Organizational leadership: How much does it matter?

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Abstract

I study the influence of leadership on organizational performance and worker wellbeing using data from the 2004 and 2011 Workplace Employment Relations Survey (WERS). Our most conservative estimates from fixed effects regressions on a panel of organizations reveal that virtuous leadership is significantly and positively linked to an upbeat assessment of organizational performance, and an increase in worker wellbeing. Specifically, the estimates reveal that an increase in leadership quality by one standard deviation increases organizational performance and worker job satisfaction by 0.27 and 0.73 standard deviations, respectively, while it leads to a fall in worker job anxiety by 0.13 standard deviations. The results support the hypothesis that good leadership is vital for the success of business, including worker wellbeing, which organizational policymakers ought to heed. There is a dearth of empirical evidence on organizational leadership as an institution and its influence on organizational outcomes, which this article aims to address.

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1 | INTRODUCTION

There is some evidence linking organizational leadership (hereinafter leadership) to sustained competitive advantage and superior organizational performance. Early research in psychology and management (see e.g. Barney, 1986; Schein, 1985) identified core managerial values, which yield sustained superior financial performance. These values, which include how bosses treat their employees, customers and suppliers, were thought to achieve superior performance through engendering innovativeness and flexibility. Economists had shunned research on the role of leadership until Hermalin (1998; 2013) developed a theory of leadership, where he showed how leaders may get followers and highlighted the important role leadership plays in shaping the fate of organizations. Martinez et al. (2015) also stressed the important theoretical and empirical work economists can do on leadership and its link with performance, while Gibbons and Roberts (2015) identified the nature and role of leadership as one of the key outstanding issues for organizational economics to address.

LSE

More recently, Artz et al. (2020) highlighted the gap in the literature amply when they emphasized the central role bosses play in the operations of organizations and 'yet, almost nothing is known about an important and basic question in labor economics and industrial relations. Are the right people promoted to be supervisors, team leaders, and managers?' (p. 3). Workers have been shown to value the intrinsic aspects of their jobs including good leadership. Casser and Meier (2018) show the growing body of evidence, which highlighted non-monetary factors, including leadership being important for worker motivation and productivity. Contrary to economists' usual assumption that work involves an exchange of time and effort for money, they argued, workers do care about more than just monetary incentives. Hermalin (2013) identified two such nonmonetary or 'informal factors', which are essential in the operation of organizations – leadership and corporate culture – while Schein (1985; 2004) stressed the vital role leadership played in setting the tone for corporate culture.

This article examines if the quality of leadership has any bearing on organizational performance and worker wellbeing by conducting organization- and worker-level analysis. As detailed in Section 3, I measure the quality of leadership based on workers' perceptions of leadership quality. The performance outcome is derived from managers' responses on perceptions of their organizations' performances in terms of finance, labour productivity and product or service quality vis-à-vis comparable organizations in the same industry. Worker wellbeing is measured in terms of job satisfaction and job anxiety, which are derived from workers' responses. Establishing the link between leadership and organizational performance and worker wellbeing may prove vital, particularly in Britain. In a recent study, Isham et al. (2020) noted that Britain faces two socioeconomic challenges currently, which are: (1) low levels of mental and physical health of the working population, and (2) the persistently low growth in labour productivity. These challenges are inter-related as previous research (e.g. Oswald et al., 2015) has clearly shown. While there is a large body of research into what Hermalin (2013) dubbed 'the formal rights and rules', there is still a dearth of research on 'the informal means' in organizations. Research in this area may, therefore, inform organizational and public policy on the role leadership plays in influencing worker wellbeing and organizational performance, potentially addressing the twin challenges identified.1

The remainder of this article is organized as follows. Section 2 provides theoretical background and a review of the evidence linking leadership to worker wellbeing and organizational performance. Section 3 provides details on the data used, the employee and establishment

ISF

samples studied, as well as the outcome and independent variables used in the analysis conducted. Section 4 sets out the empirical framework employed. Section 5 presents the estimation results and their discussion. The final section provides a summary of the study and concludes the article by highlighting potential policy measures and some caveats to the current study.

2 | THEORY AND LITERATURE

2.1 | Background: Leadership

In the social sciences, leadership has long been regarded as vital both in moulding new organizational culture and in adaptively evolving existing ones. Schein (2004) argued that 'cultures begin with leaders who impose their own values and assumptions on a group' (p. 2). Hermalin (1998; 2013) noted that much of the economics of organization focused on formal contractual relationships, neglecting the vital roles leadership plays in determining the operation of organizations.² In a pioneering work, which provided a formal economic analysis of leadership distinguishing it from an authority, he showed that leadership has a voluntary following. He argued that leaders may induce a following if followers conclude that they are better off following the leader than not. This may happen if followers become convinced that: (1) the leader has superior information than they have, and (2) the leader informs them honestly, even in the face of incentives to mislead. The honesty of the leader may be 'achieved by the leader convincingly signalling her information either by sacrificing or by setting an example' (p. 1199).³

Hermalin (2013) showed leaders have three key roles as *judges*, *experts* and *coordinators*. As a *judge*, a single individual may be selected if: (1) the group anticipates *ex ante* less risk and uncertainty about how cases may be resolved by the individual; (2) the impartiality and incorruptibility of the individual are known; (3) there are economies of scale in having a judge and committing relevant investments to that end; and (4) having a leader helps overcome the problem of free riding, which may happen if no one were to monitor the behaviour of group members and to pass on some judgement. As an *expert*, a leader may attract a following if group members believe the leader is best placed to know what should be done, which they signal via: (1) their endowment of relevant expertise; (2) activities they undertake to acquire relevant knowledge; and (3) their candour. As a *coordinator*, a leader can either help select a particular equilibrium game among games with multiple equilibria or, where coordination is not necessarily warranted, cause coordination to happen via an informational cascade or causing herding.

2.2 | Leadership and performance

As noted in Section 1, Hermalin (1998) pioneered the formal economic treatment of the role of leadership. Several influential economics articles have since provided empirical evidence on the role played by leadership. Bloom and Van Reenen (2007), for example, showed management practice has a strong association with several firm-level outcomes, including productivity, profitability, Tobin's Q and survival rates. Bloom et al. (2012) also showed that social capital, which they proxied by organizational trust, enhanced aggregate productivity by influencing firms' internal organization. In a study of the top 100 US hospitals, Goodall (2011) found a strong positive association between hospital performance and hospital leaders being physicians. In another study, Goodall

et al. (2011) showed the influential role a leader's expert knowledge played in the performance of a team in the context of US professional basketball. Jacobs et al. (2013) examined the link between senior management team culture, which they measured using a validated culture rating instrument, and organizational performance in English acute hospitals. They found that leadership, which varied across hospitals and over time, consistently predicted routine measures of hospital performance. They concluded that this provided evidence of the leadership–performance link.

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Boyce et al. (2015) noted that prior research linking organizational culture, which has leadership at its heart, and performance fell short of establishing causality. They conducted a longitudinal analysis using data from 95 automobile dealerships spanning over 6 years to establish the direction of causality in the leadership-performance relationship. They found that leadership consistently predicted subsequent customer satisfaction ratings and vehicle sales. They concluded that leadership came first. Lazear et al. (2015) examined how and by how much supervisors enhanced the productivity of workers in a large technology-based services provider company. In their theoretical formulation, they argued that a good boss may either teach or motivate workers. The former may promote employees' productivity by enhancing their skills through training and guidance, which works primarily via the boss's skill level. The motivational effect on worker productivity works primarily through the boss's effort and their setting of an example, which is a similar stipulation to Hermalin (1998). They conducted an empirical analysis using daily worker output data spanning over 4 years, which was linked to data on bosses to which the worker would be assigned each day. Based on 5.7 million worker-days data, they found that replacing a boss deemed to be in the lower 10 per cent of boss quality with another boss deemed to be in the top 10 per cent of boss quality increased a team's productivity by more than adding one worker to a ninemember team would yield. They concluded that boss effects were large and significant, which they thought validated the fundamental role assigned to supervision and management in personnel economics and in the theory of the firm. Heinz et al. (2017) conducted a field experiment to examine how workers' productivity is impacted by leaders' unfair treatment of co-workers. They used two work shifts as part of their experiment. In one treatment, they laid off 20 per cent of employees between shifts in a manner that would be perceived as unfair treatment. They reported that in the layoff treatment, the productivity of unaffected workers dropped by 12 per cent, which they attributed to the unfair behaviour of employers towards co-workers rather than due to peer effect, workers altered beliefs about their job, or managers' competence.

2.3 | Leadership and worker wellbeing

Worker wellbeing is an important outcome in and of itself. This is so, particularly in Britain, where the current state of mental health and its prognosis appear to be dire. Stress, depression and anxiety have become the most frequently self-reported work-related ill health in Britain costing businesses tens of billions of pounds per year (see e.g. HSE, 2020a; HSE, 2020b; Krekel et al., 2019; Vickerstaff et al., 2012).⁴ There is considerable public policy interest in the role leadership may play in influencing worker wellbeing.

Kahneman et al. (2004), using the daily reconstruction method to measure affective experiences, showed that: (1) workers' happiness varied markedly depending on whether they felt pressured to work quickly, and (2) being with one's boss while at work being the worst time of all in wellbeing terms. Bryson and MacKerron (2016) used a similar approach, where 20,000 individuals recorded their momentary wellbeing using a smartphone app at random points in time on a given day. They found that paid work represented the lowest level of wellbeing than any of

LSE

the other 39 activities respondents were engaged in, barring being sick in bed. If so and given the evidence in Kahneman et al. (2004), this may suggest leadership being a key contributor to the poor wellbeing status of those in paid work. Krekel et al. (2019) attempted to establish which organizational characteristics may be linked to worker job satisfaction. Based on cross-sectional data from 37 countries around the world, they reported that good relationships with management had the strongest positive association with how satisfied workers were in their jobs among 12 domains of organizational characteristics. They concluded that their finding was in line with US-based evidence from Gallup, where 50 per cent of adults who left their jobs indicated they did so to get away from their managers.

Artz et al. (2017) examined the link between the quality of leaders, as measured by their technical competence, and the wellbeing of workers in the UK and the United States in terms of job satisfaction. They found the technical competence of bosses being the most important predictor of workers' job satisfaction.⁵ They concluded that their findings were consistent with the broad idea that technically competent bosses influence the quality of workers' lives positively. More recently, Artz et al. (2020) used cross-national data on 27,000 randomly selected workers across 35 European countries to generate a boss quality measure, which captures the strengths and weaknesses of bosses along seven different domains.⁶ They report that some 13 per cent of bosses in Europe to be bad bosses, and the existence of a correlation between employees' satisfaction and the quality of their boss. Fox et al. (2021) conducted a systematic review of 83 studies with organizationaland group-level interventions involving experimental or quasi-experimental designs. They found that strategies focused on changing working conditions having significant potential to improve wellbeing. They concluded that regardless of type, *increased worker control, opportunities for workers' voice* and *worker participation* being critical interventions that can promote worker wellbeing more reliably.

The preceding sections underscore the continuing calls for further research on leadership and its role in the operations of organizations and on worker wellbeing (see e.g. Artz et al., 2017; Artz et al., 2020; Hermalin, 1998; 2013; Martinez et al., 2015). The existing literature is based on either a single organization and/or industry (Boyce et al., 2015; Jacobs et al., 2013; Lazear et al., 2015); or is centred on only workers (Artz et al., 2020; Bryson & MacKerron, 2016; Kahneman et al., 2004) or organizations (Bloom & Van Reenen, 2007; Bloom et al., 2012; Goodall, 2011); or it is cross-sectional/-national in nature (e.g. Artz et al., 2020; Krekel et al., 2019), thus wanting analytically. Perhaps due to the narrower scope, the evidence to date is not clear-cut. For example, Artz et al. (2017; 2020) report leaders' technical competence being 'the single strongest predictor of worker's job satisfaction' (2017: p. 419), while others stressed, 'increased control and greater employee voice' (Fox et al., 2021: p. 20) being critical drivers of worker wellbeing.

This article aims to contribute to the literature by examining the link between the quality of leadership and outcomes measured at the level of organizations and workers. It has several strengths. *First*, it relies on nationally representative linked data, which offer a large variety of organizations and workers. *Second*, it employs alternative empirical approaches involving both panel data analysis, which allows controlling for unmeasured organizational characteristics, as well as pooled analysis to address some of the shortcomings identified in the literature. *Third*, it examines both organizational performance and wellbeing as outcomes, the latter including worker job anxiety unlike much of the literature. *Finally*, it undertakes analysis both at the organization and worker level. Leadership can make a substantial difference in the way organizations operate as well as in the wellbeing of workers within. The article is thus likely to inform organizational and workplace policy.

3 | DATA

3.1 | Overview – The Workplace Employment Relations Surveys

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I use data from the 2004 and 2011 British Workplace Employment Relations Surveys (WERS 2004 and 2011). The surveys, which provide linked employer-employee data representative of all establishments with five or more employees, offer the most authoritative source of information on employment relations in Britain.⁷ The employer surveys used management questionnaires, which were completed via face-to-face interviews with managers in charge of organizations' day-to-day tasks of employment relations. The employee surveys used self-completion questionnaires, which were completed by up to 25 employees in sampled organizations. The 2004 and 2011 surveys monitored, respectively, 2295 and 2680 organizations, and 22,451 and 21,981 employees in them (Kersley et al., 2006; van Wanrooy et al., 2013).⁸ Of these organizations, 989 completed the management questionnaire in both the 2004 and the 2011 surveys, thus constituting a panel. However, only 600 of the panel organizations completed the worker surveys, which are the source of the key independent variable on leadership quality. Therefore, the panel analysis relies on an initial sample of these 600 organizations, which yielded 405 and 548 panel organizations for the performance and wellbeing analysis, respectively, with the non-missing outcome and independent variables.⁹ As well as the panel analysis, I also pool organizations and workers from the 2004 and 2011 surveys to conduct pooled OLS and 2SLS analyses. The pooled analysis of performance has yielded a pooled sample of 3008 organizations (1395 and 1613 organizations from 2004 and 2011, respectively). The wellbeing analysis retained a final sample of 36,634 workers in 3471 organizations, which are comprised of 18,512 and 18,122 workers from 1655 and 1816 organizations from 2004 and 2011, respectively.¹⁰

3.2 | Organizational performance outcomes

The organizational performance outcomes come from managers' responses to the question: 'Compared with other establishments in the same industry how would you assess your workplace's...: (i) "financial performance," (ii) "labour productivity" and (iii) "quality of product or service"?' In each case, managers would respond on a 5-point Likert scale from 'a lot better than average' to 'a lot below average'. Principal component analysis (PCA) identified only one item with an eigenvalue greater than one in both 2004 and 2011 (1.7694 and 1.7646), which can be seen in Figure 1, with corresponding Kaiser–Meyer–Olkin (KMO) statistics of 0.64 and 0.63, respectively. Given this, a single summative organizational performance outcome ('overall performance') has been generated, which runs from 5 to 15 (higher values signifying better performance) to study organizational performance.

3.3 | Wellbeing outcomes

The wellbeing outcomes used are *job satisfaction* and *job-related anxiety*, which were generated from workers' responses to eight questions monitoring their satisfaction on facets of their job and three questions scrutinizing job-related affects.

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FIGURE 1 Scree plots of eigenvalues after PCA of performance facets, WERS 2004 and 2011 [Colour figure can be viewed at wileyonlinelibrary.com]

The job satisfaction questions were: 'how satisfied are you with the following nine aspects of your job': 'sense of achievement from work'; 'scope for using own initiative'; 'amount of influence over job'; 'training received'; 'amount of pay received'; 'job security'; 'the opportunity to develop your skills in your job'; 'the work itself'; and 'involvement in decision making'. Responses to these questions were provided on a 5-point scale from 'very satisfied' to 'very dissatisfied'.^{II} PCA identified a single factor from the eight domains of job satisfaction with eigenvalues bigger than one in both 2004 (4.0206) and 2011 (4.1334), as shown in Figure 2, and corresponding KMO overall sample adequacy measures of 0.8775 and 0.8788, respectively. Given this, a single summative measure of overall job satisfaction (JS) was generated for each responding employee after first re-scaling the 5-point scale responses into -2 (very dissatisfied) to 2 (very satisfied) as: $JS_{ij} = \sum_{k=1}^{8} JS_{ijk}$, where *i* represents an employee, *j* an organization and *k* a domain satisfaction. The resulting scale obtained runs from -16 to 16 for both surveys (higher values signifying better outcome), which has been used for the worker-level analysis. For the organizational analysis, an organizational average JS (\overline{JS}_j) is generated by averaging over the number of respondents in an organization (N_j) as: $\overline{JS}_j = \frac{\sum_{i=1}^{N} JS_{ij}}{N}$.

The job-related affect questions were: '*Thinking of the past few weeks, how much of the time has your job made you feel each of the following?*: '*tense*', '*worried*' and '*uneasy*'. The responses to the three negative affects, which were monitored in both the 2004 and 2011 surveys, were provided on a 5-point scale of: 'all of the time', 'most of the time', 'some of the time', 'occasionally' and 'never'. PCA identified a single factor from the three job-related negative affects with an eigenvalue bigger than one (2.2910, 2004 and 2.2868, 2011), as depicted in Figure 3, with a KMO statistics of 0.7284 (2004) and 0.7361 (2011). I, therefore, re-coded each of the three affects into a rating from 4 (all of the time) to 0 (never) and generated a single summative measure of job-related anxiety (JA_{ij})

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FIGURE 2 Scree plots of eigenvalues after PCA of job satisfaction facets, WERS 2004 and 2011 [Colour figure can be viewed at wileyonlinelibrary.com]



FIGURE 3 Scree plots of eigenvalues after PCA of job anxiety facets, WERS 2004 and 2011 [Colour figure can be viewed at wileyonlinelibrary.com]

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FIGURE 4 Scree plots of eigenvalues after PCA of leadership facets, WERS 2004 and 2011 [Colour figure can be viewed at wileyonlinelibrary.com]

running from 0 to 12 (higher values signifying more anxiety), which is used for the worker-level analysis. For the organizational analysis, a similar aggregation has been used as above to obtain an aggregate measure of job anxiety (\overline{JA}_i) .

3.4 | Leadership – Key independent variable

The key independent variable of interest to this study is leadership. It is derived from workers' responses to the question: 'Now thinking about the managers at this workplace, to what extent do you agree or disagree with the following?' (a) can be relied upon to keep to their promises, (b) are sincere in attempting to understand employees' views, (c) deal with employees honestly, (d) understand about employees having to meet responsibilities outside work, (e) encourage people to develop their skills and (f) treat employees fairly. The responses were given on a 5-point scale from 'strongly agree' to 'strongly disagree'. In addition, workers were asked: 'In general, how would you describe relations between managers and employees here?', which was also monitored on a 5-point scale from 'very good' to 'very poor'. As Figure 4 shows, PCA on responses to the seven questions identified one factor with an eigenvalue bigger than one (5.1042, 2004 and 5.1895, 2011) and a KMO statistics of 0.9427 each for both waves.

Given this, a summative measure of leadership has been generated as: $Leadership_{ij} = \sum_{k=1}^{7} Leadership_{ijk}$ after the individual responses were first re-scaled from -2 to 2 (strongly disagree to strongly agree and, for the second question, from very poor to very good). The resulting scale, which runs from -14 to +14 (higher values signifying better quality leadership), is used directly in the worker-level analysis. For organizational-level analysis, this scale is aggregated as:

 $\overline{Leadership}_{j} = \frac{\sum_{i=1}^{N} Leadership_{ij}}{N_{j}}$, where N_{j} represents the sum of responding workers within an organization. This aggregate measure is thought to reflect workers' collective perception of the quality of leadership in their organization, thus likely to be a better indicator of leadership quality.

LSE

3.5 | Other independent variables

The analysis conducted controls for rich sets of worker and organizational characteristics. The former includes demographic and human capital characteristics, while the latter includes a battery of organizational characteristics, including size, ownership type, age, whether a single or multi-plant establishment, industry, union representation and geographic location. Summary statistics on the full range of outcomes and regressors in each analysis sample, including the key independent variable, are provided in online Appendix Tables A4 and A6.

4 | EMPIRICAL FRAMEWORK

The main empirical approach used is panel data analysis on organizations that were repeatedly surveyed in 2004 and 2011. As highlighted in the preceding section, however, the sub-sample of panel organizations is a small proportion of the organizations surveyed by WERS. To make more complete use of the data, therefore, I also pool organizations and workers from 2004 and 2011 and conduct alternative organization- and worker-level analysis. This involves OLS and tentative instrumental variables (2SLS) regressions as specified below, which may yield more precise estimates due to larger sample sizes.

4.1 | Panel data analysis

The panel data analysis involves fixed effects regression and has the following form:

$$y_{jt} = \theta_j + k_t + \beta * Leadership_{jt} + \gamma * ORG_{jt} + u_{jt}$$
(1)

where *y* represents any one of the three organizational outcomes (i.e. *Performance*, \overline{JS}_j and \overline{JA}_j) described in the preceding section, θ represents organizational dummies, including organizational fixed effects, *k* represents year dummies, *Leadership* represents the organization-level leadership quality measure, **ORG** represents the vector of time-varying organizational characteristics, including organizational size, *u* represents the idiosyncratic error term, *j* indexes organizations and *t* indexes year (*t* = 2004 and 2011). Fixed effects regression can be regarded as the sternest test in our analysis, and it goes some way in addressing potential endogeneity problems, which Martinez et al. (2015) noted as vital in organizational studies.¹³

4.2 | Pooled analysis

As stated earlier, the pooled analysis involves organization- and worker-level OLS and 2SLS regressions.

4.2.1 | Organization-level analysis

The organization-level OLS regression model has the following general form:

$$y_j = \alpha + k_t + \beta * \overline{Leadership}_j + \gamma * ORG_j + \varepsilon_j$$
(2)

where once again *y* represents any one of the three organizational outcomes as in Equation (1); *k* represents year dummies; *Leadership* represents the leadership quality measure thought to signify workers' collective perception of leadership quality; **ORG** represents the vector of organizational characteristics, including size, industry, union representation and geographic location; ε is the idiosyncratic error term; and *j* indexes organizations. In the organization-level analysis, OLS may be susceptible to endogeneity problem arising from omitted and potentially unobservable organizational variables. To deal with this, I also use 2SLS regressions, which has the following general form:

$$y_{j} = \alpha + k_{t} + \beta * \overline{Leadership}_{j} + \gamma * ORG_{j} + \delta * Z_{j} + \varepsilon_{j}$$
(3)

where all terms in Equation (3) are the same as in Equation (2), and Z represents the vector of instrumental variables thought to be strongly correlated with the leadership quality measure, uncorrelated with the error term and not directly related to each of the outcomes of interest.¹⁴ In our observational data, even the 2SLS may not address the endogeneity problem fully, but it may serve this purpose up to a point.

4.2.2 | Worker-level analysis

The worker-level analysis is centred on the two wellbeing (WB) outcomes -JS and JA - and involves OLS and 2SLS once again. The pooled OLS regression model I estimate has the following form:

$$WB_{ij} = \alpha + k_t + \beta * Leadership_{ij} + \gamma * EE_{ij} + \delta * ORG_j + \varepsilon_{ij}$$
(4)

where *WB* represents each of the worker-level wellbeing outcomes (*JS* or *JA*); *Leadership* represents individual worker's perception of leadership; *EE* represents the vector of worker characteristics; *ORG* represents the vector of organizational characteristics; ε is the idiosyncratic error term; and *i* and *j* index workers and organizations. As well as potentially omitted and unobserved variables, the worker-level analysis may exhibit another source of endogeneity problem in the form of reverse causality, where higher levels of workers' wellbeing contribute to positive perceptions of leadership or vice versa. To address this, first, I exploit the linked nature of the data to estimate OLS with organizational fixed effects, which is specified as:

$$WB_{ij} = \alpha + k_t + \beta * Leadership_{ij} + \gamma * EE_{ij} + \delta * D_j + e_{ij}$$
(5)

where each term in Equation (5) is as in Equation (4), but here I include organizational dummies (*D*), which account for both observable and unobservable organizational characteristics (i.e. $D_j \equiv ORG_j + \mu_j$). Equation (5) allows us to deal with potentially unobservable organization-level

663

ISF

omitted variables (such as unobservably 'happy' or 'gloomy' organizations) and may serve as a halfway house solution to potential endogeneity problem.¹⁵ Second, I also implement worker-level 2SLS regression, which has the following general form:

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$$WB_{ij} = \alpha + k_t + \beta * Leadership_{ij} + \gamma * EE_{ij} + \delta * ORG_j + \rho * Z_j + \varepsilon_{ij}$$
(6)

where each term in Equation (6) is as in Equation (4) and Z represents the vector of instrumental variables thought to satisfy the properties of instrumental variables highlighted earlier.¹⁶

All the estimations I undertake use survey weights provided by the WERS team. The weights allow accounting for differences in organization and worker selection probabilities and observable non-response biases (see Van Wanrooy et al., 2013: 212–213; Bryson et al., 2017: 1023).¹⁷ All estimations are performed using the STATA software (StataCorp., 2021).

5 | RESULTS AND DISCUSSION

The estimation results based on each of the specifications outlined in the preceding section (Equations 1–6) are reported in Tables 1–3.¹⁸ Table 1 reports results from fixed effects regressions on the panel of organizations surveyed in 2004 and 2011. As pointed earlier, these results can be regarded as the most conservative of all our estimates. Accordingly, good quality leadership – or workers' perceptions of it – is found to be significantly and positively related to managers' upbeat assessment of organizational performance vis-à-vis other organizations in the same industry. Moreover, it is also found to enhance the wellbeing of workers in terms of job satisfaction and job anxiety, which are found to be significantly positively and negatively related to the quality of leadership, respectively. In terms of the magnitude of these links, a one standard deviation increase in the quality of leadership leads to an increase in organizational performance by 0.27 standard deviations. On wellbeing, a one standard deviation by 0.73 standard deviations. On the other hand, a similar one standard deviation increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to an increase in leadership quality is found to lead to a decline in agg

Table 2 reports results from the organization-level OLS and 2SLS regressions on the pooled samples of organizations from 2004 and 2011, which correspond to Equations (2) and (3). As noted earlier, the 2SLS regressions used three instrumental variables in each of the performance and wellbeing regressions. Diagnostic test statistics suggest that the performance and job anxiety equations fail to reject the null hypothesis of regressor exogeneity, as can be seen, from the Durbin–Wu–Hausman (DWH) test statistics, which validates the corresponding OLS estimates. On the other hand, the job satisfaction equation rejects the null hypothesis of regressor exogeneity, thus suggesting the 2SLS estimates being the most appropriate in this case. The remaining two 2SLS diagnostic test statistics on weak identification (F-statistics) and the overidentifying restrictions (Sargan test) are both favourable.¹⁹

The main results suggest that good quality leadership is significantly positively related to managers' upbeat assessment of performance. It is also found to be significantly positively associated with workers' wellbeing overall, where aggregate job satisfaction is positively linked, while aggregate job anxiety is negatively associated with good quality leadership. In terms of magnitude, the estimates indicate that a one standard deviation increase in the quality of leadership leads to an increase in managers' assessment of organizational performance by 0.17 standard deviations. On wellbeing, a similar one standard deviation increase in the quality of leadership is associated with



TABLE 1 Leadership and organizational performance and wellbeing outcomes, fixed effects estimates (panel organizations, WERS 2004 and 2011)

	Performance	Satisfaction (\overline{JS})	Anxiety (\overline{JA})
	Coeff.	Coeff.	Coeff.
Leadership	0.130***	0.717***	-0.179***
	(0.048)	(0.069)	(0.039)
Private establishment	-1.385	2.247*	-0.252
	(1.165)	(1.236)	(0.927)
UK owned	1.145	-0.494	-0.175
	(0.875)	(0.905)	(0.837)
Sole establishment	-0.440	-0.959**	0.036
	(0.337)	(0.460)	(0.214)
Log (organization age)	0.068	-0.400	-0.071
	(0.242)	(0.302)	(0.122)
Recognized union	0.904**	0.407	-0.184
	(0.352)	(0.567)	(0.277)
Organization size (no. of employees)	0.027	-0.378	0.187
	(0.288)	(0.308)	(0.128)
Industry (base: manufacturing):			
Construction	-0.235	-1.628	0.202
	(1.148)	(2.139)	(0.984)
Wholesale and retail trade	-1.012**	-0.145	0.306
	(0.433)	(0.744)	(0.605)
Hotel, restaurant and related	0.656	-2.880	1.153
	(0.680)	(2.573)	(1.069)
Finance and business service	1.244*	-0.940	-0.159
	(0.683)	(1.668)	(0.943)
Utilities and public admin	-0.867	0.267	0.325
	(0.657)	(1.945)	(1.093)
Education	-2.971***	-0.764	1.712
	(0.740)	(1.789)	(1.168)
Health	-0.975	-0.988	1.564
	(0.650)	(1.728)	(1.172)
Year = 2011	-0.164	-0.005	-0.557***
	(0.195)	(0.259)	(0.136)
Constant	5.155***	8.314***	7.203***
	(1.396)	(1.826)	(1.040)
Model fit			
R ² (within)	0.170	0.560	0.288
F (14, 404 or 547)	28.752	11.173	3.742
Prob > F	0.000	0.000	0.000
			(Continues)

TABLE 1	(Continued)
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	Performance	Satisfaction (\overline{JS})	Anxiety (\overline{JA})
	Coeff.	Coeff.	Coeff.
No. of organizations	405	548	548
No. of observations $(N \times 2)$	810	1096	1096

LSE

Notes: The key independent variable Leadership here (also that in Table 2) is obtained by aggregating workers' responses on their perceptions of the quality of organizational leadership, which was monitored along seven dimensions (see Section 3.4), after first cardinalizing and summing across the responses of each worker.

The completion rate of the questionnaires on performance was relatively lower, which explains the lower sample size for the performance equation/column.

All three fixed effects results are weighted by the WERS panel establishment weights to account for the probability of organizations' selection to the WERS study.

Full descriptive statistics on the outcome and control variables in Table 1 are provided in online Appendix Table A4. * p < 0.10; ** p < 0.05; *** p < 0.01.

an increase in workers' aggregate job satisfaction by 1.16 standard deviations, while it is associated with a reduction in job anxiety by 0.37 standard deviations. Overall, therefore, I find evidence linking good quality leadership and organizational performance and aggregate worker wellbeing.

Table 3 reports three sets of results from the worker-level wellbeing analysis, which correspond to Equations (4–6), on job satisfaction and job anxiety. For each wellbeing outcome, the first column of results relates to OLS estimates controlling for the full gamut of worker and organizational characteristics, including geographic location. The second column relates to OLS estimates using organizational fixed effects as described in Section 4.2.2. The final column relates to results from the 2SLS regressions and associated diagnostic test statistics.

The results in the first two columns are strikingly similar, which seems to suggest that the observable (and unobservable) organizational characteristics I controlled for do not have much influence on the leadership–wellbeing link. The results indicate that good quality leadership, or workers' perceptions of it, is significantly and positively related to job satisfaction, while it is significantly negatively related to job anxiety. In terms of magnitude, a one standard deviation increase in the quality of leadership is associated with an increase in job satisfaction by 0.69 standard deviations. On the other hand, a similar one standard deviation increase in leadership quality is found to be associated with a fall in job anxiety by 0.32 standard deviations.

The bottom parts of column 3 in Table 3 report diagnostic test results from the pooled 2SLS regressions on job satisfaction and job anxiety. The job satisfaction diagnostic test statistics reject the null hypothesis of regressor exogeneity (as can be seen from the DWH statistics). This means that OLS would yield biased and inconsistent estimates for the job satisfaction equations, which makes the 2SLS results in Table 3 the preferred results for the job satisfaction outcome.²⁰ On the other hand, DWH statistics from the job anxiety equation suggest that I fail to reject the null hypothesis of regressor exogeneity. Thus, the pooled OLS results explained above should serve as the preferred estimates since the test statistics do not reveal endogeneity problems. The job satisfaction estimates from the pooled 2SLS regression are consistent with those obtained from the two pooled OLS regressions in terms of statistical significance. However, as was the result from the organizational 2SLS regression, they are significantly larger in magnitude where a one standard deviation increase in leadership quality is linked to an increase in worker job satisfaction by 1.09 standard deviations. Thus, the 2SLS estimates of the job satisfaction equations appear to suggest an even larger positive link between leadership quality and employee job satisfaction.

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	Performance		Satisfaction (JS)		Anxiety (JA)	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Leadership	0.068***	0.118^{***}	0.601***	0.934^{***}	-0.137^{***}	-0.119^{**}
	(0.013)	(0.036)	(0.021)	(0.098)	(0.015)	(0.055)
Organizational characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Year = 2011	0.108	0.120	0.493***	0.590***	-0.713***	-0.755***
	(0.103)	(0.106)	(0.156)	(0.188)	(0.098)	(0.108)
Constant	5.774***	4.476***	8.420***	2.035	6.525***	6.060***
	(0.449)	(0.769)	(0.782)	(1.959)	(0.425)	(1.096)
Model fit						
R^2	0.066	0.050	0.576	0.444	0.249	0.241
Wald χ^{2} (31/30)		65.210		727.514		227.310
$\operatorname{Prob} > \chi^2$		0.000		0.000		0.000
No. of organizations	3008	3008	3473	3008	3473	3008
2SLS diagnostics						
Durbin–Wu–Hausman test, $F(1, 2976)/[P]^{\P}$		2.147/[0.143]		14.648/[0.000]		0.117/[0.732]
Weak IV test, $F(3, 2975)/[Prob > F]$		41.450/[0.000]		22.670/[0.000]		22.670/[0.000]
Sargan test, χ^2 (2)/[P]		12.192/[0.002]		0.657/[0.000]		9.590/[0.008]
<i>Votes</i> : Three IVs have been used in t ormer and <i>workplace age, sole estab.</i> ^T The DWH test statistics for the perf	the performance and wellbe <i>lishment</i> and <i>overall perforr</i> formance and anxiety equat	sing equations as part of the <i>nance</i> for the two wellbeing tions means that I fail to rejo	2SLS specifications. These equations. ect Ho (variables exogeneity	are: workplace age, sole esta), hence the corresponding	<i>blishment</i> and <i>aggregate jo</i> OLS equations are the pre	b satisfaction for the ferred equations.

All results are weighted by WERS establishment weights to account for the probability of selection of organizations to the study sample.

Full descriptive statistics on the outcome and control variables in Table 2 are provided in online Appendix Table A5.

* p < 0.10; ** p < 0.05; *** p < 0.01.

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	Job satisfacti	on		Job anxie	ty	
	(1)	(2)	(3)	(1)	(2)	(3)
Leadership	0.612***	0.609***	0.970***	-0.135***	-0.137***	-0.163***
	(0.005)	(0.006)	(0.056)	(0.003)	(0.003)	(0.031)
Worker characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Organizational characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Year = 2011	0.310***		0.202***	-0.677***		-0.656***
	(0.057)		(0.072)	(0.035)		(0.039)
Constant	7.941***	4.271***	1.245	6.487***	7.042***	6.995***
	(0.305)	(0.235)	(1.095)	(0.197)	(0.146)	(0.598)
Model fit						
No. of workers	36,634	36,634	31,471	36,634	36,634	31,471
R^2	0.497	0.579	0.352	0.155	0.281	0.154
Wald χ^2 (43)			2485.038			1564.080
$\text{Prob} > \chi^2$			0.000			0.000
2SLS diagnostics						
Durbin–Wu–Hausman test, $F(1, 31, 426)/[P]^{\P}$			50.839/[0.000]			0.701/[0.402]
Weak IV test, <i>F</i> (5, 31,423)/[Prob > <i>F</i>]			35.983/[0.000]			35.983/[0.000]
Sargan test, χ^2 (4)/[P]			4.439/[0.3498]			4.971/[0.000]

TABLE 3 Leadership and worker wellbeing, worker-level analysis (pooled worker samples, WERS 2004 and 2011)

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Notes: The key independent variable Leadership in Table 3 is obtained by cardinalizing and summing across the responses of each worker on their perception of leadership quality, which was monitored along seven dimensions (see Section 3.4).

The results in column (1) are from pooled OLS, controlling for the full gamut of worker and organizational covariates, including geographic region. Column (2) replaces the organizational and region covariates by organizational fixed effect (dummies). Column (3) reports estimates using 2SLS with five IVs in each case, which include organization age, sole establishment, financial performance, labour productivity, the quality of good or services and diagnostic statistics.

[¶]DWH test statistics on the job anxiety equation fails to reject Ho (variable exogeneity), hence the preferred specification is the corresponding OLS equation.

All estimations have used the WERS employee sample weights to account for the probability that employees were included in the WERS.

Full descriptive statistics on the outcome and control variables in Table 3 are provided in online Appendix Table A6. * p < 0.10; *** p < 0.05; *** p < 0.01.

Overall, workers' perception of good quality leadership is found to have a strong association with their wellbeing.

6 | SUMMARY AND CONCLUSION

I conducted organization- and worker-level analysis to determine the extent to which the quality of leadership influences organizational performance and worker wellbeing, which I measured in terms of worker job satisfaction and job anxiety. To that end, I used linked data from the 2004 and 2011 waves of the nationally representative British WERS and conducted an alternative empirical analysis, which included panel data (fixed effects) analysis on a sub-sample of organizations

LSE

669

surveyed in both waves and pooled analysis. The latter comprised instrumental variable techniques and (pooled) OLS with and without organizational fixed effects, which are conducted on larger samples of organizations and workers monitored in either one of the two waves.

As argued in the article, leadership plays an important role in the operation of organizations and the wellbeing of workers within. However, not much is known about the quality of leadership in organizations generally, and even less is known about how the quality of leadership influences outcomes, such as performance and worker wellbeing. Several recent studies have underscored the importance of further research in this area (see e.g. Artz et al., 2020; Casser & Meier, 2018; Gibbons & Roberts, 2015; Hermalin, 1998; 2013; Martinez et al., 2015), which this article attempted to address. I asserted that further research is vital, particularly in Britain, where the working population is reported to have poorer mental and physical health. There has also been a slump in labour productivity in the country. These challenges are thought not to be entirely unrelated as recent research highlighted (see e.g. Isham et al., 2020; Oswald et al., 2015). If, as Artz et al. (2020) showed, there is a significant amount of poor leadership around, then it is inevitable that we experience sub-optimal performance and poorer worker health outcomes consequently. Shedding some light on the links between leadership quality and outcomes, including organizational performance and worker wellbeing may, therefore, be imperative from the perspective of informing public policy.

The results reported indicate that good quality leadership leads to an upbeat assessment of organizational performance, which both the panel analysis on the sub-sample of organizations and pooled analysis on samples of organizations from 2004 and 2011 revealed. Good quality leadership is also found to enhance workers' overall wellbeing significantly. This is shown to be the case in terms of workers' job satisfaction, which is influenced positively, and job anxiety, which is linked negatively. The results found on worker wellbeing are consistent across the organizationand worker-level analysis. In terms of the magnitude of these links, the most conservative of our estimates (fixed effects) reveal that a one standard deviation increase in leadership quality leads to increases in perceptions of organizational performance and worker job satisfaction by 0.27 and 0.73 standard deviations, respectively. On the other hand, a similar one standard deviation increase in leadership quality is found to lead to a fall in worker job anxiety by 0.13 standard deviations. These results suggest that improving the quality of leadership is a worthwhile policy objective for organizations to pursue. This may be achieved via better recruitment, appraisal/review and training of leaders. As detailed in Section 3.4, the leadership quality measure used encompasses seven dimensions. These reflect what may be termed as 'soft leadership skills' and include impartiality, trustworthiness and empathy of leaders. Leadership training may, therefore, need to consider such 'soft leadership skills' to enhance organizational performance and worker wellbeing. Perhaps unsurprisingly, the importance of leaders' technical competence is what has been highlighted in much of the limited literature to date. Our results stress the value of 'soft leadership skills' additionally. This is our contribution to the literature, which is hoped to inform organizational policy-making on leadership.

This study is rigorous in many respects, including its use of alternative outcomes at the organization and worker levels, its use of nationally representative data, its measuring leadership quality both at aggregate/organization and individual/worker levels, its implementation of alternative empirical approaches, including fixed effects regressions that Martinez et al. (2015) suggested, its controlling richly on organizational and worker characteristics, and its extensive review of the literature, among others. However, it is also worth stressing here that this is a study based on observational data and, as such, it is unlikely to pin down true causality precisely. Future research in this area may usefully contribute towards this goal of establishing true causality. Still, the robustness of the results obtained from the alternative empirical analysis conducted does appear to lend some credibility to the results reported. There are also some other caveats worth highlighting here. First, the organizational performance outcomes used are based on managers' perceptions of organizational performance, which may be far from actual performance as pointed out by Black and Lynch (1996). Moreover, such perceptions may not necessarily be shared throughout organizations as highlighted in Alberga et al. (1997). Secondly, both the leadership quality measure and the wellbeing outcomes come from workers' responses, as detailed in Section 3. This might raise concerns of potential common-methods bias in the worker-level wellbeing analysis (see e.g. Spector, 2006). The aggregations implemented as part of the organization-level analysis may lessen such potential problems, however, which the robustness of our results seems to confirm. Finally, the WERS data are somewhat outdated now, the most recent wave being a decade old, while there was also a 7-year gap between the two surveys.

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ACKNOWLEDGEMENTS

The author would like to thank the editor and two anonymous referees for useful comments on an earlier version of the article. Feedback from seminar participants at the Industrial Economics Department, Nottingham University Business School, is also greatly appreciated. The author also acknowledges the Department of Business, Innovation and Skills, the Economic and Social Research Council, the Advisory, Conciliation and Arbitration Service and the National Institute of Economic and Social Research as the originators of the 2011 Workplace Employee Relations Survey (WERS2011) data and the Data Archive at the University of Essex as the distributor of the data. The 2004 WERS was jointly sponsored by the Department of Trade and Industry, the Advisory, Conciliation and Arbitration Service, the Economic and Social Research Council and the Policy Studies Institute. There are no conflict-of-interest issues to report in connection with this work, which did not benefit from any funding.

DATA AVAILABILITY STATEMENT

The data used in the manuscript are all publicly available via the UK Data Services portal. Codes reproducing the reported results may be obtained upon request via the journal and/or the author.

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NOTES

¹Subjective wellbeing has already been identified as an important goal of public policy (see e.g. Layard 2005).

²Gibbons and Roberts (2015) provide the evolution of organizational economics detailing the contributions of several distinguished economists over the first two centuries of the discipline, but they noted that 'the profession as a whole paid scant attention to organizations' (p. 1).

³There is a burgeoning recent literature on followers and followership theory (see e.g. Uhl-Bien et al. 2014), which are not treated in this article.

- ⁴Worker wellbeing has long been linked to broader economic and labour market outcomes, including quits and absenteeism (Artz, 2021; Levy-Garboua et al., 2007; Clark et al., 1998; Hamermesh, 2001; Akerlof et al., 1988; Freeman, 1978), job performance and productivity (Judge et al., 2001; Layard, 2013; Oswald et al., 2015), organizational performance (Bryson et al., 2017; Ostroff, 1992), economic growth (Bartolini, 2019; Easterline 1974) and even physical health (Layard, 2013) and longevity (Diener and Chan, 2011).
- ⁵Technical competence in terms of whether they worked their way up the ranks in the company and if they could step in competently to do an employee's job, if necessary.
- ⁶The domains covered included bosses' qualities in terms of: 'providing useful feedback', 'respecting you as a person', 'giving praise and recognition when you do a good job', 'being helpful in getting the job done', 'encouraging and supporting your development', 'succeeding in getting people to work together' and 'helping and supporting workers', which were all assessed on a 5-point scale from 'strongly disagree' to 'strongly agree'.

- ⁷The only exception to this is establishments engaged in primary activities, such as mining and quarrying; agriculture, hunting and forestry; fishing; private households with employed domestic staff; and extraterritorial bodies.
- ⁸The respective response rates were 46.6 per cent (2004) and 46.3 per cent (2011) for the employer surveys and 54.3 per cent (2004) and 54.3 per cent (2011) for the employee surveys (Kersley et al., 2006; van Wanrooy et al., 2013).
- ⁹ Relatively fewer organizations returned the WERS performance questionnaires, which explains the difference in the sizes of performance and wellbeing panel samples retained. On the other hand, WERS does not yield panel data on workers as the same workers were not monitored twice.
- ¹⁰ This is comprised of 18,512 and 18,122 workers retained from WERS 2004 and 2011 who were, respectively, in 1655 and 1816 organizations.
- ¹¹ In 2011, an additional facet (*'the opportunity to develop your skills in your job'*) was monitored, which was not part of the 2004 survey. To ensure consistency between the 2004 and 2011 waves, this facet has been excluded.
- ¹²See Bryson et al. (2017) and Haile (2022) for a similar aggregation.
- ¹³Nonetheless, its success in tackling the endogeneity problem hinges on the omitted variables being time invariant.
- ¹⁴Three IVs have been used, which are: organizational age, sole establishment and aggregate level of organizational job satisfaction. The age of an organization is likely to be strongly correlated with the leadership quality it may have (the longer an organization has been in existence, the more likely that it has an entrenched leadership style and quality), but organizational age may not necessarily be directly correlated with managers' perceptions of organizational performance. Similarly, whether an establishment is a sole or a multi-plant establishment is likely to be correlated with the quality of organizational leadership, given that different organizational structures are likely to shape different leadership qualities (e.g. the leadership in a sole establishment may have the liberty to address organizational matters, including worker grievances, head-on locally whereas this may not be possible within a multi-plant establishment). On the other hand, whether an establishment is a sole or a multi-plant should not necessarily directly influence the performance of an organization. Aggregate job satisfaction is highly likely to be correlated with workers' assessment of the quality of their leadership. On the other hand, it is highly unlikely to be directly related to managers' perceptions of organizational performance. This is because responding managers would be unlikely to know the expressed wellbeing ratings of workers in their organization and even more unlikely to know the aggregated ratings. Three IVs have also been used in the 2SLS regressions on the two wellbeing outcomes, which are organizational age, sole establishment and aggregate organizational performance. The justifications for the use of the first two IVs in the wellbeing equations is as given above. The third IV of (aggregate) employer's assessment of organizational performance is highly likely to be correlated with the type of leadership regime the employer maintains. On the other hand, the employer's assessment of performance is unlikely to be directly correlated with workers' subjective wellbeing since workers would be unlikely to know their managers' perceptions of performance.
- ¹⁵ Half-way house since potential endogeneity problems related to unobserved worker characteristics may remain.
- ¹⁶ Five instrumental variables have been used for each of the wellbeing equations, which include: *organizational age, sole establishment* and *managers' assessment of organizational performance* in terms of *financial performance, labour productivity* and *the quality of goods or services*. The justification for each of the first three IVs is like the one provided earlier (see footnote 12). Employers' assessments of their organizations' performance with respect to finance, labour productivity or product quality are justified since such assessments are highly likely to be correlated with the quality of leadership organizations have in place. On the other hand, such managers' assessments of performance are unlikely to influence employees' subjective wellbeing since employees would be unlikely to know their managers' perceptions of performance.
- ¹⁷These include, respectively, panel organizational weights as well as cross-sectional establishment- and workerlevel weights.
- ¹⁸Tables 2 and 3 report only a portion of the results focusing on the key independent variable, model fit and diagnostic statistics. Corresponding full regression outputs are provided in online Appendix Tables A2 and A3.
- ¹⁹The null hypothesis of weak identification is rejected while I fail to reject the null of instrument exogeneity confirming the exogeneity of our instrumental variables.
- ²⁰ The reported *F*-statistics also rejects the null hypothesis of weak identification, thus suggesting that the IVs used are good enough to address the endogeneity problem identified, while the reported Sargan test statistics, which checks for the overidentifying restrictions, fail to reject the null hypothesis, which suggests that the instruments are exogeneous as a group.

REFERENCES

- Akerlof, G., Rose, A. & Yellen, J. (1988) Job Switching and job satisfaction in the US labour market. Brooking Papers on Economic Activity, 2, 495–582.
- Alberga, T., Tyson, S. & Parsons, D. (1997) An evaluations of the investor in people standard. Human Resource Management Journal, 7(2), 47–60.
- Artz, B., Goodall, A. & Oswald, A. (2017) Boss competence and worker well-being. ILR Review, 70(2), 419-450.
- Artz, B., Goodall, A. & Oswald, A. (2020) How common are bad bosses. Industrial Relations, 59(1), 3-39.
- Artz, B. (2021) Gender, job satisfaction and quits: A generational comparison. The Social Science Journal, 1–18 https://doi.org/10.1080/03623319.2021.1994275.
- Barney, J. (1986) Organizational culture: can it be a source of sustained competitive advantage? Academy of Management Review, 11(3), 656–665.
- Bartolini, S. (2019) Unhappiness as an engine of economic growth. In Rojas, M. (Ed.), The economics of happiness: how the Easterlin paradox transformed our understanding of well-being and progress. Cham: Springer, pp. 271–301.
- Black, S. & Lynch, L. (1996) Human-capital investments and productivity. American Economic Review, 86(2), 263–267.
- Bloom, N. & Van Reenen, J. (2007) Measuring and explaining management practices across firms and countries. *Quarterly Journal of Economics*, CXXII, 1351–1408.
- Bloom, N., Sadun, R. & Van Reenen, J. (2012) The organization of firms across countries. The Quarterly Journal of Economics, 1663–1705. https://doi.org/10.1093/qje/qje029
- Boyce, A., Nieminen, L., Gillespie, M., Ryan, A. & Denison, D. (2015) Which comes first, organizational culture or performance? A longitudinal study of causal priority with automobile dealerships. *Journal of Organizational Behaviour*, https://doi.org/10.1002/job.1985.
- Bryson, A., Forth, J. & Stokes, L. (2017) Does employees' subjective well-being affect workplace performance? *Human Relations*, 70(8), 1017–1037.
- Bryson, A. & MacKerron, G. (2016) Are you happy while you work? Economic Journal, 127, 106-125.
- Casser, L. & Meier, S. (2018) Nonmonetary incentives and the implications of work as a source of meaning. *Journal of Economic Perspective*, 32(3), 215–238.
- Clark, A., Georgellis, Y. & Sanfey, P. (1998) Job satisfaction, wage changes, and quits. *Research in Labour Economics*, 17, 95–121.
- Diener, E. & Chan, M. (2011) Happy people live longer: subjective well-being contributes to health and longevity. *Applied Psychology: Health and Wellbeing*, 3, 1–43.
- Easterline, R. (1974) Does economic growth improve the human lot? Some empirical evidence. In David, P. & Reder, M. (Eds.), Nations and households in economic growth. New York: Academic Press, pp. 89–125.
- Fox, K., Johnson, S., Berkman, L., Sianoja, M., Soh, Y., Kubzansky, L. & Kelly, E. (2021) Organisational- and grouplevel workplace interventions and their effect on multiple domains of worker well-being: a systematic review. *Work & Stress*, 1–30. https://doi.org/10.1080/02678373.2021.1969476.
- Freeman, R. (1978) Job satisfaction as an economic variable. *American Economic Review*, 68(2), 135–141. https://doi. org/10.1002/9781118900772.etrds0244
- Gibbons, R. & Roberts, J. (2015) Organizational economics. In Scott, R. & Kosslyn, S. (Eds.), Emerging trends in the social and behavioral sciences. John Wiley & Sons, Inc., https://doi.org/10.1002/9781118900772
- Goodall, A. (2011) Physician-leaders and hospital performance: is there an association? *Social Science & Medicine*, 73, 535–539.
- Goodall, A., Kahn, L. & Oswald, A. (2011) Why do leaders matter? A study of expert knowledge in a superstar setting. Journal of Economic Behavior & Organization, 77(3), 265–284.
- Haile, G. (2022) Workplace disability and job satisfaction in Britain: a co-worker test? Economic and Industrial Democracy, 43(3), 1467–1487.
- Hamermesh, D. (2001) The changing distribution of job satisfaction. Human Resources, 36(1), 1-30.
- Heinz, M., Jeworrek, S., Mertins, V., Schumacher, H. & Sutter, M. (2017) Measuring indirect effects of unfair employer behavior on worker productivity – a field experiment. MPI Collective Goods Preprint. No. 2017/22, 20 December 2021, Available at: SSRN: https://ssrn.com/abstract=3066713 or https://doi.org/10.2139/ssrn.3066713
- Hermalin, B. (1998) Toward an economic theory of leadership: leading by example. *American Economic Review*, 88(5), 1188–1206.

- Hermalin, B. (2013) Leadership and corporate culture. In Gibbons, R. & Roberts, J. (Eds.), *The handbook of organizational economics*. (Ch. 11), 432–478, Princeton and Oxford: Princeton University Press.
- HSE. (2020a) *Health and safety at work: summary statistics for Great Britain 2020*. London: National Statistics, The Health and Safety Executive.
- HSE. (2020b) Historical picture statistics in Great Britain, 2020: trends in work-related ill health and workplace injury. London: Health and Safety Executive.
- Isham, A., Mair, S. & Jackson, T. (2020) Wellbeing & productivity: a review of the literature. CUSP Working Paper No 22. Guildford: Centre for the Understanding of Sustainable Prosperity, University of Surrey.
- Judge, T., Thoresen, C., Bono, J. & Patton, G. (2001) The job satisfaction–job performance relationship: a qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376–407.
- Jacobs, R., Mannion, R., Davies, H., Harrison, S., Konteh, F. & Walshe, K. (2013) The relationship between organizational culture and performance in acute hospitals. *Social Science & Medicine*, 76, 115–125.
- Kahneman, D., Krueger, A., Schkade, D., Schwarz, N. & Stone, A. (2004) A survey method for characterizing daily life experience: the day reconstruction method. *Science*, 306(5702), 1776–1780.
- Kersley, B., Alpin, C., Forth, J., Bryson, A., Bewley, H., Dix, G., et al. (2006) Inside the workplace: findings from the 2004 Workplace Employment Relations Survey. London and New York: Routledge.
- Krekel, C., Ward, G. & De Neve, J. (2019) What makes for a good job? Evidence using subjective wellbeing data. In Rojas, M. (Ed.), The economics of happiness: how the Easterlin paradox transformed our understanding of well-being and progress. Cham: Springer, pp. 241–268.
- Layard, R. (2005) Happiness: lessons from a new science, London: Penguin Books Ltd.
- Layard, R. (2013) Mental health: the new frontier for labour economics. IZA Journal of Labor Policy, 2(2), 1-16.
- Lazear, E., Shaw, K. & Stanton, C. (2015) The value of bosses. Journal of Labor Economics, 33(4), 823-861.
- Levy-Garboua, L., Montmarquette, C. & Simonnet, V. (2007) Job satisfaction and quits: Theory and evidence from the German socioeconomic panel. *Labour Economics*, 14(2), 251–268.
- Martinez, E., Beaulieu, N., Gibbons, R., Pronovost, P. & Wang, T. (2015) Organizational culture and performance. American Economic Review: Papers & Proceedings, 105(5), 331–335.
- Ostroff, C. (1992) The relationship between satisfaction, attitudes, and performance: an organization level analysis. *Journal of Applied Psychology*, 77(6), 963–974.
- Oswald, A., Proto, E. & Sgroi, D. (2015) Happiness and productivity. Journal of Labor Economics, 33(4), 789-822.

Schein, E. (1985) Organisational culture and leadership. San Francisco, CA: Jossey-Bass.

- Schein, E. (2004) Organisational culture and leadership, 3rd edition. San Francisco, CA: Jossey-Bass, A Wiley Imprint John Wiley & Sons, Inc.
- Spector, P. (2006) Method variance in organizational research: truth or urban legend. Organizational Research Method, 9(2), 221–232.
- StataCorp. (2021), Stata Statistical Software: Release 17, College Station, TX: StataCorp LLC.
- Uhl-Bien, M., Riggio, R., Lowe, K. & Carsten, M. (2014) Followership theory: a review and research agenda. *Leadership Quarterly*, 25, 83–104.
- Van Wanrooy, B., Bewley, H., Bryson, A., Forth, J., Freeth, S., Stokes, L., et al. (2013) Employment relations in the shadow of recession: findings from the 2011 Workplace Employment Relations Study. London: Palgrave, Macmillan. Vickerstaff, S., Phillipson, C. & Wilkie, R. (2012) Work health and wellbeing. Bristol: Policy Press.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Haile, G.A. (2023) Organizational leadership: How much does it matter? *British Journal of Industrial Relations*, 61, 653–673. https://doi.org/10.1111/bjir.12711