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Understanding University Governance Dynamics Through the Behavioral Approach and Metacognitive Factors: Evidence from Morocco.

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Résumé

La présente recherche s'inscrit dans le cadre de l'approche comportementale de la gouvernance appliquée au contexte des universités marocaines. Le modèle conceptuel mobilisé repose sur la théorie des perspectives mettant en avant les biais cognitifs et les heuristiques ainsi que sur la théorie de la contingence comportementale. L'objectif principal de l'étude est d'analyser l'influence des facteurs métacognitifs sur la performance organisationnelle des universités, évaluée à travers trois indicateurs spécifiques. À partir des données recueillies auprès de 163 acteurs universitaires marocains, via un questionnaire traité à l'aide du logiciel JAMOVI, les résultats révèlent un impact positif de certains facteurs métacognitifs, notamment l'âge et le niveau d'éducation des responsables, sur la performance institutionnelle.

Mots clés : Facteurs métacognitifs, Heuristiques, Universités, JAMOVI, Gouvernance.

Abstract

The present research falls within the framework of the behavioral approach to governance, applied to the context of Moroccan universities. The conceptual model employed is based on Prospect Theory highlighting cognitive biases and heuristics as well as Behavioral Contingency Theory. The main objective of the study is to analyze the influence of metacognitive factors on the organizational performance of universities, assessed through three specific indicators. Based on data collected from 163 Moroccan university stakeholders via a questionnaire and analyzed using the JAMOVI software, the results reveal a positive impact of certain metacognitive factors particularly the age and educational level of decision-makers on institutional performance.

Keywords : Metacognitive Factors, Heuristics, Universities, JAMOVI, Governance

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1. Introduction:

The theme of governance remains highly relevant, as it represents both a descriptive idea of reality and a normative ideal associated with transparency, ethics, and the effectiveness of public action (Pitseys, 2010). On one hand, governance is connected to a wide array of elements. Political ethics, oversight of political representatives, international institutional reforms, public-private partnerships, and the restructuring of public enterprise management all fall under the domain of governance. In fact, social sciences and public action are increasingly adopting a shared vocabulary and framework for intervention based on the concept of governance (Simoulin, 2003). Remarkably, the concept of governance has progressively gained prominence in the field of public action since the 1990s. This evolution is primarily driven by two key factors. The first is the expansion of the governance scope: initially centered around shareholders, then extended to include other stakeholders (both interested and affected parties), and eventually incorporating cognitive and behavioral dimensions into governance frameworks. The second factor is the emergence of New Public Management (NPM), which facilitated the transfer of the governance paradigm to public sector organizations (Côme, 2013). The decision-making process of stakeholders is a fundamental human behaviour that has been studied intensively by disciplines ranging from cognitive psychology to economics (Abdessalam et Benarbi, 2023). It is immediately clear that a complicated system and a number of variables (interests, surroundings, motivation, emotions, etc.) influence human decision-making. We can categorize these factors into two groups: cognitive and metacognitive factors. The cognitive factors include biaises and heuristics. Kahneman & Tversky (1979), emphasize that in situations of uncertainty, individuals tend to rely on mental shortcuts known as heuristics when making decisions. This stands in contrast to classical theories such as expected utility theory, which are grounded in the assumption of a perfectly rational agent. As Kahneman & Tversky (1974 p. 23) point out: "in practice, people rely on a small number of heuristic principles that reduce the task of assigning probabilities to simpler judgmental activities. These heuristics are often indispensable, although they can also lead to serious and systematic errors". However, we additionally recognize the existence of metacognitive actors as well as cognitive elements (biases and heuristics) that might affect human judgments and decisions such as culture, sexe, age, background… we call that: behavioural contingency factors. In this study we choose: **age, background as metacognitive factors**.

The university environment is no exception. Globally, higher education is facing increasing pressures for transformation. It is undergoing rapid growth, and its contribution to economic

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prosperity is regarded as essential. Universities are expected to generate knowledge, promote equity, respond to student needs, and achieve greater efficiency in fulfilling these roles. The theme of governance is closely tied to the notion of performance, which now pervades all aspects of social life: businesses are required to become ever more profitable and competitive, while public institutions regardless of their sector (education, research, justice, health, culture, etc.) are also compelled to comply with this performance imperative.

Behavioral governance in the context of Moroccan universities is primarily reflected through interactions, decision-making processes, power relations, and the behaviors of various stakeholders including administrators, faculty members, students, unions, and ministries involved in the management and operation of the university. It focuses on the influence of individual and collective attitudes, values, perceptions, and behaviors on governance and the implementation of educational and administrative policies.

Within the framework of behavioral governance in universities, particular attention is given to interpersonal interactions and relationships among stakeholders, highlighting the power dynamics at the core of these exchanges. These interactions involve the administration, faculty, students, and unions, and can manifest through behaviors of cooperation, contestation, mistrust, or mutual support. Relationships between the administration and faculty may fluctuate between collaboration and tension, as administrative decisions related to resource management, reforms, or working conditions may provoke resistance (such as strikes or protests during reform periods) or, conversely, active participation (through positive engagement with initiatives). Similarly, students particularly through student unions or associations play a key role; their collective behavior in advocating for their rights or study conditions can lead to social conflicts (strikes, demonstrations) or, alternatively, to cooperative behaviors and constructive social dialogue. The role of unions is therefore crucial in understanding the positions of the various actors vis-à-vis university leadership and the supervising ministry.

This research seeks to address the following question: **What is the impact of metacognitive factors such as the age and educational background of university leaders on the performance of Moroccan universities?**

The aim of this research is to evaluate the impact of metacognitive factors (background and age) of Moroccan university managers on university performance measured by: overall satisfaction, communication and working conditions. To this end, we conducted a quantitative study using a questionnaire which was analysed using JAMOVI software. The present research is structured into three main parts (excluding the introduction). The first part provides a

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literature review addressing Prospect Theory and Behavioral Contingency Theory. The second part focuses on the methodological aspects of the study, particularly our research design and approach. Finally, the third part presents the main findings of the survey.

2. Theatrical framework

2.1. The behavioural approach to governance

The study of behavioral governance necessarily begins with an examination of the various approaches to governance, particularly the cognitive approach. It then becomes essential to explore the specific components of the behavioral dimension, including key concepts such as cognitive biases and heuristics. Organizations are often likened to republics, where authority ultimately resides with the shareholders, who act as voters. These shareholders elect representatives (board members), who in turn delegate most managerial decisions to executives. Corporate governance thus encompasses the mechanisms by which investors ensure a return on their capital (Gompers et al, 2003). This delegation and diffusion of power often gives rise to agency conflicts, whereby informed and potentially opportunistic managers act in divergence from the interests of the owners. Agency theory, which has long dominated the economic and financial literature on governance structures, is based on the premise that principals (owners) and agents (managers) are likely to pursue conflicting goals. These principal-agent conflicts are particularly evident in systems marked by concentrated ownership, insufficient protections for minority shareholders, and weak governance mechanisms (Young, et al, 2008). The theoretical foundations of agency theory have served as a springboard for the emergence of the shareholder approach to governance, which posits that managerial behavior is driven by the maximization of a utility function centered on wealth creation. However, this model tends to overlook non-financial dimensions of managerial conduct, such as the potential loss of managerial capital, thereby revealing the limitations of a purely financial logic and the necessity for broader stakeholder-based models.

In this regard, stakeholders are defined as individuals or groups with a vested interest either as beneficiaries or as those potentially affected by the firm's activities (Clarkson, 1998). Broader definitions describe stakeholders as any group or individual that can affect or be affected by an organization's objectives (Freeman, 1983). These conceptual shifts call into question the traditional financial-centric view of governance and invite the integration of human and relational dimensions.

In response to conventional models, scholars have emphasized the vital role of managerial cognition in value creation (Charreaux, 2011; Writz, 2006). The cognitive approach to

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governance thus focuses on the internal productive processes of the firm and the cognitive capabilities that foster learning and innovation. It privileges knowledge over mere information, viewing the firm not as a nexus of contracts as suggested by contractual theories but rather as a repository and generator of knowledge. This approach challenges the assumptions underpinning standard governance paradigms by emphasizing the strategic importance of cognitive resources and the differential knowledge possessed by individuals within the organization. Sustainable competitive advantage, in this view, arises from the effective mobilization of these unique cognitive assets. The core contribution of the cognitive perspective lies in the ability of managers to perceive, think critically, and generate novel opportunities. This cognitive lens naturally paves the way for integrating behavioral insights, especially in the domain of decision-making. Human decisions are shaped by a complex interplay of internal and external influences, including interests, environmental context, motivations, and emotions. In practice, decision-making is rarely linear or rational. It is subject to numerous distortions and limitations, collectively referred to as behavioral costs paralleling agency costs which stem from cognitive and emotional imperfections. Extensive empirical research has shown that decision framing significantly influences choices, with individuals often evaluating options relative to salient reference points rather than on absolute terms, as illustrated by prospect theory (Kahneman and Tversky, 1979).

Incorporating behavioral insights into governance invites a re-examination of foundational assumptions, such as the rational agent model and the expected utility theory. Decisions are frequently the result of judgment errors, driven by cognitive biases or heuristic reasoning. Heuristics can be described as mental shortcuts used for rapid decision-making and can simplify complex problems but also introduce systematic biases. Heuristics such as representativeness, availability, and anchoring and adjustment, as identified by Tversky and Kahneman (1979), are among the most commonly observed cognitive shortcuts in organizational settings.

- **Representativeness Heuristic:**

This heuristic is often employed to answer questions such as: *What is the probability that object A belongs to class B?* or *What is the probability that process B generates event A?* To address such questions, individuals tend to rely on the representativeness heuristic, whereby probabilities are assessed based on the degree to which A resembles B—that is, the extent to which A is representative of class B. In other words, this bias leads individuals to judge an event as more likely if it matches a mental stereotype or prototype they hold. However, this reliance

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can result in judgment errors when the apparent resemblance does not correspond to the actual statistical probability of the event.

To illustrate the representativeness heuristic, we refer to the well-known example by Kahneman and Tversky (1974):

"Steve is very shy and withdrawn, invariably helpful, but with little interest in people or the real world." How do people assess the likelihood that Steve holds a particular occupation among a list (e.g., farmer, salesman, airline pilot, librarian, or physician)? Using the representativeness heuristic, people are inclined to assess the probability that Steve is a librarian, for instance, based on how closely his description matches the stereotype of a librarian.

• Availability Heuristic:

This refers to the tendency of individuals to estimate the likelihood of an event based on how easily instances or examples of the event come to mind. In other words, when evaluating the probability of an occurrence, people often rely on the information that is most readily accessible in their memory. The availability heuristic also plays a role in asset valuation (Xie et al., 2023). Many fields within management sciences, particularly marketing and neuromarketing, incorporate psychological foundations. For example, a study by Nazlan et al. (2023) examines how restaurants can engage and attract social media users by promoting their dishes or services through influencer marketing campaigns. The underlying mechanism of this study is the availability heuristic: consumers are increasingly likely to make purchasing decisions based primarily on the information readily available on social media (e.g., influencers' posts).

• Anchoring and Adjustment Heuristic:

One strategy used for making judgments under uncertainty involves relying on an initial piece of information (the "anchor") and adjusting from it to arrive at a plausible estimate (Epley & Gilovich, 2012). The anchoring and adjustment heuristic is a common mental shortcut in which individuals estimate unknown values or quantities based on an initial reference point. When faced with estimation tasks, individuals tend to be influenced by the anchor presented to them. The next step involves adjusting from that anchor to reach a final estimate. For instance, if someone is asked to estimate the number of years it would take for a city's population to double and is given "10 years" as an initial anchor (which may be implausible), they might adjust upward and respond with an estimate such as 20 or 25 years, still being influenced by the original anchor.

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H1: Universities whose leaders frequently rely on the representativeness bias in their decision-making exhibit significantly higher organizational performance.

H2: Universities whose leaders primarily rely on easily accessible or recent information (availability bias) make governance decisions that reduce their organizational performance.

2.2. Behavioral Contingency Theory

Contingency is a key concept in organizational analysis. It refers to a specific and evolving situation that leads to the rejection of universal and standardized prescriptions. For organizations, this contingency is structural, as changes in external variables (such as technologies, markets, etc.) lead to transformations in their organizational structure (Ruel, 2019). Indeed, **Contingency Theory challenges the assumption of a single, ideal organizational model or structure (the "one best way"). It emphasizes the importance of contingency factors, which include both stable and evolving characteristics that significantly influence actions, decision-making, and organizational management.** In contrast to traditional organizational theory which promotes universal principles and standardized management practices, **contingency Theory highlights the interdependence between organizational structure and its environment. It rejects the notion of an ideal organizational structure or strategy and instead advocates for configurations tailored to specific contexts and circumstances** (El Bakkouchi, 2023). However, following the emergence of the behavioral theory of the firm, it became necessary to reconsider all so-called classical theories based on market efficiency and the rationality of the economic agent. In this context, we now speak of **behavioral contingency** rather than **structural contingency,** as the latter such as that conceptualized by Crozier and Friedberg (1977) does not adequately account for the effects of the strategic behaviors of the individuals within an organization**. Contingency factors are considered structural when they relate to the organization, and behavioral when they relate to the manager and/or the accountant or auditor** (Ngongang & Motsoguem, 2017).

While **structural contingency theory** makes it possible to incorporate factors such as organizational size and technology, **behavioral contingency theory emphasizes the importance of not overlooking human agency**, as many behavioral contingency factors revolve around a central actor: the manager (Chapellier, 1997). The relevance of behavioral contingency theory becomes even more significant in the context of **small and medium-sized enterprises (SMEs),** where decision-making often relies exclusively on the judgment, intuition, and experience of the manager (Mintzberg, 1976; Simon, 1987). In fact, in SMEs, the

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manager's profile remains a crucial factor. In this respect, authors such as Lavigne (2002) argue that it would be appropriate to broaden the contingency approach by integrating behavioral variables. In the same vein, Filion (1989) emphasizes that the manager's profile plays a particularly critical role, as it enables the mobilization of necessary resources and the projection of the company into the future through the development of a strategic vision. Thus**, behavioral contingency theory primarily focuses on the profile and characteristics of managers,** highlighting the centrality of their cognitive, experiential, and strategic attributes in shaping organizational decisions and structures**.** This structure depends on several factors (known as contingency factors) such as: the environment, technology and size (Drazin and Van de Ven, 1985) or the personal characteristics such as age, gender or education.

Age: Contingency factor 1:

The age of the manager is one of the intrinsic variables related to the managerial profile (Paradas et al., 2017). Considered as part of the managerial "identity sheet" (Ngongang, 2011). Several authors including Niyungeko (1993) have demonstrated the influence of the manager's sociodemographic characteristics on firm performance. These characteristics are likely to impact various performance outcomes. **Hambrick and Fukutomi (1991)** specifically note that the age of the management team, its functional experience, and its socioeconomic background have an explicit relationship with the company's growth trajectory.

For instance, extensive managerial experience may have a positive effect on growth, as it enables decision-making that aligns with market developments. **Kor (2003)** asserts that the experience of managers enhances their ability to identify, capture, and create strategic growth opportunities. According to **Mignon (2001),** the manager's experience, educational background, and age define their managerial qualities and ability to drive the company's development.

The more experienced the manager, the more likely they are to implement mechanisms to protect the firm from excessive financial pressure **(Teyssier, 2010**). Conversely, **managerial age may also have a positive influence on the level of corporate debt** (Ahmadou, 2018**).** This observation is further supported by **Ndjambou and Sassine (2014),** who highlight that prior professional experiences may indirectly influence the success of the enterprise.

Education and background: Contingency factor 2

Among the most studied characteristics of a leader, education and training are frequently cited. Training is perceived as a set of knowledge to be transmitted in order to fill identified gaps (Julien, 2000). Noe (1986) points out that most training research to date has focused on

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pedagogical methods and performance evaluations, often neglecting the influence of learners' individual characteristics. The model developed by Raymond A. Noe (1986) represents a major advancement in the analysis of training effectiveness, as it integrates not only cognitive abilities but also motivational and situational factors of learners. This model is based on the idea that the success of a training program does not rely solely on its content or teaching methods, but above all on the personal attributes of the individuals involved, such as their locus of control, self-efficacy, outcome expectations, and attitudes toward their job and career. It also introduces the notions of "motivation to learn" and "motivation to transfer" acquired knowledge and skills into real professional contexts two central dimensions for understanding the transition from training to practice. Furthermore, the author highlights the decisive influence of the perceived organizational environment, both in its social dimension (support from peers and supervisors) and its structural dimension (availability of resources), as either facilitators or barriers to the application of newly acquired competencies. Training is also a learning process aimed at acquiring knowledge and skills. At this stage, it seems appropriate to raise a perfectly legitimate question: How can training shape the profile of a leader?

To address this question, we refer to a study conducted by the Ministry of Industry, Trade, and Technology (MICT) of Quebec. This study involved providing training to ten business leaders through a series of 28 seminars. These seminars covered a wide range of topics, including basic subjects (financial management, marketing plan, sales force), popular themes (human resource management, motivation), and specific areas (board of directors training).

The literature reviews that attempts to capture the impact of training on leadership profiles is largely of American origin. This observation is hardly surprising, given that the United States launched the Minnesota Model for Small Business Management Education. This program is based on the Minnesota model and stands out from traditional educational programs in that the entrepreneur's own business becomes both the textbook and the laboratory.

H3: The educational background and age of university leaders significantly influence the organizational performance of higher education institutions.

3. Methodological Approach

3.1. Search strategy

In order to address the issue outlined in the introduction, we opted for a deductive approach, presenting our conceptual model and then deducing hypotheses. This approach is combined with a quantitative approach using a questionnaire. The survey questionnaire design followed

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a carefully planned and rigorous process, ensuring both the conceptual validity and contextual relevance of the data collection instrument. In the initial phase, items were developed based on an extensive literature review, and then adapted to the university setting in order to capture the specificities of actors' behaviors within this sector. Subsequently, several pre-tests were carried out with a diverse range of university stakeholders, including administrative staff, faculty members, technical personnel, and students. This phase was particularly crucial due to the complexity of the subject matter, which involved the use of terminology drawn from cognitive psychology vocabulary that could be unfamiliar to some respondents.

The pre-testing process allowed for progressive refinement of the questionnaire, improving the clarity, comprehensibility, and internal consistency of the instrument. These continuous adjustments led to the final version of the questionnaire, which was administered in December 2024 over a period of four months. At the end of this period, a total of 163 responses were collected.

3.2. Software selection

One of the most important stages in scientific research data analysis was once performed manually, and later with the help of calculators. Today, a variety of statistical software tools are used to facilitate this process. Muenchen (2019) analyzed the market share of statistical software and concluded that by the end of 2018, IBM SPSS Statistics was the most widely used software in academic studies. In comparison, R was cited half as often as SPSS in scientific publications. This can be attributed to SPSS's ease of use through its graphical interface, its long-standing adoption in academia, and its central role in statistical education and training.

Another open-source software based on R, and the central focus of this article, is Jamovi. Jamovi is an open-source statistical software built on the R language, developed by a team originating from the JASP project, who decided to launch their own initiative (*The Jamovi Project, 2019a*). This team includes Jonathan Love, Damian Dropmann, and Ravi Selker. In their own words:

"We found that our goals and ambitions were constantly extending beyond their framework, and decided that the best way forward was to create a new project: the Jamovi project" (*The Jamovi Project, 2019b*).

Perhaps the most important aspect emphasized by the developers is the community-driven nature of the project. This means that users are encouraged to enhance Jamovi by contributing new modules. As such, the software is not limited to the initiatives of the core development team alone. In this respect, Jamovi aligns perfectly with the philosophy of free and open-source

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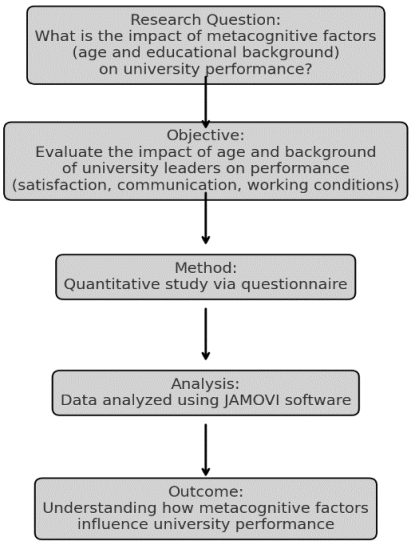
software. Jamovi offers essential features such as data entry and manipulation, conditional filtering based on rules, variable transformation, and computations involving variables. It is compatible with widely used file formats such as CSV, RData, DTA (Stata), and SAV (SPSS). Jamovi enables a wide range of univariate and multivariate analyses, including descriptive statistics, t-tests, ANOVA, ANCOVA, MANCOVA, linear and logistic regression, exploratory and confirmatory factor analysis, as well as non-parametric tests.

Here is a diagram that illustrates our methodological approach.

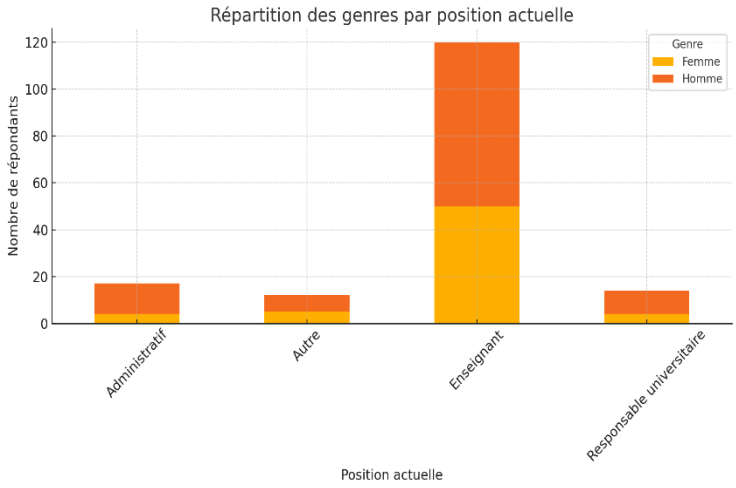
Figure 1: Overview of the Research Methodological Approach



Source : Authors

4. Findings

Figure 2: Distribution of respondents



Source: Power BI

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The figure illustrates the distribution of respondents according to their gender and current position within the university. It is observed that men are in the majority across all categories, particularly among faculty members. Women are also represented, though more modestly, especially in university leadership positions.

Table 1 : Distribution by Age Group

Tranche d'âge	Nombre de répondants	Pourcentage (%)
Entre 20-30	27	16.6
Entre 30-40	95	58.3
Entre 40-50	17	10.4
Plus de 50 ans	24	14.7
Total	163	100.0

Source : Authors

4.1. Reliability of Measurement Scales: Cronbach's Alpha

In any empirical research approach, the use of measurement scales represents a crucial mechanism for capturing latent variables such as attitudes, perceptions, or intentions. However, to ensure the relevance and accuracy of subsequent analyses, it is essential to assess the internal consistency and reliability of these scales. Indeed, a reliable scale ensures that its various components uniformly assess the same underlying construct.

For psychologists both researchers and practitioners it is critically important to have valid and reliable instruments at their disposal. Reliability is a *sine qua non* condition for an instrument to be considered valid and useful. It is defined as the precision of the results obtained, i.e., the extent to which the measurement is free from random errors.

Among the sources of measurement error identified by Classical Test Theory (CTT), item-related errors are particularly examined. Assessing reliability through internal consistency is a method that indicates the intercorrelation among the different components (variables or items) of the instrument. This allows for the separation of score variation attributable to common factors shared among the items from that due to item-specific unique factors.

Estimating reliability via internal consistency can thus be seen as an estimate of the equivalence among the components. The major practical advantage of this approach is that it allows for the estimation of reliability from a single administration of the measure. Cronbach's alpha

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coefficient has been proposed as an estimator of this internal consistency and, by extension, of the reliability of a set of measures.

Analyzing the consistency of variables (items) helps determine whether they measure a general underlying factor (homogeneity or unidimensionality), which is crucial because the alpha coefficient provides a better estimate of reliability when the items approximate a unidimensional structure. The degree of covariation (or intercorrelation) among the items directly affects the value of Cronbach's alpha. Therefore, examining the internal consistency of variables is essential for evaluating the psychometric quality of an instrument, verifying whether its items consistently measure the same construct, and ensuring the appropriateness of using statistics such as Cronbach's alpha.

Table 2 : α de Cronbach

Statistiques de fidélité de l'objet

	α de Cronbach
Échelle	0.550

Source : JAMOVI

The analysis of the reliability of metacognitive factors, based on Cronbach's alpha, yields a coefficient of 0.550. This level indicates low internal reliability, suggesting that the items within the scale lack sufficient consistency to ensure a reliable measurement of the targeted metacognitive construct.

4.2**.** Correlation Analysis: Spearman

A normality analysis was conducted for the variables. The sample used for this analysis included 163 subjects for each variable. The results indicate that, for all tested variables, the hypothesis that the data follow a normal distribution must be strongly rejected. This conclusion is based on the p-values obtained, which were all below 0.001. Consequently, it can be stated that none of the variables exhibit a normal distribution within the observed sample. Therefore, in order to examine the correlation between the different variables, Spearman's rank correlation was used.

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Table 3: Correlation Matrix

Correlation Matrix: Education and Age									
		V1	**V2**	**V3**	**V4**	**V5**	**P1**	**P2**	**P3**
V1	**Rho de Spearman**	—					-0.005	0.171	-0.043
	ddl	—					161	161	161
	valeur p	—					0.954	0.029	0.590
V2	**Rho de Spearman**	0.336	—						
	ddl	161	—						
	valeur p	<.001	—						
V3	**Rho de Spearman**	-0.086	-0.118	—					
	ddl	161	161	—					
	valeur p	0.275	0.133	—					
V4	**Rho de Spearman**	0.085	0.159	-0.171	—				
	ddl	161	161	161	—				
	valeur p	0.281	0.042	0.029	—				
V5	**Rho de Spearman**	0.135	0.299	-0.212	0.106	—			
	ddl	161	161	161	161	—			
	valeur p	0.087	<.001	0.007	0.177	—			
P1	**Rho de Spearman**	-0.005	-0.077	-0.105	0.008	0.182	—	-0.457	
	ddl	161	161	161	161	161	—	161	
	valeur p	0.954	0.326	0.184	0.916	0.020	—	<.001	
P2	**Rho de Spearman**	0.171	0.133	-0.059	0.086	-0.179	-0.457	—	

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	ddl	161	161	161	161	161	161	—	
	valeur p	0.029	0.091	0.454	0.278	0.022	<.001	—	
P3	**Rho de Spearman**	-0.043	-0.060	-0.002	0.029	0.118	0.584	-0.661	—
	ddl	161	161	161	161	161	161	161	—
	valeur p	0.590	0.448	0.984	0.709	0.132	<.001	<.001	—

Source: JAMOVI

With :

V1: Influence of academic education on effectiveness

V2: Importance of continuing education

V3 : Undertaking training prior to assuming the position

V4: Impact of the age factor of the leader/manager

V5: Openness of young leaders to innovation and change

P1: Working conditions

P2 : Communication

P3 : Overall satisfaction

The following relationships were identified as statistically significant ($p < 0.05$):

- Influence of academic education (V1) and Communication (P2): There is a weak, positive correlation ($\rho=0.171, p=0.029$), suggesting that a greater perceived influence of academic education is slightly associated with better communication.
- Openness of young leaders (V5) and Working conditions (P1): There is a weak, positive correlation ($\rho=0.182, p=0.020$), which indicates that a perception of young leaders being more open to innovation is slightly associated with better working conditions.
- Openness of young leaders (V5) and Communication (P2): A weak, negative correlation ($\rho=-0.179, p=0.022$) exists, suggesting that a perception of young leaders being more open to innovation is slightly associated with poorer communication.
- Working conditions (P1), Communication (P2), and Overall satisfaction (P3): There are strong, significant correlations among these factors, which indicates a close relationship between them:
- Working conditions (P1) and Communication (P2): A moderate, negative correlation ($\rho=-0.457, p<0.001$).

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- Working conditions (P1) and Overall satisfaction (P3): A strong, positive correlation ($\rho=0.584, p<0.001$).
- Communication (P2) and Overall satisfaction (P3): A very strong, negative correlation ($\rho=-0.661, p<0.001$).

Non-significant Correlations

Most of the correlations were not statistically significant, including the following:

- The importance of continuing education (V2), the impact of the age factor (V4), and the influence of academic education (V1) show no statistically significant relationships with working conditions (P1), communication (P2), or overall satisfaction (P3).
- The openness of young leaders to innovation and change (V5) has no significant correlation with overall satisfaction (P3) ($\rho=0.118, p=0.132$).

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5. Conclusion

The present research falls within the framework of the behavioral approach to governance in the context of Moroccan universities. The conceptual model used is based on Prospect Theory (biases and heuristics) as well as Behavioral Contingency Theory. The aim was to examine the impact of metacognitive factors on university performance, measured through three specific indicators.

In summary, the correlation analysis highlights several significant, yet mostly weak, relationships between education and age factors and organizational perceptions. The perceived influence of academic education (V1) is weakly and positively correlated with communication quality (P2). Conversely, the openness of young leaders to innovation (V5) presents a dual association: a weak positive correlation with working conditions (P1) and a weak negative correlation with communication (P2). These results suggest that perceptions related to youth and education have a nuanced impact on the work environment. More pronouncedly, a strong interdependence was identified among the P factors, where favorable working conditions (P1) are strongly associated with greater overall satisfaction (P3). Conversely, communication (P2) and satisfaction (P3) are very strongly and negatively correlated, which raises questions about the nature of this communication and its impact on well-being at work. Other factors, notably continuing education (V2) and leader age (V4), do not show significant correlations with work environment perceptions, indicating that their influence

From a future development perspective, our ambition is to deepen the analysis of the relationships between cognitive and metacognitive dimensions and performance by integrating mediating and moderating variables that may better explain these associations. We also intend to extend this work to diverse educational contexts and through longitudinal approaches, in order to better understand how these factors, evolve over time. Finally, we aim to refine the measurement instruments used, with the objective of developing more robust and contextually appropriate scales that reflect the complexity of learning processes.

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BIBLIOGRAPHY :

ABDESSALAM, N. W., & HOUDA, B. (2023). Understanding the decision-making from a cognitive and metacognitive perspective: A theoretical framework. Int. J. Econ. Stud. Manag, 3(6).

AHMADOU, B. (2018). Impact du profil du dirigeant sur le niveau d'endettement bancaire des PME camerounaises. Journal of Academic Finance, 9(1), 2-17.

Chapellier, P. (1997). Profil de dirigeants et données comptables de gestion en PME. Revue Internationale PME 10 (1), 9–41. https://doi.org/10.7202/1009016ar.

Crozier, M., & Friedberg, E. (1977). L'acteur et le système: Les contraintes de l'action collective. Éditions du Seuil.

Côme, E. (2013). La gouvernance publique : de la notion à la pratique. Presses Universitaires de France.

EL BAKKOUCHI, Y., & EL BAKKOUCHI, M. (2023). The effect of the strategy factor on the organizational performance of Moroccan universities: according to the contingency theory. International Journal of Accounting, Finance, Auditing, Management and Economics, 4(3-2), 104-120. https://doi.org/10.5281/zenodo.7981744

Epley, N., & Gilovich, T. (2006). The anchoring-and-adjustment heuristic: Why the adjustments are insufficient. Psychological science, 17(4), 311-318.

Filion, L. J. (1989). The design of your entrepreneurial learning system: identify a vision and assess your relations system. Proceeding of Third Canadian Conference on Entrepreneurial Studies, University of Calgary, Sept., 77-90

G. Charreaux, et al., Quelle théorie pour la gouvernance? de la gouvernance actionnariale à la gouvernance cognitive et comportementale, Tech. rep., Université de Bourgogne-CREGO EA7317 Centre de recherches en gestion des . . . (2011).

Hambrick, D.C., & Fukutomi, G.D. (1991). The seasons of a CEO'S tenure. The Academy of Management review, 16(4), 719-742.

Kahneman, D., & Tversky, A. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185(4157), 1124–1131. https://doi.org/10.1126/science.185.4157.1124

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Econometrica, 47(2), 263–291. https://doi.org/10.2307/1914185

Kor, Y.Y. (2003). Experience-based top Management Team Competence and Sustained growth. Organization Science, 14(6), 853-881.

African Scientific Journal
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Lavigne, B., & St-Pierre, J. (2002). Association entre le système d'information comptable des PME et leur performance financière. In 6° Congrès international francophone sur la PME.

M. B. Clarkson, The corporation and its stakeholders: Classic and contemporary readings, University of Toronto Press, 1998

M. N. Young, M. W. Peng, D. Ahlstrom, G. D. Bruton, Y. Jiang, Corporate governance in emerging economies: A review of the principal perspective, Journal of management studies 45 (1) (2008) 196–220

Mignon, S. (2001). Stratégie de pérennité d'entreprise. Edition Vuibert.

Mintzberg, H., Raisinghani, D., & Theoret, A. (1976). The structure of unstructured decision processes. Administrative science quarterly, 246-275.

Muenchen, R. A. (2019, July 15). Is scholarly use of R beating SPSS already? R4stats.

NAJEH, W. A., & BENARBI, H. (2023). Towards new perspectives in corporate governance: A literature review. International Journal of Performance and Organizations, 2(2), 146-161.

Nazlan, N. H., Zhang, H., Sun, J., & Chang, W. (2023). Navigating the online reputation maze: impact of review availability and heuristic cues on restaurant influencer marketing effectiveness. Journal of Hospitality Marketing & Management, 1-20.

Ndjambou, R., & Sassine, M. (2014). Etude de la relation entre profil du dirigeant, culture et performance des PME gabonaises: Clarification des compétences et de la vision. La Revue Gestion et Organisation, 6(1), 7-19. https://doi.org/10.1016/j.rgo.2014.01.001

Ngongang, D. (2011). Gouvernance et pratiques de la communication financière : une étude empirique dans les sociétés anonymes camerounaises. Journal of Academic Finance, 2(1).

Ngongang, D., & Motsoguem, A. (2017). Analyse du recours au capital risque par les PME camerounaises. Journal of Academic Finance, 8(1), 1-23.

Niyungeko, P. (1993). Profil personnel, pratiques de gestion des propriétaires-dirigeants et performance des PME : Le cas du Burundi. Université du Québec à Chicoutimi.

P. Gompers, J. Ishii, A. Metrick, Corporate governance and equity prices, The quarterly journal of economics 118 (1) (2003) 107–156.

P. Wirtz, Compétences, conflits et création de valeur: vers une approche intégrée de la gouvernance, Finance Contrôle Stratégie 9 (2) (2006) 187–201

Paradas, A., Revelli, C., Debray, C., Courrent, J. M., & Spence, M. (2017). Pratiques responsables des dirigeants de PME: influence du profil du dirigeant. Revue de l'Entrepreneuriat, 16(3), 197-228.

African Scientific Journal
ISSN : 2658-9311
Vol : 03, Numéro 31 Aout 2025

Pitseys, J. (2010). La gouvernance entre fait et normativité. Revue française d'administration publique, (133), 45–57. https://doi.org/10.3917/rfap.133.0045

R. E. Freeman, D. L. Reed, Stockholders and stakeholders: A new perspective on corporate governance, California management review 25 (3) (1983) 88–106

Ruel, S. (2019). Du passage d'une contingence structurelle à une contingence comportementale ou de l'intérêt des pratiques de gestion et d'actualisation des connaissances en supply chain. Logistique & Management, 27(3), 192-205.

Simon, H. A. (1987). Making management decisions: The role of intuition and emotion. The Academy of Management Executive, 1(1), 57-64. https://doi.org/10.5465/AME.1987.4275636

Simoulin, V. (2003). Gouvernance et action publique : usages d'une notion équivoque. Revue française de science politique, 53(4), 557–578.

Teyssier, C. (2010). L'influence des caractéristiques du dirigeant et de l'équipe dirigeante sur le management financier de la PME en hyper-croissance : une approche par études de cas. CIFEPME.

The Jamovi Project. (2019b). About. Retrieved October 6, 2019, from https://www.jamovi.org/about.html

Xie, J., Zhao, J., & Wang, J. (2023). Availability heuristic and investor behavior: Evidence from asset pricing models. Journal of Behavioral and Experimental Finance, 39, 101786. https://doi.org/10.1016/j.jbef.2023.101786