

ROLE OF SELF-EFFICACY BELIEFS AND ITS RELATIONSHIP WITH EMOTIONAL INTELLIGENCE TO DEVELOPING LEADERSHIP CAPABILITIES

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Abstract: *The aim of this study is to measure the role of self-efficacy beliefs and emotional intelligence elements on developing leadership skills and capabilities of leaders. The study was applied to the health sector leaders of Riyadh region, Saudi Arabia. Data were collected from 100 leaders through questionnaire as well as conducting interviews. Research model applied in this research was also tested for validity and reliability. The research findings indicate a positive relationship of self-efficacy beliefs and developing leadership skill in the health sector leaders with regard to work dimensions such as; responsibilities of work, preparation period, self-correction cycles, and characterizing personal qualities of the leaders. However, a negative relationship was found between learning orientation and self-efficacy beliefs. Likewise, the relationship between emotional intelligence elements such as social skills, motivation and motivating followers was found positive on leader's development but, the relationship of the self-awareness and ability to self-management was found negative. The researchers also find a positive relationship between leader's self-efficacy beliefs and emotional intelligence elements.*

Key Words: *Self-Efficacy, Emotional Intelligence, Leader Development*

1. INTRODUCTION

The nature of government institutions work has changed due to several factors such as social networks, service efficiency and accuracy, the demand of highest level of transparency and responsibility. This may be due to changes in new generation characteristics, advanced technology involvement in daily life and service environment. Indeed, every government institution is undergoing a technological transformational process which is posing a big challenge to these institutions leaders to adopt and develop necessary leadership and management skills. The real development challenge is to identify essential competencies in leaders as well as finding out the factors which affect these competencies. Past

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research have highlighted certain developmental priorities for these leaders. However, the critical factor for effective development of leaders is the extent of self-confidence in the leaders (Goldsmith, 2008). (Chen & Bliese, 2002; Hannah *et al.*, 2009) tested and interpreted the beliefs of effectiveness of the leaders. A small number of researchers interpreted the effect of self-efficacy on the development of leadership capabilities in leaders (Anderson *et al.*, 2008; Hannah *et al.*, 2008; Machida *et al.*, 2012). Leader's success and effectiveness entirely depends on their readiness to quickly learning and developing essential skills and capabilities (Dragoni *et al.*, 2009).

2. RESEARCH PROBLEM

Complex challenges may hinder the achievement of strategic goals of government institutions which force them to choose leaders who can cope with those challenges. Governments put huge budgets to developing essential capabilities and skills of their employees especially those who are in leadership positions to attain higher level of performance. The outcomes appear low even by spending huge budgets amounts on training programs. Low performance may be the results of organizational conflicts, lack of capabilities, improperly handling problems, high absenteeism rates or employee turnover. In this research, we are considering these aspects to draw the following research questions;

1. What factors affect the leader's development process?
2. What is the role of subjective factors that contribute to leader's development process?
3. Is there a role of leader's emotional intelligence in the development process?

3. NEED OF RESEARCH

This research has academically has two essential components, firstly; it aims to measure the effect of subjective factors of the leader (self-efficacy) to the development process and secondly; the relationship of leader's emotional intelligence and ability to learn development traits. In past studies, researchers have tried to establishing leaders self-efficacy relationships with leadership abilities and skills but there is not much literature available in correlating the self-efficacy and emotional intelligence in developing leadership skills.

4. RESEARCH OBJECTIVES

The main objective of the research is defining the role of self-efficacy beliefs of leaders and their relationship with emotional intelligence in developing their capabilities and skills. More specifically, these are:

1. Identifying the role of self-efficacy beliefs in developing skills and capabilities of leaders.
2. Determining the degree of the effect of emotional intelligence elements of leaders on learning and development process.
3. Determining the degree of the effect of the self-efficacy beliefs and elements of emotional intelligence.

5. HYPOTHESES

H1: There is a significant positive relationship between self-efficacy beliefs and leaders skills and capabilities development.

Sub-hypotheses

H1a: There is a positive relationship between the preparation of leaders and developing their skills and capabilities.

H1b: There is a positive relationship between self-correction cycles of leaders and developing their skills and capabilities.

H1c: There is a positive relationship between the learning orientation of leaders and developing their skills and capabilities.

H1d: There is a positive relationship between the characteristics of personal qualities and developing leader's skills and capabilities.

H2: There is a significant positive relationship between the elements of emotional intelligence of leaders and their ability to develop their skills and capabilities.

Sub-hypotheses

H2a: There is a positive relationship between self-awareness of leaders and developing their skills and abilities.

H2b: There is a positive relationship between leader's emotional aspects management and developing their skills and abilities.

H2c: There is a positive relationship between the leader's motivation and their ability to develop their skills and abilities.

H2d: There is a positive relationship between leader's social skills and their ability to develop their skills and abilities.

H3: There is a significant positive relationship between self-efficacy beliefs of leaders and elements of emotional intelligence in leaders in developing their skills and capabilities.

6. THEORETICAL FRAMEWORK

6.1. Leader Development

Leader development can be defined as “a process by which individuals learn how to develop their necessary skills and abilities to achieve effectiveness in leadership positions” (Dragori *et al.*, 2009). (Drath *et al.*, 2008) in leader’s development theories proposed a set of closely related factors and challenges in achieving effective development of leaders. (Day, 2001) suggests six organizational practices which can play critical role to facilitate the development of their leaders, namely; 360 degree feedback, coaching, mentoring, networks, job assignments and action learning. Few other factors have also been considered critical in leader development such as: motivating leaders (Chan & Drasgow, 2001), approach to learning (DeRue & Wellman, 2009; Dragori *et al.*, 2009), individual (personal) traits (Day & Harrison, 2007) related to developmental readiness of leader (Avolio & Hannah, 2008) in addition to critical role played by the self-development beliefs and self-efficacy beliefs of leader in development process.

6.2. Self-Efficacy Beliefs

Self-efficacy is defined “as the degree of belief in the individual abilities of personal organization and implementation of the desired tracks to achieve the required result” (Bandura, 1997). (Murphy and Ensher, 1999) define self-efficacy of leader “as estimating the leader for his ability to do the lead role.” (Paglis and Green, 2002) identified the definition as the “self-judgment of person that he can succeed in acting as the leader through his knowledge to determine the direction of the group’s work and building relationships with his subordinates to do the change and overcoming the elements of change. “The development of the leader can be seen as the foundation for the success of the process of leadership development (Day & Harrison, 2007) for the simple reason that without a good leader it is not possible to achieve successful leadership development with teams or groups”. (Hannah *et al.*, 2008) demarcate a distinction between self-efficacy of leaders and leadership development and suggest that leadership development is achieved in the group tasks and identified the elements of self-efficiency of the leaders in general, which included: Intellectual efficient in leader; Efficiency in leader’s self-motivation; Efficiency in leaders on implementation; Efficiency in leaders in use of available means. (Mechida and Schaubroeck, 2011) referred self-efficacy as beliefs in one’s own capabilities to perform an action to achieve a goal. (Rahman *et al.*, 2014) proposed a new context based self-efficacy as Healthcare Technology Self-Efficacy (HTSE) which was based on already established general self-efficacy (GSE) and computer self-efficacy (CSE) factor to study the self-efficacy of health care professionals in adoption of medical technologies. They found a positive

relationship between GSE and CSE with HTSE. The study also reveals a positive influence of HTSE on the attitude towards healthcare technology. (Haddad and Abu Taleb, 2015) carried out an empirical study to identify the impact of self-efficacy on the performance of faculty members who teach in various business schools in various Jordanian universities in Amman, Jordan. 246 responses were taken into account to carry out statistical analysis. Self-efficacy elements and performance parameters have been taken in direct independent and dependent relation whereas demographic factors were taken as mediating variables. The researchers find a positive relationship with the self-efficacy elements and performance of the teachers. (Seferoglu, 2007) studies the perception of students regarding their self-efficacy in computer use. It was applied to a sample of 54 students from the faculty of education, university of Ankara, Turkey. The study showed higher self-efficacy in male students in computer use as compared to female students. The researcher also recommended to provide basic conditions as well as institutional support to effectively adopt information technology. (Cavaco et al., 2003) carries out a study to measure the relationship between self-efficacy and achievement motivation among students who were selected from a private pharmacy college and from the Faculty of Pharmacy in Portugal. The study proves statistically a positive correlation between self-efficacy and achievement motivation.

In this research we are focusing on leader development. Therefore, we can formulate the definition as “the degree of leader’s confidence in his abilities, knowledge and skills in the areas that needed to guide others effectively and its ability to estimate the weaknesses that needed to improve or develop”. In past research, four self-efficacy concepts such as: (a) preparatory self-efficacy (b) efficacy spirals (c) learning self-efficacy (d) resilient self-efficacy, have been considered pertinent to leader development (Machida and Schaubroeck, 2012) whereas similar or related types of self-efficacy names were found in past research (Hannah et al., 2008; Bondura, 1997; Schunk, 1996; Lindsey et al., 1995).

6.2.1. Preparatory Self-Efficacy

It is the tendency of leader to learn, practice and exercise while performing at various positions. Past studies have confirmed the positive relationships with preparatory self-efficacy and the level of performance. (Stajkoric & Luthans, 1998; Paglis & Green, 2002) pointed out that individuals were more efficient in carrying out their duties at the preparation stage of learning due to low self-efficacy. They had to invest more effort to achieve desired results and resultant learning was higher. (Vancouver & Kendall, 2006; Vancouver et al., 2002) considered this advantageous to have low self-efficiency during preparatory period. (Vancouver

and Kendall, 2006) measured the level of motivation, self-efficacy and the level of performance in student's tests. The results showed that students with high self-efficacy were less motivated and performed low in the tests. It is evident from this discussion that individual having more confidence in their abilities do not invest time to learning and those who have less confidence in their abilities invest more time in learning. A U-shaped relationship was identified between the efficiency of the leaders, their learning and developing the skills and capabilities.

6.2.2. Efficacy Spirals

Efficacy spirals relate to the fluctuations in the beliefs of self-efficacy which become critical in the development process. The researchers suggest three forms of self-correction cycles such as; upward pattern (increased self-efficacy and performance), bearish pattern (lack of self-efficacy and performance) and self-correction cycles. Upward patterns indicate the region where moving toward self-efficacy increases level of performance in the curve. The bearish pattern refers to the direction of self-efficacy to decline or impairment in level of performance curve area.

6.2.3. Learning Self-Efficacy

It refers to the extent of an individual's confidence in his ability to learn new skills and to do new tasks. Self-efficacy of learning reinforces behaviors and perceptions among managers during learning period to become part of their work. Studies have shown the importance of learning to acquire skills such as efficiency (Lodewyk & Winne, 2005). The phenomenon also tested on a few studies of self-efficacy for learning among managers. (Hannah *et al.*, 2008) elucidated that leadership development strategies depend on the degree of leaders believe, their abilities on the development and managing their positive psychological beliefs such as motivation. This seems to be similar with the concept of developmental learning efficacy. (Avolio and Hannah, 2008) stressed upon learning efficacy as one of the main components that enhances the willingness of leaders to develop particular area for tasks or responsibilities or certain leadership roles.

6.2.4. Resilient self-efficacy

It is a type of self-efficacy that requires experiences in handling and overcoming obstacles at leadership roles. The resilience self-efficacy protects leaders from frustration when their competence declines to help them out. The strength of coming up comes through resilience of thought process in which the leader rejuvenates by determining to learn better strategies to overcome weakness (Mechida and Schaubroeck, 2011).

6.3. Emotional Intelligence

Successful leaders have to be aware of their feelings and emotions and be able to accurately assess themselves and control the negative emotions and anger they have. It is the ability to follow a sense and passion to distinguish among individuals and applying this information to direct the thinking and actions of others. Various researcher have linked the performance and emotional intelligence (Salovey and Mayer, 1990; Rozell *et al.*, 2001; Kerr *et al.*, 2006) and concluded that performance of leaders could be improved by emotional intelligence. (Kordaki, 2013) carried out an investigative three folded empirical study on 25 high school computing teachers; firstly to identify motivational orientation, self-efficacy and self-efficacy expectations, their expectations for students to be better learner, and their own teaching approaches; secondly, their own classroom practice; thirdly, association between teachers belief's and teaching practices. The participants beliefs were exhibited through structured interviews and practices were recorded through structured observation method. The study reveals differing beliefs about these issues as some subjects believed in empowering to improve but others preferred traditional well established teaching practices.

Past studies have also focused to determining and defining the elements of emotional intelligence including (Salovey & Mayer, 1990; Mayer & Salovey, 1995; Goleman, 1998; Petrides & Furnham, 2006) which can be summarized as individual's ability to motivate himself and direct his emotions towards a specific goal and recognize the emotions and feelings of others. (Goleman, 1998) presented five dimensions of emotional intelligence as: Self-Awareness (learn your emotions)-knowing one's emotions and consciousness of the individual self and understand his feelings when they occur are the basis of self-confidence in the foundation upon which the individual takes decisions of all the things in his life; Managing Emotions (emotions management and treatment of affective and emotional aspects)-it cares about how to deal with and treat the individual's feelings that may bother him or hurt him and the ability to deal with the emotions so that they are compatible with the current positions; Motivation (the ability to self-stimulation)-it is the hope catalyst component for many individuals making them cling to achieve their dreams and aspirations; Empathy (the ability to identify and understand the emotions of others)-it means reading the feelings of others and to identify the expressions through their voices and faces and even actions; Social Skills (management of emotions of others)-it means the management of the individual with others and society to deal with all the skills and professionalism, problem solving, conflict, and the ability to negotiate. (Mayer & Salovey, 1997) highlight four dimensions of emotional intelligence: Recognize the feelings and express them-this includes the ability to recognize personal feelings and the feelings

of others and the ability to express feelings accurately and appropriately; Clarity of thinking through the control of emotions-this refers to emotions which become part of cognitive thinking process or problem-solving, decision-making and employment of emotions to influence the thinking; Understand emotions- which includes cognitive capabilities in emotional information processing and the ability to comprehend through foreseeing relations between the different types of emotions which are the causes and consequences of these emotions; Emotions Management-it includes the ability to regulate and control emotions in order to direct the person in diverse social situations with others. (Dulewics & Higgs, 1999) define five components of emotional intelligence such as: Self-consciousness- an individual's knowledge of his feelings and using them in making confident decisions in his life; Self-regulation- to manage these emotions to create positive outcomes; Stimulate self-the use of the individual values and preferences in order to stimulate and direct to achieve its goals better; Empathy-a sense of the feelings of others and the ability to understand the tendencies and emotions of others for better management; Social skills- an individual's ability to read and manage the emotions of others through his relations with them and show them love and attention and the use of persuasion and negotiation skills and confidence-building and network configuration for successful team relationships.(Anderson *et al.*, 2008) present a model that contains several behaviors and formed a measure of self-efficacy of the leader that included eighteen behavior such as: problem solving - knowledge - Change- help - construction- implementation - foresighted- outlook - responsibility -self-controls - ability to manage- defied - guide - continuous - good follower - catalyst - convincing - assesses personal relationships.

7. STATISTICAL ANALYSIS

7.1. The Model

The proposed model as exhibited below in Fig. (1) consists of the variables which various researchers have adopted in a number of previous studies (Mechida and Schaubroeck, 2011; Hannah *et al.*, 2008; Anderson *et al.*, 2008; Vancouver and Kendall, 2006; Mayer & Salovey, 1997; Paglis and Green, 2001):

7.2. The research sample

The research population belongs to whole of the health sector of Government of Kingdom of Saudi Arabia. The sample has been selected from health sector in Al-Kharj city of central region. The researcher relies on taking a random sample from the population by calculating the size of the sample (Easy Sampling) with following statistical equation;

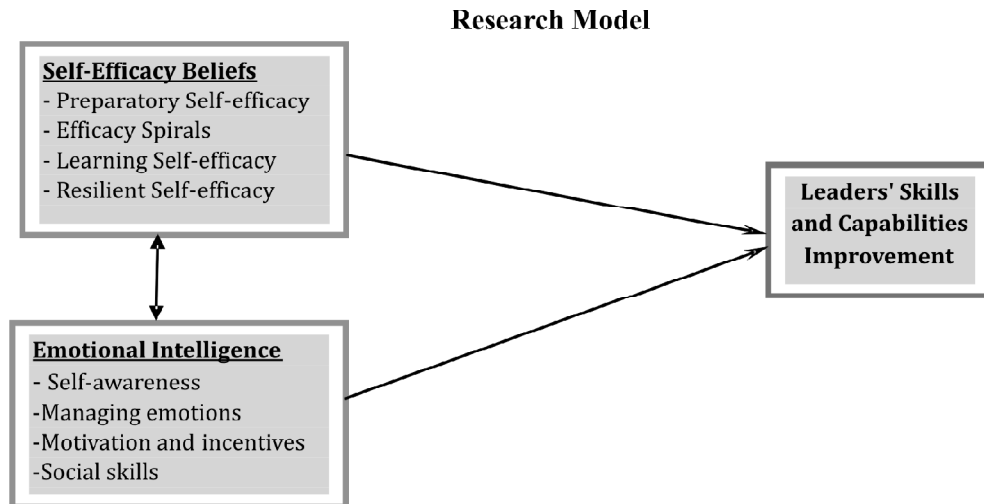


Figure 1

$$\begin{aligned} \text{Sample size} &= (\text{standard deviation} * 1.96 / 0.1) ^2 \text{ standard error} \\ &= (0.5 * 1.96 / 0.1) ^2 = 96.4 \end{aligned}$$

7.3. Validity and Reliability

Global Exploratory Factor Analysis Method has been used to determine the proportion of interpretation of each of the factors related to variables. The goal of doing this test is to ascertain the degree of consistency between the phrases that reflect the research variables and thus determining the degree of accuracy in the results. Cronbach's alpha coefficient values of internal consistency appears between (0.91-0.77). Table (1) below shows these results and it is evident that all dimensions have validity and reliability and there exists consistency between the terms used in the questionnaire.

Table 1
Reliability Tests

<i>Construct</i>	<i>Number of Items</i>	<i>Cronbach's alpha</i>	<i>Composite Reliability</i>	<i>AVE</i>
Leaders' Self Efficacy Beliefs	3	0.921	0.95	0.74
Emotional Intelligence factors	4	0.773	0.86	0.64
Personal Factors	1	0.820	0.88	0.59
Leaders' skills Improvement	1	0.780	0.80	0.66

The validity of the model was carried out by using factor analysis method to calculate the total compatibility. Quality fitness of the model was tested by using following standards:

1. Chi- Square scale value came out 2.360, which clearly showed higher validity of the model. According to this measure, lower the output value higher the validity.
2. The Standard (chi-squared / degrees of freedom) value (21) contributes to provide us with additional support and extent of representation of the research variables.
3. (GFI) Goodness Fit Index indicates that values move from 0 to 1.0 and in this test it appears as 0.955 which ensures fitness of the quality of the model.
4. (CFI) Comparative Fit Index is another indicator of the quality of compatibility of which values also range from grade (zero) agree to non-existent (1) fully agree. The value in this test appeared as 0.976 which is approaching to 1.0 and hence, confirms the comparative fitness of the model.
5. Root Mean Square Residual (RMR) measures the relationship between the dimensions of the model to evaluate the validity of the model. As the acceptable value (0.064) approaching to zero (0.0), so the dimensional validity is also confirmed.
6. Root Mean Square Error of Approximation (RMSEA) measure value appears as 0.009, which is also approaching zero, so the model sample size optimization is also confirmed.

Table (2) shows the calculation of Linear Pearson Correlation Coefficients which, shows a strong positive relationship among the variables at 1% significance level. The degree of correlation between the dimensions ranging from the average correlation between the elements of emotional intelligence and self-efficacy beliefs show a strong relationship that self-efficacy beliefs and emotional intelligence element influence in developing and improving capabilities and skills of the leaders.

Table 2
Pearson Correlation Matrix

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Leaders' Self Efficacy Beliefs	7.8	1.250	1			
Emotional Intelligence	5.9	0.980	0.514**	1		
Personal Factors	8.6	0.920	0.629*	0.789**	1	
Improve Leaders' skills	8.1	1.001	0.760*	0.550*	0.690*	1

Note: *p<0.01 **P<0.05

Table (3) below highlights the values of regression coefficients values which, show a relationship between capacity development and leadership skills

improvement in presence of independent variables such as: Self-efficacy beliefs (Preparatory Self-efficacy, Efficacy Spirals, Learning Self-efficacy, and Resilient Self-efficacy) and Elements of emotional intelligence (Self-awareness, Motivation and incentives, Social skills, Managing emotions). The hypothesis was rejected on the sub-dimensions such as learning orientation and self-awareness.

Table 3
Regression Results

<i>Model</i>	<i>Independent Variables</i>	<i>B</i>	<i>t</i>	<i>R²</i>	<i>F</i>	<i>ΔR²</i>
1	Constant	4.34	40.78	0.163	119.58	-
	Self-Efficacy	0.27	10.94			
2	Constant	3.78	30.10	0.237	63.51	0.074
	Self-Efficacy	0.14	4.62			
	Emotional intelligence	0.18	6.97			
3	Constant	3.50	19.87	0.250	29.72	0.017
	Self-Efficacy beliefs	0.16	4.75			
	Emotional intelligence	0.30	7.47			
	Personal factors	0.23	9.50			

Structural Equation Model (SEM) Test was used to assess dimensions of the model which was supposed to take the variables relationship in written form. The analysis was based on a matrix links on common differences between variables to test the model. Since the dependent and independent variables on which this model is based has two sub models; first sub-models is Measurement Model which is a relationship between external variables such as exogenous variables and latent variables. The second structural model shows the causal relationships between external variables (Exogenous) and internal variables (Endogenous). The path analysis method (Arbuckle, 2008; Lee, 2007; Gill, 2001) was applied to determine the direct and indirect relationship between variables and to determine the cause and effect relationships. The results of these tests have been shown at the below table (Table 4).

8. RESULTS AND DISCUSSION

The preliminary results of high quality compatibility of the model are valued at 76.03% and the Chi-Square index as 54.333, Standard Deviation as 12.233, the index of the square roots of the average rounding error as 0.189 and comparative quality compatibility index as 77.03%. The model was tested by applying compatibility test to assess the cause and effect relationship of direct and indirect variables and results confirmed the compatibility. Compatibility quality index reached 86.2%, the chi-square index 1.302, the square root of the mean squares rounding error

Table 4
Results of Hypothesis Tests

<i>Hypothesis</i>	<i>Path Coefficient</i>	<i>t-value</i>	<i>Outcome</i>
(H₁) Self efficacy beliefs are positively related (0.40)			
a-Preparatory Self-efficacy	0.48	10.37	Supported
b-Efficacy Spiral	0.35	11.44	Supported
c-Learning Self-efficacy	0.01	1.49	Rejected
(H₂) Emotional Intelligence of leaders is positive related (0.18)			
a-Self Awareness	0.04	0.66	Rejected
b- Managing emotions	0.06	1.36	Rejected
c- Motivation and incentives	0.39	8.70	Supported
d-Leaders' Social skills	0.25	6.90	Supported
(H₃) Personal Factors are positive related			
a-Self Efficacy	0.27	7.30	Supported
b-Emotional Intelligence	0.18	8.18	Supported
c-Improving Skills of Leaders	0.23	4.46	Supported

0.021 and the value of Comparative compatibility quality index was 88.9%. Thus, the efficiency of the model quality in the interpretation of relations between the variables is confirmed. The variables such as managing emotions and learning self-efficacy did not achieve effective relationship at (1%) significance level but achieved at significance level (5%). The figure shows the direct and indirect impact of all the variables where value of the coefficient of determination came as 70% and this value also confirms the quality fitness of the model.

The first hypothesis was accepted in general as a significant positive relationship between self-efficacy beliefs and developing the capabilities and skills of the leaders existed with the rejection of sub-hypothesis H1/3 that there is a no positive relationship between leader's orientation to learn and to develop their skills and abilities. The second hypothesis was accepted in general as a significant positive relationship between the availability of the elements of emotional intelligence of leaders and their ability to develop their skills and abilities existed with the rejection of sub-hypotheses including; H2/a that there is a no positive relationship between self-awareness among leaders and developing their skills and abilities; H2b that there is no positive relationship between the emotional aspects of leaders and developing their skills and abilities. The third hypothesis was accepted as a significant positive relationship existed between emotional intelligence for leaders and self-efficacy beliefs.

In the light of the above results, the researchers define a set of recommendations such as: 1) The Government institutions must pay attention to the training needs and emotional intelligence of leaders before developing training programs. These

training programs should focus to develop and improve emotional intelligence capabilities unlike the rational intelligence which is attached to an individual who does not change with time. 2) It is imperative to identifying the training needs of government institutions leaders in relation to their performance as well as determining the level of self-efficacy of the leaders who are willing to take part in training programs so as to predict the outcomes of training. Their readiness to be the part of a training program can improve and develop the capabilities and skills of leadership. 3) It is also important that leadership training programs include programs to improve and develop social skills of government institutions leaders and increase their capacity of the stimulus and motivation. 4) The outcomes of this research on other government sectors may achieve different results. In order to enrich the research in this area and support the results of the sector, there is a need to increase the sample size.

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References

- Anderson, D.W., Krajewski, H.T., Goffin, R.D., Jackson, D.N. (2008), A leadership self-efficacy taxonomy and its relation to effective leadership. *Leadership Quarterly*, 19 (5), 595.
- Avolio, B.J., Hannah, S.T. (2008), Developmental Readiness: Accelerating Leader Development. *Consulting Psychology Journal*, 60 (4), 331.
- Bandura, A. (1997), *Self-efficacy: The exercise of control*. Freeman, New York.
- Bandura, A., & Locke, E.A. (2003), Negative self-efficacy effects revisited. *Journal of Applied Psychology*, 88, 87.
- Bar-On, R. E., & Parker, J. D. (2000), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*. Jossey-Bass.
- Cavaco, A., Chettiar, V., & Bates, I. (2003), Achievement motivation and self-efficacy perception amongst portuguese pharmacy students. *Pharmacy Education*, 3.
- Chan, K. Y., & Drasgow, F. (2001), Toward a theory of individual differences and leadership: understanding the motivation to lead. *Journal of Applied Psychology*, 86(3), 481.
- Chen, G., Bliese, P.D. (2002), The role of different levels of leadership in predicting self- and collective efficacy: Evidence for discontinuity. *Journal of Applied Psychology*, 87 (3), 549.
- Drath, W. H., McCauley, C. D., Palus, C. J., Van Velsor, E., O'Connor, P. M., & McGuire, J. B. (2008), Direction, alignment, commitment: Toward a more integrative ontology of leadership. *The Leadership Quarterly*, 19(6), 635.
- Day, D. V. (2001), Leadership development: A review in context. *The Leadership Quarterly*, 11(4), 581.

- Day, D.V., Harrison, M.M. (2007), A multilevel, identity-based approach to leadership development. *Human Resource Management Review*, 17 (4), 360.
- DeRue, D. S., & Wellman, N. (2009), Developing leaders via experience: the role of developmental challenge, learning orientation, and feedback availability. *Journal of Applied Psychology*, 94(4), 859.
- Dragoni, L., Tesluk, P. E., Russell, J. E., & Oh, I. S. (2009), Understanding managerial development: Integrating developmental assignments, learning orientation, and access to developmental opportunities in predicting managerial competencies. *Academy of Management Journal*, 52(4), 731.
- Dulewicz, V., Higgs, M. (1999), "Can emotional intelligence be measured and developed?", *Leadership & Organization Development Journal*, 20(5), 242 – 253.
- Goleman, D. (1995), *Emotional Intelligence: Why it Can Matter More Than IQ*. New York: Bantam.
- Goleman, D. (1998), What makes a leader?. *Harvard Business Review*, 76 (6), 93-102.
- Goldsmith, M. (2008), Helping successful leaders get even better. *Business Strategy Series*, 9(3), 95.
- Haddad, S. I., & Taleb, R. A. (2016), The impact of self-efficacy on performance (An empirical study on business faculty members in Jordanian universities). *Computers in Human Behavior*, 55, 877.
- Hannah, S.T., Avolio, B.J., Luthans, F., & Harms, PD (2008), Leadership efficacy: Review and future directions. *Leadership Quarterly*, 19, 669.
- Hannah, S.T., & Lester, P.B. (2009), A multilevel approach to building and leading learning organizations. *Leadership Quarterly*, 20 (1), 34.
- Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2006), Emotional intelligence and leadership effectiveness. *Leadership & Organization Development Journal*, 27(4), 265-279.
- Kordaki, M. (2013), High school computing teachers' beliefs and practices: A case study. *Computers & Education*, 68, 141-152.
- Lindsley, D. H., Brass, D. J., & Thomas, J. B. (1995), Efficacy-performing spirals: A multilevel perspective. *Academy of Management Review*, 20(3), 645.
- Landy, F. J. (2005), Some historical and scientific issues related to research on emotional intelligence. *Journal of Organizational Behavior*, 26(4), 411-424.
- Lodewyk, K. R., & Winne, P. H. (2005), Relations Among the Structure of Learning Tasks, Achievement, and Changes in Self-Efficacy in Secondary Students. *Journal of Educational Psychology*, 97(1), 3.
- McCauley, C. D., & Van Velsor, E. (Eds.). (2004), *The Center for creative Leadership handbook of leadership development* (2nd ed.). San Francisco, CA: Jossey-bass.
- Machida, M., Schaubroeck, J. (2011), The Role of Self-Efficacy Beliefs in Leader Development. *Journal of Leadership and Organizational Studies*, 18 (4), 459.
- Machida, M., Marie Ward, R., & Vealey, R. S. (2012), Predictors of sources of self-confidence in collegiate athletes. *International Journal of Sport and Exercise Psychology*, 10(3), 172-185.
- Mayer, J.D., Salovey, P. (1995), Emotional intelligence and the construction and regulation of feelings. *Applied and Preventive Psychology*, 4 (3), pp. 197-208.

- Murphy, S. E., & Ensher, E. A. (1999), The Effects of Leader and Subordinate Characteristics in the Development of Leader-Member Exchange Quality1. *Journal of Applied Social Psychology*, 29(7), 1371.
- Paglis, L. L., & Green, S. G. (2002), Leadership self efficacy and managers' motivation for leading change. *Journal of Organizational Behavior*, 23(2), 215-235.
- Petrides, K. V., & Furnham, A. (2006), The Role of Trait Emotional Intelligence in a Gender Specific Model of Organizational Variables1. *Journal of Applied Social Psychology*, 36(2), 552-569.
- Rahman, M. S., Ko, M., Warren, J., & Carpenter, D. (2016), Healthcare Technology Self-Efficacy (HTSE) and its influence on individual attitude: An empirical study. *Computers in Human Behavior*, 58, 12.
- Rozell, E., Pettijohn, C. and Parker, R. (2001), "An empirical evaluation of emotional intelligence: the impact on management development", *Journal of Management Development*, Vol. 21 No. 4, pp. 272 89.
- Salovey, P., & Mayer, J. D. (1990), Emotional intelligence. Imagination, cognition and personality, 9(3), 185-211.
- Schunk, D. H. (1996), Goal and self-evaluative influences during children's cognitive skill learning. *American Educational Research Journal*, 33(2), 359.
- Seferoglu, S. S. (2007), Preservice teachers' perceptions of their computer self-efficacy. In Fourth International Conference on E-learning for Knowledge-based society, 4th., November, Bangkok, Thailand.
- Stajkovic, A. D., & Luthans, F. (1998), Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124(2), 240.
- Vancouver, J. B., & Kendall, L. N. (2006), When self-efficacy negatively relates to motivation and performance in a learning context. *Journal of Applied Psychology*, 91(5), 1146.
- Vancouver, J. B., Thompson, C. M., Tischner, E. C., & Putka, D. J. (2002), Two studies examining the negative effect of self-efficacy on performance. *Journal of Applied Psychology*, 87(3), 506.