

State of Play of the Environmental Performance of Moroccan Public Universities (Open Access)

Mrs. Imane ASRAOUI¹ Mr Fouad OUAD² and Mrs. Lalla Zhor OMARI ALAOUI³

¹⁻²Doctoral Scholar, ³Teacher-Researcher

Management Research Laboratory - Finance and Accounting (MRLFA)

Faculty of Legal, Economic and Social Sciences

Ibn Tofail University - Kenitra, Morocco

ABSTRACT

Moroccan Higher Education is facing many problems, especially those concerning the quality of its services and its environment. Thus, this sector has continued to experience reform upon reform, but without achieving the expected results. It is therefore necessary to identify its weak points in order to better reform it. One of the objectives of this study is to raise awareness among decision-makers to develop a study on the university environment and performance in academic institutions. Using indicators that measure the impact of the university environment on performance in Moroccan universities.

Keywords: Environment, Performance, Morocco, Higher education.

INTRODUCTION

In an organization such as a university, the environment has a special place. Most debates, conflicts and analyses reflect the changes imposed on universities by their environment (Beaulieu and Bertrand, 1999). Universities are constantly responding to the needs of their environment; in fact, every activity reflects a need in some way. They are generally more reactive than proactive. In this context, universities play an important economic role. They generate jobs, they train workers. They provide regional organizations with access to competent human resources, facilitate access to education and produce research useful for local or national development. In short, they allow the population to benefit from quality services.

1. Materials and methods:

1.1. Elaboration of the questionnaire:

The researcher's experience plays an important role in the question-writing phase. This phase is important; it entirely conditions the success of the investigation. Wrong questions will never give the right answers, Thiétart (2007) points out that developing a questionnaire is a very complex task that many young researchers underestimate. This work covers the writing of questions, the choice of measurement scales and the structuring of the form.

The final questionnaire was then structured as follows: 9 questions.

2. METHOD

The method followed is based on the use of data obtained from a questionnaire sheet (Table I) distributed to 182 managers of open-access institutions (Presidents, Deans, Vice-Presidents, Vice-Deans and Assistant Directors). We therefore chose "managers of open-access academic institutions" as the main actor in this evaluation. Note

Based on our post-positivist epistemological positioning, the design chosen for the study is action research. The objective of our research is to study the impact of the university environment on the performance of open access institutions.

Table 1: Plan and content of the questionnaire conducted in 2018¹

	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Q1- Do you consider that your university's performance is dependent on :					
Its size					
His antecedents, his history					
Its geographical location					
Its institutional environment					
Its economic environment					ı
Other (Specify)					
Q2- Do you consider that a university must have a critical size in order to be identified or which of the following is the most appropriate threshold for your institution?	recogniz	ed?	If s	50,	
Less than 5,000 students					
Between 5000 and 10000 students					
Between 10,000 and 20,000 students					
More than 20,000 students					
Other (specify)					
Q3- Do you feel that the management of your university requires					
Scientific and pedagogical skills					
Management skills					
Administrative skills					
Communication and marketing skills					
Other (Specify)					
Q4- You consider that your function as university president is rather occupied by activitie	s:				
Administrative					
strategic thinking					
communicative					
Pedagogical					
financial and budgetary					
resource management					
Other (Specify)					
Q5- In your opinion, is the existence of secondary sites at your university :	l l	l .		I	
may instead adversely affect the overall performance level of your institution.					
may instead enhance the overall performance level of your institution.					
has no effect on the overall level of performance					
Q6- The number of students enrolled represents :	I	I			
The most representative indicator of your establishment's performance					
An indicator on which the bulk of your institution's funding resources depend					
An indicator that is too important in the management of your establishment					
Essential identifying information about your facility					
Q7- The quality of your university's local or regional involvement represents :		I		!	
an important indicator of its performance					
A difficult indicator to assess					
An indicator that can be measured by the professionalization of your training courses.					
An indicator that can be assessed by the quality of the company/university relationship					
An indicator that can be assessed by the quality of the company/university relationship					
Q8- Would you say that the specificity of your university can be recognized by :					
The diversity of the training courses on offer					
The number of students enrolled					
The quality of scientific research					

¹ Meriade, L. (2011). <u>L'évaluation de la performance des universités françaises: entre simplification de la complexité et complexification de la simplicité</u>, Editions universitaires européennes.

Exam success rate			
Professionalization of training courses			
The quality of the lecturers' curricula			
International relations			
University-business collaboration			
Other (Specify)			
Q9- Would you say that your university's performance is dependent :			
The dynamism of the economic environment			
The dynamism of the technological and scientific environment			
The dynamism of other higher education structures			
The expectations of the students or their families			
The quality of scientific research			
Your communication policy			
The quality of scientific research			
Other (Specify)			

Table 2: List of Moroccan public open-access academic institutions that are the subject of our research

				Mohamm	ed V, Ra	bat						
FSJ	ES Agdal/	Rabat	FSJES S	Souissi/Rabat	FS	JES S	alted	FL	SH Rabat		FS Rabat	
			<u>'</u>	Hassan II	, Casabla	nca				ı		
FSJES	FSJ	ES	FSJES Aïn	FLSH Aïn	FLSH	Ben	FLS	SH	FS Aï	n	FS Ben	
Casa	Moham	madia	Sebaa	Chock Casa	M'Sic	I'Sick Mohamma		ımadia	Chocl	K	M'Sick	
			Casa		Casa			Casabla	nca	Casablanca		
			S	idi Mohammed	Ben Ab	dellah	ı, Fez					
FSJES	FL:	SH Dhar	El Mahraz	FLSH Saiss	s Fez]	FS Dhar	El Mahı	raz Fez		FP Taza	
Fez	Fe		Z									
				Cadi Ayya	d, Marra	kech						
FS.	ES Marra	ıkech	FLSH	Marrakech	FS Sem	Semlalia Marrakech F			F	FP Safi		
				Sultan Moulay S	limane, E	eni M	Iellal	·				
	FLSH Béni Mellal				FP Béni Mellal							
				Mohamme	d First, (Oujda						
F	SJES Ou	ida	FLS	FLSH Oujda			FS Oujda			Nac	lor	
		'		Abdelmalek I			,					
FSJ	ES	FLSH	Tetouan	FS Tetouan			S Tetouar	1	F	P Lat	ache	
Tang				- 2								
•				Chouaïb Dou	kkali, El	Jadio	da					
	FLSH	El jadida	ı		S El jadi				FSJE	S El	jadida	
		J	-		ı I, Setta					•	,	
		F	FSJES Settat			T		FP	Khouribg	я		
			STED Settat	Moulay Is	maïl Me	knes			Timouriog			
F	SJES Mek	nac	ELCI	H Meknes		S Mel	znac		ED E	Greed	hidia	
	JILD MICK	illes	TLSI		ail, Kenit		KIICS		11 1	aracı	iliuia	
	ECIE	S Kenitra			LSH Ken				EC	Ken	itra	
	LOIE	Kemua							гъ	IZCII	ıua	
EGIEG	A 1'	FOIE	1 A 1 11 1		hr, Agad		11. 177	20.		ED	T 1	
FSJES	Agadir	FSJES	S Ait melloul	FLSH Aga	air F	S Aga	air Fi	Ouarz	azate	FP	Taroudant	

Source: DSSI (MENFPESRS)

3. RESULTS AND DISCUSSION

Q1. Do you consider your university's performance to be dependent on :

Table 3: Distribution of respondents according to likert choice

	1	2	<u>3</u>	<u>4</u>	<u>5</u>	<u>Total</u>
Its size	11	12	7	5	6	41
	(26,83)	(29,26)	(17,07)	(12,19)	(14,63)	
His antecedents, his	11	9	9	5	7	41
history	(26,82)	(21,95)	(21,95)	(12,19)	(17,07)	
Its geographical	10	3	8	12	8	41
location	(24,39)	(7,31)	(19,51)	(29,26)	(19,51)	
Its institutional	2	5	7	7	20	41
environment	(4,87)	(12,19)	(17,07)	(17,07)	(48,78)	
Its economic	1	2	4	11	23	41
environment	(2.43)	(4,87)	(9,75)	(26,83)	(56,09)	

Table (3) presents the results of the distribution of respondents according to the "likert" choice. Indeed, 56.09% (n=23) of respondents disagreed that size is a performance criterion for universities, compared to 26.82% (n=11) who agreed with this classification criterion. However, 17.07% neither agreed nor disagreed. On the other hand, 48.77% (n=20) also do not consider that academic performance is dependent on one's background and history, compared to 29.89% who believe it. While 21.95% did not give a precise "yes" or "no". Thus, for both of these criteria, more than 50% of the interviewers reported performance based on neither the size nor the history of the university.

Nevertheless, the geographical location of the universities, according to the respondents, 31.7% disagreed against 48.77% who answered "yes". In terms of linking performance to the institutional and economic environment, it was noted that the pattern of responses favoured the "agree" choice. In addition, 65.85% responded that they agreed that the institutional environment is a criterion of university performance as well as the economic environment, 83.73% agreed with this.

Q2. Do you consider that a university must have a critical size in order to be identified or recognised

Table 4: Distribution of respondents according to Likert choice

	1	<u>2</u>	3	4	<u>5</u>	<u>Total</u>
Less than 5,000 students	26	2	5	4	4	41
	63.41	4.87	12.19	9.75	9.75	
Between 5000 and 10000 students	20	6	6	6	3	41
	48.78	14.63	14.63	14.63	7.31	
Between 10,000 and 20,000 students	21	2	2	5	8	41
	51.21	4.87	4.87	12.19	19.51	
More than 20,000 students	16	2	3	4	16	41
	39.02	4.87	7.31	9.75	39.02	

Table (4) presents the results of the distribution of respondents according to the "likert" choice. Indeed, 68.28% (n=28) of respondents disagreed that a critical size of less than 5,000 students is a criterion for identifying universities, compared to 19.5% (n=8) who agreed with this classification criterion. However, 12.19% neither agreed nor disagreed. On the other hand, 63.41% (n=26) also do not consider a critical size of between 5,000 and 10,000 students to be a classification criterion, compared to 21.94% who do. While 14.63% did not give a precise "yes" or "no".

On the other hand, 55.91% (n=23) also do not consider a critical size of between 10,000 and 20,000 students as a classification criterion, compared to 31.70% who do. While 4.87% did not give a precise "yes" or "no".

Therefore, concerning a critical size of less than 20,000 students per university, the majority of the respondents do not consider this as a classification criterion.

Nevertheless, a critical size of more than 20,000 students per university, according to the respondents, of which 43.89% disagreed against 48.77% who answered "yes".

Q3- Do you feel that the management of your university requires

Table 5: Distribution of respondents according to likert choice

	1	2	3	4	5	Total
Scientific and pedagogical skills	5	2	2	5	27	41
	12.19	4.87	4.87	12.19	65.85	
Management skills	2	1	1	7	30	41
	4.87	2.43	2.43	17.07	73.17	
Administrative skills	4	1	1	13	22	41
	9.75	2.43	2.43	31.70	53.65	
Communication and marketing skills	5	1	2	16	17	41
	12.19	2.43	4.87	39.02	41.46	

Table (5) presents the results of the distribution of respondents according to the "likert" choice. In fact, 78.04% (n=32) of the respondents answered **that** they agree **that the management of the university requires scientific and pedagogical skills** against 17.06% (n=7) who disagreed with this classification criterion. On the other hand, 90.24% (n=37) also consider **that the management of the university requires** management skills, against 7.3% who disagree. While 4.86% did not give a precise "yes" or "no".

In addition, 85.35% (n=35) said that **managing the university requires** administrative skills versus 12.18% (n=5) who disagreed with this criterion.

Similarly, 80.48% (n=33) responded that **university management requires** communication and marketing skills, while 14.62% (n=6) disagreed.

In terms of linking university management with the **need for** scientific and pedagogical skills, management skills, administrative skills and communication and marketing skills, it was noted that the pattern of responses is favourable to the choice "agree".

Q4- Do you consider that the position of university president is rather occupied by activities?

Table 6: Distribution of respondents according to Likert choice

	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Total</u>
Administrative	17	4	7	9	4	41
	41.46	9.75	17.07	21.95	9.75	
strategic thinking	1	1	2	7	30	41
	2.43	2.43	4.87	17.07	73.17	
communicative	6	3	6	10	16	41
	14.63	7.31	14.63	24.39	39.02	
Pedagogical	7	4	11	15	4	41
	17.07	9.75	26.82	36.58	9.75	
financial and budgetary	5	4	2	15	15	41
	12.19	9.75	4.87	36.58	36.58	
resource management	4	6	3	13	15	41
	9.75	14.63	7.31	31.70	36.58	

Table (6) presents the results of the distribution of respondents according to the "likert" choice. Indeed, 51.21% (n=21) of respondents disagreed that the role of **university president is more likely to be occupied by administrative activities** compared to 31.7% (n=13) who agreed with this activity. On the contrary, 90.94% (n=37) consider that the **function of university president is rather occupied by** strategic thinking **activities** against 4.86% who do not consider it. However, the percentage of respondents who do not have an opinion on this subject remains low at 4.87%.

Furthermore, the percentage of respondents who answered "yes" to the fact that the **position of university president is rather occupied by** communication **activities is** 63.41% (n=26) against 21.94% who answered "no".

Similarly, 46.33% (n=19) of respondents agree that the position of university president takes care of pedagogical occupations, compared to 26.82% who deny this.

Concerning the occupations of the university president by financial and budgetary activities and resource management activities, the percentages of respondents who agreed on these two occupations are respectively 73.16% (n=30);68.28% (n=28).

Thus, with regard to the occupations of the university president, the majority of interviewees reported that these occupations essentially concern strategic thinking, communication, pedagogical, financial and budgetary activities, and resource management.

Nevertheless, the administrative occupations, according to the respondents, of which 51.21% disagreed against 31.7% who answered "yes".

5- According to you, the existence of secondary sites in your university:

Table 7: Distribution of respondents according to Likert choice

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Total
May instead affect the overall performance level of	7	6	10	7	11	41
your establishment	17.07	14.63	24.39	17.07	26.82	
May instead enhance the overall performance level of	3	2	10	10	16	41
your establishment	7.31	4.87	24.39	24.39	39.02	
Has no effect on the overall performance level	19	2	8	5	7	41
	46.34	4.87	19.51	12.19	17.07	

Table (7) presents the results of the distribution of respondents according to the "likert" choice. Indeed, 43.89% (n=18) of respondents agreed that the **existence of secondary sites at the university** may actually undermine overall institutional performance, compared to 31.7% (n=13) who disagreed. However, 24.39% (n=10) neither agreed nor disagreed.

On the other hand, 63.41% (n=26) also consider that the **existence of secondary sites in the university** can rather favour the overall performance level of the institution, compared to 12.18% (n=5) who do not believe in it. While 24.39% (n=5) did not give a precise "yes" or "no". Thus, with respect to these two data, more than 50% of the interiors reported that the **existence of secondary sites at the university** may rather hinder the overall performance level of the institution and may rather favour the overall performance level of the institution.

Nevertheless, the existence of secondary sites at the university has no effect on the overall level of performance, according to the respondents, 51.21% (n=21) of whom disagreed against 29.62% (n=12) who answered "yes".

6- The number of registered students represents :

Table 8: Distribution of respondents according to Likert choice

	1	2	3	4	5	Total
The most representative indicator of your	19	8	6	5	3	41
establishment's performance	46.34	19.51	14.63	12.19	7.31	
An indicator on which the bulk of your institution's	4	6	6	12	13	41
funding resources depend	9.75	14.63	14.63	29.26	31.70	
An indicator that is too important in the management of	5	3	6	11	16	41
your establishment	12.19	7.31	14.63	26.82	39.02	
Essential identifying information about your facility	6	9	6	11	9	41
	14.63	21.95	14.63	26.82	21.95	

Table (8) presents the results of the distribution of respondents according to the "likert" choice. Indeed, 65.85% (n=27) of respondents disagreed that the **number of students enrolled is** the most representative indicator of the institution's performance, compared to 19.5% (n=8) who agreed with this criterion. However, 14.63% (n=6) neither agreed nor disagreed. On the other hand, 36.13% (n=15) also do not consider the **number of students enrolled to be** the institution's essential identification information, compared to 48.77% (n=20) who do not believe this, while 14.63% have no opinion on this subject.

Nevertheless, the **number of students enrolled represents** An indicator that is too influential in the management of the institution and An indicator on which the bulk of your institution's funding resources depend, according to respondents, 65.84% (n=27) and 60.96% (n=25) respectively.

The number of students enrolled therefore represents two essential indicators that are indicators on which the bulk of the institution's funding resources depend and indicators that are too over-emphasized in the management of the institution.

O7- The quality of your university's local or regional involvement represents:

Table 9: Distribution of respondents according to Likert choice

	1	2	3	4	5	Total
an important indicator of its performance	1	6	3	12	19	41
	2.43	14.63	7.31	29.26	46.34	
A difficult indicator to assess	7	8	6	11	9	41
	17.07	19.51	14.63	26.82	21.95	
An indicator that can be measured by the	6	2	7	13	13	41
professionalization of your training courses.	14.63	4.87	17.07	31.7	31.7	
An indicator that can be assessed by the quality of the	2	2	5	9	23	41
company/university relationship	4.87	4.87	12.19	21.95	56.09	

Table (9) presents the results of the distribution of respondents according to the "likert" choice. Indeed, 77.59% (n=32); 75.66% (n=31); 63.4% (n=26) of respondents agreed that the **quality of the university's local or regional involvement represents respectively** An indicator that can be evaluated by the quality of the company/university relationship, an important indicator of its performance and An indicator that can be measured by the professionalization of your training courses.

On the other hand, 48.77% (n=20) also consider the quality of the university's local or regional involvement to be an important indicator of its performance, with a correlation coefficient of r=+0.9, as well as a positive correlation with (r=+0.88) for **The quality of the local or regional involvement of the university** as an indicator that can be assessed by the quality of the company/university relationship.

Q. 8- Would you say that the specificity of your university can be recognized by :

Table 10: Distribution of respondents according to Likert choice

	1	2	3	4	5	Total
The diversity of the training courses on offer	1	3	5	12	20	41
	2.43	7.31	12.19	29.26	48.78	
The number of students enrolled	7	7	12	10	5	41
	17.07	17.07	29.26	24.39	12.19	
The quality of scientific research	1	4	3	8	25	41
	2.43	9.75	7.31	19.51	60.97	
Exam success rate	5	6	13	11	6	41
	12.19	14.63	31.70	26.82	14.63	
Professionalization of training courses	1	2	7	11	20	41
	2.43	4.87	17.07	26.82	48.78	
The quality of the lecturers' curricula	1	2	6	16	16	41
	2.43	4.87	14.63	39.02	39.02	
International relations	2	2	5	18	14	41
	4.87	4.87	12.19	43.90	34.14	
University-business collaboration	1	5	3	12	20	41
	2.43	12.19	7.31	29.26	48.78	

presents the results of the distribution of respondents according to the "likert" choice. In fact, 78.04% (n=32) of the respondents agreed that the specificity of the university can be recognized by the diversity of the training courses offered, 80.48% (n=33) agreed that the specificity of the university can be recognized by the quality of scientific research, 75.6% (n= 31) agreed that the specificity of the university is recognized by the professionalization of the training courses, 78.04% (n= 32) agreed that the specificity of the university is recognized by the quality of the courses of the lecturers, 78.04% (n= 32) agreed that the specificity of the university is recognized through international relations and 78.04% (n=32) agreed that the specificity of the university is recognized by the collaboration between the university and the company, therefore concerning the specificity of the university, more than 70% of the respondents reported the last to the six following criteria (The diversity of the training courses offered, The quality of scientific research, The professionalization of the training courses, The quality of the lecturers' curricula, International relations and The collaboration between the university and the company), against 11.8% who have no opinion on the criteria mentioned.

Q. 9- Would you say that your university's performance is dependent:

<u>5</u> Total 1 <u>2</u> <u>3</u> <u>4</u> 2 3 5 12 19 41 4.87 7.31 12.19 29.26 46.34 2 41 4 5 11 13

The dynamism of the economic environment The dynamism of the technological and scientific 26.82 environment 4.87 9.75 12.19 31.70 The expectations of the students or their families 3 4 9 12 13 41 29.26 7.31 9.75 21.95 31.70 The quality of scientific research 4 8 14 13 2 41 9.75 19.51 34.14 31.70 4.87 Your communication policy 1 2 6 4 28 41 2.43 4.87 14.63 9.75 68.29

Table 11: Distribution of respondents according to Likert choice

Table (10) presents the results of the distribution of respondents according to the "likert" choice. In fact, 12.18% (n=5) of respondents replied that they did not agree that the dynamism of the economic environment is a performance criterion for universities, compared to 75.60% (n=31) who agreed with this classification criterion. However, 12.07% neither agreed nor disagreed. On the other hand, 14.62 (n=6) also do not consider that university performance is dependent on the dynamism of the technological and scientific environment, as opposed to 58.52% (n=24) who do. While 12.19% did not give a precise "yes" or "no".

Thus, concerning these two criteria, more than 60% of the respondents reported performance in terms of the dynamism of the economic environment and the dynamism of the technological and scientific environment of the university.

In addition, 60.26% (n=25) reported university performance in meeting the expectations of students or their families compared to 21.95% who neither agreed nor disagreed, while 17.06% denied this performance criterion.

As regards the link between academic performance and communication policy, it was noted that the tendency of the answers is in favour of the choice "agree" 78.04%.

On the other hand, for the relationship between university performance and the quality of scientific research, we noted almost an equality between the yes, no and no opinion responses, i.e. 36.57%, 29.26% and 34.14% respectively.

CONCLUSION

The study assessed the environment of Moroccan universities between the different variables of the research model using quantitative analyses. The analysis of the questionnaire was carried out on the sample of 41 observations, which led to quite different results.

Indeed, from an initial analysis of the results obtained using the questionnaire we found that the relationship between performance and the university environment is very significant.

BIBLIOGRAPHIES

.ALAMI, S., La performance organisationnelle par l'adoption du contrôle de gestion par l'hôpital marocain: une explication par l'approche LISREL. La Revue Marocaine de Contrôle de Gestion, (8).

ALAMI, S., HOSPITAL PERFORMANCE THROUGH MANAGEMENT CONTROL: AN EXPLANATION THROUGH STRUCTURAL EQUATIONS. Finance & International Finance, (14).

Alami, S., La performance par la mise en place du contrôle de gestion: cas de l'hôpital public. Revue d'Etudes en Management et Finance d'Organisation, (8).

AMINE, N.B., M. LAMCHAOUAT, and K. ROUGGANI, THE STUDENT POPULATION AND THE DEFINITION OF THE TERM "PERFORMANCE": EMPIRICAL STUDY. Revue Economie & Kapital, (13).

Amir, L., L'impact de la gestion prévisionnelle des emplois et compétences sur la performance organisationnelle de l'entreprise: Cas de l'Office National de la Météorologie. 2019, Mouloud Mammeri University.

AMRANI Ferhane, I., Balanced scored card - measuring performance and steering strategy. 2018.

Aubourg, G., et al. Proposal of a modeling approach to improve public sector performance. in MOSIM '18-12th International Conference on Modeling, Optimization and SIMulation. 2018.

Baaziz, A. and M. Khelil. Balanced ScoreCard and performance management: Case of the Drilling Division. 2006.

Bane, M.F., Role of the Comptroller in Managing Overall Performance. 2018, Reims.

Bouamama, M., New Challenges for Performance Measurement Systems: The Case of Scorecards. 2015.

Boudjadja, Z., A. Bouharrat, and M.E. Maameri, *Le tableau de bord et la performance financière d'une entreprise*. 2018, University A. Mira, Béjaia/Aboudaou.

Bouguelmouna, K., L'IMPACT DU MANAGEMENT STRATEGIQUE SUR LA PERFORMANCE DES PME ALGERIENNES. 2019.

Brewer, P.C., *The Balanced Scorecard as a Tool for Aligning Supply Chain Performance Measures: The Dell Example.* Logistics & Management, 2001. **9**(2): p. 55-62.

Bucumi Sommer, C., Total Quality Management and Performance Measurement: A Critical Review of their Relationship to Practices in the Agri-Food Industries. 2012, Nantes.

Bureau, D., M. Mougeot, and N. Studer, *Measuring Public Management Performance in the Light of Economic Analysis*. Revue française des affaires sociales, 2010(1): p. 89-104.

Chanteux, A. and W. Niessen, Les tableaux de bord et business plan: Managing your company's accounts. 2015: EdiPro. 495.

Cheffi, W. and A. Beldi. Designing a Performance Measurement Tool: Discrepancies between Management Controllers and Managers. Case of a French Industrial Group. in "ACCOUNTING AND ENVIRONMENT". 2007.

Cohanier, B., et al. Performance Management: From Representations to Measurement. in International Marketing Trends Conference. 2010.

Cohen, C., P. Corsi, and M. Dulieu, *Business Intelligence: The Effectiveness of Strategic Intelligence and Its Impact on the Performance of Organizations*. 1 ed. Iste. 2009, Somerset: John Wiley & Sons, Incorporated. 306.

Dahmani, M. and L. Ragni, *The impact of information and communication technologies on student performance*. Reseaux, 2009(3): pp. 81-110.

Daoud, H., Analysis of storage performance, in memory and on input/output devices, based on an execution trace. 2019, École Polytechnique de Montréal.

Dhiaf, M.M., Proposal for a model to measure the impact of total quality management on overall performance: the case of Tunisian textile and clothing companies. 2007.

ELHAMMA, A., DIVERSITY OF PERFORMANCE MEASUREMENT SYSTEMS: A CONTINGENT ANALYSIS.

Germain, C. and S. Trebucq, *The global performance of the company and its management: some thoughts.* Lamy Social Week, 2004. **1186**: p. 35-41.

Lorino, P. Le balanced Scorecard Revisite: dynamique stratégique et pilotage de performance exemple d'une entreprise énergétique. in 22ÈME CONGRESES DE L'AFC. 2001.

Mazouz, B., Managing for Results: Concepts and Practices of Performance Management in Government Organizations. 2019: PUQ.

Meriade, L., Les outils d'évaluation de la performance universitaire: entre prescription, appropriation et innovation. 2013.

OUAD, M.F., M.I. ASRAOUI, and M.L.Z.O. ALAOUI, *Les établissements universitaires marocains: vers une nouvelle gestion axée sur la performance.* Review of Accounting and Auditing Control, 2019(10).

Renaud, A. Environmental Performance Assessment Tools: Environmental Audits and Indicators. 2009.