeholder is encouraged to work together through a multidisciplinary approach and a workflow that integrated all key functions related to education and health services. This should be accomplished within the organizational climate that is goal-oriented and moves towards the future, even though there are threats to the organization in terms of the development of products and services. The model will lead to the enhancement of work process which can happen despite of limited resources, and can drive the Faculty of Medicine Ramathibodi Hospital, Mahidol University to achieve excellence and sustainability.

Keywords: Transformational Leadership, Organizational Climate, Human Resource Management, Organizational Structure, Job Satisfaction, Creation of Innovation

1. Introduction

Innovation is the capacity of organizational personnel to create, develop, and implement novel ideas, things, techniques, and products & services in order to bring improvement in the efficiency, effectiveness, or image of the business organization. As time passes, competition among businesses in the market is getting serious. Many organizations are found to deal in similar products and service. As the number of business organizations increases, the competition among the organization is growing. It is compulsory for business organizations to compete against others in the same economic industry if they want to grow or even to exist in the marketplace (Ortiz-Villajos & Sotoca, 2018). That is why they must meet consumers' requirements, they must be corresponding to the market trends that continue to change consistently, and they must create ability in themselves to come with the future requirements, needs, and expectations. This requires business enterprises to bring reforms, value creations and innovation in all organizational areas such as resources (physical and human resources), production and marketing techniques, products and services. Consumers prefer to make dealings with enterprises whose focus is not only on production also on novelty in business activities, products and services. Consumers turn to innovation-based

business organizations in order to fulfil the needs well or by desire out of curiosity to have experience of innovative things. So, the consistent innovation in the overall business provides competitive advantages and high profits (Zhang & Walton, 2017).

It is the human resources in organizations who carry all the business processes from management to production of goods and services and their marketing. Their knowledge, ideas, skills, and capabilities influence the effectiveness and efficiency of business processes. The human resources having conservative and old ideas and skills cause business failure to meet the up-to-date consumers' requirements and thus, the business organizations collapse in the marketing. On the other hand, the human resources who have up-to-date knowledge, creative skills, and innovative capabilities can better handle the situation, bring innovation in business resources, processes and production. Thus, they put the organization on the route to success as their innovativeness enable the organization to compete against the rival businesses in the market (Rangus & Slavec, 2017). The aim of our study is to analyze the influences of transformational leadership, organizational climate, human resources management, organizational structure, and job satisfaction on the creation of innovation in the organizational personnel and, thereby, in the business resources, processes and marketing. Effective organizational climate and structure, effective implementation of human resource management practices, and application of transformational leadership enable the organizational faculty to build creativity in themselves, which brings innovation and quality improvement in the overall organization (M. Yang, Evans, Vladimirova, & Rana, 2017).

Our study analyzes the contributing influences of transformational leadership, organizational climate, human resources management, organizational structure, and job satisfaction on the creation of innovation in the faculty of Medicine Ramadhibodi Hospital, Mahidol University in Thailand. Thailand is an upper-middle-income developing economy. It has a rank of the 21st largest country of the country in terms of purchasing par parity, while the 24th largest country in terms of nominal gross domestic product. The statistics of 2020, the nominal gross domestic product of Thailand economy is \$509.2 billion. The service sector covers a major portion of the economy which is 52.4% (Trakulsrichai et al., 2013). Following the Second National Economic and Social Development Plan (1964-1966), the government aimed to enhance the number of doctors, nurses and beds to meet to needs of the country. Figure 1 also show the number of beds available in the hospitals of Thailand.

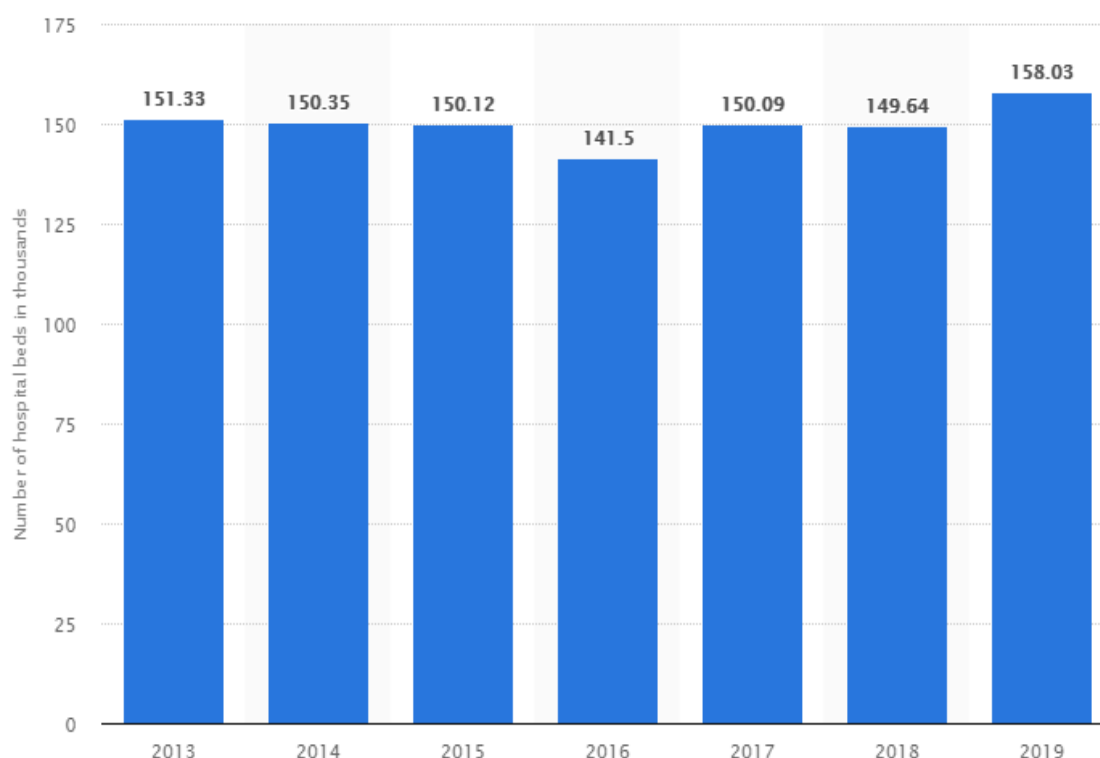


Figure 1: Number of Hospital Beds in Thousands

plan came into practice in 1969 when the Faculty of Medicine Ramadhibodi Hospital, Mahidol University, was started. It is financially supported by government funds and Rockefeller Foundation from the USA. It has five

buildings Main Building, Sirikit Medical Center, Somdech Para Debratana Building, Center of Medical Emergency and Accident Building and Medical and Education Laboratory Center. This university focus on the innovativeness in their human resources and, thus, in physical resources, infrastructure, managerial, teaching and learning methods. Here in this university, the management is putting the focus on an effective leadership style like transformational leadership, effective human resource management, and organization climate & structure to create innovation in the human resource and all the areas of the university (Boonvisudhi & Kuladee, 2017).

2. Literature Review

It has become a necessity for an economic organization to develop innovation in all areas in order to keep pace with the market shifts, technology change, and public requirements. The creation of innovation in the resources, techniques, products and services enhances organizational performance, productivity, competitive advantages, and earnings. As all the business activities are carried out by the organizational personnel, their ideas, skills, and knowledge must be innovative so that they may monitor the ever-increasing changes in the market trends, customers' requirements, and technology and bring change in business processes, products and services accordingly (Martín-Rios & Ciobanu, 2019). The human resources, which rely on conservative business methods and old machinery, fail to compete in the emerging market. While human resources who put focus on their goals, ponder on the problems in the way of their achievement, create new ideas, novel methods, and improve or create entirely new things in order to meet their goals in a better way, can put the organization on the way to success. Innovativeness in human resources can be created by bringing improvement in the leadership style, organizational climate, human resource management, and organizational structure (Szilagyi, Mocan, Verniquet, Churican, & Rochat, 2018). In the past, there have been paid great attention to the role of the transformational leadership style, organizational climate, human resource management, and organizational structure in the creation of innovation. Some past studies have been cited below in this regard.

Transformational leadership is the style of leadership under which the leader participates in the projects with the members of the team and adopts polite and caring behavior towards them. He has a great influence on the members of the team and motivates them to perform beyond their perceived capabilities to monitor and respond to the changes. Thus, transformational leadership assists in putting the innovation programs into practice (Watts, Steele, & Den Hartog, 2020). The transformational leader adopts four types of behavior such as inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration, to get the team members to perform efficiently, creating and maintaining innovation in the organization. Under inspirational motivation, the leader inspires his followers to achieve the set goal of the team. He sets the goals keeping under consideration the shifts in the market trends and the changing customers' requirements, even their future expectations. He inspires them to win, exceed and achieves the goals in the right way. Thus, the team members invent new ideas if needed to hit the target (Al-Husseini, El Beltagi, & Moizer, 2019). Having the behavior, idealized influence, the leader acts as the role model for the organization and inspires them by example. Idealized leaders understand the needs of the team members, prioritize their needs, cares for them, and thus, win a soft corner in their hearts. The emotionally attached team members try to the best of their abilities and capacities to implement the practices designed by the organization for the creation of innovation in the business processes. The research by Klaic, Burtcher, and Jonas (2020), has proved that intellectual stimulation, the behavior adopted by the leader to encourage the team members to think for themselves and ignores their mistakes. This makes them be creative, innovative, and open to new ideas. Thus we can hypothesize that,

H1: Transformational leadership has a position associated with the creation of innovation.

H2: Transformational leadership has a position associated with the human resource management.

H3: Transformational leadership has a position associated with the organizational structure.

Organizational climate is the employees' perception of the quality of the organization's environment. It is based on the value judgment, which may vary from person to person. The organizational climate affects the productivity, motivation, and behavior of employees and thus affects their abilities to create innovation or facilitate the creation and development of innovation (Song, Wang, & Ma, 2020). The organizational climate is of different types: people-oriented climate, rule-oriented climate, innovation-oriented climate, and result-oriented climate. When the organizational cultures are characterized by respect for the personnel irrespective of their rank or position in the organization, the employees feel that organization shows equality. Under such an organizational climate, the employees feel emotional satisfaction and focus on the innovation-based project inwardly (Törner, Pousette, Larsman, & Hemlin, 2017). When the employees perceive that the organizations care for employees' needs and health, they are emotionally committed to the organization. They are committed to working in favor of the organization. They not only perform their actual duties efficiently but put some extra efforts to provide benefits to the organizations. Similarly, when the employees have emotional and economic support from the organization in the form of rewards, honors, bonus, or compensation, they have mental peace and better focus on innovation projects. When the organizational climate is rule-oriented, the creation of innovation is dependent on the

employees' abiding by the set rules. When the employees follow the rules honestly while working on the innovation projects, the innovation is more likely to be created in the business (Shahzad, Xiu, & Shahbaz, 2017). Innovation can be created or developed in all areas of the business organization when the organizational climate is innovation-oriented. Under the innovation-oriented climate, the organization provides the employees' innovative resources at requirement, allow them to think for themselves to solve any problem, invent new ideas or new things, and adopts innovation methods or procedures. Thus,

H4: Organizational climate has a positive association with the creation of innovation.

H5: Organizational climate has a positive association with the human resource management.

H6: Organizational climate has a positive association with the organizational structure.

As the organization's operations are mostly dependent on the employees' performance, skills, abilities, knowledge, and experience, the effective implementation of human resource management practices enables the organization to create and develop new ideas, processes, things, and products and services. The recruitment and selection of candidates for the vacant job position affect the innovativeness of the organization. With the recruitment and selection of skilled candidates who have analytical skills, responsiveness, creativity and up-to-date knowledge about the specific or technology used in this area, human resource management can create innovation at a high rate. These employees can sense the changes in the market or situation and can take actions accordingly (Haneda & Ito, 2018). Effective human resource management arranges for periodical training classes for the employees to make them adaptive to the changes. This training improves the existing skills or creates some new ones as required. Thus, the employees become able to carry new resources or utilize innovative technology. This training makes the knowledge of the employees innovative, and they can apply this in operation and assists in creating innovation in the organization (Kianto, Sáenz, & Aramburu, 2017). The organization where the human resource management has a good reward and compensation system are more likely to create innovation in different areas. Non-monetary forms of rewards like honors and verbal appreciation to the employees for their efficient performance among the stakeholders within or outside the organization satisfy their emotions. The emotionally satisfied employees put focus on applying innovative ideas in the operations. Similarly, monetary forms of rewards and compensation give financial security or support to the employees, resulting in mental peacefulness and the creation of innovation in an efficient manner (Mardani, Nikoosokhan, Moradi, & Doustar, 2018).

H7: Human resource management has a positive association with the creation of innovation.

H8: Human resource management has a positive association with the job satisfaction.

An organizational structure implies how specific activities are directed in order to attain organizational goals. These activities include rules, roles, and responsibilities. The organizational structure determines the manner the information is exchanged between different levels in the company. Organizational structures have various elements like centralization, integration, and formalization. Centralization is the degree to which decision making power is with the personnel at the top of the organization. Just seniors are allowed to share their views or opinions while making any decision. After being decided, the set of description about activities is directed to employees at a lower level. On the one hand, the centralization mitigates the quantity or quality of knowledge, creativity, and innovative ideas as the employees at the lower level have less autonomy to stir new ideas and, thus, less innovative (Haneda & Ito, 2018). Formalization is the extent to which rules define roles, relation, norms, communication, sanction, and processes. Enterprises having a low level of formalization have organic organizational structures, while enterprises having a high level of formalization have mechanistic organizational structures. According to Zeng, Zhang, Matsui, and Zhao (2017), an enterprise with an organic organizational structure is more likely to create innovation. Thus, the organization with a low level of formalization assists innovative and creative behavior, while a higher level of formalization hinders innovativeness. Integration is the degree to which different employees communicate and work interrelated. Integration increases interaction, communication, and coordination among units. This triggers the creation of new ideas. The scholar (Huvaj & Johnson, 2019) state that integration increases dissemination and transformation of knowledge which stimulates innovation in the different departments of the organization. Based on the above discussion, it can be hypothesized,

H9: Organizational structure has a positive association with the creation of innovation.

H10: Organizational structure has a positive association with the human resource management.

H11: Organizational structure has a positive association with the job satisfaction.

Job satisfaction is the employees' satisfaction or their contentedness with all the aspects of the job. When the employees feel satisfied with their job, they take active participation in the business matters, perform their functions wholeheartedly, they try to the best of their abilities to achieve the organizational goals. In this way, they ponder on the risks, problems in the face, and opportunity and create new ideas and skills to solve the problems, remove the risks, and benefit from the opportunities in order to save their job and strengthen their position. Job

satisfaction in employees is developed by the transformational leadership style, organizational climate, human resource management, and organizational structure (Jensen, Liu, & Schøtt, 2017). Under Transformational leadership, the leader himself work with the employees, provides them full guidance, encourage them to achieve their goals successfully, and gives importance to their needs. This guidance, inspiration, help, and care creates job satisfaction in the employees, and they try their best to adopt innovative knowledge and skill to perform their functions efficiently. In an organizational climate where the employees feel that they have equal rights, freedom of expression, economic and emotional support from the organization, they feel satisfied with their jobs and take an active part in the innovation programs (Brimhall & Mor Barak, 2018). Similarly, if the human resource management design policies in favor of employees and implement them effectively, employees have great satisfaction and accept innovativeness in the resources and methods. Moreover, if the organizational structure is designed as there are effective and fluent communication and more exchange of knowledge, information, and ideas within the organization, employees feel satisfied and share their innovative ideas (Boamah, Laschinger, Wong, & Clarke, 2018).

H12: Job satisfaction has a positive association with the creation of innovation.

3. Methodology

This research examines the impact of transformational leadership, organizational climate, human resource management, and organizational structure on the creation of innovation and also investigates the mediating impact of job satisfaction among the links of transformational leadership, organizational climate, human resource management, organizational structure and creation of innovation in Ramathibodi hospital, Mahidol University. This research has followed the quantitative methods and used the survey questionnaires to obtain the data from respondents. The respondents were selected by simple random sampling and sent to them the questionnaires by personal visit. The sample consisted of 420 respondents including doctors, nurses, pharmacists and supporting staff. The sample size was determined based on the criterion of 20 times the observed variables. They were selected via stratified sampling. Data were collected with the use of a questionnaire and analyzed with a structural equation model.

This research also executed the SEM modeling to test the links among variables and also test the convergent and discriminant validity. The SEM modeling is provided with the best results when the model is complex and the sample size is large (Hair Jr, Babin, & Krey, 2017). This study has taken four predictors, such as transformational leadership (TL) with eight items, organizational climate (OC) with six items, human resource management (HRM) with seven items, and organizational structure (OS) with four items. In addition, the creation of innovation (CI) is used as the dependent variable with five items and job satisfaction (JS) is taken as the mediating variable with four items.

4. Findings

This study used preliminary data analysis before to test the relationship between variables (Adamski et al., 2005). Preliminary data analysis is the crucial part of every data analysis because it is important to remove the errors in the data before data analysis. Preliminary data analysis is given in Table 1 in which standard deviation, normality of the data and p-value is given.

Table 1: Statistical test of empirical variables (n=420)

Variables	M	S.D.	%CV	Sk	Ku	χ^2	P-value
IDEA	3.929	.445	11.33	-.346	-.961	1.043	.594
INSP	3.911	.387	9.90	-.286	-.540	.374	.830
INTE	4.056	.336	8.28	-.011	-.214	.046	.977
INDI	4.126	.433	10.49	-.167	-	1.106	.575
					1.038		
ORGA	4.212	.410	9.73	-.257	-.689	.541	.763
RESO	4.154	.388	9.34	.015	-.477	.227	.893
COOP	4.173	.399	9.56	-.076	-.711	.511	.775
RECR	3.994	.388	9.71	-.113	-.336	.126	.939
TRAI	4.086	.373	9.13	-.025	-.190	.037	.982
EVAL	4.169	.380	9.11	-.082	-.387	.157	.925
REWO	4.046	.438	10.83	-.119	-.418	.189	.910

DIVI	4.079	.382	9.37	-.166	-.542	.321	.852
ORDE	4.056	.411	10.13	-.544	-	2.350	.309
					1.433		
COMM	3.788	.555	14.65	-.091	-.116	.022	.989
AUTH	3.914	.446	11.39	.374	-.722	.661	.718
INJS	4.217	.519	12.31	-	-	15.846	.000
				1.088	3.829		
EXJS	4.314	.436	10.11	-.591	-	2.727	.256
					1.542		
ECR	4.173	.444	10.64	-.172	-.846	.745	.689
EIN	4.009	.432	10.78	-.062	-.596	.359	.836
PB	3.982	.398	9.99	-.026	-.342	.118	.943
OEB	3.875	.429	11.07	.103	-.322	.115	.944

This study used Structural Equation Modeling (SEM) to analyze the data which is most recommended data analysis technique (Henseler & Chin, 2010; Henseler et al., 2014; Henseler, Ringle, & Sinkovics, 2009; Ul-Hameed, Mohammad, & Shahar, 2018). In this process the factor loadings were examined by the current study. According to J. Hair, Hollingsworth, Randolph, and Chong (2017) factor loadings must be above 0.7 for all scale items. The factor loadings are given in Table 2. According to the results of factor loadings, it is evident from Table 2 that all the scale items have factor loadings above 0.7 which is the minimum threshold level in the current study. Additionally, standard deviation, t-value and r-square value is also given in Table 2 for all variables.

Table 2: Factor Loadings (n= 420)

Variables	(λ)	(θ)	t	R ²
1. TL (Transformation leadership)				
1.1 IDEA	.61	.63	13.86	.37
1.2 INSP	.57	.67	12.94	.33
1.3 INTE	.81	.34	19.46	.66
1.4 INDI	.66	.57	14.76	.43
ρ_c =.76 ρ_v =.51				
2. OC (Organizational climate)				
2.1 ORGA	.69	.53	15.99	.47
2.2 RESO	.83	.31	20.66	.69
2.3 COOP	.83	.30	20.79	.70
ρ_c =.83 ρ_v =.61				
3. HRM (Human resource management)				
3.1 RECR	.88	.23	22.66	.77
3.2 TRAI	.85	.28	21.76	.72
3.3 EVAL	.80	.37	19.48	.63
3.4 REWO	.80	.36	19.58	.64
ρ_c =.90 ρ_v =.69				
4. OS (Organizational structure)				
4.1 DIVI	.70	.51	14.96	.49
4.2 ORDE	.62	.62	14.55	.38
4.3 COMM	.55	.69	13.38	.31
4.4 AUTH	.93	.13	23.42	.87
ρ_c =.80 ρ_v =.51				

5. JS (Job satisfaction)				
5.1 INJS	.57	.68	11.69	.32
5.2 EXJS	.79	.38	16.05	.62
$\rho_c = .64, \rho_v = .51$				
6. CIS (Creation of innovation)				
6.1 ECR	.93	.14	21.35	.86
6.2 EIN	.56	.69	12.45	.31
6.3 PB	.63	.60	12.38	.40
6.4 OEB	.61	.63	12.33	.37
$\rho_c = .78, \rho_v = .52$				

Results of the study are given in Table 3. The relationship between variables is given in Table 3. These relationships between variables are examined with the help of Structural Model Assessment (F. Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, 2014; J. F. Hair, Ringle, & Sarstedt, 2013; J. F. Hair, Sarstedt, Pieper, & Ringle, 2012; Hameed et al., 2018; Zahra, Hameed, Fiaz, & Basheer, 2019).

Furthermore, the beta value of relationships is given in Figure 1. The effect of transformation leadership, organizational climate, human resource management, organizational structure, job satisfaction was examined on creation of innovation. The effect of transformation leadership, organizational climate was examined on organizational structure. Moreover, the effect of human resource management, organizational structure was examined on job satisfaction. Finally, the effect of organizational structure, transformation leadership, organizational climate was examined on human resource management.

Results of the study shows that human resource management has significant effect on job satisfaction and the beta value is 0.44 and t-value is 5.27. Moreover, the effect of human resource management was found significant on creation of innovation with beta value 0.49 and t-value 5.91. The organizational structure also has significant effect on human resource management with beta value 0.28 and t-value 5.20, the effect of organizational structure was found significant on job satisfaction with beta value 0.31 and t-value 3.80, the effect of organizational structure was found significant on creation of innovation with beta value 0.40 and t-value 5.79. The effect of transformation leadership on human resource management found beta value 0.24, 0.6 with t-value 1.51. The effect of transformation leadership on organizational structure is also significant with beta value 0.74 showing the t-value 3.62, the effect of transformation leadership on creation of innovation is also significant with beta value 0.58 showing the t-value 2.72. Finally, organizational climate has positive effect on human resource management with beta value 0.44 with having t-value 3.07. The effect of organizational climate on organizational structure is also significant with beta value 0.03 showing the t-value 0.18, and the effect of organizational climate on creation of innovation is also significant with beta value 0.54 showing the t-value 2.68.

Furthermore, r-square value for human resource management is 0.81 which is strong, r-square value for job satisfaction is 0.50, organizational structure is 0.60. Moreover, r-square value for creation of innovation is 0.71 which is also strong as per the recommendations of Chin (1998). This study also examined the goodness of fit as shown in Table 3 which shows that all values have achieved the minimum criteria for acceptance.

Table 3: Measurement Model (n=420)

Dependent Variables	R ²	Effect t	Independent Variables				
			HRM	OS	JS	TL	OC
HRM	.81	DE	-	.28*(5.20)	-	.24 (1.51)	.44* (3.07)
		IE	-	-	-	.21* (3.35)	.31* (4.17)
		TE	-	.28*(5.20)	-	.45*(2.68)	.75* (2.69)

OS	.60	DE	-	-	-	.74* (3.62)	.03 (0.18)
		IE	-	-	-	-	-
		TE	-	-	-	.74* (3.62)	.03 (0.18)
JS	.50		.44*(5.27)	.31*(3.80)	-	-	-
		DE		.12*(4.39)	-	.43* (3.33)	.21*(4.72)
		IE	-		-		
		TE	.44*(5.27)	.43*(5.69)	-	.43* (3.33)	.21*(4.72)
CIS	.71		.49* (5.91)	.40*(5.79)	.46* (9.16)	.58* (2.72)	.54* (2.68)
		DE	.20*(4.26)	.22*(5.60)	-	.34* (3.00)	.15*(4.14)
		IE	.69*(3.08)	.62*(8.32)	.46(9.16)		.69*(3.89)
		TE				.92*(4.23)	
$\chi^2=288.42$ df 147 = p-value = .00000, $\chi^2 / df = 1.96$, RMSEA = .048, RMR= .015, SRMR = .042, CFI=.94, GF=.93, AGF=.91, CN =266.73							

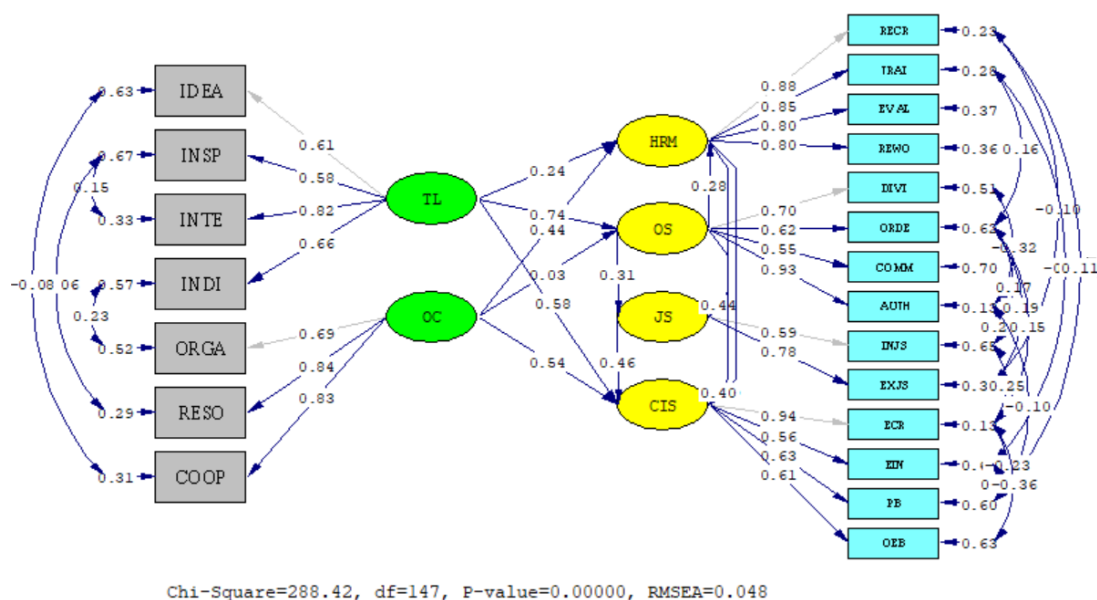


Figure 3: Structural Model Assessment

The results of path analysis have revealed that transformational leadership, organizational climate, human resource management, and organizational structure have a positive association with the creation of innovation and accept H1, H4, H8 and H9. The results also indicated that human resource management and organizational have a positive association with the creation of innovation and accept H7, H11. The results also indicated that transformational leadership and organizational climate have a positive association with the organizational structure and accept H3, H6. The results also indicated that transformational leadership, organizational climate and organizational structure have a positive association with the organizational structure and accept H2, H5, H10.

5. Discussions and Implications

The study results have shown that transformational leadership has a positive relationship with the creation of innovation in the organization. The study clears that under transformational leadership, the team leader adopts three types of behavior, inspirational motivation, idealized influence, intellectual stimulation, individualized consideration, which encourage the employees to perform their function effectively to be adaptive to changes that

are necessary for the creation of innovation. These results are in line with the past study of H. Yang and Yang (2019), which indicates that transformational leadership brings innovation in the different organizational areas as this type of leadership creates abilities in the employees to adapt to different circumstances, share collective opinion, creates self-management, and shows good performance. These results are also in line with the past study of Elrehail (2018). This study analyzes different types of leadership styles and their influences on the creation of innovation in the business organization. The study suggests that the adoption of transformational leadership enables the team leader to inspire the members of the team to achieve the goals. The transformational leader creates commitment between the employees and organization, showing great concern about the needs and emotions being representative of the organization and inspire them to think of themselves and allow them to take decisions; thus, it creates interest in the employees to take active participation in the innovative programs. The study results have also indicated that organizational climate has a positive relationship with the creation of innovation in the business organization.

The study highlights that the perception of the organization's overall environment by the employees affects their intentions, emotions, decisions, and actions. The positive organizational climate motivates the employees to invest in new ideas, new things, new products or services, and bring improvement in features of existing procedures, products, and services. Thus, the organizational climate leads to the creation of innovation in the organization. These results are also supported by the past study of Shanker, Bhanugopan, Van der Heijden, and Farrell (2017), which shows that the organization shows positive culture (beliefs, values, and ethics) through their behaviors forms a positive climate in the eyes of employees. When on the basis of organizational behaviors, employees feel that their needs, emotions, and desires are given great concern, they become emotionally attached with the organization, but focus on their specific task and creates newness according to the changes. These results are also in line with the past study of Olsson, B. Paredes, Johansson, Olander Røese, and Ritzén (2019), which shows that when the employees perceive that they are provided with financial support from the organization or are valued by the organization for their best innovative performance, they are encouraged by the organizations to maintain their performance. The study results have indicated that human resource management has a positive association with the creation of innovation. These results are supported by the past study of (Nieves & Quintana, 2018), which reveals that effective implementation of human resource management practices like recruitment and selection of innovative human resources, training of employees for undertaking innovative practices, and encouragement of employees for bringing innovation. These results are also approved by the previous study of Singh, Del Giudice, Chierici, and Graziano (2020), which shows that the effective management of human resources improves skills abilities and provides them up-to-date knowledge and prepares for meeting challenges and bringing innovation to the organization.

The results have indicated that organizational structure has a positive association with the creation of innovation in the organization. These results are supported by the past study of Muller and Peres (2019), which shows that an organizational structure determines the way in which different business activities are directed to the employees in order to achieve the organizational goals. An effective organizational structure enhances interaction, communication, and the exchange of information among different units or employees of the company. This structure encourages innovative ideas and behaviors in the employees. These results are also in line with the past study of Fonseca, de Faria, and Lima (2019). This study states that an organizational structure determines the way the information is exchanged between different employees or units in the organization. An effective organizational structure facilitates the exchange of information, sharing of knowledge and ideas, which can be applied in the creation and development of innovation in the organization. The study results have also indicated that job satisfaction plays a mediating role between transformational leadership and the creation of innovation within the organization. These results are supported by the past study of Asrar-ul-Haq, Kuchinke, and Iqbal (2017), which shows that transformational leadership enhances job satisfaction and the employees who are satisfied with their jobs put more focus on the innovation projects. Thus, it becomes easy for an organization to bring innovation to its operations. The study results have revealed that job satisfaction is a significant mediator between the organizational climate and the creation of innovation. These results agree with the results of the previous study of Knapp, Smith, and Sprinkle (2017). This study elaborates that organizational climate creates emotional and economic satisfaction in the employees towards the organization, and the improved job satisfaction motivates the employees to ponder on the situation within the organization and takes excellent decisions in order to create innovation within the organization. The study results have also indicated that job satisfaction plays a significant mediating role between human resource management and the creation of innovation within the organization. These results are supported by the past study of Lambert, Qureshi, Klahm, Smith, and Frank (2017), which demonstrates that job satisfaction, which is created and developed by the effective implementation of human resource management, creates innovation in the organization. The study results have shown that job satisfaction is a considerable mediator between organizational structure and the creation of innovation. These results are supported

by the previous study of Yousef (2017), which indicates that the job satisfaction in employees, which is enhanced by an effective organizational structure, brings a dramatic increase in the creation of innovation.

The current study has theoretical as well as empirical implication. It has a vital theoretical significance as it makes a lot of contribution to the literature on organizational innovation. This study throws light on the influences of the four factors such as transformational leadership, organizational climate, human resource management, and organizational structure on the creation of innovation. Because of its detailed and simultaneous description of the aforementioned factors and the creation of innovation in the organization, this adds much to the past literature. Moreover, the study introduces job satisfaction as a mediator between transformational leadership, organizational climate, human resource management, and organizational structure and the creation of innovation. The study makes a great contribution to the past literature by doing so as in the past, and less attention has been given to the mediating influences of job satisfaction of employees on the association between the transformational leadership, organizational climate, human resource management, and organizational structure and the creation of innovation. The study also has vital importance to the business organization in general and hospital management in particular because this study makes it clear to the management how to create innovation in the personnel and organization. This study suggests that innovation can be created in the employees and organization with the application of transformational leadership, favorable organizational climate, effective human resource management, and better organizational structure.

6. Conclusion and Limitations

The study examines the creation and development of innovation into the faculty of Medicines Ramadhibodi Hospital, Mahidol University in Thailand. This study elaborates on the influences of transformational leadership, organizational climate, human resource management, and organizational structure on the creation of innovation. This study states that transformational leadership inspires the creation of innovation in the followers within the organization. The transformational leader with any of four behaviors like inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration inspires the followers to achieve their goals efficiently by creating new ideas to be adaptive to changes. The favorable organizational climate improves the creative instincts of the employees and develops innovation in their performance. The implementation of human resource management practices improves the creation of innovation in the organizational employees. With the effective implementation the human resource management practices regarding recruitment and selection, training, and reward & compensation, innovation can be developed in the employees and organization. Similarly, the study suggests that an effective organizational structure enhances communication, interaction, the exchange of information and knowledge, which enables the employees to invent new ideas. Transformational leadership, organizational climate, human resource management, and organizational structure improves job satisfaction which enhances the creation of innovation.

Like some previous studies, this literary workout also has some limitations, which are expected to be removed by future researchers and scholars. This study explores just four organizational factors such as transformational leadership, organizational climate, human resource management, and organizational structure as the constructs of the creation of innovation. There are some other economic factors that have a deep impact on the creation of innovation in the employees, but these factors have been ignored by the author in this study. Thus, the scope of the study is limited, and future scholars are recommended to address number factors for the conduct of a more comprehensive study. Moreover, the study has collected data by utilizing a single source like questionnaires. The data acquired through a single source is limited in quantity and reliability. For the acquisition of more comprehensive and reliable data, the scholars in future must adopt more than a single source. Here in this study, job satisfaction has been addressed as the mediator between transformational leadership, organizational climate, human resource management, and organizational structure and the creation of innovation. Job satisfaction can better be used as a moderator between the above-mentioned factors and the creation of innovation. Thus, future academics should address job satisfaction as a moderator between transformational leadership, organizational climate, human resource management, and organizational structure and the creation of innovation.

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