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Emotional intelligence and faculties' academic performance: The social competencies approach

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In the last decades of 20th century and at the beginning of 3rd millennium, different researches suggested that, IQ is not the only factor of managers "success and performance improvement, but also there is another factor called emotional intelligence that results in outstanding performance at work. Emotional intelligence (EI), at the most general level, refers to the capability to recognize and regulate emotions in ourselves and in others. The aims of this study are to determine possible relationship between faculty's social competencies and their academic performance, and also to identify the role of the universities quality working life as a mediating variable. The research sample involves 896 respondents that were selected by a stratified random sampling. This study is a field study of real organizations rather than an artificial setting. The results of regression analysis indicate that the social competencies elements are significantly associated with the level of faculties' academic performance. The results of hierarchical regression analysis indicate that the extent of universities 'quality working life is able to significantly change the total variations in the academic performance explained by social competencies elements.

Key words: Emotional intelligence, social-awareness, relationship management, academic performance, quality working life.

INTRODUCTION

The recent and widespread interest in the importance of managerial functions has led to the development of numerous attempts to study and define factors influencing the organizational performance. However, these kinds of attempts have been made since the middle of 19 century to identify the particular characteristics of managers that predict success. These types of studies can be divided into three major approaches: trait, personal-behavioral and situational:

1. Trait theory attempts to discover various traits that describe or predict manager success (Stogdill, 1948).
2. Personal-behavioral theory contends that manager may be classified by personal qualities or behavior patterns (Tannenbaum and Schmidt, 1957),
3. Situational theory attempts to identify the situational

factors which link managers' success to advisable leadership style according to different situations and opportunities (Fiedler, 1965). Regardless of these studies and arguments, there are several questions concerning managers' success that definite answers are not clear yet. For example:

- a) Why a manager with a fixed IQ who is successful in managing an organization fails to manage another organization?
- b) Why some managers with high IQs fail to manage any department or organization in which they are assigned?
- c) Why some managers with middle IQs succeed to manage any organization in which they are employed?

In the last decades of 20th century and at the beginning of 3rd millennium, different researches suggested that, IQ is not the only factor of managers 'success and performance improvement, but also there is another factor called emotional intelligence that results in outstanding

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performance at work. Emotional intelligence (EI), at the most general level, refers to the capability to recognize and regulate emotions in ourselves and in others. While literatures indicate an extensive theoretical and empirical work in the area of emotional intelligence, we noted that in spite of general similarities among them, there are some real differences that result in a lack of conceptual consensus and contradictory findings. For example, some researchers have found that emotional intelligence has a positive and significant relation with performance (Goleman, 1998; Mount, 2006). While Caruso (2004) have concluded that there is not any relationship between emotional intelligence and performance. These may be attributed to different structures and methodology (Brayan, 2004). According to Viswesvaran and Van Rooy (2004) regarding the relationship between the emotional intelligence dimensions and performance there are still several questions which must be defined before any definitive conclusions can be reached. Locke (2005) suggested that reason and emotion are incompatible.

Derived from the aforementioned or similar discussions in our literature review and based on the problem statement this study attempts to answer the following key questions:

- RQ1. To what extents do social competencies elements (social awareness and relationship management) of faculty members influence their academic performances?
 RQ2. Does the quality working life of the universities mediates the relationship between faculty's social competencies and their academic performance?

Objective of the study

The objective of this study is to determine possible relationship between two elements of faculty's social competencies and their academic performance, and also to identify the role of the universities quality working life as a mediating variable.

Literature review

The root of emotional intelligence theory goes back to the beginning period of movements to investigate and study man's intelligence. Thorndike (1920), was one of the first to identify the aspect of EI, he called it social intelligence. He considered social intelligence as the capability to understand and manage men, women, boys and girls for interaction and establishment of human relations (Goleman, 1998). In 1952, Wechsler suggested that in addition to IQ there are other factors that influence individual's effectiveness and performance. According to literature the studies of emotional intelligence (EI) as a new and important issue has been seriously and continuously commenced since late 20th century for example,

(Bar-On, 1988) and Gardner (1983). Goleman (1998) indicated that although IQ determines scientific progress and professional success, its contributions in this regard is less than 20%. He indicated that emotional intelligence is the most important characteristic to separate superior managers from average managers. Goleman (1998) presented a theoretical framework of emotional intelligence that reflects how an individual's potential for mastering the skill of individual competencies (self-awareness, self-management) and social competencies (social awareness and relationship management), translates into on-the-job success. EI is a general word that associates effective performance. It can be considered as the ability to understand and control self emotions and feelings towards decisions making and communication activities. Based on Goleman (1998) findings, those individuals with high EI know how to control and direct their own and others' emotions and feelings. EI is a set of personal skills and talents to identify understand and control the feelings (Goleman, 2007).

Salovey and Mayer (1990) suggested that emotional intelligence is the ability to assess and control one's own and others' feelings and emotions, and to use this ability to guide others' thinking and actions. EI theorists have used different models for affective intelligence since late 20th century. Bar-On (2000), Salovey and Mayer (1990) and Goleman (1998) are the most famous researcher in this area. Regardless of similarities in these models, Bar-On has placed EI in the context of personality theory, specifically a model of well-being. The theory as formulated by Salovey and Mayer framed EI within a model of intelligence. And Goleman (1998) formulated his model based on theory of performance. However, the concept of emotional intelligence as being able to identify and control self and others' emotions has been accepted in all the three models. Goleman (1998) as one of the popular theoreticians, indicated that EI is the abilities to identify our self and others' feelings, to motivate our self and others and regulate the emotions in our self and in others. He suggested two major emotional intelligence domains as follow:

- i) Individual competencies that includes two elements: self-awareness and self-management, and
- ii) Social competencies that are consisted of: social-awareness and relationship management.

Bar-On considers emotional intelligence as a set of competencies that finally improve the individual behavior towards social needs and demands. He specifies these competencies as abilities:

- i) To identify, understand and express oneself.
- ii) To be aware of, to understand, and relate to others.
- iii) To deal with strong emotions and control one's impulses.
- iv) To adapt to change and to solve problems of personal or a social nature.

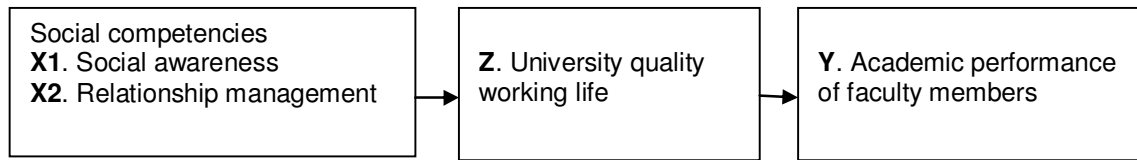


Figure 1. Theoretical framework.

Although definitions and concepts presented in previous studies seems too different, but in some cases they are similar and support each other. For example, factors such as self-awareness, self-management and relationship management proposed by Goleman (1998) are similar to what Bar-on (1988) referred to as understanding, explanation and control of self feelings, relation with others and solving individual and social problems or to what Gardner (1983) called it interpersonal and intrapersonal skills. Today, emotional intelligence theory has been well thought-out throughout the world. The book "Emotional Intelligence" written by Goleman (1995) which has been published and distributed in more than 50 countries, in 35 different languages has more than five million copies in print worldwide. Among books and articles of human sciences, books and articles referring to emotional intelligence is now the most widely read social science book in the world (Gardner, 1999). Also the book titled "Working with Emotional Intelligence" known as the best seller of the year, in this book Goleman has investigated the influence of emotional intelligence on working environment and has concluded that a high emotional intelligence improves the work performance in different jobs and professional's entities.

According to Goleman (1998), it seems that McClelland (1975) was the first person who proposed the concept of competence as a basis for identifying what differentiates outstanding from average performers at work. He suggested a wide range of EI competencies that distinguished top performer from average ones. In his opinion those competencies that distinguished most effectively were achievement drive, developing others, adaptability, influence, self-confidence, and leadership. Emotional intelligence as a type of acquired capability can improve individual's performance. EI abilities can be learned, in other words it should be learned through training and education (Lopes et al., 2006). Based on the results of our literature review on EI and performance the following conclusions can be made

i) EI may improves the manager performance in work and increases organizational success, but the questions are to what extend and how effective? To answer these questions Goleman (1998) indicated that it depend upon manager's emotional intelligence and his leadership style in the organization, since a manager with high EI competencies and affective leadership provides a desirable quality working life in which employee work

enthusiastically and eagerly. This issue has also been emphasized by McClelland (1998). He concluded that managers with high emotional intelligence can improve organization's performance, while managers with poor emotional intelligence decrease organizational outcome.

ii) Considerable work has been conducted in the past decades focusing on EI and performance relationship. However various studies have shown progress in this area but much more empirical research is required before any definitive conclusions can be reached.

iii) Several researches on EI and performance relationship have produced contradictory results, thus the findings of this study will enrich the discussion on the relationship between EI and performance.

Theoretical framework and hypotheses

Based on our literature review and research questions we have developed a framework that is presented in Figure 1. The model is descriptive in nature and focuses on the influence of two different elements of social competencies (social-awareness, and relationship management) on the faculties' academic performance. Also it looks at the roles of university "quality" working life as a mediating variable. The following guiding assumptions derived from literature serve as the theoretical basis for our model:

- 1) The choice to focus on social competencies (social-awareness and relationship management), and individual performance presented in the theoretical framework is based on Goleman's emotional model.
- 2) The choice to focus to universities' quality working life is based on the following concept.

A major challenge confronting employers today is that of improving the quality of working life. Consequently, many universities, efforts are being directed toward making changes that will improve the well-being of employees (Sherman et al., 1988). William (1994) suggested that the relationship between social competencies in a leader and performance of the unit led appears to be mediated by the organizational climate.

Hypothesis development

The following are the research hypotheses:

Table 1. Population frame and sample size.

(n) Sample size	(N)	Population frame
321	1960	Faculty members
383	134000	Students
192	1750	Employees

H₁: There is a positive relationship between faculties' social awareness and their academic performance.

H₂: There is a positive relationship between faculties' capability in relationship management and their academic performance.

H₃: The relationship between faculties' social-awareness and their academic performance will be mediated by universities' quality working life.

H₄: The relationship between faculties' capability in relationship management and their academic performance will be mediated by universities' quality working life.

METHODOLOGY

Research approach

Several different approaches were reviewed and compared in their ability to make the most efficient contribution towards satisfying the proposed research objectives. These approaches include experimental designs, case studies, field study, and scenario survey. From this analysis of alternative research approaches, a field survey seems to be the most appropriate methodological choice. This study is a field study of real organizations rather than an artificial setting. For the purpose of data analysis and hypothesis testing, several statistical tools and method were utilized from the statistical package for social sciences (SPSS) version 18.

Sampling procedure

For testing our hypotheses, we used as a sampling frame the faculty members, employees, and students of 72 universities which are located in northwest area of the country. Using statistical formula, as indicated in following table the final sample involves (n) 896 respondents that were selected by a stratified random sampling and based on ratio of each groups (Table 1). We decided that a geographical area would be exhaustively sampled, rather than choosing samples across the whole nation because given the complex nature of the study this geographical proximity could facilitate follow-up actions. In order to ensure adequate responses, a warm-up or introductory letter was sent to all universities in November 2009. Subsequent to the introductory letter, a total of 896 questionnaires with cover letters were posted, including an appropriate instruction, key terms, and stamped, self-addressed return envelopes. Five weeks after the questionnaire was mailed, the first follow up letter was sent to those who had not yet responded. After another five weeks, the second and last follow up letter was distributed.

Meanwhile most of the presidents or their assistants were contacted either by mail, telephone, or even by personal visits to:

1) Answer their questions, if any, (2) Encourage them for participation.

Questionnaire design, variables and measures

The questionnaire items were arranged in four primary sections: (1) information related to EI, (2) information related to faculties' academic performance, (3) information related to universities' quality working life, and (4) information related to general background. The questionnaire consisted of 63 items. Research tradition emphasizes the use of previously validated instruments whenever appropriate. In order to contribute to cumulative research findings accordingly, based upon a review of the literature, several items were designed specifically for this study, but the majority (86%) were adopted from past literature (Goleman, 1998). All items in this study are rated on a 5-point Likert-like scale with 1 strongly disagree and 5 strongly agree. The items rating scale provides the flexibility to use as many points in the scale as considered necessary (4, 5, 7...) but too few points and too many points may result in biases. Literature (Sekaran, 2000) indicates that a 5-point scale provided satisfactory results.

The questionnaire consists of items measuring the variables of primary interest namely the independent, mediating, and dependent variables as follows:

Social-awareness

The ability to accurately pick up on emotions in other people and get what is really going on. This variable was measured by 11 items that were answered by faculties. (for example, I am aware of students' social behavior).

Relationship-management

Refer to the ability to use awareness of one's own emotions and the emotions of others to manage interactions successfully. This variable was measured by 15 items that were answered by faculty members (for example, i have a good relationship with students).

Faculties' academic performance

This part of the questionnaire is related to faculties' academic performances that were measured by 15 items that were answered by students (for example, he can answer the students' questions perfectly).

Universities' quality working life

It refers to university communications system, cooperation, welfare facilities, partnership, motivation and satisfaction of people. This variable was measured by 15 items that were completed by faculty members and universities employees (for example, my work environment is desirable and satisfactory).

Table 2. Descriptive statistics of variables.

Research variables	Frequency	Min.	Max.	Mean	Standard deviation
(X ₁). Faculties' social awareness	321	1.55	4	3.0325	0.49037
(X ₂). Faculties' relationship management	321	1.40	4.67	2.7731	0.63383
(Y). Faculties academic performance	383	1.60	4.73	3.1856	0.72604
(Z). University quality working life	550	1.47	5	3.2035	0.88798

Table 3. Correlation analysis between research variables.

Research variables	X ₁	X ₂	Y	Z
X ₁ . Faculties' social awareness	1	0.563**	0.364**	0.497**
X ₂ . Faculties' relationship management	0.563**	1	0.528**	0.544**
Y. Faculties' academic performance	0.364**	0.528**	1	0.646**
Z. Universities' quality working life	0.497**	0.524**	0.646**	1

** Significance in a level of 0.01.

General information

It composed of 7 items and refers to general information and background of participants; it was completed by faculty members and employees (for example age, education).

Pre-testing the questionnaire and pilot study

In order to examine the questionnaire in terms of: (1) meaning, (2) question difficulty, (3) the sequencing of the questions, (4) clarity of the instrument, and (5) timing, consultation were made during the instrument development to obtain feedback on the quality of the instrument and to identify any needed revisions. Further the pre-test was also used to test content validity of the questionnaire items. During this stage experts in survey research, and lecturers of different universities were consulted to help improve the quality of the questionnaire. To test and eliminate ambiguous or biased items and to improve the format, both for ease of understanding and to facilitate analysis a pilot study was conducted (Sekaran, 2000). The pilot study consisted of mailing the survey package to 30 selected lecturers of universities that were not included in the main sample of the study. They were asked to provide feedback freely about the clarity and comprehensiveness of the survey. From the 30 questionnaires a total of 22 questionnaires were returned of which one was deemed unusable (70% rate of return). A reliability analysis was conducted by computing Cronbach's reliability alpha, in reviewing the results of the pilot study minor changes were made and the relevant suggestions from respondents were incorporated into the final questionnaire.

The results of pilot study indicate that variables in the study had acceptable reliability with Cronbach's alpha ranging from 0.7501 to 0.9073.

FINDINGS

Respondent profile

The demographic characteristic of responding faculties indicates that most of the faculties have high level of education (PhD and master degree = 81%), and moderate

and long working experience in the organization (11 years or more = 43%). The average age of the lecturers is nearly 35 years. From among faculties 25% are female and 80.5% are full time faculties. To acquire a feel for the data and to describe the responses for major variables under study, descriptive statistics such as the frequency distributions, maximum, minimum, mean, and standard deviation on all variables were obtained. From the results in Table 2, it can be seen that the mean of all variables fall between 2.7 and 3.2 (about average). This indicates that there is no extreme value for the mean. The size of the standard deviations indicates variations in the data for identifications of patterns of interrelationships among the variables.

Hypothesis testing

Correlation analysis was conducted to provide an initial picture of the inter-relationships among the four variables of interest and also to test the hypotheses 1 through 4. The results of correlation analysis are tabulated in Table 3. The table indicates that as expected faculties' social awareness and ability of faculties in relationship management are positively and significantly correlated with the extent of their academic performance ($r = 0.364$, p - value < 0.05), and ($r = 0.528$ p - value < 0.05) respectively. We can see from the table that the academic performance of the faculties is positively and significantly correlated with quality working life of the universities ($r = 0.646$, p - value < 0.01). In order to understand how much of the variance of faculties' academic performance is explained by the set of two social competencies; social awareness and relationship management and also to provide a means of assessing the relative importance of the each dimension in the regression variant (Hair et al., 1998) the multiple regression analysis was applied. Prior to estimating the

Table 4. Split-Sample validation of the multiple equations.

Samples	R ²		Adjusted R ²		Standard error of estimate	
	•Y	••Z	•Y	••Z	•Y	••Z
Sample N1 = 448	0.597	0.562	0.531	0.538	0.419	0.654
Sample N2 = 448	0.596	0.770	0.530	0.758	0.473	0.484
Overall N = 896	0.500	0.655	0.462	0.646	0.476	0.578

•Independent Variables X1 to X2. ••Independent Variables Y.

Table 5. Multiple regression analysis.

Variables	Y (Beta value)
X1	0.148*
X2	0.390***
R	0.591
R-Square	0.350
F	44.384

*** Significance in a level of 0.001. ** Significance in a level of 0.01. * Significance in a level of 0.05.

regression equations for the overall sample, relevant multiple regression assumption tests were conducted. Using Hair et al. (1998) recommendations in order to ensure that multiple regression models are generalizable to the population and not only to the sample used in estimations, the sample was divided randomly into two sub-samples and split half validation was tested, where the sample was randomly split and regression equations estimated and their performance measures (r-square, adjusted r-square and standard error of estimate) compared.

Table 4 summarizes the results of this split sample validation. Clearly, on the whole, there are similarities in performance measures of the sub-samples and the overall sample. The regression equation was estimated with faculties' academic performance as the dependent variable and social awareness and relationship management as the independent variables. The results of probability plots of residuals indicate that the data points fall more or less along the diagonal line with no substantial deviation from the line. This together with relevant Histogram confirms the normality of the error term. The Scatter plots of standardized residuals versus the predicted values show no random pattern to indicate heteroscedasticity. The results of multi-co linearity test indicate that the values of tolerance and variance inflation factor (VIF) fall within acceptable range (tolerance 0.57 to 0.89 and VIF 1.11 to 1.74) outliers were identified and removed using a case-wise diagnostics and partial regression plot approach. A summary of regression analysis given in Table 5 indicates that a high proportion (R² = 35%) of the observed variability in the extent of faculties' academic performance can be explained by the two independent variables.

The multiple regression analysis also supports hypotheses H₁ and H₂. Further the beta coefficients (standardized regression coefficient) help us to note that of these two independent variables, in explaining the variance in academic performance the effect of each of the independent variables on dependent variable based on their importance includes relationship management, and social awareness.

Our framework posits that the extent of the universities' quality working life mediate the relationship between the social competencies dimensions and the faculties' academic performance (H₃ and H₄). As tested by Ho et al. (2000) this is examined using a two stage hierarchical regression. According to Baron and Kenny (1986), in order to test mediation effect the following conditions should be satisfied:

First, the independent variable must affect the mediating variable: Our results of analysis given in Table 3 show that social awareness, and relationship management significantly influences the extent of the universities' quality working life.

Second, the independent variable must affect the dependent variable: The results of Table 5 indicate that the two independent variables affect the academic performance of the faculties.

Third, the mediator must affect the dependent variable: As indicated in Table 3 the universities' quality working life influences faculties' academic performance

In additions to these conditions, establishing mediation requires that the effect of an independent be less when the mediator is included in regression equation than it is when the mediator is not included (Keller, 2001). This is given in Table 6. The results of Table 6 indicate that the extent of the universities' quality working life (Z) significantly changes the amount of variance explained by independent variables (social-awareness and relationship-management) on the faculties' academic performance. This means that the extent of universities' quality working life is able to explain an additional: 27% ($\Delta R^2 = 0.409 - 0.132 = 0.277$, $P < 0.001$) of the variance in faculties' academic performance when it functions as a mediator between faculties' social awareness and their performance; 13% ($\Delta R^2 = 0.408 - 0.278 = 0.345$, $P < 0.001$) of the variance in faculties' academic performance when

Table 6. Hierarchical regression analysis; mediating effect of Z.

Variables		Equation 1	Equation 2
		Y	Y1
Social awareness of faculty members	X3	0.499**	-0.043
Working environment of university	Z	-	0.656***
	R2	0.132	0.409
Relationship management	X4	0.560***	0.156
Working environment of university	Z	-	0.577***
	R2	0.278	0.408

*** Significance in a level of 0.001. ** Significance in a level of 0.01.

it functions as a mediator between faculties' ability in relationship-management and their performance. The table also shows that when Z is added the values of X1 and X2, are reduced. This indicates that Z partially mediates the relationship between independent and dependent variables.

DISCUSSION AND CONCLUSION

From the results of descriptive analysis and hypothesis tests several expected and unexpected results emerged. With regard to major demographic variables, we found that most of the faculties who participated in this study have high level of education (PhD and Master degree = 81%) and moderate and long working experience in their universities (11 years or more = 51%). This indicates that the majority of universities have high potentials in terms of lecturers and managerial position. We found that 25% of faculties are female this shows the growth of females' employment in the universities. Demographic variables indicate that from among faculty members, nearly 80% are full time employment, this means that universities are interested in attracting full time faculties. We found that the faculties' social awareness is positively and significantly associated to their academic performance. We believe that if faculties can accurately pick up on emotions in students and understand what these students are thinking and feeling they are more likely to adjust their behavior and improve their academic performance. The results of correlation analysis also show that the ability of faculties in managing relationship positively and significantly influences their academic performance. This is to say that when faculty members are able to manage interactions successfully, to make clear communication and handling conflict effectively they are more likely to achieve better academic performance. Several psychologists have recognized the importance of mediating variable since 1930, (Baron and Kenny, 1986: 1176). They stated, In general, a given variable may be said to function as mediator to the extent that it accounts for the relation between the predictor and the criterion.

Our study found that the impact of faculties' social

competencies (social awareness, and relationship management) on their academic performance will be mediated by universities' quality working life. This would mean to say social-awareness of the faculties does not directly leads to better academic performance; it does so by encouraging managers to create desirable quality working life in universities, similarly with relationship management. The results of our hierarchical regression analyses indicate that the extent of universities' quality working life is able to significantly change the total variations in the faculties' academic performance explained by social competencies elements. This would mean that the faculties' academic performance is more likely to be improved, if the universities climate in which faculty members go through is more likely to be desirable. This can be attributed to the fact that in a rational and high quality working environment faculties are expected to look for the optimum alternative which serve educational goals. This is in line with our earlier findings and also partially in line with William (1994) who found that the relationship between EI abilities and performance of a manager appears to be mediated by the organizational climate. Following are the conclusions based on the major findings of the study:

i) The first objective of the study was to determine possible relationship between social competencies elements of the faculty members and their academic performance. The finding shows numerous significant associations between social competencies elements and faculties' academic performance. Factors such as social awareness and relationship management significantly affect the academic performance of the faculties. This shows that social competencies play very important roles in individual performance.

ii) The last objective of the study was to identify the role of universities' quality working life between social competencies and faculties' academic performance. In general we found that the relationship between social competencies and faculties' academic performance appear to be changed by universities' quality working life. This can be attributed to the fact that social competencies influence the universities' quality working life and through

it, influence the faculties' academic performance. The findings indicate that the faculties' academic performance is significantly improved when universities utilize a desirable climate.

iii) Finally we may highlight the following issues as the major contribution of the study on the whole body of the knowledge in EI:

a) Beyond the contradictory views on the relationship between EI dimensions and individual performance in literature, this study confirms that social competencies are positively and significantly associated with the extent of faculties' academic performance.

b) Availability of a desirable university' quality working life may provide confidence and encourage faculties to look for a rational and effective alternative in their educational functions.

c) By establishing a desirable quality working life the organizational performance may be improved.

Implications of study

A notable implication of this study indicates that the faculties' academic performance is determined by multiple contextual influences rather than a single dimension. This would mean that the academic performance of faculties mostly depends upon faculty s' characteristics, universities' working life characteristics and students' characteristics. This provides evidence to support systems theory that emphasizes consideration of all subsystems in organizational output and performance. Better quality performance is achieved through an appropriate quality working life. Thus, universities in addition to emphasize in EI abilities of their faculties should establish a high quality working environment that encourages greater use of rational process in the academics functions.

Limitations of the research

The complex nature of EI process as a research topic places limitation on this study particularly in the area of sample selection and data availability and collection. The major sample selection at the universities level is difficult because universities' perception in terms of quality working life may not be the same; a situation that is suitable in one university may not be desirable for the other one thus, it is not easy to ascertain relevant sample characteristics. Large-scale data collection was also a limitation because information on particular variable could be collected through a limited number of top managers who are usually either too busy or unavailable particularly the presidents.

Suggestions for future research

Considering the importance of influence of emotional intelligence on performance, it is recommended that this

study be conducted in other countries or universities to identify if the geographical environment or cultural characteristics may change the results, this may open up a new avenue for further research.

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