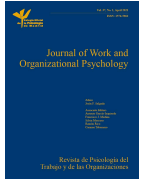




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Are there Gender Differences between Skills and Job Performance in Public Management Positions?

Ana M. Castaño¹, Mónica Zuazua-Vega¹, Dianna L. Stone², and Antonio L. García-Izquierdo¹

¹Universidad de Oviedo, Spain; ²University of New Mexico, USA

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ABSTRACT

Public administrations are facing the challenge of continuous improvement of processes to meet both ethical and compliance standards. This study examines the extent to which non-job relevant factors (gender and tenure) may have a greater impact on managers' positions than job-relevant factors (skills and job performance) in the public sector. Our study with 412 public incumbent managers in different rank positions revealed that tenure and the innovation orientation skill, and gender are the main predictors to upper positions. Moreover, men have shown higher levels of counterproductive performance than women. This highlights the need for a review of human resources processes and the implementation of competency-based management models to achieve fairer procedures and improved ethical public governance.

¿Hay diferencias de género en las habilidades y el desempeño laboral de los puestos directivos en el sector público?

RESUMEN

Las Administraciones Públicas se enfrentan al reto de la mejora continua de sus procesos para adecuarse a los estándares éticos y de cumplimiento normativo. En este estudio se examina en qué medida factores no relevantes para el trabajo, como el género y la antigüedad en el trabajo, pueden tener un mayor impacto en el desarrollo de la carrera del personal directivo que factores relevantes para el trabajo, como las habilidades y el desempeño laboral. Para ello, se obtuvo la participación de 412 directivos y directivas del sector público de diferentes rangos, mostrando los datos que la antigüedad en el trabajo y la orientación a la innovación son los principales predictores del desempeño laboral, además del género. Asimismo, el comportamiento contraproducente de los hombres era superior al de las mujeres. Como conclusión principal se destaca la necesidad de una revisión de los procesos de recursos humanos en la gestión de las Administraciones Públicas, así como la utilización de modelos de competencias para lograr procedimientos más justos y mejorar la gobernanza ética de este sector.

Currently, public institutions worldwide are facing the challenge of implementing continuous improvement of processes, as public organizations are generally expected to be “neutral” (Hatmaker & Hassan, 2023). One of the main reasons for this is that those who provide services to the public must meet ethical standards and ensure legal compliance, going beyond both the traditional bureaucracy and new public management trends. Those standards, when applied to personnel management, can be implemented through sustainable principles where fair and unbiased assessment across the entire spectrum of human resources (HR) policy is a must (e.g., Álvarez-Gutiérrez et al., 2022). In this regard, key challenges facing HR processes include (e.g., Villoria & Izquierdo, 2016): i) ensuring an assessment of

employee competencies that shifts focus to competency-management, bias reduction, and a stronger relationship with job performance; ii) facilitating the eradication of corrupt practices that undermine the legitimacy and efficiency of public processes; and iii) facilitating the achievement of effective equality of employment opportunities. In fact, little attention has been paid to organizational practices to help members of marginalized and underrepresented groups advance to top management positions, so data on those groups is essential (Sperber et al., 2023). In this context, HR processes for accessing to high level management positions is of crucial importance since managers play a key role in driving the change that organizations require for success (e.g., Boselie et al., 2021). In fact, analysis of the

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several public administrations (PAs) HR assessment processes has revealed limitations that seem to undermine the achievement of those goals even though some countries, like France, Germany, the United Kingdom, and the US, have developed competency models to go beyond knowledge tests, seniority, and merit assessments (Castaño et al., 2023). In the case of Spain, usually, the access to management positions in the public administration is achieved on the basis of a minimum years of experience (tenure) in a lower-ranking position and/or competitive public exams employing knowledge tests and merit assessments (Castaño & García-Izquierdo, 2019). Recent research on Spanish public managers reflect that knowledge tests (Salgado, 2023) and biodata (García-Izquierdo et al., 2020) are good predictors of job outcomes. However, the problem here is not with the predictors but with the specification of the criterion, that is, what is a good performer and to what extent do the measures just noted predict performance. Research on the Spanish HR public practices points to a number of shortcomings, which include (Castaño et al., 2023): i) lack of connection between the above mentioned measures (e.g., years of experience, knowledge tests) and job performance; ii) the fact that merit assessments are often unrelated to individual job performance; iii) the degree to which processes and examinations are applied consistently to ensure equal treatment for each and every candidate.

In view of the above, this study aims to analyze the professional profile of managers in high level positions in terms of competencies, specifically managerial skills, that appear to be relevant compared to those that are non-relevant (gender and tenure) but seem to affect their performance and access to higher-level position and responsibility. With this objective as a starting point, we pose the following research questions:

- RQ1. What characteristics (relevant or non-relevant) are most present in managers with high responsibility?
- RQ2. What are the differences between the managerial skills and the job performance of high and low responsibility managers?

In addition, given that an important part of ethical governance has to do with equality, and that PAs are legally obliged to guarantee non-discrimination on the basis of gender in its management practices (Directive 2000/78/EC), we pose:

- RQ3. Are there significant differences between the managerial skills and job performance of men and women in public management positions?

In order to answer these questions, we analyze non-relevant job factors – gender and tenure – and job relevant factors – skills and job performance – of individuals in managerial positions and finally make out the differences between those who are in positions of greater responsibility and those who are not. We then identify and assess the extent to which they are fair, so whether the practices might be blind to gender and whether tenure may lead to unfair discrimination against women. In summary, the present research assesses whether skills and performance in high level public positions are consistent with ethical governance and fairness in terms of non-relevant and relevant job factors.

Non-relevant Job Factors

Gender

Despite current emphasis on equal opportunities, women still face a number of barriers to professional development and the continued existence of the glass ceiling (Powell & Butterfield, 2022). These barriers include: a) the lack of acceptance in male managerial networks (Cifre et al., 2015); b) a higher representation of men in management positions that leads to a positive evaluation of the merits of the male in-group and negative evaluation of the merits of the female outgroup members (Tajfel & Turner, 2004); c) the belief

that women will perform more poorly than men in managerial positions (Schein & Davidson, 1993); and d) the greater responsibility for household and childcare duties that make more difficult for women to devote the same time or access the same opportunities required to acquire the levels of experience and tenure that men acquire (Eagly et al., 2000). Given these barriers, men continue to outnumber women in managerial roles in PAs, and it is still more difficult for women to gain opportunities for career advancement than for men. The 2021 the “Gender equality in public administration” report by the United Nations Development Programme and the University of Pittsburgh¹ shows that women hold 46% of PAs positions but only represent 31% of senior management. Despite a widely held perception that the public sector offers greater opportunities for women, it would seem that women face similar obstacles to career advancement to those found in the private sector.

Heilman's (1983) Lack of Fit Theory provides a model for understanding the reasons why women are less likely to access to managerial positions than men. This model predicts that gender stereotypes produce HR biased decisions and influence the degree to which women are perceived as less deserving of managerial jobs than men. This results in the perception that these stereotyped female attributes do not fit the prototypical requirements of managerial jobs, which typically include: the ability to show leadership, guiding others' work, policy making, and making logical rather than emotional decisions². Heilman's theory argues also that this perceived lack of fit between the stereotypical attributes of women and managerial job requirements biases the degree to which women are viewed as qualified for managerial jobs. Moreover, men's stereotypes (i.e., strong, dominant, independent) are often more likely to be viewed as a fit with managerial job requirements. However, the actual attributes of a particular individual may not always correspond to the unsubstantiated characteristics attributed to the group to which they belong. It should be emphasized also that HR decisions based on unsupported beliefs rather than an individual's actual knowledge, skills, and abilities (KSAs) may lead to problems for organizations by favouring individuals that are less likely to be successful in managerial positions than other candidates. This situation not only could relegate women to positions of lower responsibility, but also contribute to the perception that procedures are unfair (Ramos et al., 2022).

Despite the aforementioned, there has been little empirical research on gender bias in PAs HR practice. Nonetheless, Hassan and O'Mealia (2020) found that female representation has not increased in Kenyan public administration despite efforts to implement gender quotas. Johnston (2019) found both vertical and horizontal gender segregation in the UK Civil Service. In Ukraine, Kryshtanovych et al. (2021) found that men occupied a greater proportion of senior civil servant positions than women. Curtin et al.'s (2023) analysis of ministerial promotion in Australia, Canada, and New Zealand showed that women were more likely to be promoted to less prestigious positions and “feminine” portfolios than men. Finally, in a study focusing on a Spanish municipality, Figueroa and Roca (2021) found that gender segregation led to the devaluation of female work, problematic work-life balance, and pay inequality between women and men.

Given the scarcity of empirical studies on gender issues in PAs organizations, we believe there is a need for further research. In theory, the protection of a specific collective is intended to ensure that assessment in organizational contexts is not biased against underrepresented groups (García-Izquierdo et al., 2020). Further research would therefore be needed to establish whether PAs may be facilitating adverse impact through apparently egalitarian HR practices that fail to adequately consider the implications of gender differences. In light of the above-mentioned research, we tested the following hypotheses:

- H₁: Women will be less likely to be employed in high-level managerial positions in PAs than men.

H_2 : Gender will have a higher percentage of explained variance in high-level managerial positions than managerial skills and job performance.

In addition, following Heilman's (1983) model, the perception of better fit between male stereotypes and prototypical managerial requirements can lead to the perception that women are less deserving and less qualified for management positions. This perceived incongruence between being a woman and being a manager may result in differences in the way women and men relate to work (Hatmaker & Hassan, 2023). This is best understood in terms of the stereotype threat phenomenon, whereby the risk of being judged on the basis of stereotypes can elicit a disruptive state that undermines performance in that domain (Spencer et al., 2016). This may result in women being rated lower in task performance (TP), which is stereotypically attributed to men, but are rated higher in soft skills and contextual performance (CP) (e.g., Hoyt & Murphy, 2016). We therefore test the following hypotheses:

H_3 : Women will score higher than men in soft skills.

H_4 : Women and men managers will differ in job performance, such that:

H_{4a} : Women will score higher than men in CP.

H_{4b} : Men will score higher than women in TP.

Tenure

Another non-relevant job factor that is likely to affect the access to public managerial positions is tenure or length of service. Some studies have employed a variety of measures of work experience, as for instance time in an organization and tenure in an occupation (e.g., McDaniel et al., 1988). But those studies were not based on a theoretical model. However, Quiñones et al.'s (1995) model explains the multifaceted nature of the work experience construct, where each separate measure of work experience represents a different and unique aspect of individual work experience, demonstrating the relation between work experience and job performance. Further, Tesluk and Jacobs' (1998) model develops a nomological network linking work experience with several antecedent and outcome variables and propose that individual factors (e.g., skills and abilities) will influence the acquisition of work experiences moderating the impact of those experiences on relevant outcomes. In addition, Tharenou et al. (1994) examined the effect of work experience on the managerial advancement of men and women and found that the number of years of full-time work in the present occupation was significantly related to the amount of training accumulated, and this relationship was stronger for men than women. Thus, the accumulated experience is critical for management positions.

Following the Human Capital Theory (Serneels, 2008), work experience is related to job performance and career development. This perspective states that workers make investments of experience in themselves, which enhance their ability or skills and thus influence job performance. So, we can infer that job experience leads to the accumulation of relevant KSAs, and performance should improve. Stemming from this basis, some models of job performance posit that job experience has a positive direct effect on job performance (e.g., Campbell, 1990). Schmidt et al. (1986) showed that job experience influences job knowledge and task proficiency, which in turn affects job performance.

In our case, it is well known that PAs highly considers tenure to make personnel decisions (e.g., Castaño et al., 2023) but they vary in terms of the degree to which they make decisions on tenure. Some PAs use tenure on the assumption that long-serving employees will have acquired more knowledge and greater skill levels than those with short term service. Eventually, PAs also use tenure to foster harmony by demonstrating that HR decisions are fair and free of favouritism. And finally, tenure is also used to reward loyalty and to

increase the commitment of other workers. However, the assumption that civil servants who have been with the organization for a long time have higher competencies may not always be accurate. Research has shown mixed results respect to the relation between tenure and performance. For instance, Guillén and Kunze (2019) demonstrated that older employees, who have more tenure, were less innovative and received lower performance appraisals than younger employees in a low collaboration context. Research on police officers (Hofmann & Kriska, 2009) supports this argument, finding that five years of seniority was not related to job performance, after controlling for age and test scores. A meta-analysis conducted by Ng and Feldman (2013) showed that job tenure was largely unrelated to core TP. However, other studies have demonstrated positive relationship between work experience and job performance (e.g., Salgado & Moscoso, 2008), though Steffens et al. (2014) found that the relationship between tenure and performance decreased in strength over time. Nonetheless, it seems that we need to study the relationship between tenure and job performance in the public administration specific context. Given that public administration in Spain is mainly based on a seniority system, we propose the following hypothesis:

H_5 : Tenure will have a higher percentage of explained variance in high-level managerial positions than skills and job performance.

Relevant Job Factors: Competencies and Job Performance

Stemming from the Upper Echelons Theory (UET; Hambrick, 2007), top managers' individual features will have an impact on organizational processes, decisions, and outcomes. UET as a theory based on bounded rationality acknowledges that there are human limitations in information processing and consequently managers' characteristics shape their views and decisions, that play a role in organizational outcomes. The UET usually has focused on observational variables as educational background and sociodemographic variables such as gender and age. Very few studies, however, have analyzed additional personal variables as for example Anessi-Pesina and Sicilia's (2020) using personality measures. Following these authors, demographic characteristics are used as proxies of constructs such values, personality, and other psychological factors. However, little is known about competencies of top managers in the public sector and how they are related to performance in different hierarchical positions in the organizations. When we talk about competencies in personnel assessment, we mean "identifying, defining, and measuring individual differences in terms of work-related constructs that are relevant to successful job performance" (Kurz & Bartram, 2002, p. 228). Competency systems are based on the knowledge, skills, abilities, and other (KSAO) model (e.g., Campion et al., 2011). This KSAO's approach has gained a worldwide popularity partly because of its ability to differentiate between high and low performance.

Following UET, personal characteristics of top managers influence organizational outcomes, where competencies have been largely accepted as key personal job relevant factors. Competency-based management systems (CBMS) have been widely promoted as an effective method for improving organizational effectiveness because they focus on performance-related behaviours and are related to overall organizational performance (Levenson et al., 2006) and job performance (e.g., Salgado et al., 2017). Further, CBMS generate more positive reactions among applicants (García-Izquierdo et al., 2012) than traditional systems, and women prefer these methods to affirmative action measures because they reflect their capabilities (e.g., Moscoso et al., 2010).

The implementation of the competencies in the HR management models also contributes to a greater perception of fairness since they promote their face validity by emphasizing the identification and weighting of the three main classic components of performance: TP,

CP, and counterproductive performance (e.g., Borman & Motowidlo, 1997; Martinko et al., 2002). This in turn has a positive effect on employee attitudes and retention due to its focus on organizational incumbents (e.g., DeNisi & Murphy, 2017). Specifically, such systems motivate workers to increase their competencies and enhance productivity levels, as they recognize that the best performers or those who exert extra effort are more likely to climb positions in their professional career. Accordingly, the European Public Administration Network (EUPAN; Nunes et al., 2007) proposed that reforms in strategies for career development should be based on effective performance and fairness through CBMS instead of knowledge tests and merit assessment focused on tenure. However, in the access to management positions in the Spanish public administration, competencies in terms of abilities and knowledge are at the baseline of the managers' professional profile. That is, all the applicants possess a university degree that is well related with the general ability construct (e.g., Salgado et al., 2003), and have passed knowledge tests or exams, considered as hard skills – which are considered basically technical, procedural, and conceptual in the management context, while soft skills are relational and intra-interpersonal (e.g., Andrés et al., 2023) –. Thus, we also examine the degree to which soft skills, beyond abilities and knowledge tests, are related to job performance for managers in the Spanish public administration. Following García-Izquierdo and García-Izquierdo (2006), despite its organizational relevance, we can see a lack of consensus about measuring performance or outcomes, but as it is a multidimensional concept we can take into account different aspects of work-related aspects, such as outcomes and behaviour. Regarding outcomes, rank's organizational relevance comes from reflecting the level of hierarchical allocation related to a position into an organization. Rank gives a different perspective from those who are in managerial positions compared with that of employees (e.g., Schminke et al., 2002) who are in lower positions in terms of responsibility and the need to lead and team management.

So, first, we focus on the soft skill component of the competencies approach, and we can consider rank as an outcome of job success. Consequently, we hypothesize that soft skills will make a difference in terms of rank:

H_6 : High scores in soft skills will be positively related with higher rank.

Beyond rank as an outcome, we consider job performance from the behaviour point of view. Research has shown that high levels of TP and CP help organizations to meet their objectives (e.g., Podsakoff & McKenzie, 1997), whilst counterproductive performance has a detrimental effect on organizational outcomes. TP and CP have been studied deeply but is not the case of counterproductive behaviours. Counterproductive performance indicates poor ethical standards, low levels of efficiency, and is contrary to the very essence of ethical governance (Grabowski et al., 2019). Consequently, the study of counterproductive performance is a key factor for improving the PAs' quality, especially in management positions since they may be more related to counterproductive work behaviours (Wiernik & Ones, 2018). We focus on a kind of counterproductive performance: unethical pro-organizational behaviours (UPOB). Surprisingly, there has been little research on UPOB in PAs. This may be due to several reasons: i) most of the research has used self-reports, that are often compromised by social desirability; ii) some types of unethical behaviour hide seemingly legal and moral administrative procedures behind; and iii) UPOB is often a learned organizational behaviour. Regarding the latter, the moral content of these unethical acts may be easily overlooked because they are designed to help the organization. This phenomenon is well explained by Ashforth and Anand (2003), who argued that there are three mutually reinforcing processes underlying the normalization of corrupt behaviours: i) institutionalization (a corrupt decision is embedded in structures and organizational processes and therefore becomes routine);

ii) rationalization (selfish ideologies are developed to justify corruption, much like the ethics neutralization process; Kaptein & van Helvoort, 2019); and iii) socialization (a process where newcomers to the organization are encouraged to see corruption as not only permissible but also desirable, or condoned by leaders strongly identified with their organizations; e.g., Schuh et al., 2021). Additionally, recently Ripoll et al. (2023) found how public service motivation may have a role in unethical behaviours through group pressure.

Promoting UPOB serves to perpetuate a situation through an implicit rewarded culture. This is particularly relevant in the case of PAs, because this context fosters rigid adherence to rules without considering organizational objectives (e.g., Merton, 1940), generating adverse effects. Given that PAs may have rigid bureaucracies, those occupying high-responsibility positions may be motivated to ignore formal organizational rules more easily than those in positions of lesser responsibility. Moreover, perceived unfair practices in management may have encouraged the institutionalisation of UPOB to achieve organizational objectives. Consequently, following Schneider's (1987) Attraction-Selection-Attrition Model may inadvertently attract candidates with a predisposition to non-compliance with ethical standards and consequent immoral behaviours. So, we firstly hypothesize that:

H_a : High-level managers will score higher in counterproductive performance than lower-rank managers.

Finally, we have found few previous studies on the relationship between UPOB and gender. Nonetheless, as they indicate that men are more willing to engage in UPOB than women (e.g., Kholin et al., 2020), we hypothesize that:

H_b : Men in high responsibility ranks will score higher in counterproductive performance than women.

Method

Procedure

Spanish public managers were invited to participate in the study. We carried out a non-probabilistic snowball sampling procedure via the research project website, as well as INAP Social and LinkedIn. In addition, all the Spanish Institutes of Public Administration and Civil Service Institutions were asked to distribute a questionnaire among their managers. We also contacted managers directly by phone or email when phone numbers and email addresses were publicly available. Public universities and Spanish city councils with more than 150,000 inhabitants were also contacted. The study was conducted in accordance with Declaration of Helsinki guidelines and all the participants were informed of the research purposes.

Several procedural remedies were applied to reduce the likelihood of common method biases (e.g., Podsakoff et al., 2012): i) respondent anonymity was emphasized to avoid social desirability effects and reduce evaluation apprehension; ii) a proximal distance technique was used to generate physical and psychological distance, separating the items belonging to skills from those belonging to job performance; and iii) items were presented to respondents at random. We also conducted Harman's single factor test, whereby all items were loaded on a single factor using the maximum-likelihood approach. The ratio of the resultant chi-square value divided by the degrees of freedom was above 2.00 (2.8) and the single factor explained only 21.8% of total variance, suggesting that common-method bias was not a concern (Kuok et al., 2020).

Participants

The study participants initially consisted of 439 Spanish public managers. Potential participants that failed to provide any

information on their level or job position were excluded, as well as those holding politically appointed positions. As a result, 27 persons were discarded, leaving a final sample of 412 participants. The average tenure of these 412 participants was 226.27 months ($SD = 127.10$), 56.8% were men ($n = 234$), the mean age was 52.88 years old ($SD = 6.84$), and they were in charge of an average 38.52 people ($SD = 168.73$).

All the participants held management positions. Spanish public administration requires that all the public managers have a university degree and pass a knowledge exam and tenure is taken into account as well. Criteria to distinguish both groups of managerial positions, low rank and high rank, were considered in terms of the number of people under their responsibility (Wallin et al., 2014), based on the idea that the higher the number of subordinates, the greater the level of responsibility. The sample was then divided into two levels of responsibility, in accordance with the threshold of 10 subordinates per manager established by Davison (2003). In the lower responsibility level ($n = 216$), average tenure was 206.53 months ($SD = 128.89$), 49.5% were men ($n = 107$), and the mean age was 52.58 years old ($SD = 7.02$). In the higher responsibility level ($n = 196$), average tenure was 248.03 months ($SD = 121.77$), 64.8% were men ($n = 127$), and the average age was 53.20 years old ($SD = 6.63$).

Instruments

Managerial Skills

Managerial skills were measured by means of the 40 items of the PUMAC Questionnaire (Castaño et al., 2023) including the following skills: Leadership (e.g., "I organize and coordinate work by harnessing the talents of others", seven items), Planning (e.g., "I efficiently establish a sequence of concrete actions to achieve goals", six items), Civil service orientation (e.g., "I attend to the public promptly", seven items), Innovation orientation (e.g., "I promote adaptation to changes in the administration", four items), Ethics (e.g., "I declare any possible conflicts of interest", five items), Recognition and regulation of emotions (e.g., "I act in calm manner, even when I feel strong emotions like extreme anger and frustration", three items), Engagement with Public Administration (e.g., "I perceive the Administration's objectives as my own", four items), and Communication (e.g., "I am concise, and illustrate points that might be misunderstood with examples", four items). Participants

responded via a seven-point Likert scale from 1 (*never*) to 7 (*always*).

Job Performance

Job performance was measured in such a way as to differentiate task, contextual, and counterproductive dimensions. TP was measured using Latorre's (2011) Spanish six-item scale (e.g., "How well did you perform the following tasks... make decisions?"). Participants responded via a seven-point Likert scale from 1 (*very badly*) to 7 (*very well*). CP was measured using the translated nine-item scale (e.g., "Voluntarily does more than the job requires, helping others, or contributing to team effectiveness") developed by Morgeson et al. (2005). Counterproductive performance (UPOB) was measured using a translated and adapted six-item scale (e.g., "If it would help my organization, I would misrepresent the truth to make my organization look good"), based on Umphress et al. (2010). This construct refers to an individual's participation in unethical acts intended to benefit the organization or its members while violating core societal values or standards of proper conduct. In the case of CP and UPOB, participants responded via a seven-point Likert scale from 1 (*totally disagree*) to 7 (*totally agree*).

Level of Responsibility

The level of responsibility was measured by rank, in accordance with the abovementioned threshold of 10 subordinates. The lower responsibility level means "low rank," and the higher responsibility level means "high rank".

Data Analysis

Descriptive statistics, Cronbach's reliability index, Pearson and point-biserial correlations, hierarchical logistic regression analyses, and comparison of means via *t*-tests were applied using SPSS software (version 20). In addition, we used the chi-square test to compare differences in the proportion of men and women in the high and low rank. We also carried out bootstrapping analyses, as normality could not be assumed (Kolmogorov-Smirnov test using the Lilliefors correction: $p < .05$). G*Power software version 3.1.9.2, by Faul et al. (2009) was used to determine Pearson's and the point-biserial minimum correlation coefficients, which is sensitive to effects to 90% power ($\alpha = .05$, one-tailed).

Table 1. Descriptive Statistics

Variables	α	Min.	Max.	<i>M</i>	<i>SD</i>
Socio-demographic					
Tenure (months)	-	1	516	226.27	127.104
Age	-	36	69	52.88	6.836
Subordinates	-	1	2,300	38.52	168.725
Skills					
Ethics	.674	13	35	31.10	3.580
Recognition and regulation of emotions	.674	8	21	16.70	2.630
Engagement with the Public Administration	.720	12	28	24.15	3.149
Communication	.807	10	28	22.39	3.513
Leadership	.851	20	49	35.90	6.719
Planning	.843	10	42	29.47	6.174
Civil service orientation	.846	11	49	36.24	7.276
Innovation orientation	.736	7	28	20.85	4.077
Job performance					
Task	.817	23	42	35.93	3.424
Contextual	.850	43	63	55.82	4.413
UPOB	.782	6	33	13.62	6.074

Table 2. Hierarchical Logistic Regression Analyses for Prediction of Rank

Predictors	b and 95% bootstrap CI	95% CI for odds ratio		
		Lower	Odds	Upper
Step 1 Nagelkerke R square: .031, step $\chi^2 = 9.806$, $p = .002$, overall percentage 57.3				
Constant	0.800 [0.207, 1.440]*	-	-	-
Sex	-0.629 [-1.051, -0.251]*	0.359	0.533	0.793
Step 2 Nagelkerke R square: .064, step $\chi^2 = 10.386$, $p = .001$, overall percentage 61.9				
Constant	0.194 [-0.523, 0.911]	-	-	-
Sex	-0.614 [-1.038, -0.248]*	0.362	0.541	0.808
Tenure	0.003 [0.001, 0.004]*	1.001	1.003	1.004

Note. Only represents the two steps with significant improvement in model fit. N = 412; sex: 1 = man, 2 = woman; rank: 1 = low, 2 = high.
* $p < .05$.

Results

The descriptive statistics are shown in Table 1. It should be noted that significant differences were found in the number of women and men, depending on Rank: $\chi^2(1) = 9.75$, $p = .002$. While there were 107 men and 109 women in the lower responsibility level, there were 127 men and 69 women in the higher responsibility level. Based on the odds ratio, calculated as $(127/107)/(69/109)$, the odds of being in the high rank were 1.875 times higher for male managers than female managers. These results support H_1 .

Table 2 presents the results of the hierarchical regression for the prediction of Rank, where we initially included Sex, then added Tenure, subsequently included the skills, and finally the three performance dimensions. Steps 1 ($\chi^2 = 9.806$, $p = .002$) and 2 ($\chi^2 = 10.386$, $p = .001$) resulted in a significant improvement in model fit, indicating that both Sex and Tenure predict Rank. However, adding skills ($\chi^2 = 11.580$, $p = .171$) and performance dimensions ($\chi^2 = 5.113$, $p = .164$) to the model had no effect on

the fit, so this refute H_6 . Based on the results of step 2, as the model with the greatest predictive power, the odds of achieving the rank with greater responsibility is 1.003 times greater with an increase of Tenure, while the odds of not achieving rank with greater responsibility increases 1.848 times for women. In addition, Table 3 shows a significant and positive correlation between Tenure and Rank ($r = .163$, $p < .01$), with managers with a higher level of responsibility having greater tenure than those with a lower level of responsibility. This is analyzed in more detail in the comparison of means according to Rank, where it can be seen that managers with high responsibility score higher than those with low responsibility in Innovation orientation, UPOB, and Tenure (Table 4). Therefore, H_2 and H_5 are supported, given that non-job-relevant factors (i.e., gender and tenure) were key to occupying high-level managerial positions rather than skills and job performance.

Moreover, Table 3 shows that there was a significant correlation between Sex and the Innovation orientation skill ($r = .099$, $p < .05$). When these results were disaggregated by Sex (Table 5), the

Table 3. Bivariate Correlations

Variables	Point-biserial correlations		Pearson correlations										
	Sex ¹	Rank ²	Tenure	Ethics	Recognition and regulation of emotions	Engagement with the Public Administration	Communication	Leadership	Planning	Civil service orientation	Innovation orientation	Task performance	Contextual performance
Rank ²	<i>-.154**</i>												
Tenure	-.047	<i>.163**</i>											
Ethics	-.002	.037	<i>.086*</i>										
Recognition and regulation of emotions	-.026	.073	-.009	<i>.368**</i>									
Engagement with the Public Administration	.007	.005	.011	<i>.392**</i>	<i>.382**</i>								
Communication	.051	.058	.001	<i>.412**</i>	<i>.531**</i>	<i>.390**</i>							
Leadership	.060	.045	<i>.109*</i>	<i>.364**</i>	<i>.406**</i>	<i>.350**</i>	<i>.524**</i>						
Planning	.003	-.001	<i>.105*</i>	<i>.421**</i>	<i>.366**</i>	<i>.378**</i>	<i>.522**</i>	<i>.614**</i>					
Civil service orientation	-.018	.013	<i>.085*</i>	<i>.395**</i>	<i>.392**</i>	<i>.445**</i>	<i>.451**</i>	<i>.504**</i>	<i>.470**</i>				
Innovation orientation	<i>.099*</i>	<i>.110*</i>	<i>.127**</i>	<i>.417**</i>	<i>.412**</i>	<i>.398**</i>	<i>.459**</i>	<i>.530**</i>	<i>.539**</i>	<i>.471**</i>			
Task performance	.077	<i>.082*</i>	.000	<i>.329**</i>	<i>.387**</i>	<i>.316**</i>	<i>.479**</i>	<i>.436**</i>	<i>.392**</i>	<i>.387**</i>	<i>.417**</i>		
Contextual performance	.061	.013	.052	<i>.320**</i>	<i>.355**</i>	<i>.331**</i>	<i>.444**</i>	<i>.425**</i>	<i>.372**</i>	<i>.322**</i>	<i>.415**</i>	<i>.464**</i>	
UPOB	-.087	<i>.085*</i>	<i>.103*</i>	-.207**	-.174**	-.134**	-.188**	-.092*	-.092*	-.140**	-.115**	-.134**	-.197**

Note. N = 412. Highlighted in italics those significant correlations higher than .144 (Pearson correlations) and .143 (point-biserial correlations).

¹Sex: 1 = man, 2 = woman; ²rank: 1 = low, 2 = high.

* $p < .05$ (one-tailed), ** $p < .01$ (one-tailed).

Table 4. Significant Mean Comparisons for Skills and Job Performance regarding Rank and Sex

Groups	M	SD	t	Bootstrap one tail p value	Differences for
Sex					
Women	21.31	3.98	-2.023	.019	Innovation orientation <i>d</i> = 0.199
Men	20.50	4.13			
Women	13.02	5.77	1.773	.042	UPOB <i>d</i> = 0.18
Men	14.09	6.27			
Rank					
High	21.32	3.94	-2.242	.013	Innovation orientation <i>d</i> = 0.22
Low	20.42	4.16			
High	14.16	6.13	-1.721	.042	UPOB <i>d</i> = 0.17
Low	13.13	6.00			
High	248.03	121.77	-3.351	.001	Tenure <i>d</i> = 0.33
Low	206.53	128.89			
Men high vs. Men low					
Men High	251.52	114.03	-2.658	.004	Tenure <i>d</i> = 0.35
Men Low	207.67	134.75			
Men high vs. Women low					
Men High	14.31	6.00	2.486	.007	UPOB <i>d</i> = 0.33
Women Low	12.47	5.30			
Men High	251.51	114.03	2.980	.003	Tenure <i>d</i> = 0.39
Women Low	205.41	123.48			
Women high vs. Women low					
Women High	22.32	4.16	-2.746	.003	Innovation orientation <i>d</i> = 0.44
Women Low	20.67	3.45			
Women High	241.62	135.51	-1.835	.037	Tenure <i>d</i> = 0.66
Women Low	205.41	123.48			
Women high vs. Men low					
Women High	23.07	3.06	1.812	.032	Communication <i>d</i> = 0.28
Men Low	22.09	3.76			
Women High	22.32	3.45	3.568	.001	Innovation orientation <i>d</i> = 0.55
Men Low	20.17	4.17			
Women High	36.71	3.17	2.447	.006	Task performance <i>d</i> = 0.38
Men Low	35.39	3.68			
Women high vs. Men high					
Women High	22.32	3.45	-2.670	.003	Innovation orientation <i>d</i> = 0.4
Men High	20.77	4.09			
Women High	56.77	3.85	-2.167	.011	Contextual performance <i>d</i> = 0.33
Men High	55.40	4.40			
Women low vs. Men low					
Women Low	12.47	5.30	1.652	.049	UPOB <i>d</i> = 0.23
Men Low	13.81	6.58			

Note. Number of women: low rank = 109, high rank = 69; number of men: low rank = 107, high rank = 127.

skill Innovation orientation was related to women occupying more responsible managerial positions ($r = .203, p < .01$). In the case of men, there was no significant correlation between skills and Rank. When analyzing mean differences (Table 4), Innovation orientation was found to be higher in women than in men ($t = -2.023, p = .019$). It was also found that Communication was higher for women in positions of greater responsibility than for men in managerial positions of lesser responsibility ($t = 1.812, p = .032$). These results partially support H_3 , since women were found to have a stronger relationship with only two soft skills: Communication and Innovation orientation.

Regarding H_4 , significant gender differences in CP and TP components were observed when also taking the level of responsibility into account (Table 4). Women in management positions of greater responsibility scored higher in CP than men in the same rank ($t = -2.167, p = .011$), and higher in TP than men in management positions of lesser responsibility ($t = 2.447, p = .006$). These results provide partial support for H_4 : while wom-

en in management positions of greater responsibility did score higher than men in CP (supporting H_{4a}), they also scored higher in TP (refuting H_{4b}).

Finally, regarding counterproductive performance, Table 3 shows a significant association between Sex and UPOB ($r = -.087, p < .05$). These results are consolidated when analyzing the mean differences in Table 4, with men scoring higher in UPOB than women ($t = 1.773, p = .040$). It was also observed that Rank correlated positively with UPOB ($r = .085, p < .05$), and when taking sex into account, it was found that men in higher responsibility levels scored higher in UPOB than women in lower responsibility levels ($t = 2.486, p = .007$), and that men in low responsibility levels scored higher in UPOB than women at those same levels ($t = 1.652, p = .049$). It should also be noted that, in the case of women (Table 5), Tenure correlated significantly and positively with UPOB ($r = .186, p < .01$). This implies that both H_{7a} and H_{7b} are supported, since high-level managers scored higher in UPOB than low-level managers, and men did indeed score higher than women in UPOB.

Table 5. Bivariate Correlations regarding Sex: Women in the Higher Diagonal and Men in the Lower Diagonal

Variables	Point-biserial correlations	Pearson correlations												
	Rank ¹	Tenure	Ethics	Recognition and regulation of emotions	Engagement with the Public Administration	Communication	Leadership	Planning	Civil service orientation	Innovation orientation	Task performance	Contextual performance	UPOB	
Point-biserial correlations	Rank ¹	-	.137*	.063	.090	-.004	.114	.048	.069	.108	.203**	.118	.117	.120
Pearson correlations	Tenure	.174**	-	.098	-.022	-.028	-.021	.091	.078	.082	.123	.030	.066	.186**
	Ethics	.019	.077	-	.416**	.379**	.454**	.376**	.428**	.391**	.476**	.295**	.289**	-.188**
	Recognition and regulation of emotions	.056	-.001	.338**	-	.329**	.420**	.374**	.351**	.316**	.473**	.327**	.318**	-.164*
	Engagement with the Public Administration	.014	.039	.400**	.417**	-	.297**	.317**	.299**	.406**	.405**	.347**	.286**	-.025
	Communication	.035	.021	.385**	.606**	.449**	-	.509**	.518**	.412**	.485**	.475**	.384**	-.225**
	Leadership	.059	.128*	.356**	.434**	.374**	.533**	-	.587**	.502**	.549**	.488**	.335**	-.057
	Planning	-.051	.126*	.416**	.376**	.432**	.526**	.636**	-	.427**	.459**	.313**	.287**	-.136*
	Civil service orientation	-.065	.086	.399**	.449**	.475**	.484**	.509**	.503**	-	.489**	.409**	.330**	-.120
	Innovation orientation	.073	.139*	.380**	.380**	.395**	.437**	.513**	.599**	.465**	-	.453**	.383**	-.145*
	Task performance	.081	-.015	.354**	.430**	.297**	.479**	.397**	.447**	.377**	.386**	-	.434**	-.097
	Contextual performance	-.045	.047	.343**	.385**	.362**	.482**	.489**	.434**	.319**	.432**	.481**	-	-.165*
	UPOB	.040	.037	-.221**	-.185**	-.203**	-.159**	-.109*	-.062	-.159**	-.083	-.148*	-.211**	-

Note. Highlighted in italics those significant correlations higher than: .217 (Pearson correlations) and .215 (point-biserial correlations) for the women sample (n = 178) in the higher diagonal, and .189 (Pearson correlations) and .188 (point-biserial correlations) for the men sample (n = 234) in the lower diagonal.

¹Rank: 1, low; 2, high.

*p < .05 (one tail), **p < .01 (one tail).

Discussion

In order to assess whether skills and performance in high level public HR processes are consistent with ethical governance and fairness in terms of non-relevant and relevant job factors, we analyzed the characteristics of incumbent public managers to find their effects on career advancement. Among the results obtained, we wish to highlight the following facts.

Regarding RQ1 and RQ2, we show that tenure and gender (being a man) are two of the most important factors determining the occupation of high-level PAs management positions, and that managers in upper positions score higher in UPOB than those with low responsibility. Generally speaking, skills and TP and CP may not play an important role in differentiating the access to upper managerial positions. Specifically, we found that Rank is linked: i) to only one skill: Innovation orientation, and ii) to two performance dimensions: TP and UPOB, although all these correlation coefficients do not reach the minimum value which is sensitive to effects to 90% power. It remains the case that men are more likely to have longer tenure in the workplace, so women are placed at a disadvantage in the access to upper organizational echelons. This is probably because women continue to assume more household and childcare responsibilities than men and this can impact career intentions (Alcover et al., 2022). A process that chooses to focus on the criteria of tenure rather than skills represents a threat to the principles of equality and ethics. We therefore believe that promotion procedures should take fairness policies into account when developing organizational strategy.

Regarding RQ3, while our results show that women score higher than men in Innovation orientation, Communication, and CP and TP in positions of greater responsibility, there

were no gender differences in the rest of the skills in lower rank. These differences suggest that women may acquire skills during their career to compensate for the disadvantages they face in accessing managerial positions (Castaño et al., 2019) and seek approval by demonstrating stereotypically desirable male traits in addition to their supposedly communitarian traits (Carpini et al., 2023).

In addition, high scores in UPOB for men in high-responsibility positions raise the question of whether this behaviour is a factor that favours male to reach managerial positions. If this should prove to be the case, UPOB would constitute an unethical male practice aimed at achieving targets (e.g., Narayan, 2016). This would once again place women at a disadvantage due to their lower predisposition to such unethical practices (Anessi-Pessina & Sicilia, 2020). However, the fact that women with greater tenure are more likely to take part in UPOB may indicate that PAs staff could be institutionalizing UPOB and neutralizing ethical standards as means to an end. It may also represent an adaptive response to gain access to management positions in response to disadvantages and barriers. It would therefore seem more a product of organizational culture than gender attributes. So, once an organization embraces UPOB, the behaviour tends to become widespread. Consequently, there is an urgent need for further research in this area to prevent ongoing damaging consequences. Finally, Wang et al. (2023, p. 1186) have called hazardous organizations to those possessing five organizational characteristics that make organizations attractive to people with low ethical standards: managers and employees “(a) are more tolerant of sexual misconduct, (b) support power inequality, (c) are strongly motivated by monetary incentives, (d) disregard ethical standards, and (e) hide knowledge.”

Implications for Theory and Practice

Regarding theory, our research give support to [Heilman's \(1983\)](#) Lack of Fit Theory providing empirical evidence for the reasons why women are less likely to reach out to managerial positions than men. That is, organizational power structures, practices, and expectations rely on assumptions about women and men that result in gender inequality, provoking deleterious effects on women's work outcomes by facing barriers that inhibit their career advancement ([Hatmaker & Hassan, 2023](#)). Also, [Hambrick's \(2007\)](#) UET has been emphasized as impacting on organizational and outcomes, in this case in terms of rank, throughout some managerial skills. In this sense, we have gone beyond gender and age variables and provided UET with more sounded HR relevant variables. Finally, we put the focus on the ethical aspects of counterproductive behaviours by means of UPOB as a relevant dimension of job performance with its own entity, since its discriminant validity has been proven by negatively correlating with TP and CP. Consequently, UPOB should be taking into account in HR policies in order to create a more sustainable organizational public culture.

Regarding practice, we propose that public HR practices must: i) ensure the requirement for fairness and equal opportunity by relegating the role of tenure and prioritizing competencies ([García-Izquierdo et al., 2012](#), ii) avoid women feeling obliged to make additional effort to compensate for the disadvantages they face by demonstrating more and better competencies and performance than men to compensate for lower seniority or counteract stereotypes, iii) promote women's aspirations to senior management positions, for example, by setting female managerial referents, breaking with predominant male stereotypes and promoting greater representation of women in senior management ([Powell & Butterfield, 2022](#)), and iv) eradicate the perception that UPOB could be beneficial for climbing to management positions.

We consider that CBMS can be a proper tool for achieving these goals. As well as ensuring better performance, CBMS would: i) increase PAs legitimacy and compliance with the principles of justice, ii) allow staff to be trained and assessed in competencies linked to the reduction of unethical behaviours, and iii) establish reference standards that would help to positively shape conduct, values, and practices in the workplace. Regarding this last point, it should be noted that standards and principles are currently in place to provide guidance on best practice. For example, ISO 10667:2011 provides guidance for the development of fair organizational processes based on ethical principles from a professional practice approach, and ISO 26000:2010 aims to encourage organizations to go beyond legal compliance by considering organizational diversity. In the same vein, the Society for Industrial and Organizational Psychology has published "Principles for the validation and use of personnel selection procedures" aiming to provide guidance regarding the application, use and adequacy of selection procedures. More on this, academic research also offers guidelines and principles that allow managers to evaluate the extent to which personnel decision procedures are inclusive. For instance, [Salgado et al. \(2017\)](#) have proposed practical recommendations regarding ethics, job relatedness, and opportunity to perform based on organizational justice rules. There are also specific guiding principles and good practices for achieving decent working settings and improving HR managerial decisions through bias-free and fair employability promotion for women ([Castaño et al., 2019](#)).

In sum, any attempt to review and redesign public HR processes must go further than simply increasing the number of women in management positions ([Hoang et al., 2022](#)). All HR decisions must be seen to be fair.

Limitations and Future Research

One of the main limitations is the cross-sectional nature and post-hoc design of the study, which makes it difficult to establish causal relationships between the variables analyzed. So, the results should be interpreted as an inference of the possible influence of these variables on personnel allocation. The results may also be affected by common variance bias (although this was kept to a minimum during the questionnaire completion phase).

We posit that it would be useful for future research to complement our analysis with in-depth research on the professional career of public managers, measuring UPOB and other pro-social and extra-role behaviours with objective data (e.g., complaints and satisfaction of the public and subordinates), and taking into account the relevant process for promotion to those positions (e.g., merit-based assessment, direct appointment). In addition, and based on the correlations found between UPOB and managerial skills, it would be interesting to investigate in future studies the possibility that both poorer communication skills and poorer control of emotions promote UPOB, perhaps due to difficulties in expressing oneself and act when faced with an ethical problem. Finally, given that highly selective HR procedures are especially sensitive to range restriction in the sample (e.g., [Hunter et al. 2006](#)), we suggest that future studies adjust for range restriction, especially when performed by practitioners beyond research purposes.

This need for future research is better understood if we take into account that the results of the present study suggest a greater relevance of certain criteria on male representation, so that women could perceive unfair decisions and procedures in the public administration. Consequently, a gender-sensitive model based on competency development and assessment would offer a useful strategic approach to prevent these consequences. We would also propose the use of longitudinal studies and studies based on stratified samples of managers from the various areas of Spanish PAs.

Conclusion

Our results show that tenure, being a man, and the innovation orientation skill may be the main factors determining managerial positions in PAs and that tenure and UPOB may have a greater influence on male career advancement than qualifications. This may indicate a failure to meet the requirements of ethical governance, which implies a shift towards the prioritization of values-based management and greater procedural fairness. The fact that potentially relevant competencies, such as innovation orientation, are more prominent among women, serves to reinforce the urgent need to increase its relevance in management HR processes beyond the masculinity-oriented tenure and UPOB criterion. In other words, Spanish PAs must take this new competency-based criterion into account if it is to rise to the challenge of achieving modernization from a gender equality approach ([Cuadrado et al., 2008](#)). In this regard, recent research has shown that incorporating not only stereotypically masculine traits as valuable criteria for assessment, but also feminine traits and behaviours, is a necessary condition for balanced and effective leadership (e.g., [Amillano et al., 2020](#)) to improve organizational sustainability.

Conflict of Interest

The authors of this article have no conflict of interest.

Notes

¹<https://www.undp.org/publications/global-report-gender-equality-public-administration>

²See the description of *Managers* on the O'NET website: <https://www.onetonline.org/link/summary/11-9199.00>

Data Availability Statement

The data that support the findings of this study are openly available in RUO (*Repositorio Institucional de la Universidad de Oviedo*) at <https://hdl.handle.net/10651/73747>.

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