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**Work Climate Based on Trust:  
Empirical Approach Multi-Relationships**

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**Abstract** The current study examined different types of the employees' trust in immediate supervisor, top management and co-workers through two levels of trust: cognitive and affective trust. It, also, examined trust outcomes in two important subjects, they are: achievement motivation and continuous improvement. This study analyzed the collected data from 256 employees working in three different staffs representing the working staffs in Kafrelsheikh University. These three staffs are: teaching staff and their assistants, the constant employees staff and the temporal employees staff. The results assured that six types of trust have different outcomes on achievement motivation and continuous improvement. Also, trust types' outcomes differ in every functional staff from the others. Discussion and recommendations for future research and practice are concluded in the paper.

**Keywords:** achievement motivation; affective trust; cognitive trust; continuous improvement; trust climate.

## Introduction

Work climate plays an important role in performance improvement and achieving the organizational goals. This role comes from its effect on the employees' behaviors which, consequently, affects their efforts carrying out activities and affects work outcomes. It is expected that workers who work in a good climate will do their duties and works better than others, especially, if the work climate is full of good interpersonal relationship and trust.

Trust is considered one of the most important cognitive and one of the work climate's components. Especially, the social and psychological sides. Although there are many scientific researches which deal with trust and examined it through two bases: cognitive and affective and through its various sources: immediate supervisor, top management and co-workers (e.g., Lee 2004; Ellonen et al. 2008; Yang and Mossholder 2010). But these

researches didn't examine work climate based on trust which combine these trust bases and various sources in one approach, which gives a clear and complete idea on work climate's effect on the employee's behavior and their performance inside every functional group of the different functional groups which found in the same institution. This current study presents this approach to study work climate based on trust

Trust emerges from cognitive base which depends on characteristics which appear in interaction connected to work, also, it emerges from affective base based on social and psychological sides which have strong relation with interpersonal relationships (Dirks and Ferrin 2002). Trust study through cognitive and affective bases presents examining of trust which show us what extent of effect of each base on the employees performance and behavior.

Also, trust study through its three sources: immediate supervisor, top management and co-workers is considered very necessary because it is expected that every source of the three has different effects on the employees performance and behavior than the other two sources, consequently, we study trust according to progression and sequence levels of proximal or distal from the employee during carrying out his work. There is social relationships as well as work relationships are formed between the employee and his co-workers which affect his act and behavior. Immediate supervisor represents the proximal administrative level to the employee and affects directly the employee's performance and behavior through good relationships, encouraging him to work and help the employee with his experiences. Although top management represent the distal organizational level to the employee, but they have an effect on him through politics, plans, procedures and supervision methods which they carry out.

The current study deals, also, with examining trust inside functional groups in the same institution because it is expected that trust effects on the employee's performance and behavior will be different from one group to another when there is a difference among the functional groups in the same work. This study was applied in one of the academic institutions which is subsidiary of Ministry of Higher Education in Egypt, it is: Kafrelsheikh University. In this university, there are three different functional groups differ in the jobs wanted from every group and, also, differ in laws and work rules applied for each group, they are: teaching

staff and their assistants, the constant employees staff and the temporal employees staff.

This study will present knowledge and results which can be used in improving the employee's performance and to achieve the university's goals. Especially, Egyptian universities do their best now to get accreditation for their faculties to enable them to continue as educational institutions that prepare students and graduates for work market. This accreditation is given depend on implementation quality assurance and accreditation requirements which confirmed by National authority for quality assurance and accreditation of education in Egypt. The current study's results is considered very important to Kafrelsheikh University as it investigates the effect of work climate based on trust on its employees' motives to achievement and their efforts, also, to continuous improvement. Achievement motivation and continuous improvement efforts are ones of the main bases of the university in its way to achieve quality of education and to get the accreditation of education.

## **Background and Review of Literature**

### ***Trust climate***

Trust comes to anyone by being aware of the characteristics and features of individuals or groups or systems which give him impression of trust (Butler 1991), Mayer et al. (1995) defined trust as a person or a group unwilling to be criticized on what he or they do, and is expected (on the other hand) to do accurately and correctly, Lee (2004) refers to trust as the beliefs that the one got about the others' future behaviors.

Trust climate leads to enforce organizational efficiency and effectiveness (Ellonen et al. 2008), and it is considered an important factor in leadership efficiency (Tyler 2003) and in achieving the employees' satisfaction (Shockley-Zalabak et al. 2008). Trust climate becomes very important in institutions that have work conflicts (Rankin 1998). Trust is considered an important element in the framework of social exchange between the employee and the employer, Eigenberger et al. (1990) show that employees' positive work behaviors and attitudes resulted in trust that the organization will fulfill its obligations concerning encouraging and rewarding the employees for their efforts. Trust cognition is one of the main subjects related to organization leadership as the leaders' behaviors lead to trust cognition which

affects (consequently) on the results of the employees work (Dirks and Sharlicki 2004). Moreover, trust in leaders correlated positively with the group achievement (Davis et al. 2000; Dirks 2000).

Scientific researches tend to classify trust into cognitive trust based on competence and affective trust based on affective connection (Lee 2004). Cognitive trust concentrates on ability, honesty and self-dependence level (Mayer et al. 1995). Cognitive trust was described as rational evaluation of someone's ability to fulfill his/her obligations, While affective trust comes, often, from friendships or interpersonal relationships, so it reflexes affective connection coming from care and interest among individuals (McAllister 1995).

Trust comes from various sources divided into personal and impersonal sources of trust. Trust personal sources is trust in persons whether they are individuals or groups and it depends on interpersonal relationships and resulted in interactions and behaviors which we trust in, while trust impersonal sources depends on roles, systems and reputation (Atkinson and Butcher 2003). Ellonen et al. (2008) dealt with trust impersonal sources as institutional trust depends on members' trust in organization's vision and strategy and its technological and commercial competence. It, also, depends on trust in organization's justice processes and its policy concerning human resources, Mcknight et al. (1998) defined institutional trust as belief that the necessary impersonal sources were found to enable the person to work successfully in the future, Lee (2004) examined institutional trust from perspective trust in the company competence based on belief in its technological ability and having enough resources to fulfill its promises and having strong competitive situation. The current study concentrates on trust from personal sources, in regard to that the interpersonal relationships are the main source to form work climate based on trust which affects, consequently, the results of the persons' work directly

Personal sources of trust are divided into: lateral trust and vertical trust. Lateral trust refers to trust in co-workers while vertical trust refers to trust in leaders (Costigan et al. 1998; Ellonen et al. 2008). Trust coming from personal sources (trust among persons) has a great effect on the person's work outcomes. When trust is coming from various personal sources it leads to a different outcomes (Yang and Mossholder 2010). Dirks and Parks (2003)

confirmed that determining the source of trust is very important in determining the results of it. Whitener (1997) supposed that employees have, at least, two different types of trust. One of them is individual as trust in supervisors or co-workers, the other is trust in top management. Trust in one of the supervisors or one of the co-workers is direct and determined while trust in top management is more common.

Researches in this field delimited top management as the highest level which carry out actions which have a significant effect on employees (Mayer and Davis 1999). Top management are represented in members who drew policies, rules and the decisions in the organization and they are the group that include managers who supervise processes and organizational strategies. 'Also, all participants who participate in the organization's important decisions (Albrecht and Travaglione 2003). Top management's actions and decisions will be resulted in a clear effect on the employees' act and behaviors, so it is very important in examining the results of trust (Yang and Mossholder 2010).

Immediate supervisor is considered more connected practically and significantly and has more personal relationship with subordinates in comparison with top management, immediate supervisor's decisions and actions will lead to a clear effect on the employees through every day's activities execution (Yang and Mossholder 2010). According to that, trust in immediate supervisor is very important challenge to investigate the results of trust on the employees performance and behaviors.

Although trust in co-workers didn't take enough and suitable interest of researchers in this field, but it doesn't have less importance than trust in immediate supervisor and top management. That is because the employees may react and be affected by whom he works with and be proximal than others who deal with them by phone or from time to time. Also, the employees' reaction to psychological factors is stronger than the other distal factors. So, the co-workers actions and behaviors will be a source of trust for the employee. It is expected that it will have a clear effect on his act and behaviors, consequently, this current study deals with trust in co-workers as one of the trust sources that form work climate based on trust side by side trust in immediate supervisor and trust in top management. Thus, the current study examined all the sources of trust among employees because it is expected that trust level differ from one source to another

according to proximal or distal of the person we trust in, also, it will differ according to the organizational level which the trustee works in, whether co-workers or immediate supervisor or top management, which leads to the difference in trust's effect on the employees performance and behaviors.

Scientific researches dealt with the subject of trust from many sides, Yang and Mossholder (2010) examined the employee's trust in leadership in two main bases: Cognitive and affective trust, and two sources of trust: supervisor and top management. It came clear that trust in leaders has different effects on the results of the employee's work. It is proved that affective trust in immediate supervisor is an important predictor of in-role and extra-role, also, affective trust in immediate supervisor and top management affects affective organization commitment, cognitive trust in management and affective trust in supervisor affect job satisfaction.

Lee (2004) examined the mediate role of the organizational identification on the relationship between trust based on the organization competence and the continuous improvement. The results proved that trust in the organization's competence is positively related to the continuous improvement's efforts when the employees identify strongly with the organization. Whereas, the employees who have a weak identification with their organization, trust is not positively related to the continuous improvement's efforts, Ellonen et al. (2008) analyzed the results of the dimensions of organizational trust (lateral trust, vertical trust and institutional trust) on the organizational innovativeness dimensions which represented in: product innovativeness, behavioral innovativeness, strategic innovativeness and process innovativeness. According to the research, it is clear that vertical trust correlated positively with behavioral innovativeness while is correlated negatively with product and process innovativeness, and institutional trust is correlated positively with all the dimensions of organizational innovativeness, while lateral trust isn't connected significantly with any of the dimensions of the organizational innovativeness.

Cremer and Knippenberg (2005) proved that the subordinates' trust in the leader mediates the relationship between leader self-sacrifice and the subordinates co-operation behavior. But trust in leader isn't correlated directly with the leader self-sacrifice, Cremer et al. (2006) proved that affective and cognitive trust in leader is affected positively if the subordinates realize that the

leader carries out judicial procedures, and they proved also, that affective trust (not cognitive trust) mediates the relationship between judicial procedures which carried out by the leader and the subordinates' organizational identification, Young and Daniel (2003) proved that in the early stages of relationship building, the employee tends to cognitive trust based on goal achieving and competence, while in the later stages, the employee's trust depends more on personal feelings (affective trust).

### ***Achievement motivation***

Achievement motivation is connected with desire and persistence to achieve targets, it is a main base of achieving the plan, have skills and evaluate behaviors (Lee and Liu 2009). The employees' achievement motivation is the desire of doing one's best to achieve organizational targets.

A lot of scientific researches were done on achievement motivation and came to many results, Lee and Liu (2009) assured that achievement motivation significantly affects work attitudes, Wegge et al. (2006) proved that the potential high motivation in work leads to high satisfaction on work and less turnover intentions and that the employees with high organization identification are more motivation to work, Puca and Schmalt (1999) supposed that achievement motivation combines two types of personality building: trend to achieve success and trend to avoid failure. As a result of this suppose, the employees who trend to success do better than employees who are afraid of failure, Hirst (1988) Daniel and Esser (1980) assured that independence in performance and targets which require challenge to achieve affect positively on employees motivation to achieve.

Sagie (1994) and Story et al. (2009) proved that achievement motivation consists of a group of elements: difficulties' facing, responsibility undertaking, continuous success, competitive ability and cleverness in execution. The current study deals with achievement motivation' elements which matching work climate in educational institutions as: persistence, challenge, very neat on time, high execution in embarrassing situation, take risk to achieve progress and achieving better execution than others.

### ***Continuous improvement***

Continuous improvement means that the organization carries out additional and innovativeness improvements on its processes,



products and services (Anderson et al. 1994). Continuous improvement is very necessary, especially, in the increasing international competition of all organizations whether it is small or huge, industrial or services providing (Lee 2004). Continuous improvement is a continual process on wide range in the organization working on innovation, modification and renewal continuously (Caffyn 1999). Continuous improvement resulted in existing clear improvements in execution which is very difficult for competitors to execute in the near future. Also, resulted in essential changes inside the organization happened as a result of innovative idea or new technological application (Bhuiyan and Baghel 2005). Continuous improvement is a continual process with non-stop (Harrington 1995) and it is one of the essential values of total quality management. Total quality management is achieved through our constant working for continuous improvement with all the employees' participating in all organizational levels (Bhuiyan and Baghel 2005, Temponi 2005)

Continuous improvement doesn't stop, only, on process, products and services, but it concentrates, also, on personal behaviors for all workers in the organization. It is needed to modify personal behavior and admit that personal development is a continuous process with non-stop to achieve fully developed in execution and behavior (Emiliani 1998).

Academic institutions are interested, generally, in continuous improvement because it is an important challenge for it, because jobs market looks for well-qualification graduates and that is required from these institutions preparing graduates in a good developed method continuously to go a long with employers' needs, and that needs continuous improvement in Educational non-stop services. Besides, university working in the purpose of the continuous improvement in its services, activities and scientific researches to serve the society and to develop environment (Temponi 2005), continuous improvement becomes one of the most important issues in Egyptian Academic institutions, because these institution try hard to get quality assurance and accreditation for its faculties and this will not happen unless they fulfill all quality assurance and accreditation's requirements which determined by National authority for quality assurance and accreditation of Education in Egypt.

Harrington (1995) discussed continuous improvement versus breakthrough improvement and he assured that organization should

pay its attention to continuous improvement as a general base, with using breakthrough improvement in the urgent processes. Jung and Wang (2006) proved that there is a significant positive relationship between total quality management's elements (quality obligation, achieving its targets and the relationship with the employees), and continuous improvement's types (discipline, creativity and reduction of waste), Temponi (2005) Found that continuous improvement in Educational institutions leads to positive results include preparing and developing graduates for work market and to build a strong relationship with employees, The organization's reputations improvement And to establish organizational culture based on continuous improvement, Lee (2004) proved that employees that identified strongly with their organization will do their best efforts seeking continuous improvement.

It is noticed that scientific researches in continuous improvement field and its relationship with trust are rare. This current study will examine this relationship.

### **Predicting trust outcomes**

#### ***Trust effects on Achievement Motivation***

Achievement motivation represents the employee's desire to achieve work, this desire will be affected directly with his trust in the proximal of work as: co-workers or immediate supervisor, and is affected indirectly with his trust in, somehow, the distal, as, top management. Trust influence will differ according to trust type on the employee's desire of achievement, if the trust type is different, the employee's cognitive trust in his co-worker, immediate supervisor or top management may affect work achievement motivation, while, affective trust doesn't affect, otherwise may happen, or, the employee may be affected by both cognitive and affective trust.

The trust role in the employee's achievement motivation, that is, the employee who trust in his leaders' and co-workers abilities and that he could rely on them in achieving his work (Cognitive trust) and his trust in their interest and taking care of him and his need to feel protection and safety to work with them (affective trust) will be a very strong motivation for him to achieve and he will behave positively which enables him to achieve his duties. On the other hand, if the employee loses trust in his leaders' and co-workers abilities, skills and knowledge, and feels that they don't care of him and they are dishonest with him, it will negatively

affect his behaviors and his desire in achievement. According to that, the first hypothesis of the current study is as the following:

**Hypothesis 1:** Through six different types of trust in leaders and co-workers, trust affects significantly achievement and motivation (Trust types are represented in cognitive and affective trust in immediate supervisor, top management and co-workers).

### ***Trust effects on continuous improvement efforts***

It is necessary for every employee to practice continuous improvement efforts in his work, that is because the strong competition and the urgent need to achieve quality in execution. Continuous improvement becomes an urgent challenge for Kafrelsheikh University, Which the current study is applied on, for achieving quality assurance and accreditation in Education.

The Current study expects that trust will have a great effect on continuous improvement efforts for the employees in the university in regard to the leaders' and co-workers skills, sufficiency and mastery their work (cognitive trust). Their care and honesty in dealing with him (affective trust) will build a suitable climate for work which helps to improve and searching for every new and modern, and works to develop, innovate and achieve quality, but if the employee feels that his leaders and co-workers are not sufficient, or, masters and have no skills in work and they don't care with him and they are not honest with him, it is expected that it will lead to create work climate which doesn't help to innovation and continuous improvement. According to that, the second hypothesis in the current study is as follows:

**Hypothesis 2:** Through six types of trust in leaders and co-workers, trust affects significantly continuous improvement efforts (trust types are represented in cognitive and affective trust in immediate supervisor, top management and co-workers).

## **Methods**

### ***Application context***

The current study is applied on the employees of Kafrelsheikh University, it is one of the educational institutions in Egypt. Kafrelsheikh University is considered new, it was established in 2006. Both employees and university management work hard to complete and fulfill this educational institution quickly, in addition

to their working hard to achieve and fulfill all the requirements of quality assurance and accreditation for all the university faculties, work climate which helps to achieve and to develop is one of the university management's priority. So, this current study deals with examining one of the work climate main bases. It is work climate based on trust and investigate the influence of this climate on the employees' achievement motivation, and its effect on their efforts to continuous improvement.

The employees in Kafrelsheikh University that the current study was applied on them consist of three groups:

1. Teaching staff and their assistants.
2. The constant employees.
3. The temporal employees.

Every group differ from the others in the functional tasks wanted from each member (employee), also, laws and rules applied on them differ from group to another, the main work for teaching staff and their assistants is to teach students and doing scientific researches. While the main job of the constant employees. and the temporal employees is doing technical, financial and administrative tasks. Egyptian Universities organization Law is applied on teaching staff and their assistants (Law No. 49, in 1972) while (Law No. 47, in 1978) that is called civil workers law is applied on both continual and temporal employees. Also, there is a difference between the work of the continual and temporal employees which required to differentiate between them. The constant employee works according to a constant job till his retirement age while the temporal employee works according to a contract renewed yearly, and may be renewed or not according to the University's need. The temporal employee is subjected to the contract items which he accepted and signed. In addition, It is very difficult to entrust to the temporal employee any tasks which take a long time or any responsibilities with strategy characteristic because of his temporal job, while the constant employee can do and take all these tasks and responsibilities.

According to the previous, it is expected that every one of the six trust type's outcomes differs on achievement motivation and continuous improvement from group to another. So, trust outcomes examine for every group, alone, is very important challenge in the current study.

### **Sample and data collection**

Data is collected from the university Employees who are divided in to three groups, the sample's members are 256 include 86 member of teaching staff and their assistants, 86 member of the constant employees and 84 members of temporal employees.

The researcher himself distributed the questionnaires on the respondents and he, also, collected it by himself. In regard to that the researcher is one of the teaching staff in the university, he noticed that the members were keen on filling the questionnaire, they answered all the questions accurately, they didn't leave any questions without answers, the response rate in filling the questionnaire was 100 %.

### **Variables and measures**

Independent and dependent variables were measured using a five-point Likert-scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

### **Independent variables: Trust different types**

Independent variables in the current study are represented in six different types of trust: cognitive and affective trust in immediate supervisor, cognitive and affective trust in top management and cognitive and affective trust in co-workers.

The current study used Yang and Mossholder (2010) measure for cognitive and affective trust in immediate supervisor and top management and used Ellonen et al. (2008) measure for the employee's trust in his/her co-workers with doing some modification on the two measures items to suit the current study.

The questionnaire firms on 30 items to measure the six types of trust, it included five items to measure each type. Herein the six types with sample item on each of it: 1. Cognitive trust in immediate supervisor "I can depend on my immediate supervisor to meet his/her responsibilities", 2. Affective trust in immediate supervisor "I'm confident that my immediate supervisor will always care about my personal needs at work.". 3. Cognitive trust in top management "I can rely on top management to meet its responsibilities." 4. Affective trust in top management "I'm confident that top management will always care about my personal needs at work. " 5. Cognitive trust in co-workers "Given co-workers track record at work, it is clear that they are efficient in

their field." 6. Affective trust in co-workers "My co-workers at work try honestly to have justice in dealing with me. "

The current study used Chronbach alpha ( $\alpha$ ) to prospect trust and reliability alpha for every group of items which measure every type of trust. Five items measure cognitive trust in immediate supervisor ( $\alpha = 0.72$ ). Five items measure affective trust in immediate supervisor ( $\alpha = 0.77$ ). Five items measure cognitive trust in top management ( $\alpha = 0.73$ ). Five items measure affective trust in top management ( $\alpha = 0.71$ ). Five items measure cognitive trust in co-workers ( $\alpha = 0.74$ ). Five items measure affective trust in co-workers ( $\alpha = 0.82$ ).

**Dependent variables:** *Achievement Motivation and Continuous improvement*

**Achievement motivation:** The researcher chose some items which used to measure achievement motivation are collected from the items mentioned in the following studies: Young et al. 2009 & Schantz and Conroy 2009. The measured elements were formed in (8) items, Chronbach alpha is ( $\alpha = 0.75$ ). The sample item is "When I am in charge in any task at any time, I do it with strong will and persistence."

**Continuous improvement:** The current study depends on Lee (2004) measure for continuous improvement. The measured elements were formed in (4) items. Chronbach alpha is ( $\alpha = 0.74$ ). The sample item is "I voluntarily search for any work-related new information and knowledge which may help improve the quality of work I do".

**Data analysis:** The current study used descriptive statistics method to show the variables values which we study and correlation method to describe the relationship's trend and strength among variables. Multiple regression was used in examining the first hypothesis and the second hypothesis to determine the relation between dependent variables and independent variables.

## Results

### *Data descriptive analysis*

Tables (1, 2 and 3) show the results of the data descriptive analysis (mean, standard deviation and correlation matrix) among the study variables for every functional staff of the following three staffs: teaching staff and their assistants, the constant employees staff and the temporal employees staff.

Tables (1, 2, and 3) show that the study variables values means in the three staffs have surpassed the mean value on Likert measure (the mean value is 3). That's refers to the university's employees strongly agree with trust variables, achievement motivation and continuous improvement

Tables (1, 2 and 3) also, refers to the existence of significant and positive correlation among most of the study variables in the teaching staff and their assistants and the constant employees staff. While most of the study variables in the temporal employees staff have no significant correlation.

Table 1. The descriptive analysis results of the teaching staff and their assistants' data

Variable	M	SD	1	2	3	4	5	6	7
1. Cognitive trust in immediate supervisor	3.45	0.93							
2. Affective trust in immediate supervisor	3.42	1.19	0.36**						
3. Cognitive trust in top management	4.20	0.61	0.25*	0.34**					
4. Affective trust in top management	3.31	0.84	0.55**	0.38**	0.38**				
5. Cognitive trust in co-workers	3.64	0.69	0.40**	0.35**	0.27*	0.59**			
6. Affective trust in co-workers	4.43	0.52	0.30**	0.28**	0.64**	0.22*	0.18		
7. Achievement Motivation	3.58	0.86	0.52**	0.24*	0.25*	0.75**	0.77**	0.09	
8. Continuous Improvement	3.47	0.96	0.61**	0.35**	0.47**	0.71**	0.52**	0.31**	0.62**

\*\* P<0.01, \* p<0.05

Table 2. The descriptive analysis results of the constant employees staff's data

Variable	M	SD	1	2	3	4	5	6	7
1. Cognitive trust in immediate supervisor	3.73	0.91							
2. Affective trust in immediate supervisor	4.55	0.45	0.09						
3. Cognitive trust in top management	3.43	0.89	0.63**	0.06					
4. Affective trust in top management	4.28	0.49	0.20	0.48**	0.15				
5. Cognitive trust in co-workers	3.81	0.71	0.42**	0.14	0.37**	0.28**			
6. Affective trust in co-workers	3.60	0.91	0.43**	0.06	0.31**	0.22*	0.31**		
7. Achievement Motivation	3.84	0.91	0.61**	0.06	0.31**	0.27*	0.53**	0.65**	
8. Continuous Improvement	3.65	0.87	0.66**	0.12	0.51**	0.16	0.58**	0.57**	0.63**

\*\* P&lt;0.01, \* p&lt;0.05

Table 3. The descriptive analysis results of the temporal employees staff's data

Variable	M	SD	1	2	3	4	5	6	7
1. Cognitive trust in immediate supervisor	3.91	0.78							
2. Affective trust in immediate supervisor	4.16	0.55	0.08						
3. Cognitive trust in top management	3.72	0.76	0.61**	0.04					
4. Affective trust in top management	4.31	0.58	0.04	0.15	0.25*				
5. Cognitive trust in co-workers	4.17	0.70	-0.07	0.57**	0.002	0.07			
6. Affective trust in co-workers	3.87	0.81	0.08	0.09	0.01	0.39**	0.07		
7. Achievement Motivation	4.05	0.79	0.25*	0.04	0.20	0.45**	0.13	0.66**	
8. Continuous Improvement	4.33	0.67	0.07	0.36**	0.24*	0.75**	0.19	0.41**	0.51**

\*\* P&lt;0.01, \* p&lt;0.05



### *Testing Hypotheses*

Hypotheses are tested by examining the trust outcomes on achievement motivation (the first hypothesis), and examining the trust outcomes on continuous improvement (the second hypothesis) in regard to each of the three functional staffs: teaching staff and their assistants, the constant employees staff and the temporal employees staff.

### *Examining trust outcomes on achievement motivation*

The tables (4, 5 and 6) show the analysis results of multiple regression of the six trust types outcomes on achievement motivation for each of the three functional staffs.

The statistical results of the teaching staff and their 'assistants (table 4) have shown that cognitive trust in immediate supervisor ( $\beta = 0.14$ , significant at 0.05) and the affective trust in top management ( $\beta = 0.47$ , significant at 0.01) and cognitive trust in co-workers ( $\beta = 0.57$ , significant at 0.01) has a significant effect on achievement motivation.

While the statistical results of the constant employees staff (table 5) have shown that cognitive trust in immediate supervisor ( $\beta = 0.43$ , significant at 0.01) and cognitive trust in top management ( $\beta = 0.21$ , significant at 0.05) and cognitive trust in co-workers ( $\beta = 0.37$ , significant at 0.01) and affective trust in co-workers ( $\beta = 0.42$ , significant at 0.01) has a significant effect on achievement motivation.

In regard to the temporal employees staff, the statistical results (table 6) have shown that affective trust in immediate supervisor ( $\beta = 0.31$ , significant at 0.01) and cognitive trust in top management ( $\beta = 0.74$ , significant at 0.01) has a significant effect on achievement motivation.

Also, it has shown the validity of multiple regression analysis model in predicting trust outcomes on achievement motivation. That's shown through F statistic, significant at 0.01 in the three staffs (teaching staff and their assistants  $F = 35.14$ , the constant employees  $F = 23.43$ , the temporal employees  $F = 23.18$ ).

The adjusted  $R^2$  value in teaching staff and their assistants is 0.71 and in the constant employees staff is 0.61 and in the temporal employees staff is 0.62 which means that independent variables explain 71 %, 61 %, 62 % of the dependent variable (achievement motivation) in the three functional staffs in order. Multiple correlation R vales are 0.85, 0.80, 0.80 in the three staffs in order, these vales

mean that there is a strong positive correlation between the independent variables which have significant effect and the dependent variable (achievement motivation) in each one of the three staffs.

### *Examining trust outcomes on continuous improvement*

The tables (4, 5 and 6) show that the results of the multiple regression analysis of the six trust types' outcomes on continuous improvement concerning every staff of the three functional staffs.

The statistical results in the teaching staff and their assistants (table 4) show that cognitive trust in immediate supervisor ( $\beta = 0.31$ , significant at 0.01) and cognitive trust in top management ( $\beta = 0.39$ , significant at 0.01) and affective trust in top management ( $\beta = 0.47$ , significant at 0.01) has a significant effect on continuous improvement.

While statistical results in the constant employee staff (table 5) show that cognitive trust in immediate supervisor ( $\beta = 0.35$ , significant at 0.01) and cognitive trust in co-workers ( $\beta = 0.39$ , significant at 0.01) and affective trust in co-workers ( $\beta = 0.30$ , significant at 0.01) has a significant effect on continuous improvement.

In the temporal employees' staff, the statistical results (table 6) show that cognitive trust in immediate supervisor ( $\beta = 0.22$ , significant at 0.05) and affective trust in top management ( $\beta = 0.32$ , significant at 0.05) and cognitive trust in co-workers ( $\beta = 0.22$ , significant at 0.05) and affective trust in co-workers ( $\beta = 0.54$ , significant at 0.01) has a significant effect on continuous improvement.

The statistical results show the multiple regression analysis model's validity in predicting the outcomes of continuous improvement. That is shown through F statistic, significant at 0.01 in the three functional staffs (teaching staff and their assistants  $F = 21.81$ , the constant employees  $F = 22.92$  and the temporal employees  $F = 15.67$ ).

Adjusted  $R^2$  value in the teaching staff and their assistants is 0.60 and in the constant employees staff is 0.61 and in the temporal employees staff is 0.52, That is means that independent variables explain 60 %, 61 %, 52 % of the dependent variable (continuous improvement) in the three functional staffs in order. The multiple correlation R value is 0.79, 0.80, 0.74 in the three staffs in order. R values mean that there is a positive correlation between the independent variables which have significant effect and the

dependent variable (continuous improvement) in each one of the three functional staffs.

Table 4. The multiple regression analysis of trust outcomes in the teaching staff and their assistants

Independent variables	Dependent variables			
	Achievement motivation		Continuous improvement	
	Beta	T	Beta	T
Cognitive trust in immediate supervisor	0.14	2.09*	0.31	3.46**
Affective trust in immediate supervisor	-0.09	-1.89	-0.02	-0.37
Cognitive trust in top management	0.03	0.26	0.39	2.61**
Affective trust in top management	0.47	5.45**	0.47	4.19**
Cognitive trust in co-workers	0.57	6.21**	0.14	1.17
Affective trust in co-workers	-0.18	-1.37	-0.08	-0.51
R <sup>2</sup>	0.72		0.62	
Adjusted R <sup>2</sup>	0.71		0.60	
F statistic	35.14**		21.81**	
R	0.85		0.79	

\*\* P<0.01, \* p<0.05

Table 5. The multiple regression analysis of trust outcomes in the constant employees staff

Independent variables	Dependent variables			
	Achievement motivation		Continuous improvement	
	Beta	T	Beta	T
Cognitive trust in immediate supervisor	0.43	4.52**	0.35	3.82**
Affective trust in immediate supervisor	-0.13	-0.85	0.15	0.99
Cognitive trust in top management	0.21	2.26*	0.07	0.82
Affective trust in top management	0.12	0.81	-0.22	-1.52
Cognitive trust in co-workers	0.37	3.72**	0.39	4.11**
Affective trust in co-workers	0.42	5.52**	0.30	4.12**
R <sup>2</sup>	0.64		0.63	
Adjusted R <sup>2</sup>	0.61		0.61	
F statistic	23.43**		22.92**	
R	0.80		0.80	

\*\* P<0.01, \* p<0.05

Table 6. The multiple regression of trust outcomes in the temporal employees staff

Independent variables	Dependent variables			
	Achievement motivation		Continuous improvement	
	Beta	T	Beta	T
Cognitive trust in immediate supervisor	-0.03	-0.38	0.22	2.18*
Affective trust in immediate supervisor	0.31	3.04**	-0.26	-1.89
Cognitive trust in top management	0.07	0.89	0.08	0.08
Affective trust in top management	0.74	8.06**	0.32	2.61*
Cognitive trust in co-workers	-0.01	-0.13	0.22	2.03*
Affective trust in co-workers	0.12	1.85	0.54	6.59**
R <sup>2</sup>	0.64		0.55	
Adjusted R <sup>2</sup>	0.62		0.52	
F statistic	23.18**		15.67**	
R	0.80		0.74	

\*\* P<0.01, \* p<0.05

## Discussion and Recommendations

### Discussion

The current study has examined the cognitive and affective trust outcomes in immediate supervisor, top management and co-workers on achievement motivation and continuous improvement through three functional staffs which form the organizational environment in one of the Higher Education Institutions in Egypt, it is Kafrelsheikh University.

The study results assured that trust types effect significantly on achievement motivation and continuous improvement, these types' effect differ in every staff from the other. In regard to the teaching staff and their assistants and the constant employees staff, it was clear that cognitive trust types which significantly affect achievement motivation and continuous improvement are more number than affective trust types which affect significantly. But in the temporal employees staff, it was clear that affective trust types which significantly affect achievement motivation and continuous improvement are more number than cognitive trust types which affect significantly. That is due to the work responsibilities and the functional stability level of every staff.

In the temporal employees staff, because of their unstable work and doing temporal tasks make them, always, in need to leaders and co-workers who are interested in their personal needs

in work and caring with solving their problems and have honesty in dealing with them in the same time. So, affective trust in leaders and co-workers will have greater role in affecting on the temporal employees' motives while seeking achievement and continuous improvement more than cognitive trust. But in teaching staff and their assistants and the constant employees staff, they have stable functional and doing continuous and strategically tasks, so, they are looking forward to their leaders and co-workers mastery and skills. According to that, cognitive trust in leaders and co-workers will have a greater role in affecting on the employees in the two staffs in their seeking of achievement and continuous improvement more than affective trust.

Trust is considered one of the psychological and social factors that considered an important component that forms work climate, the current study results demonstrated that trust has an effect on two important variables at any organization, they are ; achievement motivation and continuous improvement, that is assured the important role which the employees psychological and social factors plays in achieving organizational goals and continuous development in processes, activities and services, that gives the organization management an indicator to pay a suitable attention to these factors to create a work climate helps to achievement and continuous improvement.

### ***Recommendations***

The study proved that work climate based on trust in Kafrelsheikh University is predicted to have a great effect on the employees' motivation to achieve and on their efforts to continuous improvement. To achieve that, the immediate supervisor, top management and co-workers are in need to strengthen trust elements with their subordinates and their co-workers through the obligations that each leader and employee should fulfill his duties which he promises to finish and to be close to the subordinate or co-workers and try to solve his problems and to provide him with the needed experience and to participate him in doing his tasks, also to give him the freedom to complain and to suggest with giving attention to them. And to be honest in dealing with him and to be care of his personal needs in work. The leader or co-workers track record should be full of achievements, hard working and continuous development to give trust to the subordinates and co-workers.

University management should work to support trust climate inside the university through practices and policies which support the employees trust in their leaders and co-workers, for example, achieving justice in all practices, providing organizational support in all fields, determination of authorities and responsibilities, reduction of conflicts, participating in making decisions and spreading co-operation spirit among employees.

It is very important for the university, in the present, to provide work climate based on trust, because the university does its best to achieve quality assurance and accreditation criteria for its all faculties which include the institutional ability criteria and the educational efficiency, to have that, all the employees in the university should unify their efforts and hard working to execute the quality assurance and accreditation, and the continual work for the continuous improvement to achieve quality.

### ***Recommendations for the future research***

The current study dealt with personal sources of trust that is: trust in immediate supervisor, top management and co-workers only, so, future research should investigate impersonal sources of trust as trust in policies, procedures, vision, mission, plans and goals, examining the outcomes of impersonal trust on the employees performance and behaviors.

There is, also, another field of trust which the researchers should discuss, it is determination trust type (cognitive or affective) throughout the employee work stages in his work, trust type may differ in the early stage of the employee work in the organization from trust type after a period of time in work. Also, the future research should discuss trust emerges from sources outer the organization as trust in financiers, suppliers and trust in government to investigate trust outcomes from outer sources on the organization performance and its employees behaviors. Also, the future research should study trust outcomes on other variables as organizational loyalty, organizational citizenship and co-operation behaviors.

Scientific researches discussed subordinates trust in their leaders, but there is another field which the future research should discuss, it is the leaders trust in subordinates (cognitive and affective) and its effect on the leaders behaviors as in participating in making decisions and delegation of authority.

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