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VARIABLES INFLUENCING ACADEMICS' PERCEPTIONS OF QUALITY ASSURANCE IN HIGHER EDUCATION IN ALGERIA

VARIABLES INFLUENÇANT LA PERCEPTION PAR LES ENSEIGNANTS DE L'ASSURANCE QUALITE DANS L'ENSEIGNEMENT SUPERIEUR EN ALGERIE

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Abstract:
The main objective of this article was to explore the variables that influence the perception of barriers to quality assurance. A descriptive analytical approach was used, assuming that there were no statistically significant differences between the academics' perceptions according to their individual characteristics and those of their affiliated institutions. Data were obtained through a questionnaire survey of 121 academics. The results showed that the perception was not a function of the characteristics of the academics (Gender, Grade, Area of specialization and Number of years' experience) or those of their institutions (Type and size), with the exception of the characteristic Region (geographical location) of the institutions.
Keywords: Perception; Academics; Barriers; Quality Assurance; Higher Education
JEL Code: I23

Résumé :
L'objectif principal de cet article a été d'explorer les variables qui influencent la perception des obstacles à l'assurance qualité. Une approche descriptive analytique a été utilisée supposant qu'il n'existait pas de différences statistiquement significatives entre les perceptions des enseignants en fonction de leurs caractéristiques individuelles et celles de leurs établissements affiliés. Les données ont été obtenues par le biais d'une enquête par questionnaire réalisée auprès de 121 enseignants. Les résultats ont indiqué que la perception n'était pas fonction des caractéristiques des enseignants (Genre, Grade, Domaine de spécialisation et Nombre d'années d'expérience) ni de celles de leurs établissements (type

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et taille), à l'exception de la caractéristique Région (implantation géographique) des établissements.
Mots clés : Perception, Enseignants, Obstacles, Assurance Qualité, Enseignement Supérieur
Code Jel : I23

1. Introduction:

In 2010, the Higher Education (HE) sector in Algeria adopted Quality Assurance (QA) as a strategic approach to achieving the objectives of the LMD (Licence-Master-Doctorate) reform, implemented in 2004. The approach involved implementing strategies focused on the continuous improvement of various activities within Higher Education Institutions (HEIs), particularly teaching, research, and management.

Over a ten-year period (2010-2020), several actions were carried out in all the HEIs, including: appointment and training of Quality Assurance Managers (QAMs) and members of Quality Assurance Units (QAUs), conduction of internal and external evaluations to assess the HEIs performance and development of institutional projects and action plans

Following this initial phase, numerous barriers were encountered by the various stakeholders, particularly the academics, who were key actors within the QAUs. These challenges were primarily linked to management practices, internal stakeholders, and the overall process of implementation (Regad, 2013; Benhoucine, 2015; Bouzid & Benhoucine, 2017; Musette, 2019; Belimane & Chahed, 2021/2). However, the literature has demonstrated that these obstacles are often perceived differently depending on certain variables.

This research arose from this issue and aimed to determine whether the perception of barriers by academics has been influenced by certain variables related to their characteristics and those of their institutions**.** The research question was then formulated as follows: **Did the perception of academics get influenced by specific characteristics related to their profiles and those of their institutions?**

To address this question, a quantitative approach was employed. A questionnaire survey was administered to 121 academics affiliated with various HEIs in Algeria.

2. Literature review:

The literature indicated that academics' perceptions of QA aspects can be influenced by numerous factors, which are related to both their characteristics and those of the institutions in which they are employed.

Musette's article (Musette, 2019) explored the constraints faced during the implementation of QA by conducting interviews with QAMs from HEIs in the central region of Algeria. The results indicated that the perceived difficulties were associated with the "Size" of the HEI.

(Mussawy & Rossman, 2018) examined QA and accreditation policies and processes at six universities in Kabul, Afghanistan. Data were collected through interviews and a questionnaire survey. The results indicated no statistically significant variation in academics' responses based on the two variables of the study: "Number of years' experience" and "Sector" (public/private).

The article of (Khaled Salah, 2017) aimed to identify barriers to total quality from the perspective of teaching staff at Alexandria University, Egypt. Data were collected through a

questionnaire survey, and the results revealed that academics' perceptions were not influenced by the variables of "Gender", "Area of Specialization" or "Grade."

(Tavares & al, 2017) investigated the practical effects of QA on teaching and learning in both private and public HEIs in Portugal. The results of the questionnaire survey indicated that the variables "Gender" and "Sector of HE" had a significant impact on academics' perceptions, whereas "Type of Institution" did not.

(Abadou, 2015) studied the barriers to the application of total quality within a faculty at the University of Biskra in Algeria. Data were collected through a questionnaire survey, and the results indicated that the variables "Grade" and "Number of years' experience" did not influence academics' perceptions.

(Rbaiai & Chaher, 2015) investigated the barriers to the application of total quality at the Arab American University in Palestine. The results of the questionnaire survey indicated that the variables "Gender" and "Degree" significantly influenced academics' perceptions, whereas the variable "Number of years' experience" did not exhibit a similar effect.

The article of (Badr Khan & Elchwa, 2013) examined the barriers to the implementation of QA in two universities in Jordan. The results of the questionnaire survey indicated that the independent variables "Sector" (public/private) and "Area of Specialization" did not significantly influence academics' perceptions.

(Adadi, 2012) addressed the barriers to the application of total quality across five faculties at King Khaled University in Saudi Arabia. Data were collected through a questionnaire survey, and the results revealed that "Area of Specialization" influenced academics' perceptions, whereas "Number of years' experience" did not.

The table below (Table N°01) provides an overview of previous studies that investigated the impact of specific variables on academics' perceptions:

Table N°01: Overview of previous studies

Reference	Object of perception	Impacting factors	Impact
(Musette, 2019)	Constraints encountered in implementing QA	- Size of HEI	Yes
(Mussawy & Rossman, 2018)	QA and accreditation policies and processes	- Number of years' experience - Sector of HE	No
(Khaled Salah, 2017)	Barriers to total quality	- Type of HEI - Area of specialization - Grade	No
(Tavares & al, 2017)	The practical effects of QA on teaching and learning	- Genre - Sector of HE - Type of HEI	Gender and Sector (Yes) Type (No)
(Abadou, 2015)	Barriers to implementing total quality	- Grade - Number of years' experience	No
(Rbaiai & Chaher, 2015)	Barriers to the application of total quality	- Gender - Degree	Gender and Degree (Yes)

		- Number of years' experience	Experience (No)
(Badr Khan & Elchwa, 2013)	Barriers to implementing QA	- Sector of HE - Area of specialization	No
(Adadi, 2012)	Barriers to the application of total quality	- Area of specialization - Number of years' experience	Specialty (Yes) Experience (No)

Source: Own (based on literature)

According to the literature review, most studies indicated that factors associated with the specific characteristics of academics or their HEIs did not significantly influence their perceptions of QA aspects. Consequently, we formulate the following two hypotheses:

H1: *There were no statistically significant differences in academics' perceptions based on their individual characteristics*
H2: *There were no statistically significant differences in academics' perceptions based on the characteristics of their institutions*

3. Variables and Research Model:

Dependent Variable: This variable is generally denoted by the symbol Y (Y = F(x)). It varies in response to other phenomena or variables that can be studied or manipulated (Aktouf, 1987). In this study, "Perceived Barriers to QA" served as the dependent variable.

Independent Variables: This variable influences changes in the variable under study and can be manipulated by the researcher to examine its role in variations of the dependent variable (Aktouf, 1987). The present study focused on two categories of independent variables: the characteristics of academics and those of their HEIs (Tables N°02 &0 3).
Academics are characterized by their Gender, Grade, Number of years' experience, and Area of specialization. Additionally, they are affiliated with HEIs distinguished by their geographical location (Region), Type, and Size. All these variables are deemed relevant for explaining any differences in perceptions of barriers to QA.

Table N°02: Variables related to Academics Characteristics

Variable	Classes
Gender	Female; Male
Grade	Assistant Professor; Associate Professor; Professor
Number of years' experience	- Less than]05years - Between [05 and 10 years [- Between [10 and 20 years [- 20 years or more
Area of specialization	- Mathematics and Computer Science - Economics, management and business sciences - Material sciences - Natural and life sciences - Earth and Universe Sciences

	- Science and Technology - Arts - Law and Political Science - Languages and Literature - Physical and Sports Sciences and Techniques - Humanities and Social Sciences - Architecture, urban planning and urban professions

Source: Own

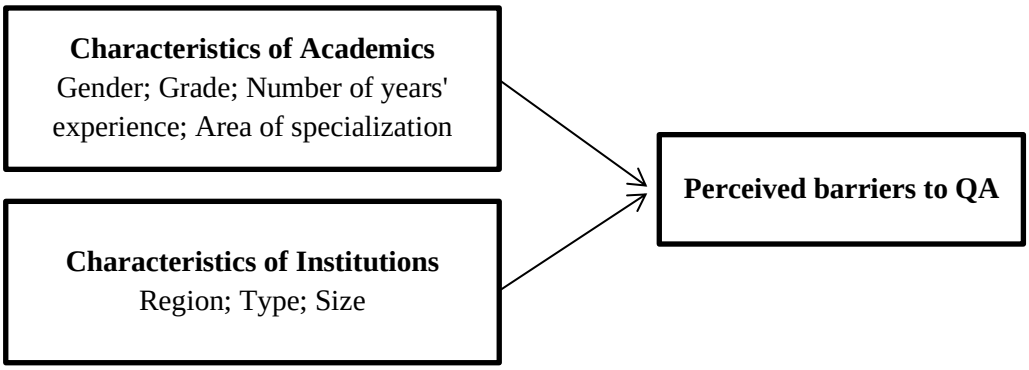
Table N°03: Variables related to Institutions Characteristics

Variable	Classes
Region	East; West; Centre
Type	Universities ; Schools ; University Centres
Size	- Small size: number of students under 10,000 - Medium size: number of students between 10,000 and 20,000 - Large size: number of students over 20,000.

Source: Own

Based on these variables, the present study proposed the following model (Figure N°01):

Figure N°01: Proposed Research Model



Source: Own

4. Methods :

A survey was conducted among a sample of 121 academics directly involved in QA projects within their HEIs. The sample was selected using a snowball sampling technique.

The questionnaire comprised 68 items, assessed on a five-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (5). The items were formulated based on the literature on barriers to QA in higher education. They corresponded to obstacles encountered at various stages of implementing QA, including management commitment, planning, reference model, communication, training and awareness-raising, stakeholder involvement, conducting self-assessments, developing action plans, and monitoring and improvement.

The questionnaire was developed and administered online through Google Forms over a six-month period, from September 2020 to April 2021.

Data were analyzed using SPSS version 26, and the results were subsequently tested for reliability and validity.

5. Results:

5.1. Descriptive Analysis :

Table N°04: Profile of respondents

Variable		Classes	Nbr	%
Variables related to academics characteristics	**Gender**	Female	38	31%
		Male	83	69%
	Grade	Professor	22	18%
		Associate professor	71	59%
		Assistant Professor	23	19%
		Others	5	4%
	Number of years' experience	Less than 5 years	23	19%
		Between [05 and 10 years old [	31	25,6%
		Between [10 and 20 years old [	44	36,4%
		20 years and more	23	19%
	Area of specializatio n	Economic, management and commercial sciences	27	22%
		Science and Technology	21	17%
		Mathematics and Computer Science	17	14%
		Languages and Literatures	16	13%
		Natural and Life Sciences	12	10%
		Science of the material	8	7%
		Humanities and Social Sciences	6	5%
		Earth and Universe Sciences	4	3%
		Law and political science	4	3%
		Architecture, urban planning and city professions	4	3%
		Sciences and techniques of physical and sports activities	2	2%
Variables related to institutions characteristics	**Region**	Center	54	45%
		East	49	40%
		West	18	15%
	Type	University	81	67%
		School	32	26%
		University Center	8	7%
	Size	Small	35	29%
		Medium	31	26%
		Large	55	45%

Source: Own (Based on the results from SPSS)

5.2. Statistcal Analysis:

A pilot study was conducted to assess the reliability of the questionnaire. It was administered to a group of 20 individuals from the target population (academics) prior to the main survey. The Cronbach's α value was 0.982, indicating high reliability for the 68 items in the questionnaire.

Regarding the normality of the distribution, a normality test was performed to determine whether the data followed a normal distribution. The Kolmogorov-Smirnov test produced α

values below the significance threshold of 0.05 (p=0.025 < 0.05). Similarly, the Shapiro-Wilk test indicated a significant result (p=0.012 < 0.05). Therefore, it was concluded that the data from the study sample did not follow a normal distribution.

To determine whether academics' perceptions differed significantly, the non-parametric Wilcoxon one-sample test was employed, serving as an alternative to the parametric one-sample T-test. The results (Observed median = 3.69, Ws statistic = 8.151, p = 0.000) indicated statistically significant differences.

To examine the relationship between the variables and verify the research hypothesis, non-parametric tests were employed as shown in the following table (Table N°05).

Table N°05: Results of Non-Parametric Tests

Indep.Var	**Depend. Var**	**Test Used**	**Sign.**	
Gender	Perceived barriers to QA	Test U de Mann Whitney	0,485	*Not significant*
Grade		Test Kruskal-Wallis	0,569	*Not significant*
Number of years' experience		Spearman Test	0,592	*Not significant*
Area of specialization		Test Kruskal Wallis	0,110	*Not significant*
Region		Test Kruskal Wallis	0,026	***Significant***
Type		Test Kruskal Wallis	0,115	*Not significant*
Size		Spearman Test	0,829	*Not significant*

Source: Own (Based on the results from SPSS)

Based on these results, we confirmed the two hypotheses (H1 and H2) which posited that there were no statistically significant differences between academics' perceptions based on their individual characteristics and those of their institutions. However, the second hypothesis (H2) was refuted in relation to the variable "Region" of the institutions.

6. Discussion :

The results obtained from the questionnaire survey of academics confirmed that the independent variables had no impact on the study's dependent variable, with the exception of the region of the HEI.

The findings indicated no statistically significant differences in perceptions between male and female academics. This result aligns with Khaled Salah's study (Khaled Salah, 2017), which also demonstrated no effect of *Gender* on academics' perceptions of barriers to quality in HEI in Egypt. However, contrasting findings were reported by (Rbaiai & Chaher, 2015) and (Tavares & al, 2017), who found significant *Gender* differences in perceptions. It is worth noting that the proportion of men in our sample (83%) was considerably higher than that of women (38%), which may have influenced the results, with male responses potentially dominating the overall findings.

Additionally, the Kruskal-Wallis tests indicated no statistically significant differences in academics' perceptions based on the variables of *Grade* and *Area of specialization*. These findings corroborate those of (Abadou, 2015) in the Algerian context and (Khaled Salah, 2017) in the Egyptian context concerning the *Grade* variable. Regarding the *Area of specialization*, these results align with those reported by (Khaled Salah, 2017) and (Badr Khan & Elchwa, 2013), who found no effect of the academic's *Area of specialization* on their perceptions of quality barriers. However, (Adadi, 2012) reported contrasting results.
With respect to the variable of *Number of years' experience*, Spearman's correlation test revealed no statistically significant differences in academics' perceptions. This outcome is consistent with the conclusions of (Cardoso & al, 2013), who deemed QA experience an irrelevant characteristic for explaining variations in academics' responses.

Regarding the characteristics of HEIs, the results showed a significant impact of the variable *Region* on academics' perceptions. Although limited literature exists to explain the influence of this variable, some plausible explanations can be proposed. The variation in perceptions could stem from differences in the levels of knowledge and proficiency in QA and self-assessment among HEIs across different regions. Certain HEIs may have benefited from international projects and support programs aimed at enhancing QA and self-assessment, organized by foreign partners. The expertise gained through these initiatives likely facilitated the implementation of QA measures, leading academics in these institutions to perceive fewer barriers.
Furthermore, the Kruskal-Wallis test revealed no statistically significant differences in academics' perceptions based on the variable *Type of HEI*. This finding aligns with the results of (Mussawy & Rossman, 2018) and (Tavares & al, 2017), who reported a lack of statistical variation in academics' responses according to the *Type of HEI*. However, (Musette, 2019) indicated that the timeframe significantly hinders the implementation of QA at the university level, while a lack of financial and material resources obstructs QA efforts at the school level. Due to their larger *size*, universities require more time to conduct self-assessment and develop action plans. In contrast, schools tend to be more flexible and prioritize organizing QA efforts more effectively than universities (Tavares & al, 2017).
Moreover, the results indicated that the relationship between the variable *Size of HEI* and perceptions was not statistically significant at the $\alpha \leq 0.05$ level. This outcome contrasts with Musette's findings (Musette, 2019), which suggested that the *Size* of an institution influences perceived constraints.

7. Conclusion:

In conclusion, the academics surveyed agreed that barriers to the implementation of QA were encountered. They shared a similar perception of these barriers, regardless of their characteristics (Gender, Grade, Area of specialization, and Number of years' experience) and those of their institutions (Type and Size). However, their perceptions varied based on the Region of their institutions.
As a limitation and future direction for the research, this study focused solely on teaching staff involved in the QA process at their HEIs. The study did not include other internal

stakeholders, such as administrators, students, and support staff. Expanding the survey to include these additional internal stakeholders would be beneficial.

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