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Are polarised elections the hardest to deliver? Explaining global variations in electoral management body performance

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ABSTRACT

Electoral management, understood as the application and implementation of electoral rules, is a critical part of democratic governance. But there are often concerns about the quality of electoral management and the performance of electoral management bodies around the world. Despite recent advances, there remains a need for new systematic evidence on the quality of electoral management and analysis of the factors that lead to poorly- or well- run elections. This article therefore maps out global variations in the quality of the public management of elections using a new cross-national dataset and measure. It then explains variations by evaluating the relative importance of bureaucratic culture, the autonomy of electoral authorities, political polarisation in the electorate and the capacity of electoral management bodies. The results provide support for the importance of each of these factors. The effect of political polarisation is an important finding as it is a new threat to elections.

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Introduction

Electoral management, understood as the application and implementation of electoral rules, is a critical part of democratic governance.¹ But there are often concerns about the quality of electoral management. Problems can occur at the polls such as lengthy queues, poorly designed polling stations or electoral officials conducting or facilitating electoral fraud. Electoral management bodies ('EMBs') – the public organisations which play a role in delivering and implementing elections – are therefore at the fulcrum of the challenge of delivering better elections and strengthening democracy. They work alongside other actors such as civil society groups and (in some cases) international organisations to deliver democracy on the frontline.

What explains variations in the quality of the management of elections? What reforms are needed to strengthen electoral management? There has been a considerable advance in the literature on the public administration and management of elections in the last 20 years. Whereas the 20th century began with very little known about EMBs and the quality

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of the delivery of elections, a new research literature has since grown substantially. However, new threats are emerging that challenge our democratic processes, such as the polarisation of the electorate in many countries, which has been thought to have led to more hostility towards public officials at the polls. This article builds on existing research to focus analysis on four core factors that could shape electoral management quality: (1) the presence of a culture of corruption, (2) the autonomy and independence of EMBs, (3) EMB capacity, and (4) political polarisation in the electorate. Using new cross-national data, empirical support is provided for all four factors as being important predictors of electoral management quality when controlling for other cross-national variables.

While previous research has identified the importance of some of these factors, the effects of political polarisation in the electorate on election management quality has rarely been explored cross-nationally. The finding that political polarisation in particular has an effect on electoral management means that societies that are seeing trends towards greater polarisation should redouble their support to EMBs, which are likely to experience even greater challenges in the future.

The next section of this article introduces the role of public institutions in the delivery of elections – focusing in particular on EMBs and the work that they undertake alongside non-state actors in delivering elections. Discussion then moves to review the existing research on the factors that shape electoral management quality, followed by a theoretical discussion on why a mix of culture, organisational structure, resources and the composition of the electorate might be important in shaping election quality. The subsequent sections outline the method, results, and conclusions, in turn.

The role of public institutions in the delivery of democracy

There are ongoing debates about the quality of democracy worldwide and the policies and reforms that can be undertaken to address any defects and improve it.² Elections are essential for democracy, but new challenges have arisen which threaten the integrity of elections such as the pandemic,³ cyber security threats,⁴ populism,⁵ and artificial intelligence (AI)-driven disinformation campaigns.⁶ Opportunities for improving the quality of elections through identifying potential policy reforms has therefore become all the more important. Depending on the country in focus, reforms might be needed to any part of the electoral process – such as the electoral system, electoral finance laws or suffrage legislation. One area where reforms could be much needed is in the management of elections. Electoral management is effected by the organisations, networks, resources and instruments involved in implementing elections.⁷ To better understand electoral management it is helpful to understand the range and role of public institutions in the delivery of democracy.

There are a variety of actors involved in delivering the implementation of elections – ranging from local parties, activists, and candidates, all the way up to international bodies who might be involved in monitoring and providing technical support. A core role, however, resides with national public institutions. Public institutions are responsible for setting the overall framework for the rules of the game, ensuring that elections run well, and dealing with the adjudication of any particular problems. The public institutions involved in running elections can be separated into three broad categories – those involved in policy making, in adjudication, and in the implementation of elections.⁸

Policy making institutions typically include the legislature, which passes, amends, or rejects proposed electoral laws. The government and executive of the day also play a key role in proposing such electoral laws to parliamentary institutions. Governments and government ministers may also hold powers to make changes without the consideration of Parliament. EMBs may also have some powers over how to run the elections themselves. Adjudication, on the other hand, typically includes judicial bodies, to which parties or citizens can appeal to contest the outcome of an election – but there may also be adjudication processes within EMBs or parliaments.⁹ With regard to the third category of public institutions, the implementation of elections rests with EMBs. EMBs are the individual or collection of organisations or bodies that are tasked with ‘managing some or all the elements that are essential for the conduct of elections’.¹⁰ Their key roles include, but are not limited to:¹¹

- Organising the electoral process (ranging from pre-election registration and campaigning, to voting on election day, to post-election vote counting).
- Monitoring electoral conduct throughout the electoral process (ie, monitoring the political party/candidates’ campaigns and media in the lead-up to elections, enforcing regulations regarding voter and party eligibility, campaign finance, campaign and media conduct, vote count and tallying procedures).
- Certifying election results by declaring electoral outcomes.

The traditional distinction that has been made between types of EMBs is by their organisational structure. International IDEA developed a typology of whether EMBs operated under the ‘independent model’, ‘governmental model’ or ‘mixed model’ – building on the work of Rafael Lopez-Pintor.¹² The independent model is one in which the EMB is ‘institutionally independent and autonomous from the executive branch of government’;¹³ the EMB has power to manage its own budget and is not accountable to a government ministry or department. Accountability mechanisms may instead require reporting to the legislature, judiciary or head of state. There are still varying degrees of financial independence. Exemplars of this model, according to Catt et al,¹⁴ include Armenia (Central Electoral Commission), Canada (Elections Canada), Costa Rica (Tribunal Supremo de Elecciones), South Africa (Electoral Commission of South Africa) and Uruguay (Corte Electoral). This model of EMB is also referred to as the ‘agency model’ because it involves an external agency running elections.¹⁵

The governmental model involves elections being organised and managed ‘by the executive branch through a ministry (such as the Ministry of the Interior) and/or through local authorities’.¹⁶ The budget tends to be drawn from local government or central government reserves. Exemplars, according to Catt et al,¹⁷ include Denmark, Singapore, Switzerland and the US where local authorities are responsible for delivering elections.

The mixed model involves components of both. This tends to include a policy, monitoring or supervisory body which is independent of government – but with implementation still delivered by central/local government. Examples include, according to Catt et al, France, Mali and Senegal.

The independent model is the most common model, according to International IDEA, since it is used by 63% of states – compared to 23% that use the governmental model and 12% that use the mixed model (2% did not hold elections).¹⁸

Beyond the traditional typology: Towards networked governance

The traditional typology of EMB models has been criticised in recent years, however. The key argument is that it describes *de jure* independence – but not *de facto* independence.¹⁹ An obvious strategy for would-be autocrats might be to establish so-called ‘independent’ electoral bodies to run elections – but use a variety of informal methods to exert control over them.

A second criticism is that the typology does not cover the broader range of ways in which EMBs can vary beyond independence. More recent work has identified several, such as: the degree of centralisation, the degree of capacity, the EMB’s relationship to external actors, the use and ownership of technology and; how effectively the EMB employs personnel.²⁰

A third criticism is that EMBs are not the only bodies involved in implementing elections. Holly Ann Garnett, advocating for a broader understanding of the variety of bodies that may be involved in running elections, has identified seven major alternative types.²¹ These can include independent government agencies and governmental department and ministries that oversee and regulate the electoral process; the judicial, legislative and executive bodies that may delineate boundaries or adjudicate disputes; as well as local and regional bodies that are commonly involved in the registration and voting process. Additionally, in many countries civil society plays a key role in organising voter registration drives and providing information to voters – in other words, undertaking some of the tasks that we might expect public institutions to undertake. For example, in the UK, an organisation called Bite the Ballot registered nearly half a million voters ahead of the 2015 general election.²² Meanwhile, international organisations and overseas donors have often played a key role in delivering elections – whether that is providing technical support or monitoring the quality of the election.²³ Between 1990 and 2023, technical assistance was implemented in 18% of elections in developing democracies, and observation was carried out in 67%.²⁴ Other actors include domestic and international military and police forces, involved in physical and technological security but also logistical assistance in some cases.²⁵

Typologies of the bodies involved in implementing elections have therefore evolved. Toby James introduced the concept of electoral governance networks, which are the ‘constellation of actors involved in steering and delivering elections, including the anthropological practices, beliefs and power relationships between them’.²⁶ This highlights not just the organisation of the electoral management body – but also the relationships that it has with other societal actors. The focus is on who delivers electoral management in functional and not institutional terms. A five-part typology was proposed, outlined below. This is based on (i) the number of delivery partners involved in elections; (ii) the degree of contestation about the rules, and; (iii) the degree of power diffusion between them. The five types are split between electoral autocracies and democratic settings.

In electoral autocracies two types of network are thought to exist:

- Statist networks – where there are very few actors, there is little contestation or power diffusion. This would be the more likely model in closed autocratic regimes.
- Contested statist networks – electoral autocracies where there are signs of political opposition and contestation over the rules. This would generate a greater number of actors, more contestation about implementing the rules, but still relatively low power diffusion because power resides with the incumbent in control of the state.

In democratic settings, one of three network types are thought to exist:

- Governmental networks – where elections are delivered by a governmental body or variety of governmental bodies under generally democratic conditions. There is little disagreement about electoral rules or engagement with civil society.
- Asymmetric networks – where consensus breaks down about how to run elections in democracies and a number of civil society groups become engaged in contributing towards the running of elections and advocating reform. Power remains concentrated and civil society groups are pushed to the periphery as ‘outsiders’.
- Pluralistic collaborative networks – where collaboration between civil society, political parties and governmental bodies occurs in the delivery of elections. The active engagement and monitoring of practices makes electoral malpractices less likely.

Electoral management has therefore been demonstrated to be an essential part of the electoral process and our knowledge about EMBs has advanced to help us better understand how they work in practice.

Prior research on the determinants of the quality of election delivery

What has the scientific research previously reported about the factors that shape the quality of electoral management? The earliest research built on the typology developed by Lopez-Pintor²⁷ to explore the impact of organisational structure. The idea that independent EMBs would deliver better elections received a lot of initial attention. There is an intuitively strong argument that EMB independence would insulate EMBs from political control and partisan manipulation – and would therefore be able to deliver better elections that were in line with democratic ideals and international standards. However, the evidence in support of this has been very mixed once a variety of statistical controls have been taken into account. Sarah Birch first reported a negative relationship between EMB independence and electoral practice.²⁸ Pippa Norris²⁹ as well as Sarah Birch and Carolien van Ham³⁰ reported that EMB independence had no significant effect on electoral integrity. By contrast, Jonathan Hartlyn, Jennifer McCoy, and Thomas Mustillo reported that an independent EMB increased the quality of presidential elections in 19 regimes in Latin America, between 1980 and 2004.³¹ A more nuanced understanding was brought by van Ham and Lindberg, who demonstrated that context matters.³² The difference of the effect of EMB design would depend on whether the focus was on transitional or established democracies on the one hand, and whether the regimes had low or high quality of government, on the other. Using more detailed information about the structure of the EMB, rather than a simple three category typology (independent, governmental, or mixed models), van Ham and Garnett were able to identify how *de jure* institutional structure appears to shape *de facto* independence.³³

Norris also suggests that bureaucratic culture is an important factor in the quality of elections.³⁴ The administrative culture discussed in this regard referred to ‘the norms and values shaping beliefs about appropriate standards of behavior, and thus how public services should work’.³⁵ States with well-functioning bureaucracies should be able to deliver better elections – whereas those with embedded norms of corruption would be less

likely to do so. In a cross-national study of 65 countries, Norris found that bureaucratic impartiality and professionalism were correlated with EMB performance.³⁶

Research has also focused on the volume of resources available to EMBs. Alistair Clark has undertaken a series of studies examining spending on electoral administration by local government in the UK, demonstrating that it can affect the quality of performance.³⁷ There have also been cross-national studies mapping variation in the capacity of EMBs internationally. Surveys of EMBs have identified considerable variation in their budgetary sizes.³⁸ There are methodological challenges involved in measuring the effects of budget size on performance cross-nationally.³⁹ However, studies have found a reported correlation between the change in budget and EMB performance.⁴⁰ Increased cost pressures were reported during the pandemic, and insufficient access to sources of revenue led to compromises in election quality – including cancellations.⁴¹ Garnett has used website quality as a proxy of EMB capacity and demonstrated that it can predict overall election quality.⁴²

Studies have also explored the effects of human resource practices and experiences of employees within EMB workforces. Based on a cross-national survey of EMB staff across 51 countries, James found that EMBs that enabled greater opportunities for employees to be involved in decision-making processes perform better.⁴³ Recruitment practices, job satisfaction and levels of stress are also important in shaping the organisation's success.

The COVID-19 pandemic brought to the fore the challenges that EMBs face in delivering elections in unexpected circumstances. International IDEA had already introduced the concept of risk management in elections several years earlier.⁴⁴ This focused on how elections always involved risks – whether of a legal, operational, technical, political, security, or other nature. Sead Alihodžić argued that EMBs need to value the importance of the institutionalisation of risk management in elections.⁴⁵ Later research subsequently noted that the quality of elections was undermined during the pandemic where there were existing vulnerabilities within the electoral machinery.⁴⁶

There has also been a focus on the digital threats posed to EMBs.⁴⁷ These risks have been ever increasing, with overseas interference in elections becoming an increased concern⁴⁸ and the ways in which technology is embedded in the electoral processes diversifying.⁴⁹ It has been argued that EMBs need to develop clear strategies for responding to disinformation across multiple channels.⁵⁰

In 1999, Robert Pastor lamented the absence of literature on the administration and management of elections.⁵¹ By 2023, the literature on the determinants of electoral management quality has diversified and grown substantially. However, with the emergence of new threats and the subsequent collection of new data on the quality of elections, there is opportunity to revisit old research questions anew.

Research question and theory

This article therefore seeks to consider this question: What are the determinants of variations in the quality of the delivery of elections? Building on the existing literature, four mechanisms are suggested to be important in affecting the quality of elections, and these will be tested for. Notable among these is the newly-theorised role of political polarisation.

Mechanism one: A culture of corruption

Bureaucratic corruption is widely known to make the implementation of public policies unsuccessful.⁵² If civil servants and state employees are acting in line with their own personal goals or a third party, rather than those of the public, then public services become inefficient, unjust and ineffective. In the sphere of elections, the problem is even more acute. If public officials are corruptly acting in the interests of clientelist party interest, then the outcomes of elections will be unfair. For these reasons, fighting corruption was established as an explicit target of the United Nations' Sustainable Development Goals (SDGs) and also reported to be widely considered to be a prerequisite for the successful realisation of other SDGs which seek to reduce poverty, improve healthcare and provide education.⁵³

Corruption exists where there is no embedded set of norms or sense of professionalism in public bureaucracies. This is exacerbated when there are incentives for individuals to take action other than that which is in the public interest – such as the offering of bribes – or threats of violence against them should they not follow the wishes of a third party.⁵⁴ The levels of broader corruption in which civil servants in EMBs find themselves is therefore likely to shape the quality of electoral management. Electoral officials will find themselves in a culture of corruption – or one where bureaucratic professionalism is established.

Mechanism two: Organisational structure

Following the early literature on electoral management literature, it is anticipated that the organisational structure of an electoral management body should shape the quality of performance. Put in theoretical terms, the organisation of political life matters.⁵⁵ If an EMB has full independence from the government then it might be better able to run elections because there are fewer political and partisan interests to divert them away from the goal of delivering well-run elections. This is not to anticipate that the running of elections will be free from all external political considerations – or even internal ones. There are two components to independence, however. First is *de jure* independence – whether the EMB is organisationally independent from the government of the day. The second is whether there is *de facto* independence – that is, whether EMBs are free from other political considerations and pressure put upon them by incumbent governments.

Mechanism three: Capacity

Delivering public policy goals is always contingent, to some degree, on the availability of sufficient resources for public officials. Conversely, cuts or reduction in the availability of resources can lead to poorer quality services – although this is contingent on policy area and how the reform is managed.⁵⁶ We would therefore expect that the capacity and availability of resources for the EMB will affect the quality of the delivery of the election. Jurisdictions with heavily restricted funding may have limited poll workers which leads to queues; they may not invest sufficiently in the necessary technology (and its maintenance and security) involved in running the election; and they may be unable to reach out to and provide additional assistance for equity-seeking groups to encourage participation, to give only a few examples.

Mechanism four: Political polarisation

There has been significant concern about deepening political polarisation around the world.⁵⁷ There are competing definitions of political polarisation. Early work on the concept developed by Sartori saw polarisation as high-intensity disagreements over the ‘fundamentals’ of politics.⁵⁸ Perceived political polarisation in the US has led to a wave of interest in this subject, both empirically and conceptually. The roots of contemporary hyper-partisanship in the US are often attributed to the 1990s, when an increasingly heated political debate took place as a result of Newt Gingrich’s ‘Republican Revolution’, which led to the creation of the Tea Party and then intensified under the Presidency of Donald Trump (2016–2020).⁵⁹ As Andreas Schedler sets out, for some scholars, political polarisation is assessed by positioning voters, parties and leaders onto a political spectrum and then measuring the distance between their policy positions.⁶⁰ As Schedler demonstrates, however, this underplays other components of political polarisation. Political polarisation is a phenomenon with other characteristics which include conflict, intolerance and a breakdown of democratic trust; polarisation involves not just disagreements, but ‘extraordinary conflicts, rather than the ordinary quarrels of democratic competition’.⁶¹ It also involves an intolerance of other views, to the degree that citizens perceive their political adversaries as either enemies or as an existential threat. This is extended to include the view that political opponents represent a threat to democracy. Famously, Donald Trump presented the Democrats as having ‘stolen’ the 2020 presidential election; at the same time, Democratic opponents view Trump and his supporters as a threat to the democratic system.⁶²

Political polarisation can therefore be defined as a ‘form of public conflict ... an entrenched political confrontation at the highest level of the polity between imagined communities whose antagonism tends to absorb, dominate, or displace other cleavages’.⁶³ This more expansive definition of polarisation allows us to better understand some of the ways in which more polarised societies create more challenges for electoral officials administering elections. The analysis here anticipates that political polarisation might undermine the running of elections in a number of ways (see [Table 1](#)).

In polarised societies, competitors at the election might use underhand tactics to try to win the election because the stakes are suddenly much higher, such is the hatred of the opposition; this encourages anti-democratic behaviour.⁶⁴ Criticism of the EMB might be more common, with greater incentive to criticise the authorities if they rule in favour of the opposition. In the ‘red-mist’ of heated politics, voters might also see the authorities

Table 1. Possible challenges for EMBs arising from political polarisation.

	Description	Effects on EMBs
<i>Underhand tactics</i>	Polarisation might incentivise parties to use underhand tactics to win the election because they see the stakes as higher – and such tactics as legitimate.	EMBs will need to spend more time and resource checking for, and reacting to, problems.
<i>EMB criticism</i>	Polarisation might incentivise parties and candidates to criticise the authorities if the opposition is declared the winner.	EMBs will need to spend more time and resources responding to criticism – and restoring public trust.
<i>Threats of violence and disruption</i>	Supporters of groups might threaten poll workers and election staff if they see them as serving the opposition	Poll worker staff recruitment might become affected; undue influence might be put on them leading to stuffed ballot boxes or other forms of electoral fraud; other voters could be intimidated, presenting problems for the EMB.

as being aligned with the opposition. Threats of violence and disruption from supporters of either side might arise against EMBs. There is evidence that electoral integrity has become an issue prone to conspiratorial thinking.⁶⁵ During the 2020 US presidential election, for example, threats of violence were made against electoral officials by extremist-Trump supporters, and violence broke out when those supporters sought to overturn his defeat.⁶⁶ Survey evidence has found threats of violence against electoral officials to be a widespread problem in the US.⁶⁷

We anticipate that greater political polarisation poses a great challenge for running elections and will impact electoral management quality as a result. It is possible that electoral officials will have spent time and resources deciding how to respond to such threats, that the threats may cause many valuable and experienced staff to leave their posts, and that polls may also be directly disrupted by protesting party members. This is a matter of concern deserving additional research, which the paper will address.

Data and empirical strategy

This article uses a cross-national dataset to measure global patterns in the performance of EMBs. It then uses other cross-national datasets to statistically evaluate the effects that each of the theorised causal mechanisms has on EMB performance. Figure 1 illustrates the research design.

The main dependent variable, electoral management quality, is calculated using the Electoral Integrity Project's Perceptions of Electoral Integrity dataset.⁶⁸ This is an expert survey-based dataset in which respondents are asked questions about the quality of national elections across 11 dimensions of electoral integrity. Version 8.0 of the dataset covers presidential and parliamentary elections from 1 July 2012 to 31 December 2021. There was conducted a total of 4591 expert assessments of electoral integrity across 480 elections in 169 countries around the world.⁶⁹ In this article, the country means are used for the 2012–2021 time period.

Although there are imputed indexes in the dataset such as the Electoral Authorities Index which has been used to assess electoral management in other work,⁷⁰ the authors of the current work created a new measure for use in this study. This is an additive index of the responses to eight questions in the survey which relate directly to the performance of the EMB.⁷¹ This measure provides a much more detailed dependent variable than previous studies. The questions used were designed to find out whether:⁷²

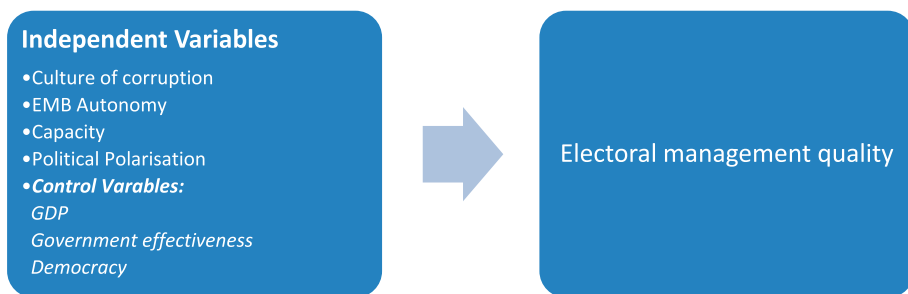


Figure 1. Independent, control and dependent variables in the research design.

- Elections were well-managed;
- Information about voting procedures was widely available;
- Election officials were fair;
- Elections were conducted in accordance with the law;
- The election authorities were impartial;
- The authorities distributed information to citizens;
- The authorities allowed public scrutiny of their performance; and
- The election authorities performed well.

It was necessary to introduce controls for a range of factors to eliminate their importance in the analysis. There is a long-standing and well-known relationship between economic wealth and the quality of democracy.⁷³ The study therefore introduced a control for the level of GDP per capita. The study also controlled for the overall level of democracy because elections are likely to be better run in democracies. For instance, the free press provides important accountability mechanisms helping to ensure that public officials in EMBs are held accountable for the quality of elections that they deliver; mistakes such as poor voting equipment, queues at polling stations and poorly designed ballot papers will be reported in the press. The overall quality of democracy is therefore controlled for using the V-Dem Liberal Democracy Index. EMBs are also likely to deliver better elections when they are embedded in public services that are generally well run; to enable the study to focus more specifically on the work of the EMB, the authors controlled for government effectiveness, using a measure developed by the World Bank's Worldwide Governance Indicators (WGI) project.⁷⁴ The WGI are aggregate indicators which combine the views gathered from enterprise, citizen and expert survey respondents using over 30 individual data sources.

Discussion now turns to the measurement of the independent variables. To measure the overall prevalence of corruption in the public service we use data from the WGI. The Control of Corruption dataset measures 'perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests'.⁷⁵ The *de jure* independence of the EMB is measured by the International IDEA Electoral Management Design Dataset.⁷⁶ As noted above, this categorises countries into having either an independent EMB, a governmental EMB or a mixed model. The *de facto* independence of EMB and the EMB capacity are both also measured using the Varieties of Democracy dataset 12.0 ('V-Dem 12.0'). Political polarisation is measured via an expert survey response to the question 'Is society polarised into antagonistic, political camps?' in the V-Dem 12.0.⁷⁷ Full information on variables and data sources is in Appendix A.

Results

The global variation in electoral management performance

Using the measure of electoral management performance outlined above, it is possible to chart the global variations. [Figure 2](#) provides an overall map of electoral management performance. Darker-coloured countries scored the highest on the scale, with lighter countries obtaining the weakest scores. Those countries in grey did not record a score

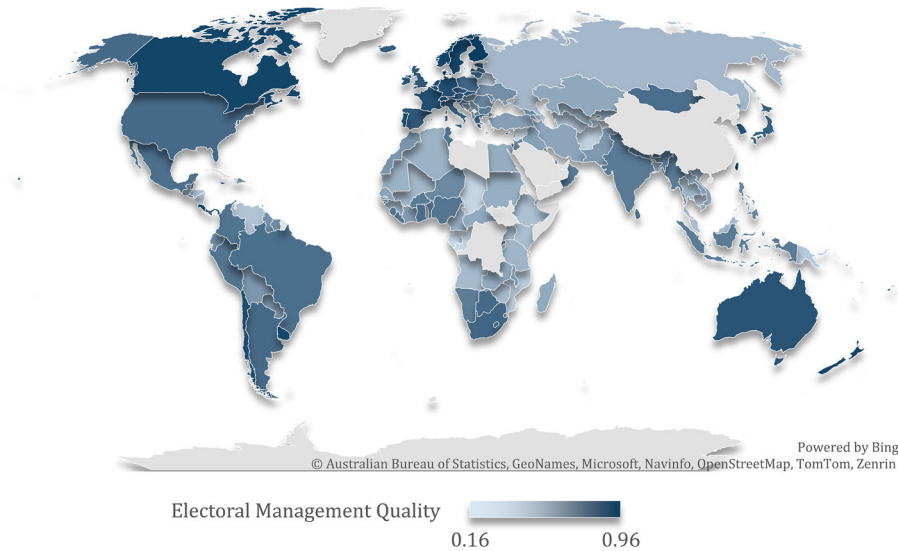


Figure 2. Electoral Management Performance Worldwide.

Source: H.A. Garnett, T.S. James, and M. MacGregor. 'Perceptions of Electoral Integrity, (Pei-8.0),' edited by Electoral Integrity Project, Perceptions of Electoral Integrity Index. V1, Harvard Dataverse, 2012–2021.

Note: Darker-coloured countries scored the highest on the scale, with lighter countries obtaining the weakest scores. Those countries in grey did not record a score because of missing data – usually as a result of not holding national elections.

because of missing data – usually as a result of not holding national elections. The countries to score the highest were Finland, Costa Rica, Switzerland, Denmark and Taiwan. Those to score the lowest were Syria, Equatorial Guinea, Burundi and Gabon. Importantly, there is evidence of variation in election quality across all continents.

Figure 3 is a scatterplot of EMB performance against GDP. As the previous discussion expected, there is a correlation between the level of economic development and EMB performance. However, there are many cases of strong EMB performance in countries with lower GDP, and poor EMB performance where there are high GDPs. Electoral authorities in Benin, Timor-Leste and Costa Rica performed exceptionally well during the period, despite comparatively low GDPs, for instance.

Explaining variations in EMB performance

What were the determinants of EMB performance? Do they provide evidence in support of the four mechanisms proposed earlier in the article? Figure 4(a–d) Pare scatterplots of EMB performance against the four key factors that this study predicted would affect EMB performance: levels of corruption, EMB Autonomy, EMB Capacity and political polarisation. They show a strong correlation between the variables as expected – providing empirical support for the mechanisms that were proposed to be important.

These, however, are only bivariate measures. One of the key challenges in evaluating the relative importance of different factors that shape EMB performance is to separate out the effects of multiple variables. Countries with lower corruption, for instance, will also

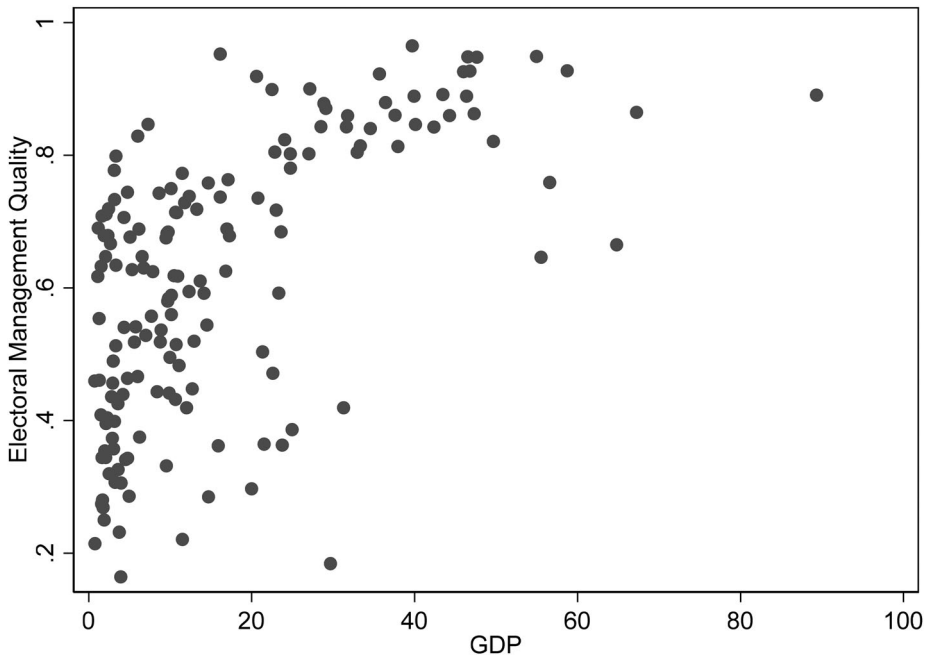


Figure 3. EMB Performance Index scores 2012–21, compared by GDP.

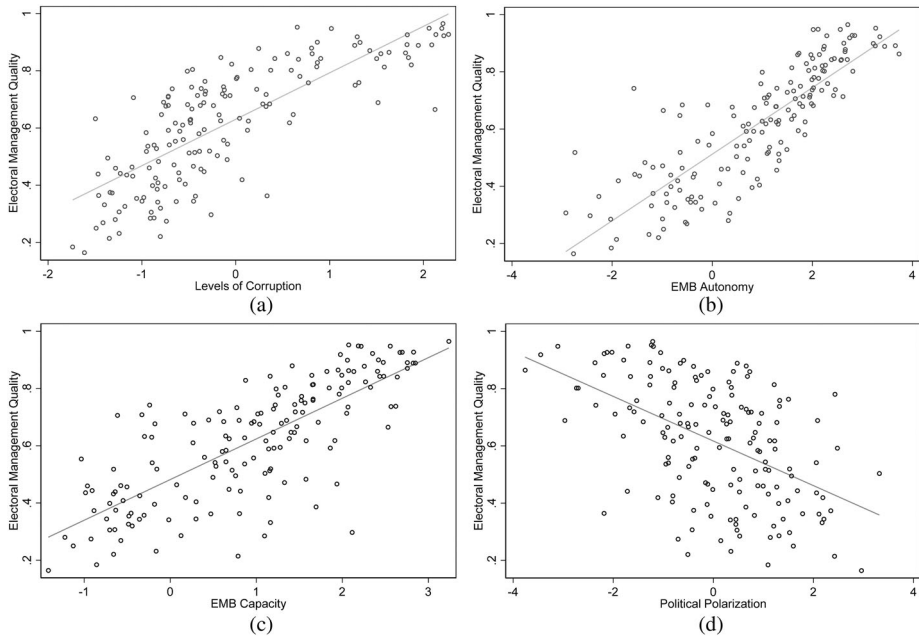


Figure 4. (a) Scatterplot of electoral management quality and the effective control of corruption with line of best fit (using aaplot), $N = 160$. (b) Scatterplot of electoral management quality and EMB *de facto* autonomy, with line of best fit (using aaplot) $N = 161$. (c) Scatterplot of electoral management quality and EMB capacity, with line of best fit (using aaplot) $N = 161$. (d) Scatterplot of electoral management quality and political polarisation in the electorate, with line of best fit (using aaplot) $N = 161$.

tend to be more democratic and have more resources. They may or may not also be less polarised. How can we therefore tell which factor is important? Multi-variate analysis is therefore necessary.

It is important to note that in these models the authors assume the direction of causality, ie, from the independent variables of EMB capacity and autonomy, corruption and polarisation to the dependent variable of the overall quality of electoral management delivery. This assumption is based on the view that broader concepts like capacity, autonomy, corruption and polarisation develop over a longer period of time in a country, whereas electoral management quality is measured by the Perceptions of Electoral Integrity ('PEI') as the mean quality of specific elections within the time period under study.

Table A2 provides the results of the quantitative analysis,⁷⁸ ie., five Ordinary Least Squares models where our measure of EMB performance is the dependent variable. The broader culture of corruption is shown to have a small positive effect on EMB performance in model 1. The effect of political polarisation is tested for in model 2. This is shown to have a small, but statistically significant, effect on EMB performance. The effect of EMB independence is also tested for in model 3. *De Facto* EMB autonomy is shown to predict EMB performance. However, it is worth noting that the organisational structure, according to the International IDEA typology, has no notable effect. Finally, EMB capacity is shown to have a statistically significant effect in model 4.

When the analysis includes all variables, it is notable that although the quality of democracy is a predictor of EMB performance, the effect of this variable is much reduced when other factors are taken into consideration.⁷⁹ Corruption, political polarisation, EMB autonomy and EMB capacity are all found to play a causal role in predicting EMB performance.⁸⁰ For the full list of results across 5 models, see Table A2 in Appendix A.

Conclusions

The safe delivery of elections is essential for democratic rule. This article has demonstrated variation in the quality of electoral management and the performance of EMBs around the world using new data and measures. It has argued that such variations are likely to be the result of the contribution of a range of factors, including the human resource management practices used within EMBs, but then focused its analysis on four factors or mechanisms: (1) the culture of corruption, (2) organisational structure, (3) capacity, and (4) the political polarisation of the electorate. Evidence was provided in statistical models showing that each of these were important factors during the period 2012–21.

The importance of the polarisation of the electorate is a previously unstudied factor in cross-national analysis. This is the most notable contribution of this study, as it demonstrates that elections appear to be harder to manage well where greater polarisation is present. The authors theorise that polarisation increases underhand tactics of manipulation and (potentially unfounded) criticism of EMBs, depressing their ability to recruit staff and run high quality elections. Furthermore, threats of violence and disruption that may come with increased polarisation may hinder their ability to fulfil their key electoral management functions.

There are important policy consequences to follow on from these findings because many of these factors are within the ambit of policy makers. The influence of broader cultures of corruption on elections means that anti-corruption policies are an important

mechanism which should be more widely used within EMBs. The *de facto* independence of EMBs remains an important factor shaping election quality. While the organisational model used is less directly important, any mechanism which will take powers away from the executive government of the day over how elections are run should be encouraged. Access to sufficient financial resources, alongside any other methods for increasing capacity, should be encouraged. Lastly, EMBs should be aware that increasing political polarisation is likely to lead to increased challenges. Mechanisms to mitigate this, such as confronting disinformation, running public information campaigns about conduct at the polls and acting to protect the safety of electoral officials, should all be considered.

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80. There is a strong r -squared value of .86 demonstrating that this model explains variation in electoral management quality quite well.

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Appendix A: Data

Table A1. Data used in the empirical models.

Variable	Dataset and variable	Description
Economic wealth	V-Dem 12.0, e_gdppc (logarithm of this variable)	GDP per capita provided in the V-Dem 12.0 dataset ^a (logarithm)
Overall quality of liberal democracy	V-Dem 12.0, v2x_libdem	The V-Dem Liberal Democracy Index ^b
Government effectiveness	Kaufman (2022), data taken from e_wbgi_gee in V-Dem 12.0	The World Bank measure for the overall effectiveness quality of public service provision, the quality of the bureaucracy, civil servant competency, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies. ^c
Culture of bureaucratic corruption	Kaufman (2022), e_wbgi_cce in V-Dem 12.0.	World Bank measure for the 'perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests'. ^d
Political polarisation	V-Dem 12.0, v2cacamps	V-Dem measure to the question: 'Is society polarised into antagonistic, political camps?' The clarification to expert respondents is: 'Here we refer to the extent to which political differences affect social relationships beyond political discussions. Societies are highly polarised if supporters of opposing political camps are reluctant to engage in friendly interactions, for example, in family functions, civic associations, their free time activities and workplaces'. ^e
EMB de facto autonomy	V-Dem 12.0, v2elembaut	V-Dem 12.0 measure to the question: 'Does the Election Management Body (EMB) have autonomy from government to apply election laws and administrative rules impartially in national elections?' ^f
EMB de jure autonomy	International IDEA EMB Design Dataset	International IDEA categorisation of the EMB organisational model. ^g
EMB capacity	V-Dem 12.0 v2elembcap	V-Dem 12.0 measure to the question: 'Does the Election Management Body (EMB) have autonomy from government to apply election laws and administrative rules impartially in national elections?' ^h

Datasets are therefore available for re-analysis:

• Varieties of Democracy 12.0: <https://www.v-dem.net/data/dataset-archive/>

• Perceptions of Electoral Integrity: <https://doi.org/10.7910/DVN/YSNYXD>

• International IDEA EMB Design Dataset: <https://www.idea.int/data-tools/data/electoral-management-design-database>
Notes: ^aM. Coppedge et al., 'V-Dem Dataset Version 12,' Varieties of Democracy (V-Dem) Project, 2022, 361–2.

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Table A2. Predicting electoral management quality.

	(1)	(2)	(3)	(4)	(5)
GDP (log)	0.00	−0.00	0.01	−0.01	0.01
Democracy	0.01	0.01	0.01	0.01	0.01
	0.56***	0.56***	0.25***	0.52***	0.14*
	0.05	0.05	0.08	0.05	0.08
Overall government effectiveness	0.01	0.04**	0.04**	0.03	−0.03
	0.02	0.02	0.02	0.02	0.02
Corruption	0.04*				0.05**
	0.02				0.02

(Continued)

Table A2. Continued.

	(1)	(2)	(3)	(4)	(5)
Political polarisation		-0.01*			-0.01**
		0.01			0.01
EMB autonomy			0.06***		0.06***
			0.01		0.01
Independent EMB model			-0.00		0.01
			0.02		0.02
Mixed EMB model			-0.04		-0.02
			0.03		0.03
EMB capacity				0.05***	0.05***
				0.01	0.01
Constant	0.37***	0.38***	0.43***	0.38***	0.44***
	0.04	0.04	0.05	0.04	0.04
<i>N</i>	159	159	156	159	156
<i>R</i> -sq	0.80	0.80	0.83	0.81	0.86

Source: Authors' analysis per the text.

Notes: Standard errors in second row.

* $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$.

Reference for EMB model = Governmental EMB.