



Original Research Article

Essential managerial functions for optimal performance of health district management teams: Experience from Burkina Faso

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To assess managerial functions for the optimal performance of district health management team (DHMT) in Burkina Faso. This is a cross-sectional study conducted from May 2014 to September 2015. The data collected were: socio-demographic and professional data, and domains (management, leadership, communication, decision-making, problem-solving) from the online Mind Tools resources, and planning. The factors of management were identified using linear regression by the SPSS software 20. The 64 participants had a mean-age of 37.1 (35.8-38.5) years-old. The scores by domain were as follows: management = 74.6(72.2-77.1); leadership = 64.1(62.7-65.5); communication = 55.5(53.9-57.0); decision-making = 64.1(62.2-66.1); problem-solving = 63.9(62.0-65.9); planning = 38.9(37.1-40.7). By univariate analysis, the management factors were: age of the participants ($p=0.054$), communication ($p<0.0001$), decision making ($p<0.0001$), leadership ($p<0.0001$), problem-solving ($p<0.0001$). By multivariate analysis, the factors of management were: communication ($p=0.029$) and decision-making ($p=0.026$). Whether all the management functions are important, the present study showed that it is absolutely necessary to make the use of communication and decision making a regular practice, in order to get the best performances from organization management as conducted by health district teams.

Keywords: Communication, decision-making, human resources, management, performance.

INTRODUCTION

The core public health functions are assessment, policy development and the assurance that justified a public health infrastructure (Lloyd, 2007), for a strong health

system in order to achieve its goals. To solve the many problems that may arise during the transformation process, management concept is necessary for the company's

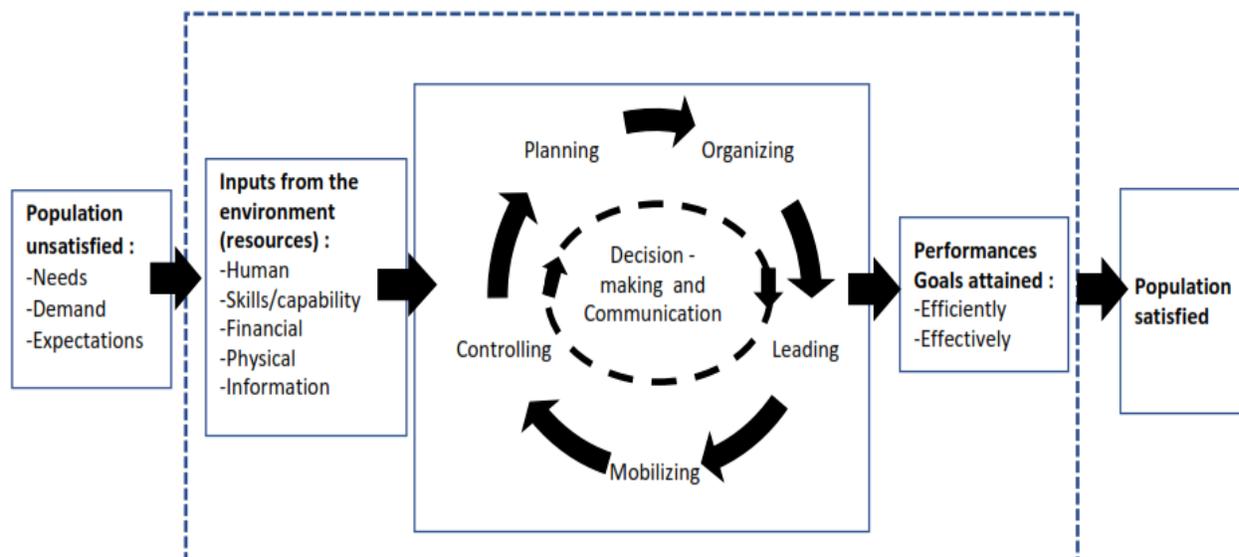


Figure 1: Management in organization to satisfy population (adapted from Ricky W. Griffin (Ricky W. Griffin 2011) and Stoner and al (James A F Stoner 2008)).

management in order to face the multiple challenges of the company and direct it towards the achievement of its objectives (Baldegger, 2014), in the complex context (Management Sciences for Health, 2006). Management is defined as « the art of combining different resources in the most appropriate way to achieve the best possible results » (Management Sciences for Health, 2006).

For successful organizations, people have to manage resources efficiently and effectively (Kettner, 2007; Gomez-Mejia, 2012); in order to reach organizational goals in the context of the management of change, emphasizing on customer service and considering business ethics (Gomez-Mejia, 2012). Also, it is the responsibility of the organizations to put in place organizational structures, modes of operation and management, cultures that correspond to them, that are consistent with their way of seeing the world (Monsempès, 2018).

According to several authors who have expressed their opinions about small or big general organization or enterprise, implementing management suggests the usual application of its functions (planning and strategizing, staffing, organizing, directing and leading, controlling, and decision-making) (Dessler, 2008; Griffin, 2011; Gomez-Mejia, 2012; Baldegger, 2014), and its performance managerial roles to be effective (personal role, interpersonal role, informational role, role to act and decisional role) (Gomez-Mejia, 2012; Mintzberg, 2014). In practice, the management must cover areas such as marketing, finance, operations, human resources, administration, and other areas (Griffin, 2011), according to Figure 1.

There has been an increased interest in strengthening the health system and for building capacity in developing countries, to ensure the sustainability of public health

programs (Seims et al., 2012). For that, the district team managers and supervisors tried to find a way of improving the quality of services and the service results (Management Sciences for Health, 2006). As a line manager, a member of the District health team (DHT) is considered as a manager who is authorized to direct the work of subordinates and is responsible for accomplishing the organization's tasks (Dessler, 2008). The present study assessed managerial functions for the optimal performance of a district health management team (DHMT) in Burkina Faso.

MATERIALS AND METHODS

Study area

The study setting was the 14 DHT from both Regions of Boucle du Mouhoun (06) and Hauts Bassins (08), in the West of Burkina Faso.

Study design

This is a cross-sectional study and was conducted in 2015.

Study population, sample size estimation and sampling technique

The study involved 120 members from the 14 DHT concerned (nine members per DHT, and six members were not designed on board yet).

Data collection tools

The survey, using a semi-structured questionnaire,

Table 1. Number of questions and the scoring of data or domain according to Mind Tools

Domain	Number of questions	Possible point by question	Minimum and maximum of the score
Management	20	From 1 to 5 by question	From 20 to 100
Planning	11	From 1 to 5 by question	From 11 to 55
Communication	15	From 1 to 5 by question	From 15 to 75
Problems solving	16	From 1 to 5 by question	From 16 to 80
Decision-making	18	From 1 to 5 by question	From 18 to 90
Leadership	18	From 1 to 5 by question	From 18 to 90

Table 2. Socio-demographic and professional characteristics of the participants

Variables		Management score			Khi2 test	p-value
		Score ≤ 73 n (%)	Score > 73 n (%)	Total n (%)		
Trainer	No	18 (51.4)	10 (34.5)	28 (43.8)	1.851	0.175
	Yes	17 (48.6)	19 (65.5)	36 (56.3)		
Having trainer competencies	No	15 (42.9)	9 (31.0)	24 (37.5)	0.946	0.331
	Yes	20 (57.1)	20 (69.0)	40 (62.5)		
Controller	No	27 (77.1)	26 (89.7)	53 (82.8)	1.744	0.187
	Yes	8 (22.9)	3 (10.3)	11 (17.2)		
Having controller competencies	No	23 (65.7)	19 (65.5)	42 (65.6)	0.000	0.987
	Yes	12 (34.3)	10 (34.5)	22 (34.4)		
Supervisor	No	17 (48.6)	9 (31.0)	26 (40.6)	2.022	0.155
	Yes	18 (51.4)	20 (69.0)	38 (59.4)		
Having supervisor competencies	No	15 (42.9)	9 (31.0)	24 (37.5)	0.946	0.331
	Yes	20 (57.1)	20 (69.0)	40 (62.5)		
Have participated in research	No	27 (77.1)	20 (69.0)	47 (73.4)	0.544	0.461
	Yes	8 (22.9)	9 (31.0)	17 (26.6)		
Having research competencies	No	21 (60.0)	20 (68.9)	41 (64.1)	0.259	0.611
	Yes	14 (40.0)	9 (31.1)	23 (35.9)		
Clinician	No	13 (37.1)	6 (20.7)	19 (29.7)	2.057	0.152
	Yes	22 (62.9)	23 (79.3)	45 (70.3)		

collected the following data: Socio-demographic and professional data, and scores/domains from the online Mind Tools resources (MindTools 2014) related to management, leadership, communication, decision-making, problems solving, and planning (Table 1).

Data analysis

Linear regression (Stepwise option) through the SPSS software (version 20) was used to identify factors related to the management practice of DHT.

Ethical considerations

Data from participants were obtained after their free written consent and ensuring the confidentiality of their data.

RESULTS

With the 64 members of the health district team included,

the participants' response rate was 51.0%. The mean age of the participants was 37.1 (95%CI: 35.8-38.5) years-old. The age range was between 28-53 years-old and median age was 37.0 years-old.

The mean management score was 74.6% (95%CI: 72.2-77.1), with a median of 73.0%, and range of 53.0 to 97.0%. There was no statistical difference between the socio-demographic and professional categorical data of the participants and the management by class (Table 2).

The score results were as follows: score leadership = 64.1% (95%CI: 62.7-65.5) with range of 53 and 77%; score communication = 55.5% (95%CI: 53.9-57.0) with range of 41 and 68%; score of decision making = 64.1% (95%CI: 62.2-66.1) with range of 48 and 80%; problem-solving score = 63.9% (95%CI: 62.0-65.9) with range of 48 and 80%; and score planning = 38.9% (95%CI: 37.1-40.7) with range of 24 and 53%. There was statistical difference between the problem-solving score, the leadership score, the decision making score and the communication score from the participants and the management by class (Table 3).

There was no statistical difference between the socio-

Table 3. Socio-demographic and professional continuous data and the scores of the participants

Variables		Management score			T test	p-value
		Score ≤ 73	Score > 73	Total		
Age of participants	Mean	35.8	38.4	37.1	0,900	0.372
	(95%CI)	(33.8 ;37.8)	(36.7 ;40.1)	(35.8 ;38.5)	(-3.844 ; 1.458)	
Seniority in the health district	Mean	48.7	47.6	48.2	0,139	0.890
	(95%CI)	(32.9 ;64.6)	(43.8 ;61.7)	(37.9 ;58.5)	(-19.398 ; 22.296)	
Seniority been and member of the health district team	Mean	32.9	26.0	29.5	1.590	0.102
	(95%CI)	(24.1 ;41.9)	(20.1 ;31.9)	(24.2 ;34.8)	(-1.715 ; 18.367)	
Planning score	Mean	39.3	39.5	38.9	0.540	0.591
	(95%CI)	(37.0 ;39.5)	(35.4 ;40.1)	(37.1 ;40.7)	(-4.568 ; 2.625)	
Problem-solving score	Mean	61.9	65,9	63.9	-2,62	0.021
	(95%CI)	(59.2 ;64.6)	(63.2 ;67.5)	(62.0 ;65.9)	(-8.838 ; -0.734)	
Leadership score	Mean	62.4	65.7	64.1	-2.122	0.038
	(95%CI)	(60.4 ;64.4)	(63.8 ;67.6)	(62.7 ;65.5)	(-5.208 ; -0.156)	
Decision-making score	Mean	60.6	67,4	64.1	-3.581	0.001
	(95%CI)	(58.3 ;62.9)	(64.6 ;70.2)	(62.2 ;66.1)	(-9.565 ; -2.712)	
Communication Score	Mean	53.4	57.4	55.5	-2.293	0.026
	(95%CI)	(50.9 ;55.9)	(55.6 ;59.2)	(53.9 ;57.0)	(-6.479 ; -0.437)	

demographic and professional continuous data of the participants and the management by class (Table 4).

By univariate analysis (Table IV), the factors of the health district's management were: age of the participants ($p=0.054$), communication score ($p<0.0001$), decision making score ($p<0.0001$), leadership score ($p<0.0001$), and problem-solving score ($p<0.0001$).

By multivariate analysis (Table IV), the factors of the health district's management were the communication score ($p=0,029$) and the decision making score ($p=0.026$).

DISCUSSION

In the present study, communication score and decision making score were identified as the main factors associated with the practice of management by the health facility teams (HFT) in both regions of Hauts Bassins and Boucle du Mouhoun, in Burkina Faso. Even if these findings are interesting, the main limits of the study were more methodological because it is a cross-sectional type of study.

Management and health system

In the health system, the debate is about how to deal with the adaptability (or flexibility) versus adaptation (or efficiency), the change and innovation versus stability, and the centralized control versus decentralization and autonomy (Chapman, 2004). Commonly, a particular emphasis is placed on the balancing about the number of managers, staff competencies, functional support system and the work environment (OMS, 2007). For best performances, there is a need to pay attention to the health services provided by the organization to ensure that they are effective (the right services), efficient (delivered in the

right way) and consistently of good quality, to meet the needs of clients (Management Sciences for Health, 2006).

What is more important is the adherence of management to three of the following levels: 1) strategic managers (overall responsibility for the firm), 2) tactical managers (responsible for implementing the directives of strategic managers), and 3) operational managers (responsible for day-to-day supervision). To achieve managerial success, three managerial performance roles have to be effective: interpersonal, informational, and decisional (Gomez-Mejia, 2012). However, both efficiency and effectiveness have become major considerations in social service program and agency administration (Kettner, 2007).

Management and age of the participants

It is very difficult to point out the right age. Traditionally, managers are likely to be older and more experienced than most of the individuals they supervise (Shore, 2003). This is the importance of employee age relative to co-worker age in determining attitudes, performance, and career-related opportunities. Also, both the magnitude and pattern of the employee-manager age interactions varied by self and manager rated outcome measures of work attitudes, performance and promote ability assessments as well as developmental experiences (Shore, 2003).

In a study conducted by Streufert et al. (1990), the performance by young and middle-aged teams was generally similar, and older teams made fewer decisions and were less strategic and less responsive to incoming information. According to Avolio et al. (1989), the ratings of skill importance were correlated with the age of the person being rated, years of experience. For Dedrick et al. (Dedrick, 1991), poor performance by older subordinates was attributed more to stable factors than similar performance

Table 4. Results from the univariate and multivariate analysis for identifying factors of management

Variables	Univariate Analysis			Multivariate Analysis		
	Unstandardized (IC95%)	Coefficient	<i>p</i> -value	Unstandardized (IC95%)	Coefficient	<i>p</i> -value
Age of participants	0.471 [0.008 ; 0.950]		0.054	0.367 [-0.036; 0.770]		0.073
Seniority in the health district	0.017 [-0.046 ; 0.080]		0.595			
Seniority been and member of the health district team	-0.077 [-0.199 ; 0.045]		0.211			
Having trainer competencies	0,067 [-5.265 ; 5.399]		0.980			
Trainer	0.921 [-4.278 ; 6.119]		0.725			
Controller	-2.731 [-9.538 ; 4.076]		0.426			
Clinician	3,883 [-1,680 ; 9.446]		0,168			
Having controller competencies	-1,645 [-7.064 ; 3.774]		0.546			
Supervisor	2.348 [-2.874 ; 7.570]		0.372			
Having supervisor competencies	0.067 [-5.265 ; 5.399]		0.980			
Have participated in research	0.030 [-5.815 ; 5.875]		0.992			
Have research competencies	1.512 [-3.705 ; 6.730]		0.564			
Planning score	0.069 [-0.295 ; 0.434]		0,705			
Problems solving score	0.563 [0.287 ; 0.839]		<0.0001	-0.047 [-0.383 ; 0.290]		0.782
Communication score	0.848 [0.492 ; 1,205]		<0.0001	0,468 [0.049 ; 0.888]		0.029
Decision-making score	0.599 [0.284 ; 0.914]		<0.0001	0.391 [0.048 ; 0.733]		0.026
Leadership score	0,722 [0.253 ; 1.191]		<0.0001	0.278 [-0.134 ; 0.690]		0.182

by younger subordinates.

About the lack of experience and deep knowledge, even though younger managers typically have more current knowledge and training, their lack of experience makes others to question their technical expertise and professional skills. This is helpful when awareness about the younger leaders' weaknesses addresses the challenges, in order to train new managers (Zenger and Folkman, 2015). Finally, the employees' age and fitness for work is treated on an individual basis, rather than having formal plans to manage the workplace for older workers, but not a plan from the management (Egdell, 2018).

Management and leadership

According to WHO, it is important to strengthen leadership (OMS, 2015). Leadership and management ensure optimal performance for any real health effort, which is essential in developing countries where resources are very scarce

(Management Sciences for Health, 2006).

For strategic management to be successful, everyone must be encouraged to think strategically by thinking as a leader (Swayne, 2008.), because leadership is a performing art, a collection of practices and behaviors, not a position (Kouzes, 2012). In this point of view, the responsibility of a single key manager but the entire leadership team is responsible for strategy development and its management (Swayne, 2008).

Quality management and leadership are essential to strengthen people-centered systems (Vriesendorp, 2010). For high-performance work systems, Gary suggested taking a look at transformational leadership (for instance, in terms of inspirational motivation) (Dessler, 2008).

The sciences of organization consider that leadership practices have to be democratic in order to optimize human resources potential (Henri Tedongmo Teko). Leadership is an important function of management which helps to maximize efficiency and to achieve organizational goals by

initiating action (a leader is a person who starts the work by communicating the policies and plans to subordinates from where the work actually starts), the motivation, providing guidance (supervision), creating confidence, building morale, building work environment, and coordinations are the primary motives of a leader (MSG, 2019a).

Management and problem-solving

Problem-solving is recognized as a key to managerial effectiveness. Also, the importance of problem-solving competence should be noted in the selection and development of managerial talent when managing institutions (Lang, 1978). Managers must be effective problem-solvers (CMOE). For instance when clinically managing cases, interventions should focus on enhancing self-efficacy, problem solving, and social-environmental support to improve the self-management of diabetes (King, 2010).

Management and decision making

A decision is the conclusion of a process by which one chooses between two or more available alternative courses of action for the purpose of attaining a goal (BMI): the entire process is called decision making and it is synonymous with managerial decision making when talking about the entire process of management (Gomez-Mejia, 2012).

The manager conceives decision making as a concept that can guide the behavior of their employees, or as a delegation leaving it to the employee to make decisions and carry out this task, as authorization by approving the decisions of others, as an allocation of resources when working on budgets to allocate resources, and as a prescription of objectives that challenge management by objectives, but seek to go beyond objectives (Mintzberg, 2014). In this perspective, the decision making process seeks the goals which are pre-set business objectives, company missions and its vision, dealing with a lot of obstacles in administrative, operational, marketing wings and the comprehensive decision making process of operational domains. In a management setting, decision cannot be taken abruptly but stepwise: defining the problem, gathering information and collecting data, developing and weighing the options, choosing best possible option, plan and execute and take follow up action (MSG, 2019b). For High-performance work systems, there is a need for self-managed teams and decentralized decision making (Dessler, 2008). In the context of control in the unit, managers conceive decision making as a concept that can guide the behavior of their employees, or as a delegation leaving it to the employee to make decisions and carry out this task, as authorization by approving the decisions of others, as an allocation of resources when working on budgets to allocate resources, and as a prescription of objectives that challenge management by

objectives, but seek to go beyond objectives (Mintzberg, 2014).

Finally, a study revealed that there are significant differences due to both gender and age as well as the participants' perception of the factors that determine their decision processes (Sanz de Acedo Lizárraga et al., 2007).

Management and communication

Communication is at the heart of their activities (Zarifian, 2000; Detchessahar, 2003). In doing so, management research maintains the (old) idea that the word is the prerogative of managers (Grönn, 1983). The evolution of organizational management has caused internal communication to be considered as a function in its own right, thus becoming a strategic management lever (Christian Michon). It also recognized the organizational dimension of communication in all its forms (Cooren, 2011).

In this perspective, the approach for "Communication Constitutes the Organization" (CCO) and makes it possible to identify the actions necessary to support any organizational process (Arnaud, 2012). More broadly, it is important to know how individuals exchange information and knowledge, how collectively and interactively they build (or have built) (Cooren, 2006).

To be effective, the managers have to know the key messages to communicate from day-to-day, from audience to audience (Swayne, 2008). They also have to communicate clearly and persuasively (Gomez-Mejia, 2012). For high-performance work systems, Gary suggested to look at information sharing (Dessler, 2008). Thereafter, it is important to communicate the value (Philip, 2010). Managers are expected to have communication and listening skills, in addition to questioning and open-mindedness skills (Hellriege, 2015).

Other functions of management

Even if the main factors from the present study were communication and decision -making, it is important to recall that there are other functions related to management, namely: planning, organizing, leading, and controlling (Griffin, 2011; Asmae, 2012; Gomez-Mejia, 2012), planning activities to meet organizational goals (Gomez-Mejia, 2012). Areas of management may include marketing, finance, operations, human resources, administration and other areas (Griffin, 2011). To be effective, the manager must have three managerial performance roles to be effective: 1) interpersonal, 2) informational, and 3) decisional (Gomez-Mejia 2012).

In conclusion, there is increased interest for strengthening public health programs where District health team (DHT) is considered as a manager responsible for accomplishing the organization's tasks. In this perspective, all the management functions are very important. Among them, the present study showed that it is absolutely

necessary to use regular practice, communication and decision making, in order to get the best performances from the organization's management as conducted by the district health teams. For that, it is recommended to train managers on communication and to steward them so that they can make the best decisions.

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Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this manuscript.

REFERENCES

- Arnaud N, Mills CE (2012). "Understanding the inter-organizational agency: A communication perspective." *Group & Organization Management*, 37(4): 452-485.
- Asmae D (2012). "Management général." Université Sidi Mohamed Ben Abdellah, Maroc: 1-52. See online 22 June 2019. Accessed <http://fsjes.usmba.ac.ma/cours/diani/Management-general.pdf>.
- Avolio BJ, Waldman DA (1989). "Ratings of managerial skill requirements: comparison of age- and job-related factors." *Psychol Aging*, 4(4): 464-470.
- Baldegger R, Pasquier M (2014). "Le management dans un environnement dynamique : Concepts, méthodes et outils pour une approche systémique. 1ère Edition." De Boeck Supérieur s.a: 1-58. Livre en ligne. Consulté le 7 mai 2015. Accessible sur <https://www.decitre.fr/media/pdf/feuilleter/59/57/58/52/58/50/54/51/9782804187446.pdf>.
- BMI (2019). "Decision Making in Management : Introduction and Definition of Decision Making. Business Management Ideas." See online 21 April 2019. Accessed <http://www.businessmanagementideas.com/management/decision-making-management/decision-making-in-management/10017>.
- Chapman J (2004). "System failure: Why governments must learn to think differently. 2nd Revised edition." Demos: London: 1-104. See online 10 September 2019. Accessed <https://www.demos.co.uk/files/systemfailure2.pdf>
- CMOE (2019). "Managers must be effective problem-solvers" Center for Management and organization effectiveness (CMOE). See online 21 May 2019.
- Cooren F, Kuhn T, Cornelissen JP, Clark T (2011). "Communication, organizing and organization: An overview and introduction to the special issue." *Organization studies*, 32(9): 1149-1170.
- Cooren F, Taylor JR, Van Emery EJ (2006). "Communication as organizing. Empirical and theoretical exploration in the dynamic of text and conversation." London: Lawrence Erlbaum Associates, Inc: 1-248
- Dedrick EJ, Dobbins GH (1991). "The influence of subordinate age on managerial actions: An attributional analysis." *J. Organizational Behavior*, 12(5): 367-377.
- Dessler G (2008). "Human resource management. Eleventh edition." Pearson international edition: 1-675.
- Detchessahar M (2003). "L'avènement de l'entreprise communicationnelle ? Outils, problèmes et politique d'accompagnement." *Revue Française de Gestion*, 29: 14265-14284.
- Egdell V, Maclean G, Raeside R, Chen T (2018). "Age management in the workplace: manager and older worker accounts of policy and practice. policy and practice." *Ageing & Society*. See online 11 September 2019. Accessed
- Gomez-Mejia LR, Balkin B (2012). "Management : People, Performance, Change. International edition." Boston Prentice Hall, Pearson Education Inc: 1-525.
- Griffin RW (2011). "Management. 10th Edition." South-Western Publishing: 1-810.
- Grönn PC (1983). "Talk as work : the accomplishment of school administration." *Administrative Science Quarterly*, 28: 1-21.
- Hellriegel DI, Slocim. JW (2015). "Management des organisations. 2ème ed." Bruxelles, Éditions De Boeck: 1-727. See online 2 March 2018. Accessed <https://www.amazon.fr/Management-organisations-Don-Hellriegel/dp/2804147037>
- James AF Stoner R, Freeman E, Gilbert DR, (2003). "Management. 6th ed." Prentice-Hall International Learning Ltd: 1-630. See online 21 May 2015. Accessed <https://www.abebooks.com/servlet/BookDetailsPL?bi=4885774798>
- King DK, Glasgow RE, Toobert DJ, Strycker LA, Estabrooks PA, Osuna D, Faber AJ (2010). "Self-Efficacy, Problem Solving, and Social-Environmental Support Are Associated With Diabetes Self-Management Behaviors." *Diabetes Care*, 33(4): 751-753.
- Kotler P, Keller K, Manceau D, Dubois B (2010). "Marketing management (13e édition)." Pearson: 1-900. Consulté en ligne 2 April 2015. Accessible sur <https://www.chapitre.com/BOOK/kotler-philip-keller-kevin-manceau-delphine-dubois-bernard/marketing-management-13e-edition,34942620.aspx>
- Kouzes JM, Posner BZ (2012). "The leadership challenge : how to make extraordinary things happen in organizations. 5th ed." San Francisco, CA: Jossey-Bass: 1-412.
- Lang JR, Dittrich JE, White SE (1978). "Managerial Problem Solving Models: A Review and a Proposal." *The Academy of Management*, 3(4): 854-866.
- Management Sciences for Health (2006). "Transformer les managers en leaders : Guide pour l'amélioration des services de santé." Management Sciences for Health (MSH), Inc, Cambridge, Massachusetts: 1-331. Consulté le 5 décembre 2010. Accessible sur https://www.msh.org/sites/default/files/mwl_french_final.pdf
- Michon C (2012). "Management et communication interne : les six dimensions qu'il faut considérer." *Communication et Organisation [en ligne]*. Mis en ligne le 26 mars 2012.

- Consulté le 31 décembre 2018. Accessible sur <http://journals.openedition.org/communicationorganisation/1713>.
- MindTools (2014). "Management Training and Leadership Training, Online: Toolkit." MindTools: See online 14 June 2014. Accessed https://www.mindtools.com/pages/article/newTMM_2028.htm.
- Mintzberg H (2014). "Manager, l'essentiel : ce que font les managers.... Et de qu'ils pourraient faire mieux. (Traduit de l'Anglais)." Maguard-Vuibert: 1-183. Consulté le 11 mai 2018. Accessed <https://www.amazon.fr/Manager-Lessentiel-vraiment-managers-pourraient/dp/2311400940>
- Monsempès JL (2018). "Niveau de conscience du leadership et de développement d'une organisation." Institut repère: Consulté le 21 novembre 2018. Accessible sur <http://www.institut-repere.com/Base-documentaire/liste-articles-leadership.html>.
- MSG (2019a). "Importance of Leadership". Management study guide (MSG). Consulté le 31 mai 2019. Accessible sur : https://www.managementstudyguide.com/importance_of_leadership.htm.
- MSG (2019b). "What is Decision Making ? ." Management study guide (MSG). See online 31 May 2019. Accessible <https://www.managementstudyguide.com/what-is-decision-making.htm>.
- Novick Lloyd F, Morrow Cynthia B, Mays Glen P (2007). "Public Health Administration: Principles for Population-based Management (2nd Edition)." Jones and Bartlett Publishers: 1-797.
- OMS (2007). "Améliorer le leadership et la gestion sanitaire. Pour un bon fonctionnement des systèmes de santé : Document de travail N° 10. WHO/HSS/healthsystems/2007.3. ." OMS: Page 1-39. Consulté le 2 mai 2012. Accessible sur https://www.who.int/management/working_paper_10_fr_opt.pdf.
- OMS (2015). "Cadre pour des services de santé intégrés centrés sur la personne. Rapport du Secrétariat " Organisation mondiale de la santé (OMS). CONSEIL EXÉCUTIF, Cent trente-huitième session. Point 10.1 de l'ordre du jour provisoire EB138/37: 1-13. Consulté le 2 mai 2019. Accessible sur http://apps.who.int/gb/ebwha/pdf_files/EB138/B138_137-fr.pdf.
- Peter M. Kettner, Robert M. Moroney, Lawrence L. Martin, (2007). "Designing and Managing Programs : An Effectiveness-Based Approach. Third edition." SAGE Publication, Inc: 1-300.
- Sanz de Acedo Lizárraga ML, Sanz de Acedo Baquedano MT, Cardelle-Elawa M (2007). "Factors that affect decision making: gender and age differences." Int. J. Psychol. Psychol. Therapy, 7(3): 381-391
- Seims LRK, Alegre JC, Murei L, Bragar J, Thatte N, Kibunga P, Cheburet S (2012). "Strengthening management and leadership practices to increase health-service delivery in Kenya: an evidence-based approach." Human Resources for Health, 10:25.
- Shore LM, Cleveland JN, Goldberg CB (2003). "Work Attitudes and Decisions as a Function of Manager Age and Employee Age." J. Appl. Psychol.; by the American Psychological Association, Inc, 88(3): 529 -537
- Streufert S, Pogash R, Piasecki M, Post GM (1990). "Age and management team performance." Psychol Aging, 5(4): 551-559.
- Swayne LE, Duncan J, Ginter M (2008). "Strategic management of health care organizations." Sixth Edition. Jossey-Bass, A Wiley Imprint: 1-869.
- Teko HT, Bapes Y, Ba Bapes Y (2010). "Influence sociale et leadership dans la direction des personnes." SociologieS [En ligne], Premiers textes, mis en ligne le 29 septembre 2010. Consulté le 27 décembre 2018. Accessible sur <http://journals.openedition.org/sociologies/3204>.
- Vriesendorp S (2010). "Chapitre 2: Leadership et management : les compétences essentielles pour renforcer les systèmes de santé. Systèmes de santé en action." Management Sciences for Health (MSH), Inc, Cambridge, Massachusetts: 1-34. Consulté le 22 mars 2015. Accessible sur
- Zarifian P (2000). "Sur la question de la compétence. Réponse à Jean -Pierre DURAND." Gérer et Comprendre, 62: 25-28. Consulté le 27 juillet 2015.
- Zenger J, Folkman J (2015). "Generational issues : What Younger Managers Should Know About How They're Perceived." Harvard Business Review: