Impact of Leadership Styles on Decision Making Styles among Nurses' Managerial Levels

Sahar Ahmed Abood[1], Mona Thabet[2]

[1 & 2]Nursing Administration Department, Faculty of Nursing, Minia University, Egypt
Corresponding author: shrabood@yahoo.com

Abstract: *Leadership and its styles have significant effects in small and largest organization. These styles affect everyone from senior to the newest manager. Furthermore, leadership style may affect the decision making style and skills of manager which is a key feature of nurse role in health care organizations. The **aim** of this study is to determine the impact of leadership styles on decision making styles among nurses' managerial levels. A descriptive correlational research design was utilized. The **sample** consisted 73 all managerial levels of nurses, at Minia University Hospitals. Two **tools** were used: Administrative Styles Questionnaire Scale and Decision Making Style. This study revealed that most dominant leadership style was administration comfortable and peasant administration with mean (22.0 ± 4.8) and team administration with mean (22.2 ± 3.7), also the dominant decision making styles was behavioral style (47.9%). There were significant correlation between team administration and decision making styles as positive correlation with directive style (r =0.318, p = 0.006**) and with analytical style (r =.312, p = 0.007**), while team administration style has negative correlation with conceptual style (r = -0.382, p = 0.001**) and negative with behavioral style (r = -.240, p = 0.041*). This study **concluded** that leadership styles have significant correlation and impact on decision making style.*
Keywords: *Decision making styles, Leadership styles, Nurse Mangers.*

I. Introduction

Nowadays', the environment in work coming to be more and more disorderly thus, managers having responsibility to be good decision maker in order to maintain the existence of the organization's (**Muhammed, 2015**). Sometimes, leaders have incomplete and inadequate information and time to make decisions; therefore they should be decisive because delaying decisions can affect the organization negatively. When the managers/ leaders make, they should gather all available information from all levels of the organization as time allows. Also, they be sure that their information sources is trustworthy and accurate, keep in their mind that improper decisions could have improper outcome and consequences, as well they should understand that changing work environment may affect their decisions (**Ejimabo, 2015**).

Also, it is crucial for managers/leaders to take responsibility for the outcomes of decisions and not reprimand others when things be unsuccessful, because pointing the finger at others would only decrease trust and respect (**Moss et al., 2007**).

Leaders are responsible for making decision by establishing an organized process. This process is crucial for all organizations due to its effect in hindering or facilitating goal execution, job satisfaction, and overall effectiveness. Leaders must decide at what level of the organization the decisions should be made, to which extent the employers allow to share or participate in organizational decision-making, and the best approach to making decisions (**Van Loveren, 2007**).

Moreover, leadership has an important range of activities, it is a basic aspect of management, and it can lead to the attainment of organizational outcomes [5]. Also, Leadership has a serious role in determining employees' obligation to organization. As employees who are pleasing with their supervisors/leaders, are feeling respect, and are valuing by their management, can feel more connection with their organizations (**Milliman et al., 2003**).

Leadership is the process of leaders' ability to influence subordinates individually or in groups toward achieving goals through their decisions. Decision quality has the ability to decide profession, rewards, and job satisfaction [7]. In modern organizations the total task of a manager is how to make a decision [8]. Thus, managerial decisions with direct way can affect the personal outcomes and organizational outcomes (**Deniz, 2006; Nygren, 2005; Schoemaker 2010 & Thunholm, 2008**).

Leadership defined as "the process in which that managers use to influence subordinates to work toward organizational goals" (**Hirtz et al., 2013**).The effective leadership has specific requirements; as the leader must have intellectual abilities and skills, and have the capability to process information in not only a

---

rational assimilation, but also intuitively considering the possibilities the information that can be hold for future outcomes **(Petrie, 2014).**

Clever leaders should have the responsibility to design the vision and develop a suitable culture to implement this vision. Once the direction is clear, the leader must stimulate and empower all stakeholders to achieve the vision and goals of the plan. The influence of leaders on the work of any organization considers an important component which determines the eventual success or failure of the plan **(Gill, 2003).**

As well as every person has a unique way to deal with others, also has a unique style of leading others. There are five major or dominant grid styles according to Blake Mouton Managerial Grid (1985) caretaker administration, authority-obedience administration, Comfortable and pleasant administration, team administration and constituency-centered administration. These five styles represent the basic styles and are typical of most administrators. One combination approach where cited in the Academic Administrator Grid which is a combination of two styles. This style is commonly referred to as paternalism/ maternalism administration, and is very important to academic administration **(Al-Omari et al., 2007).**

Caretaker administration has low attention for institutional performance, and low interference in practicing power, and authority is model of this leader. Authority-obedience administration has a high attention for institutional performance yet a low caring for people. The major trust is to have outcomes, practicing power and authority in a own way only, and extract obedience and commitment from subordinates. Comfortable and pleasant administration has institutional performance low attention, and the concern for people is high in this orientation. The general belief of this style is when people are happy, outcomes will be achieved from themselves and there will be no need for supervision **(Al-Omari et al., 2007).**

Constituency-centered administration has moderate attention to institutional performance connected with moderate concern for people. There is a balance between desired outcomes and people. Team administration involves integration concern for institutional performance with simultaneously high concern for people. Subordinates are motivated to achieve the possible high performance in terms of quality, quantity, and satisfaction of personnel. Also, paternalism/ materialism administration has concern for performance coupled with a motivated approval-giving for compliance. Controlling the subordinates is preserved by creating a relationship of obligation in such a way that gain the warmth and affection of subordinates **(Al-Omari, 2013).**

Organizations should assess the nature of their culture and appropriate style of decision-making; as well choose the best decision-making process that is most effective in the organization. Also, it is recommended that managers determine who can be share in the process of decision-making, consider how decisions will affect employees, motivate and empower the staff to make and apply decisions, as well use communication effectively to keep leaders and staff informed, and determine the obstacles that can hindering the organization from effectively making and implementing decisions. They agreed that by being more proactive in the making decisions, would help managers accomplish appropriate conclusions and prevent them from being caught in last minute **(Kaval , 2006).**

In making organizational decisions, the managers have various styles while making decisions. The styles of decision making are differing in its nature, effectiveness, and results **(Riaz, 2009).** The style of manager in any organization affects the subordinates' personal life and their attitudes related to work. Managerial decision making style is directly related to life satisfaction **(Deniz, 2006),** self-esteem **(Nygren, 2005 & Thunholm, 2004)**, self-efficacy **(Batool, 2007 & Mau, 2000),** and stress **(Batool, 2007).** Further, decision making style of manager is directly related to organizational outcomes like job satisfaction **(Kreitner et al., 2004),** turnover intention, job performance and organizational performance **(Certo et al., 2008).**

The effective organization usually depends on the leader effect who is also a professional decision maker. Thus, decision making is the fundamental and basic function in any organization. This is due to the quality of decisions that made affected by the effectiveness of the managers and consequently, affects the success of the whole organization. The success of the manager in all roles reflects the decisions that he or she made in the organization. Also, the manager must be first good decision maker before he or she can be a good planner, organizer, leader and controller in the organization **(Rue et al., 2000).**

The decision-making skills refer to the ability of manager in order to perform decision making process accurately. One step of the decision making process is the decision maker ability to recognize that a decision is necessary and identify the suitable alternatives before selecting one. As a consequence, the decision-making process involves recognizing and defining the nature of situation that need a decision, determining alternatives, selecting the "best" alternative, and putting it into action. Further, as part of the decision-making process the manager should determine who will make or share in the decision. Hence, a manager needs to understand how make the "best" decision by himself or herself, as well as how to most effectively manage process of making decisions that can involve other people **(Griffin et al., 2012).**

Furthermore, every person has a unique way of thinking and learning, as well has a unique style of making decisions. There are four decision making styles according to Rowe and Boulgardies (1983) analytical, conceptual, behavioral, and directive. Moreover, Robbins et al (2010) confirmed these four decision making

styles. Decision making style can be rational or intuitive, and it can be also exhibit a higher or low degree of tolerance for ambiguity **(Rowe et al., 1983 & Robbins et al., 2010).**

Analytical style of decision making (thinking–task) has a capacity for abstract; logical thinking; high tolerance for the ambiguity; searches out and verifies large amounts of data and information. Conceptual style of decision making (thinking–people) has a creative capacity; high tolerance for the ambiguity and complexity; values quality; and shares values with colleagues. Behavioral style of decision making (acting–people) is characterized by personal; focuses on individual; low tolerance for the ambiguity; supportive and participative. Directive style of decision making (acting–task) is characterized by focusing on short-term outcomes; appetite for control; low tolerance for the ambiguity; implements the operational objectives systematically and efficiently **(Rowe et al., 1983 & Robbins et al., 2010).**

Aim of the study:
The aim of this study is to investigate impact of leadership styles on decision making styles among nurses' managerial levels.

Research Question
1. What is the most leadership style dominant among nurses' managerial levels?
2. What is the most decision making style dominant among nurses' managerial levels?
3. Is there a significant relationship between leadership styles on decision making styles among nurses' managerial levels?

Subjects and methods
Research design:
Descriptive correlation design was utilized in the current study.
Subjects:
All nurses' managerial levels at Minia University Hospitals, with total number (73).
Setting:
The study was carried out at Minia University Hospitals in Minia Governorate, Egypt.

Data Collection Tools; two tools were used in the study as follows;
Tool I: The Administrative Styles Questionnaire (ASQ)
It was adopted from Al-Omari (2013) which is based on the Managerial Grid concept of Blake and Mouton (1985). The Administrative Styles Questionnaire was composed of 36 statements: six statements relating to each of the six areas on leadership behavior, which are caretaker administration, authority- obedience administration, comfortable and pleasant administration, constituency –centered administration, team administration, and paternalism/ materialism administration.

The scoring system for the administrative styles:
Scores for the Administrative Styles Questionnaire were derived by adding the weighted ranks for each statement. Each of the six statements on the six areas of leadership behaviors represents a Grid style designation. Columns are summed and total scores are derived for each of the grid styles. The column with the highest score represents the dominant leadership style.

Tool II: Decision Style Inventory (DSI):
This tool developed by Rowe and Boulgardies (1983) Decision Style Inventory to measure nurses' decision making styles. It includes 20 questions with four column answers. The nurse will read each question on the left-hand side and give score for each answer in the four columns. Each question is answered by assigning values as follows: (most like me= 8, or 4 or 2 or to least like me =1).

The tools were tested for face and content validity by five experts in administrative nursing .They reviewed the instruments for clarity, relevance, comprehensiveness, understanding, and applicability. The necessary modifications were done accordingly. Meanwhile, the Administrative styles questionnaire and decision style inventory are standardized tools with confirmed validity and reliability. It also showed good reliability when tested through determining its alpha Cronbach coefficient in the present study.
Pilot study: A pilot study was conducted on 10% of the total sample to check the clarity of items and to determine the feasibility of the study. The data collection form was finalized based on the pilot results. The managerial nurses of the pilot sample were not included in the main study sample.
Fieldwork: Once the necessary permissions were obtained, the researchers started recruiting the managerial nurses in the study sample according to the inclusion. Eligible nurses were invited to participate after explaining to them the aim and procedures of the study. After giving a verbal informed consent, the researchers were given

the questionnaire to nurses individually. This took approximately 30 minutes to be completed. The data collection phase extended through a period of 4 months from January to April 2016.

Ethical considerations: In this study, all the ethical issues including plagiarism cases, respondent confidentiality, obtaining permission from the hospital to administer the questionnaires, respect for scientific truth and integrity, full respondent's satisfaction from completing questionnaires were considered by researchers. An official permission was granted from the Director of the Hospital at Minia University after clarifying the aim and procedures of the study. An informed verbal consent was obtained from each managerial nurse before collecting any data and after explaining the study aim in a simple and clear manner. No harmful maneuvers were performed or used, and no foreseen hazards were anticipated from conducting the study on these managerial nurses. Participants were informed about their right to withdraw from the study at any time without giving any reason. Data were considered confidential and not be used except in research. The researchers' phone numbers were identified to participants to return at any time for any explanation.

Statistical analysis: Data entry and statistical analysis were done using SPSS 20.0 statistical software package. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations and medians for quantitative variables. Statistical significance was considered at p-value <0.05.

II. Results

Table 1: Personal characteristics of staff nurses in the study sample (n= 73).

Personal data	No.	%
1. Age / years:		
− 25-	16	21.9
− 30-	35	47.9
− 35-	14	19.2
− 40-	1	1.4
− 45- 50	7	9.6
Mean ± SD	34.3 ± 5.8 years	
2. Sex:		
− Male	14	19.2
− Female	59	80.8
3. Marital status		
− Single	8	11.0
− Married	63	86.3
− Divorced	2	2.7
4. Years of experience in nursing field		
− Less than 12 years	36	49.3
− 12 – 24	37	50.7
Mean ± SD	12.1 ± 5.2 years	
5. Years of experience in current department		
− Less than 12 years	66	90.4
− 12 – 24	7	9.6
Mean ± SD	6.2 ± 6.2 years	
Total	73	100

Table (1): This study displayed that subjects of the study have mean age 34.3 ± 5.8, and the majority of them were female (80.8%) and married (86.3%).

Table 2: Mean and standard division of nurses' administrative style among studied nurses

Nurses' Administrative Styles (n=73)	Mean ± SD
− Caretaker administration	19.9 ± 4.7
− Authority-obedience administration	21.2 ± 4.4
− Comfortable and Pleasant Administration	22.0 ± 4.8
− Constituency-centered administration	21.6 ± 4.1
− Team administration	22.2 ± 3.7
− Paternalism/ materialism administration	20.2 ± 4.8

Table (2): showed the mean and standard division of nurses' administrative style among studied nurses. It was observed that most dominant style of administration comfortable and peasant administration with mean 22.0 ± 4.8 and team administration with mean 22.2 ± 3.7.

Table 3: Distribution decision making style inventory among studied nurses (n= 73)

Decision Style Inventory	No.	%
1. Directive:		
− Least preferred	32	43.8
− Backup	12	16.4
− Dominant	13	17.8
− Very dominant	16	22
2. Analytical:		
− Least preferred	43	58.9
− Backup	17	23.3
− Dominant	9	12.3
− Very dominant	4	5.5
3. Conceptual:		
− Least preferred	31	42.5
− Backup	26	35.6
− Dominant	7	9.6
− Very dominant	9	12.3
4. Behavioral:		
− Least preferred	4	5.5
− Backup	16	21.9
− Dominant	18	24.7
− Very dominant	35	47.9
Total	**73**	**100**

Table (3): showed the distribution of decision making styles, it was observed that very dominant decision making styles among managerial nurses was behavioral style (47.9%).

Table 4: Correlation of the decision-making style inventory scores and personal data.

Decision Style Inventory	Directive		Analytical		Conceptual		Behavioral	
	r	*P*	r	*P*	R	*P*	r	*P*
1. Age	.026	.825	.099	.404	.207	.078	.111	.349
2. Sex	.052	.663	.192	.104	.236	.044*	.115	.331
3. Marital status	.055	.645	.020	.865	.121	.309	.317	.006**
4. Years of experience in nursing field	.095	.424	.027	.824	.309	.008**	.078	.512
5. Current department	.362	.002**	.207	.083	.409	.000**	.058	.632
6. Yrs. of experience in current department	.064	.590	.227	.054	.296	.011*	-.245	.037*

Table (4): showed the correlation of decision making styles and personal data, it was observed that the sex have significant correlation with conceptual style (r= .236, p= 0.044*). Another significant correlation between marital status and behavioral style (r= .317, p= 0.006**), and significant correlation between years of experience in nursing field with conceptual style (r= .309, p= 0.008**). Also, it was found a highly significant correlation between current department with directive style (r= .362, p= 0.002*) and with conceptual style (r= .409, p= 0.000**). as well as there was significant correlation between years of experiences in current department with conceptual style (r= .296, p= 0.011*) and with behavioral style (r= .245, p= 0.037*)

Table 5: Correlation of the Nurses' Administrative Styles scores and personal data.

	Caretaker administration		Authority-obedience administration		Comfortable and Pleasant Administration		Constituency-centered administration		Team administration		Paternalism	
	r	P	R	P	r	P	r	P	r	P	r	P
1. Age	.108	.364	.184	.118	.179	.130	.205	.082	.265	.023*	-.234	.047*
2. Sex	.119	.316	-.280	.016*	.217	.065	.035	.771	-.037	.759	.077	.517
3. Marital status	-.216	.066	-.337	.004**	.079	.507	.069	.559	.009	.938	-.007	.950
4. Years of experience in nursing field	.108	.363	.171	.149	.178	.131	.247	.035*	.172	.147	-.162	.170
5. Current department	.137	.254	.284	.016*	.389	.001**	.290	.014*	.151	.207	.086	.478
6. Yrs. of experience in current department	.251	.032*	.122	.304	.072	.546	.268	.022*	.106	.373	.073	.540

Table (5) showed the correlation of nurses' administrative styles scores and personal data, it was observed that the sex has negative significant correlation with authority obedience administration style (r=-.280, p=.016*), and negative significant correlation between marital status and authority obedience administration style (r= -.337, p= 0.006**). Another significant correlation found between years of experience in nursing field with constituency-centered administration style (r= .247, p= .035*). Also, it was found that the current department have significant correlation with authority-obedience administration style (r=.284, p=.016*) with comfortable and pleasant administration (r= .389, p=.001**), and with constituency-centered administration (r=.290, p=.014*). As well as there were significant correlation between years of experiences in current department with caretaker administration style (r=.251, p= 0.032*) and with constituency-centered administration style (r= .268, p= 0.022*) .

Table 6: Mean Score of the Studied nurses' related to very dominant administrative style (N = 73)

Leadership styles	Decision making styles							
	Directive		Analytical		Conceptual		Behavioral	
	r	P	r	P	r	P	R	P
– Caretaker administration	-.134	.260	.155	.190	.126	.289	.040	.734
– Authority-obedience administration	-.014	.904	.040	.735	.076	.525	.150	.205
– Comfortable and Pleasant Administration	.006	.963	-.220	.062	.013	.915	.153	.196
– Constituency-centered administration	-.129	.276	.111	.350	.290	.013*	-.059	.618
– Team administration	.318	.006**	.312	.007**	-.382	.001**	-.240	.041*
– Paternalism/ materialism administration	-.265	.023**	-.126	.290	.038	.749	.193	.102

Table (6): showed the correlation of decision making styles and leadership styles, it was observed that the team administration style have a positive significant correlation with directive decision making style (r=.318, p=0.006**) and with analytical decision making style (r=.312, p=0.007**), while the team administration style has negative significantly correlation with conceptual decision making style (r = -.382, p=0.001**) and negative with behavioral style (r= -.240, p = 0.041*).

III. Discussion
The present study examined the impact of leadership styles on decision-making styles. The most dominant leadership styles among managerial level of nurses were comfortable and pleasant administration with mean $\pm$ SD (22.0 $\pm$ 4.8), and team administration with mean $\pm$ SD (22.2 $\pm$ 3.7). And, the most very dominant decision making styles among managerial level of nurses was behavioral style with (47.9%).

The comfortable and pleasant administration (1, 9): has low concern for Institutional performance, and high concern for people. In this style there is a belief that when the subordinates are happy, the results will take care from themselves and that they will not need to be supervised by leaders. Team administration (9, 9): has an integration of institutional performance concern with the same time had high concern for people. Subordinates

are motivated to accomplish possible high performance in terms of quality, quantity, and personal satisfaction. Participation and sharing are created with people who are able to successes in managing their individual efforts for the achievement of organization goals that are both sound and creative **(Farahbakhsh, 2006& Al-Shudaifat, 2015).**

This result was differ with **Al-Omari (2013)** who found that the most dominant leadership style constituency-centered administration with mean score (24.25 + 2.57) was predominant among school principal. As well it was differing with **Al-Shudaifat (2015)** who mentioned that the high mean score among teachers was caretaker administration style (21.48 + 5.188).

Moreover the behavioral decision making style was the very dominant style among managerial nurses. In this style, the leader clarifies the situation or problem to the subordinates and provides them the pertinent information. Thus, together they attempt to harmonized differences and found a solution that is acceptable to all of them. The leader may counsel with others before the meeting in order to generate alternative decisions that are acceptable to them. Also, this style is the most people oriented of the four styles **(Kinicki, 2003 & Robbins, 1998).**

The individuals with this style have a tendency to avoid conflict and had the concern with others. Furthermore, the managers who have behavioral style decision-making has low tolerance for ambiguity and is intuitive and will engage in team discussion. They are responsible about the mood of the team members. Manager with this style have the decision that is based on what feels right, as well that will motivate the subordinates to perform **(Rowe et al., 1996& Mohammadi et al., 2012).** The finding of this study was similar with Jamian et al. (2011) who found the majority of the deans have very dominant and dominant behavioral styles. However, **Senik et al., (2013)** found that the academics in university may have one or more styles are dominant. They found that the conceptual and analytical styles are dominant, and the behavioral style was the least dominant style.

Moreover, there are positive significant correlation between team administration style and directive decision making style (r=.318, p=0.006) and analytical decision making style (r=.312, p=0.007). This result may be due to the characteristics of leaders who have team administration style in which they integrate institutional performance concern with the concern for people. As in analytical style and directive styles, the leaders focused on task and technical concerns. Thus the nurse managers who have team style and directive or analytical style focused on task and performance.

While the team administration style has negative significantly correlation with conceptual decision making style (r= -.382**, p=0.001) and negative with behavioral style (r= -.240*, p=0.041). As in conceptual style and behavioral styles, the leaders focused mainly on people and sometimes ignoring tasks, but the team style focusing on people and performance. This was differing with **Al-Omari (2013)** who found that there is no significant correlation between decision making styles and leadership styles of school principals.

One of the obvious limitations of the present study is the small number of managerial levels of nurses. This may the generation of significant correlation not proved. Therefore; there is a need for future research in which to prove or neglect the significant correlations.

In conclusion, there are significant correlation between leadership styles and decision making styles of managers. This significance had the light on the importance of leaders and their styles when making decisions, thus it is crucial to leaders and managers to identifying their styles or changing their styles as possible according to situations and problems. Furthermore, the managers and leaders need to focus on performance, outcomes and employee in same concern. However the correlation between leadership and decision styles, there is still need for more studies. A good idea may be having more than on level and more than one organization that have different categories and making comparison to prove or neglect these correlations.

References

[1]. Al-Omari A, Al-Shudaifat S, Abu Naba'h A. The Effect of Leadership Styles of Principals on Teachers' Burnout at Russaifa Education Directorate In Jordan. Jordan Journal of Educational Sciences. 2007; 4 (1): 63-78.

[2]. Al-Omari AA. The Relationship between decision making styles and leadership styles among public schools principals. International Education Studies. 2013; 6 (7): 100-10.

[3]. Al-Shudaifat SH. Leadership Styles of Principals in Relation to Islamic Teachers' Burnout in Mafraq Education District. Review of European Studies. 2015. 7 (11): 334-47.

[4]. Batool S. Relationship between self-efficacy, stress and decision making styles Unpublished M.Sc research report. National Institute of Psychology, Quaid-i-Azam University Islamabad, Pakistan. 2007.

[5]. Bush T. Theories of educational leadership and management. 3rd ed. London: Sage Publication. 2003.

[6]. Certo ST, Connelly BL, Tihanyi L. Managers and their not-so rational decisions. Business Horizons. 2008; 51(2): 113-9.

[7]. Deniz ME. The relationship between coping with stress, life satisfaction, decision making styles and decision self-esteem: An investigation with Turkish university students. Social Behavior and Personality. 2006; 34(9):1161-70.

[8]. Ejimabo NO. The Influence of Decision Making in Organizational Leadership and Management Activities. J Entrepren Organiz Manag. 2015,4(2): 1-13.

[9]. Farahbakhsh S. Leadership in education administration: concepts, theories, and perspectives. Academic Leadership Journal.2006, 4(1): 1-23.

[10]. Gill R. Change management--or change leadership? Journal of Change Management. 2003; 3 (4) 307-18.

[11]. Griffin R, Van Fleet D. Management Skills Assessment and Development. United states of America, South Western Cengage Learning Co; 2012, p:272-39.
[12]. Hirtz PD, Murray SL, Riordan CA. The effects of leadership on quality. Engineering Management Journal. 2007; 19 (1): 22-7.
[13]. Jamian L, Sidhu G, Aperapar P. Managerial decision styles of deans: a case study of a Malaysian public. Asian Journal of University Education. 2011; 7(2): 59-80.
[14]. Kaval V, Voyten LJ. Executive decision-making: effective processes for making and implementing decisions. Healthcare Executive. 2006; 21(6): 16-22.
[15]. Kinicki A, Williams B. Management: a practical introduction. Boston: McGraw Hill Irwin Co., 2003; 208-43.
[16]. Kreitner R., Kinichi A. Organizational behavior. 6th ed. New York: McGraw-Hill-Hill Inc. 2004.
[17]. Mau W. Cultural differences in career decision-making styles and self-efficacy. Journal of Vocational Behaviour. 2000; 57(3): 365-78.
[18]. Milliman J, Czaplewski AJ, Ferguson F. Workplace spirituality and employee work attitudes: An exploratory empirical assessment. JOCM. 2003; 16 (4): 426-47.
[19]. Mohammadi F, Hajiheydari N. A Framework Correlating Decision Making Style and Business Intelligence Aspect. 3rd International Conference on e-Education, e-Business, e-Management and e-Learning. 2012; 27 (2): 94- 8.
[20]. Moss HK., Kinnear TL. Nothing Can Eliminate Responsibility. SuperVision. 2007; 68(1), 3-4.
[21]. Muhammed NM. Influence of third opinion leaders on decision making quality: a case on financial decision making. Mediterranean Journal of Social Sciences. 2015; 6(2): 292-300.
[22]. Nygren TE, White RJ. Relating decision making styles to predicting self-efficacy and a generalized expectation of success and failure. Human Factors and Ergonomics Society 49th Annual Meeting, Orlando. 2005.
[23]. Petrie N. Future trends in leadership development. Center for Creative Leadership. 2014.
[24]. Riaz MN. Leadership styles as predictors of decision making styles (Unpublished M. Phil dissertation). National Institute of Psychology, Quaid-i-Azam University Islamabad, Pakistan. 2009.
[25]. Robbins S, Cenzo D. Fundamentals of management: essential concepts and applications. 2nd ed. New Jersey: Prentice-Hall International Co., 1998; 133-61.
[26]. Robbins S, Decenzo D, Wolter R. Supervision today 2010 In: Rowitz L. Public health leadership: putting principles into practice. 3rd ed United States of America: Jones& Bartlett Publishers Co., 2014; p: 530-32.
[27]. Rowe A, Boulgarides J. Decision Styles, 1983 In: Griffin R. Van Fleet D. Management skills assessment and development. United States of America: South Western Cengage Learning Co; 2012, p:272-39.
[28]. Rowe A, Davis S. Intelligent information system: meeting the challenge of the knowledge era. United States of America, Library of Congress Cataloguing in Publication Data Co., 1996; 24- 40.
[29]. Rue LW, Byars LL. Management, Skills and Application. 9th ed. New York: Mc Graw Hill. 2000.
[30]. Schoemaker AF. The Relationship between Decision-Making Style and Negative Affect in College Students. Unpublished MSc Thesis. Drexel University. 2010.
[31]. Senik Z, Sham R, Abdul Rahman N, Mat Isa R, Ismail D, Nor M, Hashim N, and Domil A. Academics as decision makers: what style do they adopt. Asean Journal of Teaching & Learning in Higher Education. 2012; 4 (1): 69-81.
[32]. Singh, N. (2001). Organizational behavior: Concepts, theory and practices. New Delhi: Deep & Deep Publications.
[33]. Thunholm P. Decision-making style: Habit, style or both? Personality and Individual Differences. 2004; 36(4): 931-44.
[34]. Thunholm P. Decision-making styles and physiological correlates of negative stress: Is there a relation? Scandinavian Journal of Psychology. 2008; 49(3): 213-9.
[35]. Van Loveren, Rachael K. The effects of decision-making and leadership styles on relationships and perceived effectiveness in the university development context. 2007. Available @ http://scholarcommons.usf.edu/etd/3855.