The Good Practices of Academic Autonomy as Mechanism of Governance and Performance of Higher Education Institutions: Case of the University of Sfax

Rym Belgaroui¹, Salah Ben Hamad²

¹Assistant Professor, King Faisal University, School of Business, Al Hasa Saudi Arabia
²Professor, University of Sfax, Institute of Higher Business Studies Sfax, Tunisia

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Abstract— This study focuses on the impact of governance and more specifically on autonomy as a major dimension and mechanism in the context of higher education and its role in improving the performance of education. Thus, the aim of our research is to address the close relationship between academic autonomy and the performance of public higher education institutions by taking the case of the University of Sfax as an example. The quantitative study of the different members of the Scientific Council of each institution shows that the governance of higher education, a key dimension of the health of the system, has a strong impact on the performance of higher education systems.

Keywords— Governance, Academic autonomy, Performance, Higher education.

I. INTRODUCTION

Governance issues in the private and public sectors have become a popular topic of discussion in the last two decades (Edwards, 2003). As a result, it has become increasingly a key element for development (Mudacumura and Morçol, 2014). There were then some changes and legislative provisions imposed by governments on public and private organizations around the world to improve their governance arrangements (Edwards, 2000). Higher education Institutions have thus become one of the main lines of governance among public sector organizations (Coaldrake, Stedman and Little, 2003, Dixon et al., 2007, Edwards, 2000).

In addition, very few studies have examined the relationship between governance, and more specifically academic autonomy, and the performance of higher education system systems. Nevertheless, these interesting studies demonstrate the potential link between governance and performance and its complexity (Esterman and Nøkkala, 2011). However, empirical research on this relationship has not yielded conclusive results and the results show that the impact of governance on performance remains an empirical question to explore. The ambiguity, both theoretical and empirical, has prompted us to clarify this relationship.

In this research framework and in relation to this context, our objective is therefore to study and explore further the effect of academic autonomy on performance and to complement the image of this complex relationship illustrated in Academic literature taking the case of the University of Sfax as an example. We study this effect on a single form of performance, namely teaching. The results of the empirical analyzes obtained by means of structural equations which present a very recent technique in the field of management sciences offer a range of practical advice and recommendations for managers and decision-makers in order to understand and give an image on the influence of academic autonomy on the performance of education.
addition, we wanted to contribute to a very recent topic on which few studies carried out.

This article structured as follows. Section 2 presents the literature review that motivates empirical work. Section 3 presents the methodology, section 4 analyses the data. Finally, section 5 presents the main results and the managerial implications discussions.

II. LITERATURE REVIEW

A good deal of research shows that governance structures make a difference in the management and performance of public agencies (Heinrich and Lynn, 2000). In this perspective, Aghion (2008) and Salmi (2009) note that among the various factors that influence the outcomes of higher education systems and the performance of institutions of higher education is good governance as a determining factor. Thus, the relationship between governance and performance is important in the formulation of the management of effective organizations and public policies of regulation. According to the literature (Beiner and Schmid, 2005, Bhagat and Black, 2001, Gompers, Ishii and Metrick, 2003, Klapper and Love, 2004), governance plays an important role in improving the performance of an organization. There is a direct relationship between governance and performance.

Moreover, it constantly argued that the most important trend of governance in higher education has been the expansion of institutional autonomy, both material and procedural (Eurydice, 2008; OECD, 2008). As a result, deregulation in the institutional empowerment form has probably been the predominant trend of governance in higher education over the past two decades (De Boer et al., 2008; De Boer and Fichier, De Boer et al., 2010). In this regard, there is sufficient evidence to suggest that increasing university autonomy would yield better results. However, the debate on autonomy was overshadowed by discussion of tuition fees and student aid in political circles. Indeed, several researchers find that the links between governance and performance can exist only in specific contexts what works in one country may not work in another. Nevertheless, many country-specific examples show a positive interaction between governance and performance, but research that is more detailed needed to draw definitive conclusions (De Boer et al., 2012).

In this article, we focus on the effect of autonomy as a major dimension and mechanism of governance, and more specifically academic autonomy on the performance of higher education (by the graduate rate). We then examine the relevant theories that have addressed this issue.

2.1 Autonomy as a dimension and a major mechanism of governance

The principle of good governance guarantees the objectives assigned by the university and more particularly the principle of good practice of autonomy, which serves to guarantee a certain quality of education and participates in the construction of good governance. As a result, increased autonomy provides institutional decision-makers with more flexibility, more power and more freedom to operate their institutions. Increased autonomy has positive effects on good governance (Varghese and Martin, 2014). To this end, deregulation in the form of institutional empowerment was probably the dominant trend of governance in higher education over the last two decades (De Boer et al., 2008; De Boer and Fichier, De Boer et al., 2010).

Autonomy is a crucial issue for higher education and for higher education institutions in particular (European Commission, 2003 and 2005, Gibbons et al., 1994, Goddard, 2005, Henkel, 2005, Moses, 2007, Tirrnanen, 2005, Trow, 1996). In this context, Harman (2001, cited by Okwar) stresses that autonomy is very important for higher education institutions. He also adds that autonomy is a necessity for universities to reduce interference with outside agents or by politicians in academic affairs. Moreover, the specification by means of the qualifying adjectives of autonomy that has become popular in higher education studies such as "procedural", "substantive" or "conditional" does not provide sufficient grounds for empirical investigations. More importantly, for studies that aim to measure the impact of autonomy on university performance, a more elaborate conceptual framework needed to discover the different facets and dimensions of the autonomy of higher education would be the subject of the following sub-section.

2.2 Dimensions and measurements

Several reform programs found it difficult to draw conclusions about the autonomy of an organization (Olsen, 2009). The response in the public administration literature thus captured the multi-faceted nature of autonomy and broke down various dimensions that subdivided into observable and measurable indicators and elements.

Christensen (2011) distinguishes, for example, three dimensions of formal bureaucratic autonomy. The structural autonomy, which deals with the insertion of an alternative or a competitive level of political control. The second dimension, which is financial autonomy, is the agency's...
exemption from one or more of the budgetary constraints constitute the main rules of the government budgetary system. Finally, the third dimension is legal autonomy, which suggests the authorization by the law of the head of the agency to take decisions in its own capacity.

Similarly, Ringold et al. (2012) present four main characteristics of institutional governance to measure the degree of autonomy of higher education institutions: organizational autonomy, autonomy financial resources, autonomy of human resources, and academic autonomy.

Thus, Aghion et al., (Ringold et al., 2012), empirically reinforced the choice of these four dimensions as the main elements of institutional governance.

In this context, we point out in the following that our work is inspired by the taxonomy of autonomy as presented by the World Bank (2012) and by Ringold et al., (2012) and which will also be applied in Our research work. Hence, this taxonomy integrates well the main dimensions of autonomy as well as the point of view that autonomy is a multidimensional concept. As we also point out that, we will study the dimension of academic autonomy and its influence on the performance of higher education during our research.

2.3 The Relationship between Academic Autonomy and Performance in the Context of Higher Education

Academic autonomy has taken into account responsibility for curriculum design; The extent to which universities are autonomous to introduce or cancel curricula and determine academic structures; The overall number of students; Admission criteria; Admissions by discipline; Program evaluation; Evaluation of learning outcomes and teaching methods (World Bank, 2012).

Research on academic autonomy and performance first emerged in the United States in an era of declining public support for universities combined with increased regulation and state control. In this regard, various studies have examined the relationship between governance, autonomy and performance, but several questions arise when we examine this literature (Verhoest et al., 2004). In fact, there is a lack of empirical evidence of a link between autonomy and performance (De Boer et al., 2012). Reale (2008) argues that more autonomy leads to better performance of higher education institutions and to the promotion of a wide differentiation and competitiveness between higher education institutions at national level and internationally. It also adds that autonomy is a fundamental element linked to improving quality, efficiency and effectiveness.

Several reports (Brandenburg et al., 2008, Estermann and Nokkala, 2009, Eurydice, 2008, Center for the Study of Higher Education (CHEPS), 2010, Sursock and Smidt, 2010) show that autonomy leads to better performance in universities (Ritzen, 2011). Maassen and Jungblut (2014) show that autonomy has positive effects on the strategic behavior of academic institutions, on the diversity of the system, on the socioeconomic reactivity and relevance of higher education, and on The quality of the primary processes of education (Maassen and Jungblut, 2014).

To succeed, Rosovsky (2001) observed that academic staff must be involved in university decision-making. Universities need the full participation of academic staff in the decision-making process, and better guarantees of academic autonomy (Altbach, 2011). In this respect, flexibility in the development of the program is another aspect of academic autonomy that has greatly benefited the academic community. Indeed, the majorities of institutional decision-makers announce that universities could launch their new programs and actively offer learners to serve their needs, enabling institutions to better serve the learning needs of the community. The university may also make decisions regarding the establishment of a quality assurance system at the institution. All university departments are responsible for designing and updating programs, evaluating students, collecting data, and making frequent self-assessments of their work. Thus, a study by Varghese and Martin (2014) shows that this practice has had a positive impact on improving university performance by improving the performance of education (Varghese and Martin, 2014).

On their part, Yang and Li (2014) analyze the policies of change in the new governance structures in higher education in China and their implications in education systems. The study based on an analysis of changes at the national level and a detailed examination of one of the public universities. The results showed that freedom in curriculum development, curriculum design, and freedom to decide research priorities and academic programs have enabled the development of academic performance in a meaningful way.

According to Jibladze (2012), the ability to decide on key issues related to student selection (admission) is an important part of academic autonomy.

Another study by Yang and Li (2014) on policies to change the new governance structures in higher education in China and their implications in education systems. This study demonstrates that with the implementation of governance reform, and especially the increased autonomy of education...
systems to recruit students, the number of graduate students is increasing strategically and there is a Rapid growth in student enrollment from 7233 in 1995 to 12328 in 2000, 19424 in 2005 and 22009 in 2008. As a result, the number of graduate students rose even more rapidly, from 1088 in 1990 to 8698 in 2008.

2.4 Hypotheses

Based on the arguments put forward, we can formulate our main hypothesis, which will further decomposed into hypotheses:

**HG:** Academic autonomy has a positive impact on the performance of higher education institutions.

**H1:** Curriculum and assessment of students affect the performance of education.

**H2:** Admission policies affect the performance of education.

**H3:** The number of students affects the performance of education.

### III. RESEARCH METHODOLOGY

#### 3.1 Study population

In our study, our population based on a list of scientific advice from each public higher education institution belonging to the University of Sfax. This is a comprehensive survey to which all the people in the population systematically interviewed. This survey targeted the members of the scientific councils of each institution.

#### 3.2 Data collection

The collection of data from our study was established through an online survey. In this regard, we created an online questionnaire using the Google Forms tool. We sent this e-mail to the 309 scientific council members of each Sfax-level higher education institution to participate in our study. It should also note that we have taken other measures to increase the response rate. Indeed, we sent several stimulus emails to the various members of the scientific council in order to motivate them, to remind them and to encourage them to respond to our inquiry. Finally, we collected 147 responses that showed significant data among 309 departures.

### IV. ANALYSIS OF DATA AND RESULTS

The collected data analyzed in two stages via the Statistical Packages for Social Sciences (SPSS) version 18.0 and its AMOS version 18.0. First, exploratory and confirmatory factor analyzes were used for the different scales of measurement to assess the dimensionality, reliability and validity of the constructs. Second, methods of structural equations have applied to examine and test hypothetical relationships proposed in the theoretical model. This approach and its results will presented in the following.

#### 4.1 Factor Analysis

The reliability analysis of the variable "Curriculum Definition and Student Assessment" shows a single reliable factor composed of 4 elements with a Cronbach alpha of 0.899> 0.6, which is considered excellent. In addition, an analysis of the reliability or internal consistency of the variable "policies and admission conditions" showed a Cronbach alpha index of 0.784> 0.6. This warned us that the two items selected were correlated well and no item elimination favored the improvement of the scale of measurement.

In a second step, a confirmatory analysis is performed on (AMOS 18.0) in order to analyze the validity, the reliability and the quality of adjustment of the different scales of measurements. Indeed, the evaluation of the fitting quality of the measurement models for the metric variables in our model has done by referring to the adjustment indices that may help us decide whether to accept the models or not (Roussel et al., 2002).

The three-dimensional structure of the "Academic Autonomy" scale has confirmed. The scale is in fact, composed of three dimensions. All standardized regression coefficients are between 0.730 and 0.938. In addition, all the evaluations for factor contributions are significantly higher than 1.96.

#### Table 1: Results of confirmatory factor analysis of the measurement model "Academic Autonomy"

<table>
<thead>
<tr>
<th>Adjustment Indices</th>
<th>Values recorded</th>
<th>Evaluation of values</th>
</tr>
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<tbody>
<tr>
<td>Chi2/dl</td>
<td>1.039</td>
<td>(&lt;5) excellent</td>
</tr>
<tr>
<td>GFI</td>
<td>0.975</td>
<td>(&gt;0.9) excellent</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.946</td>
<td>(&gt;0.9) excellent</td>
</tr>
<tr>
<td>CFI</td>
<td>0.999</td>
<td>(&gt;0.9) excellent</td>
</tr>
<tr>
<td>TLI</td>
<td>0.998</td>
<td>(&gt;0.9) excellent</td>
</tr>
<tr>
<td>NFI</td>
<td>0.973</td>
<td>(&gt;0.9) excellent</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.016</td>
<td>(&lt;0.08) excellent</td>
</tr>
<tr>
<td>RMR</td>
<td>0.034</td>
<td>(&lt;0.05) excellent</td>
</tr>
</tbody>
</table>
4.2 Verification of research hypotheses
Recall that our research objective is to test the influence of academic autonomy and its dimensions on the performance of education. To do this, and to test the hypotheses and the relations of our research model, we based ourselves on the methods of structural equations (MES). Indeed, these methods were originally developed to examine multiple causal relationships and to verify the reliability and validity of measurement instruments (Roussel et al., 2002). The use of this type of model is justified by the fact that they are now widely used in quantitative research in management sciences when it comes to testing complex causal models typical of the situation encountered in our case. This method confirms or invalidates all of our research hypotheses.

Table 2: Results of structural relationships

<table>
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<tr>
<th></th>
<th>Estimate</th>
<th>C.R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Performance ← Programs and evaluation</td>
<td>.220</td>
<td>1.773</td>
<td>.307</td>
</tr>
<tr>
<td>Education Performance ← Programs and evaluation</td>
<td>.529</td>
<td>2.022</td>
<td>.003</td>
</tr>
</tbody>
</table>

V. DISCUSSION OF RESULTS AND MANAGERIAL IMPLICATIONS
The observation of the results presented in Table 2 shows that the definition of curricula and the evaluation of students have a negative impact on the performance of university education with a Coefficient Ratio (CR = 1.77 < 1.96) and (P = 0.307 > 0.05). These findings do not coincide with the work of Varghese and Martin (2014), which proved, according to their study, that the practice of designing and updating programs and evaluating students has a positive impact on students' Improvement of the performance of higher education institutions.

This difference in outcomes could explained by the phenomenon of behavioral bias in decision-making at the respondent level. Indeed, according to Saad and Russo...
(1996), the decision-making process does not reflect the use of all the necessary information. In other words, the decision-maker can make his or her decision without consulting a lot of information about the subject. In addition, studies of the decision-making process take into account the different aspects of the process and the environmental characteristics (Elbanna and Child, 2007). They take into account the multidimensional nature of the decision and suggest that its analysis should take into account the different factors that influence the decision (Elbanna and Child, 2007, Papadakis and Barwise, 2002, Papadakis et al., 1998, Rajagopalan et al., 1993). In this context, Simon (1980) stresses that the cognitive limits of the decision-maker, the limits of knowledge and human deviations must take into consideration. Irrationality also results in a lack of information or partial information. In this regard, the decision-maker can be satisfied with a satisfactory solution without it being the optimal solution.

In addition, among the results to more noted, those admission policies affect the performance of education. Indeed, Table 2 shows a Coefficient Ratio CR = 2.022> 1.96 and P = 0.003 <0.05. As a result, the positive relationship between admission policies and conditions on the performance of education comes in line with the work of Yang and Li (2014) who demonstrated by their study that the increased autonomy enjoyed Education systems to recruit students, the number of graduate students positively affect the number of graduate students i.e. the performance of education.

Moreover, a positive influence is found between the number of students per program and the performance of the education since the Coefficient Ratio is of the order of 2.753> 1.96 and P = 0.001 <0.05. Indeed, the massification of higher education due to the plurality of historical and structural factors with a vector of university production following a pattern of training seeking to train students for the labor market but which does not create the Knowledge necessary to address the overwhelming problems of our country and without promoting knowledge mobility at the international level.

By way of conclusion and from the results mentioned in Table 2, we can see that the hypothesis HG (academic autonomy affects the performance of teaching) is verified.

Taken as a whole, these results suggest that the performance of a university is partially affected by academic autonomy (HG).

This explains why in the last few days we have seen several shortcomings in either the Quality Support Programs (QSP) projects or other reforms:

- A timely attempt to synthesize market needs and expectations has been added to the training program in addition to the solicitations of the client-learners and disseminated on the academic blog as a "project/product" to offer employability market players;

- A lack of an "Orientation-Implication of the market of employability (OI-MEMP)" in the framework of an academic and strategic academic monitoring process initiated by an external-academic relationship marketing approach;

- Behavioral biases of academic leaders (Director, Stage Director, Department Director ...).

This situation leads us to reflect in depth on how to make the academic autonomy of institutions a positive factor that makes it possible to establish, better define and introduce new economic programs and the adoption of a new educational system, Evaluation and admission of students that subsequently improve the integration and employability of graduates in the labor market.

This new system requires highlighting a "marketing" cell that should describe the strategy of the institution and clearly define the reality and the need of the labor market.

To this end, the standardization of current training programs and the constant evolution of the educational landscape require, as a matter of priority, the establishment of an in-depth strategy for each institution in the same university on the academic services it offers, and the competitive advantages it has.

So a good "marketing" strategy refers to a better understanding of the attitude of the players and actors of the education system, their beliefs, needs and privileges, in order to put a clear vision and convincing messages, Means in materials and share good experiences that the most effective students need throughout their professional lives.

VI. CONCLUSIONS

Our study shows the importance of the influence of autonomy and in particular academic autonomy on the performance of education (graduate skills) at the university level due to its impact on the graduate rate. Rather, it is a question of strengthening the autonomy of universities so that they have critical masses enabling them to be included in the world rankings. To this end, the University of Sfax
needs to have a real autonomy, taking into account the specificity of each of its establishments. The demand for autonomy must consolidated by the adoption and implementation of the principles of good governance that are today indispensable for the accountability of academic institutions.

Through our research, we can see that the governance of higher education, a key dimension of the health of the system, has a strong impact on the performance of higher education systems. Therefore, we can conclude that the academic institutions at the level of the University of Sfax need more and more of a wave of decentralization of their skills and responsibilities.

Therefore, the culture of the institutions must evolve in order to adopt a competitive logic that stands out, or even opposes, the public administrative logic that is familiar to them. A thorough reflection on governance must carried out, drawing inspiration from the reflections of Aghion’s report, which stresses that the latter leads to the performance of higher education institutions.

In addition, our study has also defined a framework to begin to analyze and understand governance trends by examining the dimension of autonomy (as a major dimension and mechanism of governance) and good practice more systematically. The development of indicators that measure the key components of autonomy, and more specifically academic autonomy, this can help decision-makers assess the governance strength of higher education in their own countries and compare it with reference countries in other parts of the world.

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