# The Relationship of Leadership Dtyles Towards Employees' Creativity: Mediating Effect of Employees' Empowerment in UAE Manufacturing Companies

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Abstract - The purpose of this study is to empirically investigate impact of transformational transactional leadership on employees' creativity and employee empowerment in this association. Over the past many decades, employees have become an organizing way of coordinating work within organization. This trend creates new challenges for leaders, as they are expected to improve their creativity simultaneously. This study proposes a conceptual framework for understanding leadership styles and employees' empowerment to individual employees which would influence creativity. The conceptual framework includes employees' empowerment and support for creativity as mediating variables in the effect of leadership styles on employees' creativity. The study also validates the proposed conceptual framework using a second-order confirmatory factor analysis technique, namely, structural equations modeling, with the data collected from 597 followers from four e-government organizations in the UAE. The that transformational findings suggest transactional leadership has significant positive impact on employees' creativity. Moreover, employees' empowerment have partial mediation effect in the relationship between leadership styles and employees' creativity. This study contributes to the research that identifies employees' creativity influenced by transformational and transactional leadership that can affect employee success and performance, particularly the context of UAE-based egovernment organizations.

**Keywords:** Transformational and Transactional Leadership, Employees' Creativity, Empowerment, Confirmatory Factor Analysis and Structural Equation Modelling, TOM.

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## 1 Introduction

The organization in UAE has knowledgeable frequent revolution under the pressure of competition worldwide which carried out by understandable forces like social and economic, the new and rapidly fast era of information technology, the rising reputation of new purposes in developing economies, and service offerings with the growing expectations of customers [1, 2, 3]. In new era of global competition, the organizations in Abu Dhabi providing more authentic services.

of significance employee's considerable research has been showed to classify [4]. Consideration of creativity as a complex product of interaction between person and situation in an organization [5 & 6]. Several variables such as leadership styles, organizational support and climate have been recognized as reasons of creativity [7, 8 & 9]. Leadership styles is considered as a significant organizational related concept, found to be in supporting employee's creative activities [10]. In view of the continuous variations enforced by competition worldwide, it is probable that the achievement and competitiveness of organizations be influenced by on ability of managers to encourage creativity in their build teams and also within organizations [11].

Employee's creativity promotes the achievements of any organization [12]. Organizational leaders pursue to encourage the maximum level of creativity among their employees, this creativity was influenced innovation among employees and they perform their jobs satisfactorily [13]. [28] detected that employee innovation is based on how creative employees are with the way their organizations work. Employee's creativity signifies to how employees feeling toward and sense their organizations in addition to how they

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are pretentious by leadership styles [67]. Hence, emerging a high level of leadership skills means developing efficient on the part of the administrator [49]. Execution of leadership in an organization is essential for motivating employees and attaining their organizational goals [47]. As numerous studies have showed the gaps stay alive regarding leadership styles and how they can affects employees' creativity [46 & 72].

Leadership extends beyond management that is one of the reason for the importance of leadership it can improved outcomes in the organization [23]. The role of management is to involve consuming accessible resources to achieve an aim within an organization but the quality of true leadership involves how employees can be determined to attain goals [70]. This is the major reason that the involvment of leadership thoughtful what is the best approach suited to a level of determination in employees to achieve the identified goals. A varity of methods be existent to be important within an organization; classifying what tactic is best suitable for a specific environment is the most serious issue [25]. Study of [51] examine that, famous management styles contain autocratic, consultative, persuasive, and democratic. The leadership styles manages an organization employees is reliant on the organization's objectives, mission, and vision [33]. This study sought to understand how leadership styles affect the creativity of employees within organization.

According to [84], leadership with its different styles is apparent and appreciated by numerous stakeholders as a main component of achievement, a distinguishing factor along convincing influence on the attainment of aims with the delivery of motivation to its recruits in organisations. Though, due to the abundance of moral and economic scandals related with unprincipled leaders of reputable companies, the want comes up for new leadership styles, which are grounded on the leader's moral characterization, that majorly concern for the others and shows conectivity among ethical actions and values [48]. It is essential to indorse a suitable organisational environment with the making of a well connection among employees and leaders, one of the main aim for organisations is to retain the finest talents in a extremely challenging business environment. In this way the study of [60] suggested that, alaways need is required to think on leadership with its styles for development.

[1] emphasized that creativity are achieved through leadership transforming employee more empowered and without empowerment; employees would lack confidence and creativity, which leads to the provision of poor quality services. [23] forced that there is still a need in UAE to develop an employee

empowerment model regardless of the quality of services offered. According to the Oxford Business Group UAE Country Report (2015), the UAE organizations is the largest in the Middle East region, but lack of creativity due to low employee empowerment is likely to result in increased poor leadership and absence of innovation.

Among the various factors that influence innovation and creativity o employees are the employees' empoerment and leadership styles. Explanatory frameworks for understanding employees' empowerment linkages are provided by the leadership [66]. This research attempts to investigate the impact of the leadership styles (i.e. transactional and transactional) on employees' creativity mediated by employees' empowerment, a leadership styles highly commended by Western academics and practitioners [14]. This study is among the first ones to consider employees' empowerment as a mediator between the leadership styles and innovation and creativity of employees in the UAE context.

# 2 Leadership

The effective leadership is related with well being job in workplace [53 & 55]. Reserach related to leadership style focused on one dimension of this particular phenomenon (transactional vs transformational) and is related with employee satisfaction or effectiveness. In this regard, [73] shows that transformational leadership larger the profit margin as compare to other leadership styles. [39] reported in a study that transformational leadership increase the professional efficacy.

# 2.1 Transformational Leadership

Leadership studies discipline the transformational leadership was firstly elaborated by [11]. According to this, an effective transformational leadership exceeds the limitations that are imposed by organisational culture and followers. trensformational leaders causes a metamorphasis structure or form and a change in nature or condition, change into another substance, a change in inner or outer form [15]. These leaders attain the outcomes through clear vision, charisma, passion and charm. People following the transformational leaders believe in themselves as an individual and often empowered to perform better.

Transformational leadership presume the institution needs require that innovation is preferable for status quo. Followers become eager to have the personal as well as intimate relationship with their leaders. If one believe in constan need of innovation for continuous innovation make sense that why transformational leadership is appealing. Still innovation is not

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desired always and organisation does not want the tranformation to establish the emotional connection with leaders. This attempts perceive to establish an emotional bonds with poor management for emotional manipulation.

# 2.2 Transactional Leadership

Max Weber in early twentieth century define the leaders who exercise the transactional leadership use the quid pro quo approach while leading the others. Task orieted leaders are concerned in managing the followers, chieving results rather than change and maintin the chain of command. Basically transactional leadership stress upon the idea that how tranactional leaders are believing the followers and must be closely monitored. They have the result orinted style where they motivate their followers through punishment / reward system.

Transactional leadership has a criticism that it as a rigid and blames the followers, not the leaders. Some studies asserts that rewards leads to the selfish interest of followers and create the low motivated workers [12]. This criticism is opted for the reason that rewards being offered are unworthy or minimal of effort to obtain them. But still there are situations where rewards offered are considered as worthy and desirable. They have self interest in this transactional leadership and it become the stron motivation for the purpose of achieving the success. At the same time, despite of critics assertions on the contrary [12], the followers are motivated for better rewards and can bring great things for an organisation. This potential of self interest rewards leads the organisation to a greater success and is acknowledge in early 1705 by Bernard Mandeville.

# 3 Creativity

In the literature creativity consume often as replacements, but innovation academicians have confidence in two dimensions, connected to different phases of the innovation. 'Creativity one which raises with fresh ideas though employee's innovation is a procedure that includes the acceptance, execution and combination of fresh ideas surrounded by the organization which filled its required needs' [10]. Similarly, the major difference among the creativity afterwards, it appeared in terms of innovation is: "individual creativity is the making of original and valuable ideas, and it come out with innovation which is the fruitful execution of creative ideas" [8]. Individual creativity be able to measure the initial phase of innovation, while innovation is next phase, raising to the application and execution of ideas [79]. The literature discloses that creativity consumes connected to persons who make new ideas though innovation has been connected to organizations [63]. Innovative work place environment according to Scott and Bruce (1994), is to contain of tasks in different ways, and that persons could be complicated at any phase, in at all combination.

As find in literature the model of [75] that conceptualized innovative as a different stage procedure, like four sets of different behavioral actions identified as problem acknowledgement and idea creation, representing the creative behavior. At this phase persons involve with the known problems afterwards new ideas and preparation of it [26]. In the starting phase of an innovation, it has a component of chance founded on the examination of chances, which encourages individuals to examination for replacements or choices for refining the current condition.

# 4 Employees Empowerment

Organizational leadership tends to have a signficant influence on employees behaviour and attitudes through empowering them [13 & 30]. Empowerment is the symmetrical power's concept where collaboration increase the power of everybody for their benefits in the organization [35]. Conversely, the asymmetrical concept of powers also involve the leaders to control and make other people in the organisation dependent upon them. The concept of this empowerment mainly comes under two categories [18]: first is the perception about self efficacy which focuses on individual's competence and second is the perceived control ability or the decision making authority where empowerment is considered as shared power for decision making.

A large portion of literature stresses upon the personal psychological empowerment aspect and holds that the person is more empowered while having the abilities and skills for doing the job effectively. Other theorists asserted empowerment gives the person freedom and authority to do necessary actions for performing his job [65]. [18] comceptualise the employess empowermet as perception and process to foster the competencies of employees and their control. Perception is the employee empowerment which refers as symbolic construction of personal state like competence, ability and skill to control and act effectively i.e authority and opportunity to act [18].

# 5 Conceptual Framework

The planned conceptual framework has three leadership styles, which are independent variables like transformational leadership and transactional leadership. Employee empowerment is used as

mediator. While employees' creativity are dependent variables used as in conceptual framework.

The novelty of this study based on the transformational and trasactional leadership, has been incorporated in the theoretical framework for explaining employee's creativity, moreover the originality of this study focus on the mediating effect of employees' empowerment between leadership and creativity of UAE smart government employees. The conceptual framework is presented in Figure 1.

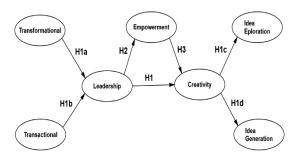


Figure 1: Conceptual Framework

# 5.1 Leadership and Employees' Creativity

The research about leadership propose the leadership style as a lever to facilitate the innovation [63, 27, 36 & 56]. In addition to this, leader help their followers to exhibit a high level of creativity at work (78). The impact of this leadership style reflects in creativity, morality and empowerment, which positively influence the creativity (56). Leaders with a vision motivate the employes, increase the willingess to performs a task beyond expectations and accept the challenges to adopt the creativity approaches (58). The resulting motivation level is more likely enhance the innovation in an organisation.

Leaders use the intellectual stimulation and inspirational motivation for organizational creativity [29]. Furthermore, these leadership styles helps in achieving a significant change, reflecting interest of both followers and leaders. Leaders encourage the creative ideas noticeably within the organisation. The behaviour of leaders act like a force to enhance the creativity and individualized consideration serve as a reward for followers. The intellectual stimulation of followers enhance their exploratory thinking and inspirational motivation dispense the encouragement for idea generation process [81].

The empirical evidence provide a positive association of leadership style with creativity. [62] reported that transformational leadership positively impacts the innovative work behaviour of employess in Australian hospitals. Furthermore, moderating relationship of manager's relationship indicated that employees have an innovative behaviour when compare the transformational leadership of male

managers with female managers lead towards creativity. Consistent with this, [34] found that transformational leadership style have positive correlation with organisational performance and organisational creativity in Taiwanese pharmaceutical firms. Transactional leadership is also positively correlated with creativity of followers in Korean companies [78]. Also, transactional leadership behaviour of CEOs found to have a positive relationship with innovation in Taiwanese telecommunication and electronic companies [45].

In Arab world, a small body of literature focused on the impact of leadership on anumber of areas of organisational creativity. [89] examined the employees perception about leadership in Labanese universities and its impact on employees organisational commitment. The findings suggested that Labanese leadership style is more pronounced with transformational and transactional style.

[5] in a study among public employees of Saudi Arabia found a positive moderating relationship of transactional leadership of managers with creativity ofsubordinates. Also, [7] reported transformational and transactional leadership has positive relationship with creativity in Syrian educational institution. However, in Egypt, transactional leaderhip enhance the employees commitment and satisfaction [62]. [4] identified that respondents with position of dean or vice dean are more importantly practice the transformational and transactional leadership behaviour, head department in Saudi universities. Moreover, Saudi managers in puclic sector do not possess the transformational leadership characteristics as they should.

A few studies are conducted in Abu Dhabi to examine the leadership style. [62] identified that leadership of bank managers positively impacts the self perceived performance and employee jon satisfaction. Similarly, [2] explored that leadership style of petroleum refinary companies in Abu Dhabi improve the out come of subordinates work which is beyond the transactional leadership styles. [62] examined the positive impact transformational leadership style of sales managers has a positive impact on performance and self perceived satisfaction of sales people in Jordanian manufacturing sector.

But literature related to UAE organisations lacks due to insufficient empirical evidence about transformational and transactional leadership which motivate and encourage the employee's creativity. Therefore, to address this particular gap the study formulated the following hypothesis.

**H1:** Leadership styles have a significant positive relationship with employees' creativity.

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**H1a:** Transformational leadership style have a significant positive relationship with leadership towards employees' creativity.

**H1b:** Transactional leadership style have a significant positive relationship with leadership towards employees' creativity.

**H1c:** Employees' creativity have a significant positive relationship with idea exploration.

**H1d:** Employees' creativity have a significant positive relationship with idea generation.

# 5.2 Employees' Empowerment

Employee empowerment is supportive for change which promotes the consideration of finding new ways of working, provides the signals to employees. It encourage the employees to take new initiatives and supports the development of new suggestions and ideas [71]. This climate shapes the perceptions of employees about organisation expects related to behaviours and outcomes [75]. Empirical evidence supported this idea that that individual creative attempts are influenced by Characteristics and conditions of work environment [41 & 87]. Literature highlighted the employee empowerment because of its potential role in defining the employees' creativity [42].

The establishment of creative working environment works like a job related motivator which is likely to increase the employees' creativity [88]. In this regard, the setting of encouraging policies and procedures, provision of training and development programs for creativity of employees, supporting the risk taking and changes, appreciation of good ideas all these influence the creative behaviour of employees which is perceived to empower the creativity and promotion changes. Similarly, [24] proposed that organisational support encourage the individuals to engage themselves in creative practices.

Literature indicated that contextual factors such as employee empowerment might influence the relationship of leadership styles with outcomes of certain behaviours [54, 88 & 56]. [41] suggested that leadership effectiveness is a function of styles contextual factors in the organisation. Similarly, [76] posited the factors of employee empowerment needed to be taken into account for leadership, since they influence the leadership effect. [86] surveyed the 283 supervisor and subordinates dyads with a wide range of organisations in USA. The study found the 3 way interaction of transactional and transformation leadership, identification of leader and empowering them for innovation is associated with the creativity of employees.

This study would explores that how employee's empowerment supports the recognition of employee's problem and idea generation might enhance the leadership style's influence on creative behaviour of employees. Innovative employee's empowerment shapes the perception of employees about organisation values and expects the innovative behaviour [84]. Leadership qualities acts in accordance with organisational values by promoting the creative performance, offering the support, favourable respond of employees to their leaders because creativity is interpreted as organisation mission and strategic priority [16].

[85] in a survey evidence of employees in Chinese organisations provided the further support about this idea that effect of transformational leadership on creativity is dependent on employees' innovative empowerment. The study suggested that integrating employee's empowerment and leadership styles improves the creativity. Leadership not only reflects the personal characteristics and behaviour of leaders and other substantial factors influence the effectiveness and emergence of leadership [76].

The literature also suggested that employee's empowerment enhance the relationship of leadership with employees' innovation [27, 45, 54 & 56]. Furthermore, [45] in a study of Taiwanese electronic industry telecommunications and investigated that employee's empowerment is supportive to innovation which raised the impact of leadership styles on innovation of an organisation. Later, [27] investigated that correlation of CEOs transactional and transformational leadership and mediated organisational innovation is empowerment support innovation. Furthermore, support for innovation mediates the association between team innovation and leadership styles but it is moderated by excellence empowerment.

[86] rejected the hypothesis that transformation leadership and linkage of employees' creativity is weaker in high innovative employee empowerment. The study indicated 3 way transformational leadership interaction, identification of employee and leader empowerment in relation with innovation is related with employee creativity. Employees have the strong perception about climate encourage initiative, persistent approaches in worj, proactive and self-starting moderates the relationship between transformational leadership and implementation of employees' innovation behaviour.

Employee's empowerment refers to the extent where an organisation supplies the resources for potential innovative outcomes that supports the change and member's diversity [75]. It also facilitates the application of new ideas within an organisation [80]. An effective leadership should interact relevant

organisational contextual factors. [59] highlighted the lacks in empirical research that are incorporating the contextual influence in the relationship between innovation and leadership. A review of available literature showed that organisational support, risk taking and openness autonomy enhance the innovation by providing the environment and better foundation [41] which facilitate that leadership influences the innovative behaviour of followers [45].

The above discussion leads to formulate the hypothesis to investigate the influence of employee's empowerment supportive of innovation on association between transformational leadership and innovation. These hypothesis provides a better understanding on how employees' perception empowerment enhance the impact of transformational leadership on employees' innovation in UAE.

**H2:** Leadership have a significant positive relationship with employee's empowerment.

**H3:** Employee's empowerment have a significant relationship with employees' creativity.

**H4:** Mediating effect of employees' empowerment between leadership and employees' innovation.

# 6 Method

# 6.1 Sample

A cross-sectional survey utilized in this study. This calls for drawing a sample from the population whose findings are to be generalized [90]. Thus this study would require those respondents who are employees of e-Government Abu Dhabi. The sample frame for this study was determined from the population of employees. This study population will based on the findings of an assessment carried out by e-government Abu Dhabi portal (E-Government Portal, 2017). The findings suggested that only four major departments of Abu Dhabi.

Though, for probability sampling, a requirement is register all the essentials in the sample frame which is difficult if the research is employees oriented and country based. This in core means that the probability sampling methods would be imaginable in a research of this scale. Based on [52]; the effective sampling should be 384 employees. However, considering the previous study feeback rate is 25%, the final sampling is 1536 (stratified sampling).

The objective as according to [43] was to get minimum sample size of 200 respondents, which is suitable for running structural equation modeling.

### 6.2 Measures

The selection of items discussed in this section were used to measure the variables in this study. These are listed as: leadereship styles (transformational and transactional), employees' empowerment and employees' creativity. To select the accurate scale items to measure these variables, the following understandings were created. Initially, it was vital to involve scale items that stand for a leadership-to-employees' creativity context.

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The scales items to measure the considering variables used in this study have been established from an assessment of the related literature. A total of 41 scale items were used to measure the variables in the model. A summary of the number and sources of the items as showed in Table 1, used to test variables.

The selection of multi-items for each variable to provide a completed assessment and assisted the scholars to manage the deficiency of a single item to be measured [20]. In accordance to Peter (1979), the selection of multi-items scale were essential to attain usable measurement of complex constructs. [19] criticized single-item scales as: Firstly, absence of necessary correlation with the feature being measured. Secondly it is closely related to other attributes, next it has limited variance of scale and lastly it has unpredictable responses.

Using 7-point Likert scales to operationalised constructs, vary between 1= strongly disagree to 7 = strongly agree. According to few researchers The Likert-scales were selected because they take less time, and were easy to answer. A summary of the number and sources of the items as showed in Table 1, used to test variables.

**Table 1:** Total of Scale Items with Sources Used in this Study

Constructs	Number of Items	Sources
Leadership		Jung, Chow & Wu (2003); Janssen
Styles	23	(2000);
T		Jung, Chow & Wu (2003); Janssen
Transformation al	13	(2000); Gumusluoglu & Ilsev (2009)
		Pieterse, Van Knippenberg, Schippers & Stam (2010); Howell & Avolion (1993);
Transactional	10	Krause (2004)
Employees' Empowerment	8	Avolio, Zhu, Koh & Bhatia (2004); Chang & Liu (2008)
Empowerment	U	& Liu (2006)

Employees'		
Creativity	10	
		McMurray & Dorai
		(2003);
Idea		Krause (2004); Jong
Exploration	5	& Hartog 2010)
		Dorenbosch, van
		Engen & Verhagen
Idea Generation		(2005); Jong &
		Hartog (2010);
	5	Janssen 2000)

#### 6.3 **Normality Statistics** of **Preliminary Measures**

In this study, skeweness and kurtosis have been used for ascertaining the normality of the data. The skewness and kurtosis in this study have been worked out for each construct, which were presented and summarized results in Table 2. The generated results show that the skewness and kurtosis were inside the acceptable range of the  $\pm$  3, as suggested by [74].

**Table 2:** Normality Statistics

Table 2. Normanty Statistics						
Constructs	Ran ge	Me an	St d. De v.	Skewn ess	Kurto sis	
Transformat ional	1-7	5.86	0.4 1	-0.112	-0.491	
Transaction al	1-7	5.58	0.5	0.163	-0.657	
Employees' Empowerm ent	1-7	5.61	0.4 6	0.158	-0.274	
Idea Exploration	1-7	5.76	0.4 9	-0.091	-0.773	
Idea Generation	1-7	5.91	0.5 1	-0.033	-0.791	

#### 6.4 **Sample Characteristics**

This section gave the demographic characteristics including personal information of the respondents to the survey questionnaire from E-Government employees of Abu Dhabi.

A total of 597 usable responses were collected, the demographic characteristics included personal information of the respondents were presented in Table 3. There were 389 male respondents, representing 65.16% of the sample population; female respondents comprised 34.84% (N: 208) of the sample. The highest age group of the respondents was 31-35 years with the ratio of 35%, while 67.34% were married and the monthly income was AED.

5000 or above, representing 40.70% of the sample. With respect to education, respondents were mostly educated, as 48.07% had completed master.

<b>Table 3:</b> Personal Profile of Respondents							
Var	iables	Numbe r	Percentag e				
	Male	389	65.16%				
Gender	Female	208	34.84%				
	Less than 20	-	-				
	21-25	48	8.04%				
Age	26-30	119	19.93%				
	31-35	209	35.00%				
	36-40	191	31.99%				
	41-45	14	2.36%				
	46-50	10	1.68%				
	Above 51	6	1.00%				
	Single	144	24.12%				
	Married	402	67.34%				
Marital Status	Widow	11	1.84%				
	Separated	17	2.85%				
	Divorced	23	3.85%				
Manageme	Supervisor	203	34.00%				
nt Level Employee	Above	288	48.24%				
Non- managemen	Staff	79	13.23%				
t Level Employee	Below	27	4.53%				
	High school or less	93	15.58%				
	Bachelor degree	167	27.97%				
Education	Master	287	48.07%				
	Doctorate	38	6.37%				
	Others	12	2.01%				
	Muslim	578	96.82%				
	Hindu	4	0.67%				
Religion	Christian	12	2.01%				
	Buddhist	1	0.16%				
	Others	2	0.34%				
	Abu Dhabi Airports Company (ADAC)	189	31.65%				

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Var	iables	Numbe r	Percentag e
Your Organizatio n	Abu Dhabi Accountabilit y Authority (ADAA)	111	18.60%
	Abu Dhabi Chamber of Commerce and Industry (ADCCI)	146	24.45%
	Abu Dhabi Customs Administratio n (ADCA)	151	25.30%
	Less than Rs. 2000	27	4.52%
	2000 to 3000	78	13.07%
Income Level	3001 to 4000	91	15.24%
	4001 to 5000	158	26.47%
	5001 or above	243	40.70%
	ISO 9001	173	28.98%
Organizatio	ISO 14001	187	31.32%
n Certificatio	OSHA	134	22.45%
n	Others	103	17.25%

# 6.5 Reliability

Reliability measured the consistency of the item used in the questionnaire. Cronbach's alpha of 0.70 is considered as a good internal consistency [64]. The reliabilities of all the constructs used in the thesis are presented in following Table 4.

Table 4: Reliabilities of the Construct

Construct	Reliability
Transformational	0.856
Transactional	0.831
Employees' Empowerment	0.891
Idea Exploration	0.875
Idea Generation	0.893

# 6.6 Discriminant Validity

Discriminant validity was ascertained by computing the correlation of all the constructs used in this study. The generated results presented in Table 5. The discriminant validity results showed that the correlation between the pairs of constructs are below 0.85, as prescribed by researchers [82 & 38].

Table 5: Inter Item Correlation

	1	2	3	4	5
Transformationa 1	1				
Transactional	0.36 6	1			
Employees' Emp	0.34 7	0.31 4	1		
Idea Exploration	0.40 7	0.31	0.36 1	1	
Idea Generation	0.34 5	0.32 0	0.41 7	0.36 9	1

# **7** Summarized CFA Results

Two constructs represented leadership styles: transformational and transactional. Items retained after CFA, 6 items represent transformational leadership and 5 for transactional leadership. Responses to 11 items were selected to confirmatory factor analysis, and the first model exposed a suitable fit based on the standards for model fit. The single factor loadings expressed that all indicators were meaningful and loaded more than the least standard value of 0.5 [37]. The emploees' empowerment construct had only one factor, and after CFA showed that 5 items were retained. Two factors represent employees' creativity: idea exploration and Idea Generation. Ten items represented employees' creativity, 3 items was removed during confirmatory factor analysis. Replies to these 11 items were exposed to factor analysis, and as consequences showed the model comprised these items and fits the data well. Table 6 showed the status of retained variables after The precised confirmatory factor analysis. confirmatory factor analysis results of all constructs were presented in Table 7 which showed that the fit index for each of the construct is within/close to the agreed limit. Moreover, factor loading for each observed variable is at least 0.40 [32].

Table 6: Variables Status after CFA

Construct	Original Items	Items Retained after CFA
Transformational	13	6
Transactional	10	5
Employees' Empowerment	8	5
Idea Exploration	5	4
Idea Generation	5	3

**Table 7:** Summarized CFA Results

Construct	Chi	А	C	G	A	C	R	A
Collstruct	-	d	M	F	G	EI	M	$\mathbf{V}$
S	Sq	I	I	I	FI	rı	E	E

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	uar e		N/ df				S A	
Transform ational	25. 691	8	2. 03 8	0. 9 7 3	0. 93 1	0. 97 8	0. 06 7	0. 6 4 1
Transactio nal	27. 984	5	2. 81 2	0. 9 8 4	0. 95 1	0. 97 4	0. 06 5	0. 6 8 1
Employee s' Empower ment	23. 539	5	2. 33 4	0. 9 7 1	0. 94 6	0. 98 3	0. 06 4	0. 6 8 4
Idea Exploratio n	28. 401	5	2. 11 0	0. 9 7 4	0. 93 7	0. 98 8	0. 07 0	0. 7 3 0
Idea Generatio n	20. 756	4	2. 89 1	0. 9 8 3	0. 95 5	0. 98 1	0. 07 1	0. 7 7 5

# 8 Overall Measurement Model

Inspection of standardized residuals specified that all residual values were inside the threshold suggested by [32]. However, modification indices indicated that the indicators TF\_1, TF\_7 (transformational leadership), TS\_1, TS\_5 (transactional leadership) and EE\_7 (employees' empowerment) had unacceptably high values. After iteratively removing these redundant items, the overall model fitness came up in good shape. The overall measurement model is depicted in Figure 2.

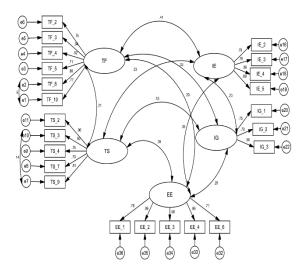


Figure 2: Overall Measurement Model

Chi-square = 916.312, df = 596, GFI = .941, AGFI = .911, CFI = .955, TLI = .939, RMSEA = .041, and Chi-square / df = 1.812

The results showed that the overall measurement model was well fitted which generated a RMSEA of 0.041 and chi square value of 916.312 with 596 degrees of freedom (p<0.005). The statistics for the test of fit were GFI= 0.941, AGFI=0.911, CFI=0.955 and CMIN/df = 1.812. In sum, the confirmatory factor analysis results specified that the overall measurement model is good.

# 9 Structural Model

In the measurement model (stage one), once all constructs were validated and acceptable fit attained [50], a structural model can then be tested and obtainable as a second and key stage of the analysis [32]. The structural model has been defined as "the portion of the model that specifies how the latent variables are related to each other" [32]. The purposes of structural model to identify which latent constructs directly or indirectly affect the values of other latent constructs in the model [50]. The overall model is depicted below in Figure 3.

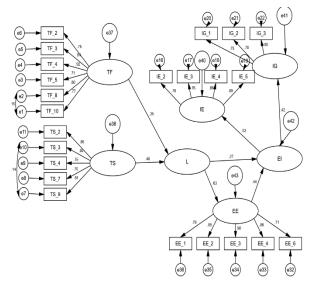


Figure 3: Structural Model

Chi-square = 633.421, df = 596, GFI = .941, AGFI = .916, CFI = .958, TLI = .951, RMSEA = .041, SRMR = 0.23 and Chi-square / df = 1.972

The results showed that the structure model was well fitted which generated a RMSEA of 0.041 and chi square value of 633.421 with 596 degrees of freedom (p<0.001). The statistics for the test of fit were AGFI=0.916, GFI= 0.941, CFI=0.958 and CMIN/df = 1.972. In sum, the consequences specified that the structure model is good.

In the path diagram shown in Figures, the values for the paths connecting constructs with a single-headed arrow represent standardized regression beta weights. As in the measurement model, the values

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appearing on the edge of the boxes were variance estimates in which the amount of variance in the observed variables is explained by latent variables or factors, and values next to the double headed arrows showed correlations. The evaluation of the structural model of this study is showed in Table 8.

**Table 8:** Testing Hypotheses

Hypothes ized Path	Standard ized Estimate	T- Val ue	P- val ue	Result
H1a: TF>L	0.41	4.91 4	***	Signific ant
H1b: TS>L	0.33	4.04 2	***	Signific ant
H1: L> EC	0.27	3.15 4	***	Signific ant
H1c: EC>IE	0.51	6.11 4	***	Signific ant
H1d: EC - ->IG	0.42	5.20 6	***	Signific ant
H2: L >EE	0.63	7.44 1	***	Signific ant
H3: EE >EC	0.44	5.54 1	***	Signific ant

In testing the hypothesized model, results presented in Table indicated that the hypotheses H1, H1a, H1b, H1c, H1d, H2 and H3 were statistically significant and in the hypothesized direction.

# 10 Employees' Empowerment as a Mediator

Hypothesis H4 tested the mediating relationship of employees' empowerment with leadership styles and employees' innovation. The procedure for testing mediator as followed.

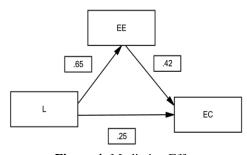


Figure 4: Mediating Effect

The model showed the mediating effects of employees' empowerment with leadership styles and employees' creativity. The procedure to find the mediation effect by Awang et al. (2015). The indirect effect in the model is .27 ( $.65 \times .42 = .27$ ), while the direct effect is .25. Meanwhile the indirect effect is greater than the direct effect, the mediation occurs.

The type of mediation is partial mediation since the direct effect was also significant.

The results of any mediation test should be reconfirmed by using the bootstrapping procedure. This study has conducted the Maximum Likelihood Bootstrapping procedure with bootstrap sample of 1000 and a bias correction confidence interval of 95%. The results obtained as shown in Table 9.

Table 9: The Results of Bootstrapping Procedure

	Indirect Effect	Direct Effect
Bootstrapping Results	.28	.25
Bootstrapping P-Value	.000	.001
Result	Significant. The mediation	Significant
	occurs	

Thus, the result of mediation test has been confirmed by the bootstrapping procedure. Partial mediation occurs since direct effect was also significant. Hence the hypothesis H4: Mediation effect is accepted.

## 11 Conclusion

The research model established in this study combined the construct of leadership styles (transformational and transactional leadership) with employees' empowerment. employees' an innovation. This model proposed that leadership directly influences employees' creativity (idea exploration and idea generation). Moreover, mediates employees' empowerment associations in Abu Dhabi's egovernment organizations. Four hypothesis were expressed in this study to discover the leadership styles related to employees' creativity and to inspect the proposed relationships. In this study, analyses were accomplished to investigate the objectives. The analysis elaborated an empirical examination of the direct relationship of leadership styles on employees' creativity in Abu Dhabi. The second assessment was the level which viewed employees' empowerment mediate the relationship.

The evidence from the results of this study suggests that the influence of leadership styles on employees' creativity is stronger its influence on their in Abu Dhabi's egovernment employees. Employees' innovation refers to the implementation stage of new ideas: perhaps this might be due to leaders having more influence at the application stage than at the earlier idea generation stage. Evidence from the result phase also shows that the organisational position of leaders over employees means that they have more access to resources, an essential

requirement of successful creativity. The findings show that leaders can have a greater influence on employees' innovation.

It is found that employees' empowerment positively and significantly mediates the association of perceived leadership with employees' creativity in Abu Dhabi's organizations. The finding suggests that employees with high levels of employees' empowerment are more responsive to innovative leadership then other employees. The interaction of leadership and employees' empowerment results in more creative ideas, suggestions and innovative practices.

# 12 Implications of the Research

This study inspected employees' empowerment as a mediator in the associations among leadership styles and employees' creativity. The consequences of this study delivered both practical and theoretical implications. Primary, this study signified the theoretical or empirical research concerning the significances of employees' empowerment in the leadership for the development of employees' creativity. In spite of the fact that employees' empowerment is a vital feature as a basic necessity for the operation active of employees [90] [91] [92] [93]. There has been few empirical research of employees' empowerment in the ledership with styles for the development of employees' creativity. As projected, this study exposed the significance and impression of employees' empowerment associations in considerate idea generation, and improved our understanding of the employees' empowerment important to implementation of such ideas [94] [95]. Therefore, this study delivered a foundation for scholars to more test the associations between these concepts.

# 13 Future Research

Further research is desirable to spread our understanding of the constructs used in this study, by consuming diverse ways to examine them. This study has exposed several research openings in the field of leadership, specifically in the creativity and innovation of employees. Other parts that could be of researchers' attention contain, but not limited are, employees' empowerment on their creativity and innovation, it produce valuable influence and impact on activities of organizations.

# References

[1] Abbasi, A. S., Mir, G. M., & Hussain, M. (2012). Islamic work ethics: how it affects organizational learning, innovation and

- performance. Actual Problems of Economics, (12), 138.
- [2] Abu-Tayeh, S., & Al Khawaldeh, K. (2004). Transformational Leadership: A Study of the Leadership Behavior of Jordanian Managers Working in Petroleum Industry. *Dirasat*, 31(1), 169-179.
- [3] Al Murawwi, M. A., Behery, Papanastassiou, M., & Ajmal, M. (2014). Examining the relationship between organizational culture and knowledge management: The moderation effect of organizational divisions at an Abu Dhabi gas company. SAM Advanced Management Journal, 79(2), 48-60.
- [4] Alamrey, M. (2003). The relationship between transformational leadership style and total quality management: a survey study on public corporations in Riyadh city. *unpublished Master thesis, King Saud University, Riyadh*.
- [5] Al-Azimi, M. (2006). Transformational leadership and its relationship with creativity as perceived by civil employees in ministry of interior. unpublished Master thesis, Naif Arab University for Security Sciences, Alryad-Kingdom of Saudi Arabia, Riyadh.
- [6] Almheiri, A. K. (2015). Is the United Arab Emirates Capable to Create a Green and Sustainable Future? (Doctoral dissertation, The British University in Dubai (BUiD)).
- [7] Al-Nasani, A. (2008). Testing the impact of the dimensions of transformational leadership on administrative creativity: a practical study of educational institutions in Syria. *Tishreen Economic and Law Journal*, 30(1), 24-52.
- [8] Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal*, 39(5), 1154-1184.
- [9] Awang, Z., Afthanorhan, A., & Asri, M. A. M. (2015). Parametric and non parametric approach in structural equation modeling (SEM): The application of bootstrapping. *Modern Applied Science*, 9(9), 58.
- [10] Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., Waterson, P. E., & Harrington, E. (2000). Shopfloor innovation: Facilitating the suggestion and implementation of ideas. *Journal of occupational and organizational psychology*, 73(3), 265-285.
- [11] Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational dynamics*, 18(3), 19-31.
- [12] Bass, B. M. (2008). The Bass Handbook of Leadership: Theory. Research, and Managerial Applications. 4th.

- [13] Bass, B. M., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *The leadership quarterly*, 10(2), 181-217.
- [14] Birasnav, M., Rangnekar, S., & Dalpati, A. (2011). Transformational leadership and human capital benefits: The role of knowledge management. *Leadership & Organization Development Journal*, 32(2), 106-126.
- [15] Burns, J. M. (2003). *Transforming leadership:* A new pursuit of happiness (Vol. 213). Grove Press.
- [16] Charbonnier-Voirin, A., El Akremi, A., & Vandenberghe, C. (2010). A multilevel model of transformational leadership and adaptive performance and the moderating role of climate for innovation. *Group & Organization Management*, 35(6), 699-726.
- [17] Chenhall, R. H., & Moers, F. (2015). The role of innovation in the evolution of management accounting and its integration into management control. *Accounting, Organizations and Society*, 47, 1-13.
- [18] Chiles, A. M., & Zorn, T. E. (1995). Empowerment in organizations: Employees' perceptions of the influences on empowerment.
- [19] Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, *16*(1), 64-73.
- [20] Colquitt, J. A., Baer, M. D., Long, D. M., & Halvorsen-Ganepola, M. D. (2014). Scale indicators of social exchange relationships: A comparison of relative content validity. *Journal of Applied Psychology*, 99(4), 599.
- [21] Darmaki, A., & Rashed, A. (2015). A Systematic Analysis Of Strategic Planning Key Success Factors And Its Required Professional Skills-Case Study Of Abu Dhabi Police Ghq. International Journal of Sales, Retailing & Marketing, 4(7).
- [22] De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and innovation management*, 19(1), 23-36.
- [23] Deichmann, D., & Stam, D. (2015). Leveraging transformational and transactional leadership to cultivate the generation of organization-focused ideas. *The Leadership Ouarterly*, 26(2), 204-219.
- [24] Denti, L., & Hemlin, S. (2012). Leadership and innovation in organizations: A systematic review of factors that mediate or moderate the relationship. *International Journal of Innovation Management*, 16(03), 1240007.
- [25] Dobni, C. B., & Klassen, M. (2015). Advancing an innovation orientation in

- organizations: Insights from North American business leaders. *Journal of Innovation Management*, *3*(1), 104-121.
- [26] Dorenbosch, L., Engen, M. L. V., & Verhagen, M. (2005). On- the- job innovation: The impact of job design and human resource management through production ownership. Creativity and innovation management, 14(2), 129-141.
- [27] Eisenbeiß, S. A., & Boerner, S. (2010).

  Transformational leadership and R&D innovation: Taking a curvilinear approach. *Creativity and innovation management*, 19(4), 364-372.
- [28] Eisenberger, R., Malone, G. P., & Presson, W. D. (2016). Optimizing perceived organizational support to enhance employee engagement. Society for Human Resource Management and Society for Industrial and Organizational Psychology, 2-22.
- [29] Elkins, T., & Keller, R. T. (2003). Leadership in research and development organizations: A literature review and conceptual framework. *The leadership quarterly*, *14*(4-5), 587-606.
- [30] Epitropaki, O., & Martin, R. (2005). From ideal to real: a longitudinal study of the role of implicit leadership theories on leader-member exchanges and employee outcomes. *Journal of applied psychology*, 90(4), 659.
- [31] Farouk, S., Abu Elanain, H. M., Obeidat, S. M., & Al-Nahyan, M. (2016). HRM practices and organizational performance in the UAE banking sector: The mediating role of organizational innovation. *International Journal of Productivity and Performance Management*, 65(6), 773-791.
- [32] Field, A. (2013). Discovering statistics using IBM SPSS statistics. sage.
- [33] Franklin, K. M. (2016). Examining the Impact of Leadership Styles on the Motivation of US Teachers (Doctoral dissertation, Walden University).
- [34] García-Morales, V. J., Jiménez-Barrionuevo, M. M., & Gutiérrez-Gutiérrez, L. (2012). Transformational leadership influence on organizational performance through organizational learning and innovation. *Journal of business research*, 65(7), 1040-1050.
- [35] Grunig, J. E. (1992). What is excellence in management. *Excellence in public relations* and communication management, 219-250.
- [36] Gumusluoglu, L., & Ilsev, A. (2009). Transformational leadership, creativity, and organizational innovation. *Journal of business research*, 62(4), 461-473.
- [37] Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver

- bullet. Journal of Marketing theory and Practice, 19(2), 139-152.
- [38] Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- [39] Hetland, H., Sandal, G. M., & Johnsen, T. B. (2007). Burnout in the information technology sector: Does leadership matter?. *European journal of work and organizational psychology*, *16*(1), 58-75.
- [40] House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (Eds.). (2004). Culture, leadership, and organizations: The GLOBE study of 62 societies. Sage publications.
- [41] Hunter, S. T., & Cushenbery, L. (2011). Leading for innovation: Direct and indirect influences. *Advances in Developing Human Resources*, *13*(3), 248-265.
- [42] Jaiswal, N. K., & Dhar, R. L. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International Journal of Hospitality Management*, 51, 30-41.
- [43] Jannoo, Z., Yap, B. W., Auchoybur, N., & Lazim, M. A. (2014). The effect of nonnormality on CB-SEM and PLS-SEM path estimates. *International Journal of Mathematical, Computational, Physical and Quantum Engineering*, 8(2), 285-291.
- [44] Joo, B. K., McLean, G. N., & Yang, B. (2013). Creativity and human resource development: An integrative literature review and a conceptual framework for future research. *Human Resource Development Review*, 12(4), 390-421.
- [45] Jung, D. D., Wu, A., & Chow, C. W. (2008). Towards understanding the direct and indirect effects of CEOs' transformational leadership on firm innovation. *The Leadership Quarterly*, 19(5), 582-594.
- [46] Jyoti, J., & Dev, M. (2015). The impact of transformational leadership on employee creativity: the role of learning orientation. *Journal of Asia Business Studies*, 9(1), 78-98.
- [47] Kataria, A., Garg, P., & Rastogi, R. (2012). Employee Engagement and Organizational Effectiveness: The Role of Organizational Citizenship Behavior. *International Journal of Business Insights & Transformation*, 6(1).
- [48] Khan, S. N. (2010). Impact of authentic leaders on organization performance. *International Journal of Business and Management*, 5(12), 167.

- [49] Kim, S., & Yoon, G. (2015). An innovation-driven culture in local government: do senior manager's transformational leadership and the climate for creativity matter?. *Public Personnel Management*, 44(2), 147-168.
- [50] Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford publications.
- [51] Kolak, A. (2010). Style of managing teaching process as classroom management determinator. *Journal Plus Education*, 6(2), 211-218.
- [52] Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- [53] Kuoppala, J., Lamminpää, A., Liira, J., & Vainio, H. (2008). Leadership, job well-being, and health effects—a systematic review and a meta-analysis. *Journal of occupational and environmental medicine*, 50(8), 904-915.
- [54] Liao, H., & Chuang, A. (2007). Transforming service employees and climate: A multilevel, multisource examination of transformational leadership in building long-term service relationships. *Journal of applied psychology*, 92(4), 1006.
- [55] López-Nicolás, C., & Meroño-Cerdán, Á. L. (2011). Strategic knowledge management, innovation and performance. *International* journal of information management, 31(6), 502-509.
- [56] 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.
- [57] Moriano, J. A., Molero, F., Topa, G., & Mangin, J. P. L. (2014). The influence of transformational leadership and organizational identification on intrapreneurship.

  Entrepreneurship and Management Journal, 10(1), 103-119.
- [58] Mumford, M. D., & Licuanan, B. (2004). Leading for innovation: Conclusions, issues, and directions. *The leadership quarterly*, *15*(1), 163-171.
- [59] Mumford, M. D., Todd, E. M., Higgs, C., & McIntosh, T. (2017). Cognitive skills and leadership performance: The nine critical skills. *The Leadership Quarterly*, 28(1), 24-39.
- [60] Nazari, K., & Emami, M. (2012). Knowledge Management: from theory to practice. Australian Journal of Business and Management Research, 1(11), 22-30.
- [61] Ngo, J. C. (2015). The impact of innovation climate on organizational

- effectiveness. Journal of Asia Entrepreneurship and Sustainability, 11(6), 114.
- [62] Nusair, N., Ababneh, R., & Kyung Bae, Y. (2012). The impact of transformational leadership style on innovation as perceived by public employees in Jordan. *International Journal of Commerce and Management*, 22(3), 182-201.
- [63] Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of management journal*, *39*(3), 607-634.
- [64] Pallant, J. (2013). SPSS survival manual. McGraw-Hill Education (UK).
- [65] Parker, L. E., & Price, R. H. (1994). Empowered managers and empowered workers: The effects of managerial support and managerial perceived control on workers' sense of control over decision making. *Human Relations*, 47(8), 911-928.
- [66] Parzefall, M. R., & Coyle-Shapiro, J. A. (2011). Making sense of psychological contract breach. *Journal of Managerial Psychology*, 26(1), 12-27.
- [67] Perry-Smith, J. E., & Shalley, C. E. (2014). A social composition view of team creativity: The role of member nationality-heterogeneous ties outside of the team. *Organization Science*, 25(5), 1434-1452.
- [68] Peter, J. P. (1979). Reliability: A review of psychometric basics and recent marketing practices. *Journal of marketing research*, 16(1), 6-17.
- [69] Porter, L. W., & McLaughlin, G. B. (2006). Leadership and the organizational context: like the weather?. *The Leadership Quarterly*, *17*(6), 559-576.
- [70] Rauniyar, K., Ding, D., & Rauniyar, N. (2017). Understanding the Role of Creative Self-Efficacy and Power Distance Orientation for Examining the Consequences of Abusive Supervision on Employee Creativity: A Case Study from Nepal. *Open Journal of Leadership*, 6(02), 61.
- [71] Reiter-Palmon, R., & Illies, J. J. (2004). Leadership and creativity: Understanding leadership from a creative problem-solving perspective. *The Leadership Quarterly*, 15(1), 55-77.
- [72] Renko, M., El Tarabishy, A., Carsrud, A. L., & Brännback, M. (2015). Understanding and measuring entrepreneurial leadership style. *Journal of Small Business Management*, 53(1), 54-74.
- [73] Rowold, J., & Heinitz, K. (2007). Transformational and charismatic leadership: Assessing the convergent, divergent and

- criterion validity of the MLQ and the CKS. *The Leadership Quarterly*, 18(2), 121-133.
- [74] Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of vocational behavior*, 80(3), 661-673.
- [75] Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal*, *37*(3), 580-607.
- [76] Shamir, B., & Howell, J. M. (1999). Organizational and contextual influences on the emergence and effectiveness of charismatic leadership. *The Leadership Quarterly*, 10(2), 257-283.
- [77] Shanker, R., Bhanugopan, R., Van der Heijden, B. I., & Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of* vocational behavior, 100, 67-77.
- [78] Shin, S. J., & Zhou, J. (2003). Transformational leadership, conservation, and creativity: Evidence from Korea. *Academy of management Journal*, 46(6), 703-714.
- [79] Slåtten, T., Svensson, G., & Sværi, S. (2011). Empowering leadership and the influence of a humorous work climate on service employees' creativity and innovative behaviour in frontline service jobs. *International Journal of Quality and Service Sciences*, *3*(3), 267-284.
- [80] Somech, A., & Drach-Zahavy, A. (2013). Translating team creativity to innovation implementation: The role of team composition and climate for innovation. *Journal of management*, 39(3), 684-708.
- [81] Sosik, J. J., Kahai, S. S., & Avolio, B. J. (1998). Transformational leadership and dimensions of creativity: Motivating idea generation in computer-mediated groups. *Creativity Research Journal*, 11(2), 111-121.
- [82] Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E. (2016). Discriminant validity testing in marketing: an analysis, causes for concern, and proposed remedies. *Journal of the Academy of Marketing Science*, 44(1), 119-134.
- [83] Wallace, J. C., Butts, M. M., Johnson, P. D., Stevens, F. G., & Smith, M. B. (2016). A multilevel model of employee innovation: Understanding the effects of regulatory focus, thriving, and employee involvement climate. *Journal of Management*, 42(4), 982-1004.
- [84] Wang, C. J., & Tsai, C. Y. (2014). Managing innovation and creativity in organizations: an

- empirical study of service industries in Taiwan. *Service Business*, 8(2), 313-335.
- [85] Wang, C. J., Tsai, H. T., & Tsai, M. T. (2014). Linking transformational leadership and employee creativity in the hospitality industry: The influences of creative role identity, creative self-efficacy, and job complexity. *Tourism Management*, 40, 79-89.
- [86] Wang, P., & Rode, J. C. (2010). Transformational leadership and follower creativity: The moderating effects of identification with leader and organizational climate. *Human relations*, 63(8), 1105-1128.
- [87] West, M. A., & Sacramento, C. A. (2012). Creativity and innovation: The role of team and organizational climate. In *Handbook of organizational creativity* (pp. 359-385). Academic Press.
- [88] Wong, S. C. K., & Ladkin, A. (2008). Exploring the relationship between employee creativity and job-related motivators in the Hong Kong hotel industry. *International Journal of Hospitality Management*, 27(3), 426-437.
- [89] Yahchouchi, G. (2009). Employees' perceptions of Lebanese managers' leadership styles and organizational commitment. *International Journal of Leadership Studies*, 4(2), 127-140.
- [90] M. F. Ahmad, R. Z. R. Rasi, N. Zakuan, M. . Haji-Pakir, and J. Takala, "The Impact of ASEAN Free Trade Agreement as Moderator on TQM Performance Model in Malaysia: Survey Result," Soc. Sci., vol. 11, no. 12, pp. 2932–2937, 2016.
- [91] M. F. Ahmad, N. Zakuan, R. Z. R. M. Rasi, M. N. N. Hisyamudin, and J. Takala, "Mediator effect of total productive maintenance between total quality management and business performance: Survey result in Malaysia automotive industry," *Adv. Sci. Lett.*, vol. 21, no. 12, pp. 3723–3725, 2015.
- [92] M. F. Ahmad, M. S. M. Ariff, N. Zakuan, J. Takala, and A. Jusoh, "Relationship amongst TQM, Business Performance, Tools and Techniques: Qualitative Study Result," in In Business Engineering and Industrial Applications Colloquium (BEIAC),2013 IEEE, 2013, pp. 22–27.
- [93] Shahbaz, M.S., Rasi, R.Z.R.M., Ahmad, M.F.B., Rehman, F., "What is supply chain risk management? A review," *Adv. Sci. Lett.*, vol. 23, no. 9, pp. 9233-9238, 2017.
- [94] M. F. Ahmad, N. Zakuan, A. Jusoh, and J. Takala, "Review of relationship between TQM and business performance," *Appl. Mech. ...*, vol. 315, no. 2013, pp. 166–170, Apr. 2013.
- [95] M. F. Ahmad, M. S. M. Ariff, N. Zakuan, J. Takala, and A. Jusoh, "Relationship amongst

TQM , Business Performance , Tools and Techniques: Qualitative Study Result," in In Business Engineering and Industrial Applications Colloquium (BEIAC),2013 IEEE, 2013, pp. 22–27.