



# Article How Does Governance Affect the Control of Corruption in India? A Configurational Investigation with Fs/QCA

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**Abstract:** While the existing literature has emphasized the role of governance in controlling corruption, they have paid less attention to its multidimensional nature. With this background, this paper identifies the configuration(s) of governance dimensions inducing a high control of corruption (low corruption) across Indian states using Fuzzy-set Qualitative Comparative Analysis (fs/QCA). The analysis presented several configurations of governance dimensions instrumental in causing a high control of corruption across the states. A remarkable result was that low performance in the human resource development dimension is one of the core causal factors that lead to a high control of corruption within the Indian context. This paper attempts to interpret this notable result and proposes a suggestion for the Indian government in light of this finding.

**Keywords:** corruption; governance; India; South Asia; Fuzzy-set Qualitative Comparative Analysis (fs/QCA)

# 1. Introduction

Corruption has long been considered one of India's most enduring and pervasive problems.<sup>1</sup> In practice, New Delhi is facing prevalent corruption issues to the extent that it has ranked among corrupt countries over almost decades (Transparency International (TI) (2022)). Besides, corruption has become so routinized at the individual level that it is not just "a way of life" anymore but is "the only way to get work done" in the country (Transparency International India (TII) and LocalCircles (2019)).

Nevertheless, a closer look at corruption levels across Indian states reveals a wide variation. For example, while Manipur has a low corruption conviction rate, Mizoram suffers from a high conviction rate, even though both belong to the North-eastern region. Why, then, do some states fare well in controlling corruption while others do not? Answering this research question is crucial because it can help reduce a disparity in tackling corruption across states and thereby contribute to a balanced development of India.

On this subject, many scholars have stressed the quality of governance in India (Bhagwan 2007; Biswas 2013; Tyagi 2019; Zeqiraj et al. 2022). They have argued that good governance plays a decisive role in combating corruption. However, those scholars have neglected that the notion of governance is not a single concept but indicates a multifaceted cluster of interconnected dimensions (Enders et al. 2008; Kim 2013; Yoon and Kim 2015).

From this multidimensional perspective, we cannot merely assume that a particular good governance practice contributes to controlling corruption across all the Indian states. Rather, it implies that a particular governance dimension may exert a varying influence on the control of corruption depending on how it is interconnected to other dimensions and hence that a set of multiple governance dimensions jointly affects the outcome. In this context, we can alternatively posit that the link between governance and corruption is configurational in the sense that the relationship between the two is not always linear and symmetrical and that a combination of governance dimensions affects the control of corruption.



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**Copyright:** © 2023 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). With this background, this paper aims to examine the combined effects of multiple governance dimensions on the control of corruption in Indian states. More specifically, it seeks to investigate the configuration(s) of governance dimensions that leads to a relatively low corruption conviction rate across Indian states. Given that no extant literature has focused on a configurational relationship between governance dimensions and the control of corruption in India, to the best of the author's knowledge, doing so will fill the research gap in governance–corruption research.

This paper employs Fuzzy-set Qualitative Comparative Analysis (fs/QCA) to conduct empirical analysis. Since this method aims to unravel a specific cause or configurations of causal factors that induce an outcome by allowing interaction effects among factors (Ragin 2008), it appears appropriate for the purpose of this paper.

The remainder of this paper is organized as follows. The next section begins by looking at the corruption status across Indian states. Afterward, this paper discusses the definitions and conceptual features of our core terms, governance and corruption, and their theoretical association. The fs/QCA methodology will be explained in the following fourth section. Subsequently, the paper describes measurements for each conception and performs an empirical analysis. Finally, it concludes with a summary of the results and suggests some policy implications based on the findings.

## 2. Corruption in Indian States

The structure of the Indian government takes the form of a federal state.<sup>2</sup> As per its federal government system, India faces certain amounts of regional disparities in several areas. Corruption levels are indeed no exception. We can observe this trend from both perception surveys and factual data on the degree of corruption.<sup>3</sup> One of the well-known perception surveys showing such state-wise variations is the Indian Corruption Study (ICS) undertaken by the Centre for Media Studies (CMS) in India. This so-called CMS-ICS seeks to capture general perceptions and experiences of households about corruption in the public sector. Of 12 rounds of the study so far, the recent survey conducted in 2018 covered more than 2000 households from over 200 rural and urban clusters in 13 states.<sup>4</sup>

According to this study (CMS 2018), the surveyed households in the respective states differently perceived the gravity of corruption levels. For example, a whopping 72 percent of respondents in Andhra Pradesh believed that corruption had increased, whereas only 25 percent of surveyed households in Bihar felt the same way. Apart from those two representative cases, a closer look at the corruption status across other Indian states also reveals that the degree of (perceived) corruption in India varies significantly from state to state (Figure 1).



Figure 1. Perceptions of Corruption across Indian States. Source: CMS (2018).

Along with a subjective measure such as the CMS-ICS, the relatively more objective measure, total conviction rates from 1990 to 2020<sup>5</sup> for states and Union Territories (UTs) in India, also reveals sub-national corruption variations (Table 1). According to Table 1, the state with the highest number of public officials convicted of corruption-related crimes was Madhya Pradesh. On the other hand, the states with the lowest number of corruption convictions were Meghalaya, Tripura, West Bengal, Andaman and Nicobar Islands, and Daman and Diu.

| State/UTs                   | <b>Total Conviction Rates</b> |  |
|-----------------------------|-------------------------------|--|
| Andhra Pradesh              | 1560                          |  |
| Arunachal Pradesh           | 2                             |  |
| Assam                       | 34                            |  |
| Bihar                       | 161                           |  |
| Chhattisgarh                | 297                           |  |
| Goa                         | 2                             |  |
| Gujarat                     | 1253                          |  |
| Haryana                     | 839                           |  |
| Himachal Pradesh            | 194                           |  |
| Jammu and Kashmir           | 262                           |  |
| Jharkhand                   | 77                            |  |
| Karnataka                   | 970                           |  |
| Kerala                      | 961                           |  |
| Madhya Pradesh              | 2349                          |  |
| Maharashtra                 | 2311                          |  |
| Manipur                     | 1                             |  |
| Meghalaya                   | 0                             |  |
| Mizoram                     | 11                            |  |
| Nagaland                    | 39                            |  |
| Odisha                      | 1256                          |  |
| Punjab                      | 1478                          |  |
| Rajasthan                   | 1482                          |  |
| Sikkim                      | 50                            |  |
| Tamil Nadu                  | 814                           |  |
| Telangana                   | 160                           |  |
| Tripura                     | 0                             |  |
| Uttar Pradesh               | 168                           |  |
| Uttarakhand                 | 56                            |  |
| West Bengal                 | 0                             |  |
| Andaman and Nicobar Islands | 0                             |  |
| Chandigarh                  | 55                            |  |
| Dadra and Nagar Haveli      | 3                             |  |
| Daman and Diu               | 0                             |  |
| Delhi                       | 489                           |  |
| Lakshadweep                 | 2                             |  |
| Puducherry                  | 37                            |  |

Table 1. Total Conviction Rates, 1990-2020.

Source: NCRB (1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021).

However, this raw conviction data cannot be employed when comparing corruption levels across Indian states because a difference in the sheer size of the population was not considered here. Hence, this paper divides the average number of convictions in each state from 1990 to 2020 by the average state population in 1991, 2001, and 2011 to calculate the comparable corruption rate per capita, following Glaeser and Saks's strategy (Glaeser and Saks 2006) (Table 2).

| State/UTs                   | Average Annual Convictions per 1,000,000 |
|-----------------------------|--|
| Andhra Pradesh              | 0.66                                     |
| Arunachal Pradesh           | 0.05                                     |
| Assam                       | 0.04                                     |
| Bihar                       | 0.05                                     |
| Chhattisgarh                | 0.71                                     |
| Goa                         | 0.04                                     |
| Gujarat                     | 0.78                                     |
| Haryana                     | 1.25                                     |
| Himachal Pradesh            | 1.01                                     |
| Jammu and Kashmir           | 0.83                                     |
| Jharkhand                   | 0.14                                     |
| Karnataka                   | 0.59                                     |
| Kerala                      | 1.00                                     |
| Madhya Pradesh              | 1.14                                     |
| Maharashtra                 | 0.76                                     |
| Manipur                     | 0.01                                     |
| Meghalaya                   | 0  |
| Mizoram                     | 0.38                                     |
| Nagaland                    | 0.72                                     |
| Odisha                      | 1.07                                     |
| Punjab                      | 1.92                                     |
| Rajasthan                   | 0.82                                     |
| Sikkim                      | 3.00                                     |
| Tamil Nadu                  | 0.40                                     |
| Telangana                   | NA                                       |
| Tripura                     | 0  |
| Uttar Pradesh               | 0.03                                     |
| Uttarakhand                 | 0.30                                     |
| West Bengal                 | 0  |
| Andaman and Nicobar Islands | 0  |
| Chandigarh                  | 2.04                                     |
| Dadra and Nagar Haveli      | 0.40                                     |
| Daman and Diu               | 0  |
| Delhi                       | 1.14                                     |
| Lakshadweep                 | 1.09                                     |
| Puducherry                  | 1.14                                     |

Table 2. Conviction Rates per Capita.

Note. This paper cannot calculate the conviction rate per capita of Telangana because the state was separated as a newly formed state in 2014 which the 2011 census did not encompass.

As can be seen in Table 2, Sikkim is the most corrupt state among Indian states, with a conviction rate of 3.00. It suggests that three public officials in the state are convicted of corruption each year for every 1,000,000 people in the population<sup>6</sup>, on average. On the other hand, Meghalaya, Tripura, West Bengal, Andaman and Nicobar Islands, and Daman and Diu are revealed as the states with zero conviction rates. If this paper excludes those cases with zero conviction rates, which hardly exist in practice, Manipur is the least corrupt state with a conviction rate of 0.01.

On balance, estimates identified in the aforementioned subjective and objective measures can be evidence to suggest a wide regional disparity in controlling corruption across Indian states. Against this backdrop, this paper attempts to explain such sub-national variations by focusing on the role of governance. To perform an analysis, a rigorous conceptualization of the central terms, corruption and governance, and an identification of the theoretical relationship between those two concepts are required. Hence, this paper will preliminarily define two concepts and identify whether those two concepts are theoretically related in the following section.

## 3. Conceptual Frameworks

## 3.1. Corruption

As many scholars have repeatedly argued, there is no consensus on what precisely corruption is (Kim 2017). Difficulties in its definition begin with the following reasons. First, the term corruption has often overlapped with other similar concepts, such as bribery, fraud, embezzlement, and so on (Gerring and Thacker 2004). Second, and more importantly, corruption is a culturally loaded term that is differently perceived across different cultures or regions. Thus, corruption may not only indicate different things in different cultures but also be believed to be a part of a given country's cultural norms.

Nonetheless, several scholars and organizations have attempted to define and categorize corruption to fill this definitional lacuna. While many definitional attempts abound, Heidenheimer (1970) classified the existing discussions of the definition of corruption as follows: (1) a public opinion-centered definition; (2) a public interest-centered definition; (3) a public office-centered definition.

A public opinion-centered definition of corruption views corruption as the acts or patterns of behaviors that the public perceive as corrupt. This approach has a definitional advantage in reflecting public perceptions of corruption on its definition. However, this definition has a problem in pinning down its core concepts, public and opinion. That is, proponents of this definition have difficulties in fully answering the questions, "who belongs to the public?" or "what is their opinion?"

On the other hand, a public interest-centered definition of corruption understands corruption as the actions that subvert the public interest or common good (Williams 1999). Hence, we can consider even a legal activity as being corrupt if it impedes the public interest from this perspective. However, the public interest-driven definition has trouble specifying the public and their interests, just as with the public opinion-centered definition.

Alternatively, the public office-centered approach defines corruption as the behaviors that deviate from formal duties and requisites of public office. Nye's famous definition of corruption (Nye 1967) belongs to this definitional category: "corruption is behavior which deviates from the formal duties of a public role because of private regarding (personal, close family, private clique) pecuniary or status gains; or violates rules against the exercise of certain types of private regarding influence." Since this definitional strand is based on legal provisions for public officials, it has relative merits in discriminating between corrupt and non-corrupt behaviors more clearly than the aforementioned definitions. In addition, the public office-driven definition facilitates the operationalization of corruption thanks to its legal standard, which is the reason why it is the most preferred definition in contemporary corruption research.

Nevertheless, this definitional approach also has some drawbacks. One of the most troublesome issues is that this definition proceeds from legal provisions and formal rules that vary from one country to another (Groop 2013). Hence, we should consider a legal heterogeneity between countries when adopting this public office-centered definition in a cross-national comparison setting. Fortunately, however, it is not an issue in the Indian context where corruption-related offenses across all the states and UTs are under the same legal provisions, Indian Penal Code 1860 and the Prevention of Corruption Act 1988 and its amendments. Hence, it is safe to adopt the public office-centered definition to define corruption in this paper. With this background, we rely on the public office-centered definition and conceptualize corruption as "behaviors which deviate from the formal duties for private gain."

# 3.2. Governance

As with the notion of corruption, there is no universally accepted and agreed definition of governance. Accordingly, governance has often been used in different disciplines to mean different things (Kjær 2004). In general, nevertheless, governance has been referring to all processes of governing, the institutions, and practices through which issues of common concern are decided upon and regulated. Hence, its basic underlying concept includes

incorporating inclusivity in government bodies and other relevant entities and working closely together in pursuit of a common objective (Kim 2013).

Based on this initial definition, the concept of governance began to entail and emphasize various non-governmental actors' participation in the policymaking process. As a result of this conceptual expansion, governance has come to be understood as a collaborative governing network where a variety of private and public actors participate (Pierre and Peters 2000; Ansell and Gash 2007). This conventional definition has implications in shedding light on the importance of co-regulation, co-guidance, and co-steering through the participation of civil society.

However, this strand of definitions faced the following criticisms. First, critics have pointed out that this definition is limited to some developed countries where either the existence of multiple non-governmental actors or of the state's capacity to encourage those actors' engagement is presupposed. However, except for a few developed countries, we scarcely observe developing or even developed countries where there are active non-governmental actors and capabilities to manage a public–private collaboration for mutual policy goals (Kim 2013; Yoon and Kim 2015). Accordingly, critics have argued that this definition would not be applicable to countries where democracy has not yet been consolidated or to some fragile states that lack the commitment and capacity to carry out the fundamental functions of a country (Yoon and Kim 2015).

Second, this definition so overemphasizes the role of private actors in policymaking that it has often supported the arguments of "governance without government" or "minimal state" (e.g., Rosenau and Czempiel 1992). This strand of research has stressed the participation of non-state actors as alternatives to the traditional top-down, command-andcontrol approach of hierarchical steering by government (Börzel and Risse 2010). However, just because the participation of non-governmental actors should increase, it does not necessarily mean that the role of government needs to be completely eliminated. Instead, the existence of a state is still becoming more important as the government plays a decisive role in coordinating multiple responses from non-governmental sectors and in steering society to reach collective goals, especially in countries with a top-down approach and implementation processes, such as in India (see Kim 2008).

Moreover, eliminating the government from governing activities is, in fact, highly unlikely because it ensures the existence of alternative processes or institutions that replace the existence of the government in a democratic regime and yet it can hardly be achieved in practice. Rather, the role of the state still matters for governance to the extent to which it still retains a central position in governing activities (Pierre and Peters 2005).

Bearing those limitations in mind, many scholars have proposed to redefine governance as a government's capability to cover a whole range of institutions and relationships involved in the process of governing, not as a collaborative governing network per se (Pierre and Peters 2005; Enders et al. 2008; Hough 2013; Kim 2013; Yoon and Kim 2015). Defining the notion of governance as such has the following merits compared to the first strand of a definitional attempt. First, once we see the concept of governance through the lens of governmental capacity, we can apply a definition of governance not only to a few developed countries but also to the most developed and developing countries where nonstate actors cannot be active and take part in policymaking process (Kim 2013; Yoon and Kim 2015). Second, it also enables us to measure the respective governments' governance levels and qualities, thereby facilitating international or interstate comparisons among multiple cases.

Considering those relative merits, this paper employs the second definitional strand to conceptualize the notion of governance. More specifically, it defines governance as "a government's capability to manage a whole range of institutions and relationships involved in the process of governing." Doing so will be beneficial not only in covering the developed and developing countries but also in reflecting Indian circumstances where most policy decisions are still made by a top-down approach. Once we understand governance as a governmental capability for the governing process, we can also infer that it entails multiple dimensions. More specifically, a government's capacity (i.e., governance) is determined by how well a government-initiated action is exercised. Here, since the government's actions are engaged in several dimensions in a country (e.g., political, economic, social spheres, etc.), governance can be understood as a multifaceted concept made up of several dimensions.

## 3.3. A Governance–Corruption Association

Are, then, governance and corruption associated with each other? Before analyzing the empirical relationship between governance and the control of corruption, it is necessary to identify whether those two conceptions are theoretically related in the first place to rule out the possibility of spuriousness.

According to Stapenhurst and Sedigh (1999), corruption causes a three to ten percent increase in the price of a given transaction and a loss of as much 50 percent of government tax revenues. Given that corruption contributes to an inefficient distribution of resources, it can be understood as one of the antecedents of market failure (Jeon 2003). If we understand corruption through the market failure lens as such, we can accordingly assume that corruption is the realm where government intervention is needed because governmental intervention could address the problem in situations where market failure arises (Shepsle and Weingast 1984). Here, the said governmental intervention can be translated into the government-initiated anti-corruption policy in the context of corruption, and the success and failure of which depends on the capability of the government (i.e., governance) (Hough 2013). A recurrent corruption problem, therefore, is a symptom of failed governance (Shah 2006).

With this theoretical background, several strands of the literature have demonstrated the relationship between governance and corruption (Kaufmann 2005; Ka 2006; Quah 2009). While those previous studies have contributed to understanding a governance–corruption connection, they have the following limitations. First, they have rarely investigated the association between governance and corruption in the Indian context. However, as India is the most populous and ethnically diverse nation and is enthusiastic about achieving good governance, examining a governance–corruption association within the Indian context is a crucial and timely issue.

Second, and more importantly, extant studies have not considered a multidimensional nature of governance; instead, they have understood governance as one big single concept and assumed a linear and symmetrical association between governance and corruption. Yet, the notion of governance is multidimensional in the sense that it entails several dimensions, as noted earlier. Hence, it is crucial to consider governance's multidimensionality when examining its effect on certain outcomes.

In addition to its multidimensionality, what should additionally be noted here is that those multiple dimensions of governance are not separate entities operating in isolation from each other but rather are interconnected ones in the sense that one dimension can have varying impacts on certain outcomes depending on how it is combined with other dimensions (Enders et al. 2008). With this theoretical background, we can view governance as a configuration of interconnected dimensions that affect certain outcomes in a combinative manner. From this point of view, when considering the effect of governance on the control of corruption, it is necessary to focus on the combined effect of governance dimensions, not on the net effect of governance or of each dimension.

Against this backdrop, this paper seeks to investigate a specific set(s) of governance dimensions (i.e., configuration(s) of dimensions) inducing high control of corruption (low corruption) across Indian states to fill the research gap in the existing literature. To analyze, it uses a configurational method, fs/QCA. Since this methodology is useful to unravel a joint effect of a specific set of causal variables with a synergetic nature on an outcome (Ragin 2008), it would be an appropriate methodology to serve the inquiry's purpose.

# 4. Methodology

Fs/QCA is an advanced version of a method, Qualitative Comparative Analysis (QCA). QCA uses Boolean algebra to implement principles of comparison and is developed for the analysis of small- and intermediate-N case studies and unraveling multiple conjunctural causal relations<sup>7</sup> to an outcome by applying set-theoretic methods to cross-case evidence (Rihoux 2008).

Unlike correlational methods adopting a probabilistic approach, QCA, as a set-theoretic method, allows interaction effects among causal factors. For example, it is assumed in a probabilistic sense that factors  $x_1$ ,  $x_2$ ,  $x_3$ , and  $x_4$  affect an outcome y independently. On the other hand, QCA is based on the assumption that different configurations of factors  $x_1$ ,  $x_2$ ,  $x_3$ , and  $x_4$  result in an outcome y in a synergetic manner, rather than any one factor. So, the gist of QCA is that a single causal condition may be insufficient to explain an outcome and may have varying effects depending on how it is interconnected to other conditions.

However, QCA is restricted to assigning dichotomous values to causal factors, simple presence or absence. Hence, we could classify conditions and an outcome in hand simply as present (numerically described as 1) or absent (numerically described as 0) with QCA (Ragin 1987). In response to this limitation, Ragin extended QCA by allowing users to assign membership scores between 0 and 1 to conditions, which is the so-called fs/QCA. Thanks to its fuzzy set membership scores, fs/QCA makes it easier to rate factors that cannot be simply classified as present or absent.

Since the purpose of this paper is to explore the configuration(s) of multiple governance dimensions leading to a relatively high control of corruption (low corruption) across Indian states, the fs/QCA methodology can serve the purpose of the paper. In addition, fs/QCA is, in fact, one of the few analytic techniques capable of fully capturing a configurational relationship between cause(s) and an outcome until recently (Misangyi et al. 2017). Hence, this paper adopts the fs/QCA approach and utilizes the fs/QCA 3.0 software for an empirical analysis of the combined effect of governance dimensions on the control of corruption within Indian states.

## 5. Analysis and Results

#### 5.1. Data and Measurements

The outcome of interest for this paper is the control of corruption levels within Indian states. This paper employs conviction data from the National Crime Records Bureau (NCRB) to measure it. In general, measurements for corruption are categorized into direct or indirect measures (UNODC et al. 2018). Direct methods of measuring corruption levels include the measurements that gauge the actual corruption occurrences, such as official conviction data. On the other hand, indirect measures aim to quantify perceived levels of corruption among citizens, business representatives, experts, or others. Perception- and opinion-based surveys or indexes belong to this type of measurement.

While direct measurements for corruption are regarded as more objective than indirect measurements (Hamilton and Hammer 2018; UNODC et al. 2018), most international comparative studies have used the latter to establish measurement equivalence. However, as the Indian corruption judicial system takes the form of a single, unified, and integrated system, it is safe to use direct measurement for corruption in New Delhi. As such, this paper uses conviction rates to quantify variations in corruption levels across Indian states. More specifically, it formulates a comparable estimate of the state conviction rate per capita by dividing the number of convictions in each state by the state population, following Glaeser and Saks's strategy (Glaeser and Saks 2006).

In this paper, the selected causes are governance dimensions. To assess the status of these dimensions, we exploit the Good Governance Index (GGI) introduced by the Department of Administrative Reforms and Public Grievances (DARPG), Government of India. The GGI is designed to uniformly assess the state of governance and the impact of various interventions taken up by Central and State Governments (DARPG 2021). The

first version of the index was initially launched in 2019. Afterward, the recent version was published in 2021, which is the so-called GGI 2020–21.

As a comprehensive tool, the GGI 2020–21 includes more than 50 associated subindicators to assess the following ten different governance dimensions across Indian states: (1) agriculture and allied sector; (2) commerce and industry; (3) human resource development; (4) public health; (5) public infrastructure and utilities; (6) economic governance; (7) social welfare and development; (8) judiciary and public safety; (9) environment; (10) citizen centric governance (a higher score indicates better governance). Among those indicators for governance dimensions, this paper excludes the agriculture and allied sector, public health, and environment dimensions because those are considered not relevant to corruption in a theoretically meaningful way. In addition, it discards a judiciary and public safety dimension from the measurements of governance dimensions as well because this dimension already incorporates a substantive element of corruption in its measure itself, conviction rates.

However, one problem with using the GGI is that we cannot build time series data by merging those two versions of the index because different raw data sources were included in the respective indices in 2019 and 2020–21. Thus, this paper utilizes the GGI 2020–21, which represents the recent data at the time of writing in 2022, to operationalize the state of multiple governance dimensions across Indian states. Correspondingly, we deploy conviction rate data in 2020 for measuring corruption levels within Indian states and form a comparable estimate of the state conviction per 1,000,000 population in 2020 by dividing the number of convictions in each state by the state population in 2011 to maximize comparability. Note that if any state's conviction rates data in 2020 are unavailable, this paper uses the 2019 data as an alternative, which is the closest year possible to 2020.

Table 3 lists the respective states' conviction rates per capita and governance dimensionwise scores. Note that this paper excludes cases where data on governance and corruption are not available in subsequent analysis (i.e., Dadra and Nagar Haveli, Daman and Diu, Lakshadweep, and Telangana).

|                   | Convictions per<br>1,000,000 | CI    | HRD   | PIU   | EG    | SWD   | CCG   |
|-------------------|------------------------------|-------|-------|-------|-------|-------|-------|
| Andhra Pradesh    | 0.1583                       | 0.627 | 0.403 | 0.686 | 0.461 | 0.546 | 0.075 |
| Arunachal Pradesh | 0                            | 0.267 | 0.306 | 0.665 | 0.117 | 0.39  | 0.07  |
| Assam             | 0                            | 0.645 | 0.441 | 0.572 | 0.426 | 0.334 | 0.556 |
| Bihar             | 0                            | 0.626 | 0.507 | 0.754 | 0.417 | 0.385 | 0.649 |
| Chhattisgarh      | 0.8624                       | 0.613 | 0.48  | 0.583 | 0.433 | 0.677 | 0.795 |
| Goa               | 0                            | 0.626 | 0.662 | 0.84  | 0.526 | 0.523 | 0.633 |
| Gujarat           | 0.4330                       | 0.662 | 0.637 | 0.765 | 0.678 | 0.489 | 0.788 |
| Haryana           | 0.5241                       | 0.657 | 0.696 | 0.791 | 0.57  | 0.392 | 0.914 |
| Himachal Pradesh  | 0.1656                       | 0.669 | 0.649 | 0.822 | 0.291 | 0.58  | 0.48  |
| Jammu and Kashmir | 0.0986                       | 0.714 | 0.462 | 0.575 | 0.051 | 0.424 | 0.557 |
| Jharkhand         | 0.5005                       | 0.629 | 0.417 | 0.636 | 0.442 | 0.516 | 0.51  |
| Karnataka         | 0.7550                       | 0.66  | 0.528 | 0.662 | 0.617 | 0.489 | 0.512 |
| Kerala            | 1.2083                       | 0.604 | 0.692 | 0.619 | 0.393 | 0.542 | 0.506 |
| Madhya Pradesh    | 0.3313                       | 0.646 | 0.38  | 0.662 | 0.477 | 0.666 | 0.627 |
| Maharashtra       | 0.1040                       | 0.612 | 0.65  | 0.728 | 0.6   | 0.462 | 0.543 |
| Manipur           | 0                            | 0.116 | 0.294 | 0.688 | 0.176 | 0.407 | 0.115 |
| Meghalaya         | 0                            | 0.261 | 0.446 | 0.435 | 0.263 | 0.518 | 0.083 |
| Mizoram           | 1.1211                       | 0.411 | 0.435 | 0.729 | 0.459 | 0.555 | 0.44  |
| Nagaland          | 0                            | 0.321 | 0.372 | 0.64  | 0.166 | 0.333 | 0.314 |
| Odisha            | 0.4346                       | 0.66  | 0.59  | 0.555 | 0.487 | 0.6   | 0.548 |
| Punjab            | 0.2486                       | 0.628 | 0.698 | 0.778 | 0.333 | 0.424 | 0.716 |
| Rajasthan         | 0.9937                       | 0.638 | 0.398 | 0.525 | 0.29  | 0.606 | 0.883 |
| Sikkim            | 0                            | 0.41  | 0.429 | 0.8   | 0.42  | 0.634 | 0.001 |

Table 3. Conviction Rates and Governance Scores across Indian States.

| Convictions per<br>1,000,000 | CI   | HRD   | PIU  | EG  | SWD  | CCG  |
|------------------------------|--|---|--|---|--|--|
| 0.9768                       | 0.553  | 0.522   | 0.644  | 0.571   | 0.54   | 0.182  |
| 0                            | 0.376  | 0.539   | 0.641  | 0.514   | 0.537  | 0.318  |
| 0.0059                       | 0.68   | 0.568   | 0.537  | 0.337   | 0.448  | 0.802  |
| 0.1076                       | 0.65   | 0.607   | 0.627  | 0.447   | 0.484  | 0.56   |
| 0                            | 0.658  | 0.429   | 0.599  | 0.343   | 0.491  | 0.604  |
| 0                            | 0.174  | 0.654   | 0.83   | 0.237   | 0.461  | 0.26   |
| 2.3093                       | 0.21   | 0.813   | 0.746  | 0.488   | 0.408  | 0.279  |
| 0                            | 0.391  | 0.741   | 0.673  | 0.772   | 0.38   | 0.661  |
| 3.9600                       | 0.277  | 0.761   | 0.713  | 0.458   | 0.391  | 0.158  |
|                              | Convictions per<br>1,000,000<br>0.9768<br>0<br>0.0059<br>0.1076<br>0<br>0<br>2.3093<br>0<br>3.9600 | Convictions per<br>1,000,000         CI           0.9768         0.553           0         0.376           0.0059         0.68           0.1076         0.65           0         0.174           2.3093         0.21           0         0.391           3.9600         0.277 | Convictions per<br>1,000,000CIHRD0.97680.5530.52200.3760.5390.00590.680.5680.10760.650.60700.6580.42900.1740.6542.30930.210.81300.3910.7413.96000.2770.761 | Convictions per<br>1,000,000CIHRDPIU0.97680.5530.5220.64400.3760.5390.6410.00590.680.5680.5370.10760.650.6070.62700.6580.4290.59900.1740.6540.832.30930.210.8130.74600.3910.7410.6733.96000.2770.7610.713 | Convictions per<br>1,000,000CIHRDPIUEG0.97680.5530.5220.6440.57100.3760.5390.6410.5140.00590.680.5680.5370.3370.10760.650.6070.6270.44700.6580.4290.5990.34300.1740.6540.830.2372.30930.210.8130.7460.48800.3910.7410.6730.7723.96000.2770.7610.7130.458 | Convictions per<br>1,000,000CIHRDPIUEGSWD0.97680.5530.5220.6440.5710.5400.3760.5390.6410.5140.5370.00590.680.5680.5370.3370.4480.10760.650.6070.6270.4470.48400.6580.4290.5990.3430.49100.1740.6540.830.2370.4612.30930.210.8130.7460.4880.40800.3910.7410.6730.7720.383.96000.2770.7610.7130.4580.391 |

Table 3. Cont.

Note. CI = Commerce and industry; HRD = Human resource development; PIU = Public infrastructure and utilities; EG = Economic governance; SWD = Social welfare and development; CCG = Citizen centric governance. This paper alternatively uses the 2019 conviction data for Chhattisgarh and Kerala cases.

Prior to actual analysis, it is recommended to convert the values of raw data to a fuzzy set membership score to properly use the fs/QCA methodology (Ragin 2008). This so-called calibration procedure is essential as it enables a researcher to assign membership scores from 0.0 to 1.0 to cases. Hence, this paper calibrates the raw data into the fuzzy set membership score using the calibration function in the fs/QCA version 3.0 software created by Charles C. Ragin in Irvine, California, Department of Sociology, University of California.

For calibration, we should specify the qualitative breakpoints on the degree of causes and an outcome. The qualitative breakpoints are the points that determine which case is fully in the set (FI), fully out of the set (FO), or neither in nor more out of the set (cross-over point). Suppose that a specific case A has a fuzzy membership score of 1 in the HRD set. It suggests that the case A fully belongs in the target set, meaning that it fares well in managing the human-development resource area. This paper establishes a three-value fuzzy set, which is the most basic way—the threshold for FI (membership score: maximum value among cases in each set), the threshold for FO (membership score: minimum value among cases in each set). The fuzzy set membership scores are given in Table 4.

Table 4. Fuzzy-set Membership Scores.

|                   | <b>Conviction Rates</b> | CI   | HRD  | PIU  | EG   | SWD  | CCG  |
|-------------------|-------------------------|------|------|------|------|------|------|
| Andhra Pradesh    | 0.50                    | 0.51 | 0.17 | 0.60 | 0.55 | 0.71 | 0.07 |
| Arunachal Pradesh | 0.05                    | 0.11 | 0.05 | 0.51 | 0.08 | 0.13 | 0.07 |
| Assam             | 0.05                    | 0.66 | 0.25 | 0.23 | 0.48 | 0.05 | 0.56 |
| Bihar             | 0.05                    | 0.50 | 0.44 | 0.82 | 0.46 | 0.12 | 0.72 |
| Chhattisgarh      | 0.64                    | 0.48 | 0.36 | 0.26 | 0.49 | 0.95 | 0.89 |
| Goa               | 0.05                    | 0.50 | 0.81 | 0.95 | 0.69 | 0.63 | 0.69 |
| Gujarat           | 0.56                    | 0.77 | 0.76 | 0.85 | 0.90 | 0.50 | 0.88 |
| Haryana           | 0.58                    | 0.74 | 0.86 | 0.90 | 0.77 | 0.13 | 0.95 |
| Himachal Pradesh  | 0.51                    | 0.81 | 0.78 | 0.94 | 0.24 | 0.81 | 0.43 |
| Jammu and Kashmir | 0.32                    | 0.95 | 0.31 | 0.24 | 0.05 | 0.22 | 0.56 |
| Jharkhand         | 0.57                    | 0.53 | 0.20 | 0.41 | 0.51 | 0.61 | 0.48 |
| Karnataka         | 0.62                    | 0.76 | 0.51 | 0.50 | 0.83 | 0.50 | 0.48 |
| Kerala            | 0.70                    | 0.47 | 0.85 | 0.36 | 0.42 | 0.70 | 0.47 |
| Madhya Pradesh    | 0.54                    | 0.66 | 0.13 | 0.50 | 0.59 | 0.94 | 0.68 |
| Maharashtra       | 0.34                    | 0.48 | 0.79 | 0.75 | 0.81 | 0.37 | 0.53 |
| Manipur           | 0.05                    | 0.05 | 0.05 | 0.60 | 0.12 | 0.17 | 0.09 |
| Meghalaya         | 0.05                    | 0.10 | 0.26 | 0.05 | 0.21 | 0.61 | 0.07 |
| Mizoram           | 0.68                    | 0.22 | 0.24 | 0.75 | 0.55 | 0.74 | 0.38 |
| Nagaland          | 0.05                    | 0.14 | 0.12 | 0.42 | 0.11 | 0.05 | 0.23 |
| Odisha            | 0.56                    | 0.76 | 0.66 | 0.19 | 0.61 | 0.85 | 0.54 |

| <b>Conviction Rates</b> | CI  | HRD   | PIU   | EG   | SWD  | CCG   |
|-------------------------|---|---|---|--|--|---|
| 0.52                    | 0.52  | 0.86  | 0.88  | 0.31   | 0.22   | 0.81  |
| 0.66                    | 0.60  | 0.16  | 0.14  | 0.24   | 0.87   | 0.94  |
| 0.05                    | 0.22  | 0.22  | 0.91  | 0.47   | 0.91   | 0.05  |
| 0.66                    | 0.39  | 0.49  | 0.44  | 0.77   | 0.69   | 0.12  |
| 0.05                    | 0.19  | 0.54  | 0.43  | 0.67   | 0.68   | 0.23  |
| 0.05                    | 0.86  | 0.61  | 0.16  | 0.31   | 0.31   | 0.89  |
| 0.36                    | 0.69  | 0.70  | 0.38  | 0.52   | 0.48   | 0.56  |
| 0.05                    | 0.75  | 0.22  | 0.30  | 0.33   | 0.51   | 0.64  |
| 0.05                    | 0.07  | 0.79  | 0.94  | 0.17   | 0.37   | 0.18  |
| 0.85                    | 0.08  | 0.95  | 0.80  | 0.61   | 0.17   | 0.20  |
| 0.05                    | 0.20  | 0.90  | 0.54  | 0.95   | 0.11   | 0.74  |
| 0.95                    | 0.11  | 0.92  | 0.70  | 0.55   | 0.13   | 0.11  |
|                         | Conviction Rates 0.52 0.66 0.05 0.66 0.05 0.05 0.05 0.36 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0 | Conviction Rates         CI           0.52         0.52           0.66         0.60           0.05         0.22           0.66         0.39           0.05         0.19           0.05         0.86           0.36         0.69           0.05         0.75           0.05         0.07           0.85         0.08           0.05         0.22 | Conviction RatesCIHRD0.520.520.860.660.600.160.050.220.220.660.390.490.050.190.540.050.860.610.360.690.700.050.750.220.050.070.790.050.070.790.050.080.950.050.200.900.950.110.92 | Conviction RatesCIHRDPIU0.520.520.860.880.660.600.160.140.050.220.220.910.660.390.490.440.050.190.540.430.050.860.610.160.360.690.700.380.050.750.220.300.050.070.790.940.850.080.950.800.050.200.900.540.950.110.920.70 | Conviction RatesCIHRDPIUEG0.520.520.860.880.310.660.600.160.140.240.050.220.220.910.470.660.390.490.440.770.050.190.540.430.670.050.860.610.160.310.360.690.700.380.520.050.750.220.300.330.050.070.790.940.170.850.080.950.800.610.050.200.900.540.950.950.110.920.700.55 | Conviction RatesCIHRDPIUEGSWD0.520.520.860.880.310.220.660.600.160.140.240.870.050.220.220.910.470.910.660.390.490.440.770.690.050.190.540.430.670.680.050.860.610.160.310.310.360.690.700.380.520.480.050.750.220.300.330.510.050.070.790.940.170.370.850.080.950.800.610.170.050.200.900.540.950.110.950.110.920.700.550.13 |

Table 4. Cont.

Note. CI = Commerce and industry; HRD = Human resource development; PIU = Public infrastructure and utilities; EG = Economic governance; SWD = Social welfare and development; CCG = Citizen centric governance. This paper alternatively uses the 2019 conviction data for Chhattisgarh and Kerala cases.

## 5.2. A fs/QCA and Findings

Using calibrated data, this paper first identifies whether the respective governance dimensions are sufficient/necessary conditions for relatively high control of corruption (low corruption). Testing a particular cause's sufficiency/necessity is important as it tells us whether each factor can solely explain an outcome. Note here that the sufficiency/necessity threshold should be set as close to 1.0 (perfect consistency) as possible or at least above 0.75 in this test; otherwise, it becomes difficult to maintain that a subset relation exists (Ragin 2008). Against this backdrop, this paper specifies the consistency threshold of 0.75 for the sufficiency test of each potential cause at hand.

Table 5 shows that ten positive and negative forms of causes were revealed to be sufficient conditions for low conviction rates across Indian states; none was found to be a necessary condition.

|      | Sufficiency | Necessity |  |
|------|-------------|-----------|--|
| CI   | 0.7983      | 0.5872    |  |
| ~CI  | 0.8346      | 0.7063    |  |
| HRD  | 0.7280      | 0.5743    |  |
| ~HRD | 0.8347      | 0.6618    |  |
| PIU  | 0.7719      | 0.6658    |  |
| ~PIU | 0.8261      | 0.5941    |  |
| EG   | 0.7586      | 0.5763    |  |
| ~EG  | 0.8538      | 0.7019    |  |
| SWD  | 0.7263      | 0.5472    |  |
| ~SWD | 0.8490      | 0.7034    |  |
| CCG  | 0.7874      | 0.5931    |  |
| ~CCG | 0.8019      | 0.6643    |  |

Table 5. A Sufficiency/necessity Test.

Note. "~" means the negation of a causal factor. In fsQCA, the negation of a specific causal condition indicates the relatively low level of the condition.

As a first step, this paper reconstructs the fuzzy set data matrix as a truth table. This initial truth table has 64 (2<sup>6</sup>) possible logical configurations. Once an initial truth table is constructed, setting frequency and consistency thresholds are needed to classify some configurations as relevant and others as irrelevant. According to Ragin (2008, p. 143), "when the total number of cases included in a study is relatively small, the frequency threshold should be 1 or 2." With this background, this paper sets the higher consistency score of 0.9 for the actual analysis to achieve more consistent subset relations and a frequency score of 1. Table 6 shows minimized configurations for an outcome.

| Configurations of Causes |     |     |    |     |     | 0.1   |           |
|--------------------------|-----|-----|----|-----|-----|-------|-----------|
| CI                       | HRD | PIU | EG | SWD | CCG | Cases | - Outcome |
| 0                        | 0   | 1   | 0  | 0   | 0   | 2     | 1         |
| 0                        | 0   | 0   | 0  | 0   | 0   | 1     | 1         |
| 1                        | 0   | 0   | 0  | 0   | 1   | 2     | 1         |
| 1                        | 1   | 0   | 0  | 0   | 1   | 1     | 1         |
| 0                        | 0   | 0   | 0  | 1   | 0   | 1     | 1         |
| 0                        | 1   | 1   | 1  | 0   | 1   | 2     | 1         |
| 1                        | 1   | 1   | 0  | 0   | 1   | 1     | 1         |
| 0                        | 0   | 1   | 0  | 1   | 0   | 1     | 1         |
| 1                        | 1   | 0   | 1  | 0   | 1   | 1     | 1         |
| 1                        | 0   | 1   | 1  | 1   | 0   | 1     | 1         |
| 1                        | 1   | 1   | 0  | 1   | 0   | 1     | 1         |
| 0                        | 0   | 0   | 1  | 1   | 0   | 1     | 1         |
| 1                        | 0   | 0   | 1  | 1   | 0   | 1     | 1         |
| 0                        | 0   | 0   | 0  | 1   | 1   | 1     | 1         |
| 0                        | 0   | 1   | 1  | 1   | 0   | 1     | 1         |
| 1                        | 1   | 0   | 1  | 1   | 1   | 1     | 1         |
| 0                        | 1   | 0   | 0  | 1   | 0   | 1     | 1         |
| 0                        | 1   | 0   | 1  | 1   | 0   | 1     | 1         |
| 1                        | 0   | 0   | 0  | 1   | 1   | 2     | 1         |
| 1                        | 1   | 1   | 1  | 0   | 1   | 1     | 1         |
| 0                        | 1   | 1   | 0  | 0   | 0   | 1     | 0         |

Table 6. A Minimized Truth Table.

Table 6 reveals that the respective values of causes and an outcome are assigned 1 or 0. Those membership scores (1 or 0) indicate whether the cases have a relatively high (when the fuzzy set memberships score is higher than a cross-over point) or a relatively low level (when the fuzzy set membership score is lower than a cross-over point) for each condition and an outcome. On the other hand, values in the cases column imply how many cases are represented by a given causal configuration.

Once the truth table is minimized, this paper must determine which analytic options we will use for further analysis. Fs/QCA offers two analytic techniques in this regard, the specify analytic technique and the standard analytic technique. The main difference between those two options is that the latter provides three solutions (complex, parsimonious, and intermediate solutions), whereas the former gives only one solution (the most complex solution). Three solutions drawn from the standard analytic technique differ in treating the logically possible but empirically not observed configurations (i.e., logical remainders) (Ragin 2008).

In the complex solution, all the logical remainders are treated as false, whereas these logical remainder configurations are used to derive logically simpler solutions in the parsimonious solution. Meanwhile, logical remainders can be treated as if they affect an outcome according to the researcher's substantive knowledge or the existing theory in the intermediate solution.

Of those two analytic options, Ragin (2008) recommended adopting the standard analytic technique over the specify analysis as the former can provide three solutions to users. As per his suggestions, this paper proceeds to an analysis using the standard analysis. Three solutions drawn from the standard analytic option are presented in Tables 7–9, respectively.

| Configurations                | Solution Coverage | Solution Consistency |
|-------------------------------|-------------------|----------------------|
| ~CI * ~HRD *~EG * ~CCG        |                   |                      |
| ~CI * ~PIU * SWD * ~CCG       |                   |                      |
| ~HRD * EG * SWD *~CCG         |                   |                      |
| CI * HRD *~SWD * CCG          |                   |                      |
| CI * ~HRD *~PIU *~EG * CCG    | 0.7498            | 0.8708               |
| ~HRD * ~PIU * ~EG * SWD * CCG |                   |                      |
| CI * HRD * ~PIU * EG * CCG    |                   |                      |
| HRD * PIU * EG * ~SWD * CCG   |                   |                      |

 Table 7. Complex Solutions.

Note. "~" means the negation of a causal factor. In fsQCA, the negation of a specific causal condition indicates the relatively low level of the condition. "\*" means logical AND. Solution coverage indicates the extent to which the set of solution terms explains an outcome. It is similar to the variance explained in regression models (Ragin 2008); Solution consistency measures the degree to which the set of solution terms is a subset of membership in an outcome. It is similar to significance in statistical models (Ragin 2008).

Table 8. Parsimonious Solutions.

CI \* HRD \* PIU \* ~EG \* SWD \* ~CCG

| Configurations     | Solution Coverage | Solution Consistency |
|--------------------|-------------------|----------------------|
| ~HRD<br>SWD<br>CCG | 0.8759            | 0.7518               |

Note. "~" means the negation of a causal factor. In fsQCA, the negation of a specific causal condition indicates the relatively low level of the condition. Solution coverage indicates the extent to which the set of solution terms explains an outcome. It is similar to the variance explained in regression models (Ragin 2008); Solution consistency measures the degree to which the set of solution terms is a subset of membership in an outcome. It is similar to significance in statistical models (Ragin 2008).

 Table 9. Intermediate Solutions.

| Configurations   | Solution Coverage | Solution Consistency |
|--|-------------------|----------------------|
| ~CI * ~HRD * ~EG * ~CCG<br>~CI * ~PIU * SWD * ~CCG<br>~HRD * EG * SWD * ~CCG<br>CI * HRD * ~SWD * CCG<br>CI * ~HRD * ~PIU * ~EG * CCG<br>~HRD * ~PIU * ~EG * SWD * CCG<br>CI * HRD * ~PIU * EG * CCG<br>HRD * PIU * EG * ~SWD * CCG<br>CI * HRD * PIU * ~EG * SWD * ~CCG | 0.7498            | 0.8708               |

Note. "~" means the negation of a causal factor. In fsQCA, the negation of a specific causal condition indicates the relatively low level of the condition. "\*" means logical AND. Solution coverage indicates the extent to which the set of solution terms explains an outcome. It is similar to the variance explained in regression models (Ragin 2008); Solution consistency measures the degree to which the set of solution terms is a subset of membership in an outcome. It is similar to significance in statistical models (Ragin 2008).

A broad look at the results shows strong empirical strength (solution coverage ranging from 75 to 87 percent) and significance (solution consistency ranging from 75 to 87 percent) of configurations of given causal factors. In addition, this paper received identical terms for the complex and intermediate solutions as we did not arbitrarily treat any factors as if they affected an outcome in the analysis.

Complex and intermediate solutions in Tables 7 and 9 suggest nine configurations of governance dimensions leading to a high control of corruption (low corruption) across Indian states. Meanwhile, a parsimonious solution in Table 8 reveals that the three configurations of causal factors link to high control of corruption across Indian states: (1) having a relatively low human resource development dimension score (~HRD) OR (2) having a relatively high social welfare and development dimension score (SWD) OR (3) having a relatively high citizen centric governance dimensions score (CCG). Note here that a parsimonious solution contains the terms that should be included in any representation

of the results. Therefore, we can recognize that the terms derived from a parsimonious solution are profoundly significant to the extent that they are considered core causal factors of an outcome (Ragin 2008).

Our findings indicate that the relationship between governance and the control of corruption is indeed configurational in the sense that a given outcome results from multiple configurations of different governance dimensions. Furthermore, this paper found a remarkable result that a low level of human resource development dimension is rather the core causal factor contributing to a high control of corruption (low corruption) across Indian states. Given that this governance performance is measured through the sub-indicators related to the quality of education (DARPG 2021), our finding contrasts with the early literature's findings and even with the common wisdom that less education leads to more corruption in India (e.g., Drèze and Sen 2002; Charron 2010).

Taking this result at face value, we may understand that the key implication of this result is that Indian states could control corruption more effectively by allowing poor education to fester. However, this interpretation would be premature to be adopted at this point because it will bring bad consequences, given the negative implications of corruption, and there still is scant empirical evidence to prove it.

Alternatively, this paper interprets this notable finding as a result of India's lacking moral education against corruption. More specifically, a human resource development dimension in the GGI captures the degree to which states have capabilities to enhance the quality of education and the strength that enables citizens to access education (DARPG 2021). In this regard, it is important to stress here that the Indian educational system is so technical and job-oriented that money-making is valued more than moral values and ethics, as evidenced by the fact that many scholars and practitioners have advocated the need for bringing moral and value education back into the Indian education system (Lakshimi 2009; Kumar 2012; Jain and Jain 2012; Kapur 2018; Rajguru 2022). In this situation, the less state government efforts there are to increase access to education (i.e., the poor governance in the human resource development dimension), the less people will be likely to be exposed to a flawed Indian education. In this context, people are spontaneously less likely to behave opportunistically for their desired personal rewards with few moral restraints. This paradoxical causal chain eventually can lower the possibility of perceiving corruption as justifiable among citizens, which may lead to a high control of corruption (low corruption).

## 6. Concluding Remarks

India has long suffered from rampant corruption. While many scholars have highlighted the importance of governance in addressing the issue, they have understood the association between governance and corruption simply as linear and symmetrical, as described earlier. However, once it is acknowledged that governance is made up of interconnected multiple dimensions, we can alternatively assume that those dimensions affect the control of corruption in a synergetic manner. This paper, therefore, identified configurations of governance dimensions leading to a high control of corruption (low corruption) across Indian states by applying the fs/QCA approach.

The analysis showed several causal pathways that are contributory to a high control of corruption (low corruption) among Indian states. These findings suggest that the relationship between governance dimensions and the control of corruption is indeed configurational, and those configurations of governance dimensions were sufficient to induce the outcome.

In the meantime, this paper found a remarkable result that a relatively low level of human resource development dimension is somehow a core causal configuration that induces a high control of corruption (low corruption) in the context of India. This finding sharply contrasts with the existing literature's findings and the common wisdom that less education leads to more corruption in India (Drèze and Sen 2002; Charron 2010). Given that a human resource development governance dimension is measured through indicators on states' quality and accessibility of education in the GGI (DARPG 2021), our result

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suggests that a poor educational governance dimension somehow leads to a high control of corruption (low corruption), particularly in the Indian context.

On this outstanding finding, this paper argues that it results from India's problematic educational status. More specifically, the Indian educational system is known to focus on money-making, but less on moral education against corruption (Lakshimi 2009; Kumar 2012; Jain and Jain 2012; Kapur 2018; Rajguru 2022). Accordingly, the less state governments aim to enhance educational quality and accessibility, the more Indian people are less likely to be exposed to excessive materialistic values through incorrect messages in the curriculum; thus, it may prevent people from behaving opportunistically for personal rewards without moral restraints.

Based on this finding, this paper argues that Indian state governments should strive to improve their educational systems by promoting moral education against corruption. According to multiple sources (e.g., Lakshimi 2009; Kumar 2012; Jain and Jain 2012; Kapur 2018; Rajguru 2022), business-like, time-conscious, and materialistic values have pervaded the Indian educational system. With this background, education policymakers and practitioners in India must pay attention to promoting education for public integrity so that they could stop the distorted cycle of poor governance and less corruption in New Delhi.

More specifically, this paper suggests that education for public integrity and anticorruption should be mainstreamed into the school curriculum in India. It includes introducing an education course that incorporates integrity and anti-corruption learning into age-appropriate modules. At the primary–secondary level, for example, these courses are required to be integrated into a core curriculum as a part of existing courses on civics, human rights, or related topics to equip students with the knowledge and skills to be informed, actively committed, and critically reflective about morals. This so-called character education will be fruitful in making students behave more ethically and understand their roles and responsibilities for the public good at an early age (Halstead and Pike 2006).

In addition to pedagogical education on integrity and moral reasoning, participatory and hands-on activities and learning programs are also efficient in empowering Indian students for integrity. As a good example of this practical education, we can refer to the "integrity stores (*Satata* store)" in Bangladesh. These stores are set up by the Anti-Corruption Commission (ACC) in Dhaka and aim to help students learn and practice the principles of integrity from an early age (Dhaka Tribune 2018). These stores have no cashiers, but students are required to put money in a box for the items they will buy. These forms of hands-on and practical activities are considered effective for improving students' moral judgment and adherence to values of ethics and integrity as they make students directly see the outcome of integrity (Munro and Kirya 2020). With this background, this paper suggests that Indian educational practitioners are better to take a two-track strategy based on pedagogical lectures and participatory education programs to empower young students at a primary–secondary level for integrity.

As with the primary and secondary levels, a combination of anti-corruption courses incorporated into school and university curricular and experience-based learning programs are considered effective at the tertiary and higher education level (Munro and Kirya 2020). However, at the tertiary or higher education level, we need to provide students with a more practical reason for paying attention to morals and transparency. For this purpose, this paper recommends that Indian schools and universities offer anti-corruption education as part of compulsory courses for undergraduate and post-graduate degrees so that all students need to take those classes for their graduation. Here, these courses are required to be traditional letter grade-based classes, not pass/fail ones, for active participation and a rigorous evaluation.

Along with these compulsory methods, it is also essential to encourage tertiary-higher education-level students to directly experience and participate in tackling corruption. In this context, internships with anti-corruption agencies, local authorities, and administrative departments can make students directly participate in the anti-corruption process and therefore be fruitful in building their capacity for ethics and integrity. In light of the findings, the following academic implications may be offered. First, this paper may shed light on the configurational relationship between governance dimensions and corruption. While governance is actually a concept that consists of several sub-dimensions, previous studies have paid less attention to its multidimensionality (Kaufmann 2005; Ka 2006; Bhagwan 2007; Quah 2009; Biswas 2013; Tyagi 2019; Zeqiraj et al. 2022). In this context, we may point to the proper way for future studies on the association between governance and corruption by focusing on the interplay of multiple

Second, it may have a meaningful significance in the sense that we focused on the link between governance and corruption at the sub-national level in India. Although a host of studies have paid attention to variations in governance and corruption levels, most were limited to an international comparison. By contrast, this paper performed intranational research across Indian states, maximizing comparability and redressing the balance with the governance-corruption study.

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#### Notes

- Nevertheless, corruption can often play a functional role in providing basic services that are supposed to be available free of cost to ordinary citizens (Wawrosz 2022) in India, where the widespread and equitable provision of basic public services is lacking (Drèze and Sen 2002; Jeong 2019). In practice, India has a paradoxical "weak–strong" state arising from a juxtaposition of its institutional deficiency in providing basic services and resources to ordinary citizens (weak) and its heavy control and regulations over resources (strong) (Jeong 2019). Due to New Delhi's paradoxical state, ordinary citizens cannot easily avail themselves of public services from the government unless they find alternative ways to access it, such as paying bribes. In this context, corruption can play a role in solving the problem of allocating limited resources, specifically in India.
- <sup>2</sup> One may doubt whether India can be classified as one of the federations due to its unitary feature. Nevertheless, this paper posits that New Delhi is indeed a federal state as it contains the essence of federalism, the existence of the distribution of authority over different issue areas across different levels of government (Riker 1964).
- <sup>3</sup> The data for the degree of corruption generally include subjective measures (e.g., perception surveys) and objective ones (e.g., an actual number of corruption offenses).
- <sup>4</sup> Andhra Pradesh, Bihar, Delhi, Gujarat, Karantaka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal.
- <sup>5</sup> While the original state-wise conviction data are available from 1989, the data were too damaged to identify. Thus, this paper presents the data from 1990 to 2020.
- <sup>6</sup> However, what should be noted here is that official conviction data have weaknesses in terms of validity as they can be biased if a state and its agencies, including police, courts, etc., are captured by systemic corruption. Therefore, caution is advised when interpreting analyses that use legal data regarding reported cases.
- <sup>7</sup> Multiple conjunctural causal relations refer to cases in which 'an outcome results from several different configurations of conditions' (Ragin 1987, p. 20).
- <sup>8</sup> A case's mean value can also be used as a cross-over point, and some scholars have actually utilized it in practice. However, since extreme values can easily distort the average value (Han 2020), this paper alternatively employs a median value as a cross-over point.

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