How does Political Risk affect Firm Performance? Evidence from Telecommunications License Cancellations in India[1]

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Abstract

We propose that firms facing adverse political actions divert significant managerial attention from routine operations to responding to the political challenge. As finite managerial attention is spread over a greater number of novel and challenging political activities, rather than the core productive activities, firm performance suffers. Further, if there is a decline in managerial oversight of resources that are centrally managed but utilized across multiple locations, we expect to observe the negative effect on performance in all locations that share the common resources, even if those locations are not directly affected by the political action. Using a natural experiment and a difference-in-differences approach, we find support for our arguments in the context of telecommunications firms in India.

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INTRODUCTION

Extant research has found that firms avoid investing in locations where political risk – or the probability that governments will undertake actions that have an adverse effect on firms - is high (Henisz and Delios, 2001; Holburn and Zelner, 2010; Jensen, 2003). The adverse political actions associated with political risk range from the outright seizure of firms' assets, to forms of creeping expropriation such as discriminatory changes in laws, regulations, and contract terms governing an investment. Such actions are typically viewed as a having a negative effect on firms and firm performance by directly constraining the firm's ability to exploit its assets fully and maximize revenues and returns on investments (Butler and Joaquin, 1998; Kobrin, 1979). For example, outright expropriation by the government deprives the firm of ownership of its assets, thus denying it the right of use. Similarly, *ex post* changes to regulations such as domestic content requirements restrict the firm's scope of action with regard to sourcing inputs.

We depart from this traditional view to propose an alternate pathway through which political risk and adverse political action influences firm performance: through the diversion of managerial attention. We argue that when firms face an adverse political action by government authorities, significant managerial attention is channeled towards responding to the political challenge the firm is facing and away from core productive activities. Building on research linking attention to firm performance (Levinthal and Wu, 2010; Eggers, 2012; Schoar, 2002), we argue that by attending to political challenges firms overextend their finite attention capacity resulting in diminished performance of normal business activities that require ongoing attention and oversight. Moreover, when attention is diverted away from overseeing centrally managed resources that are utilized across multiple locations, performance can diminish in jurisdictions that are not directly affected by the adverse political action.

We investigate this argument empirically by examining the performance of telecommunication firms in India at the region-level between 2010 and 2013. The adverse political action we focus on is a 2012 decision by the Supreme Court of India to cancel 122 licenses that enabled firms to offer wireless telecom services in different regions in India. Our performance metric of interest is technical network service quality. Maintaining network performance is an important source of differentiation in the telecom industry and it requires active managerial attention. In particular, firms need to actively oversee and manage relationships with network services vendors that extend across multiple locations. Thus, we expect that as firms affected by the Supreme Court ruling redirect attention away from operational matters and towards political issues and managing the fallout from the license cancellation, they should experience a drop in network performance.

The decision of the Indian Supreme Court to cancel 122 licenses was unrelated to the telecom firms' initial decision to acquire licenses in specific regions or their performance. Therefore, we exploit the Supreme Court's decision as an exogenous treatment in a natural experimental setting to investigate the effects of adverse political action on firm performance. We employ a difference-in-differences approach whereby we divide telecom firms in India into a treatment group (those affected by the license cancellation in 2012) and a control group (those firms unaffected by the cancellation) and then compare the differences in network service quality performance across the two groups before and after the license cancellation was announced. We do this for the firm (a) across all regions that it operates in, and (b) across regions unaffected by the license cancellation.

Our results indicate that the average technical service quality performance of firms improved from the pre-license cancellation to the post-license cancellation period. However, the

firms affected by the license cancellation displayed lower performance improvement relative to their peers who were unaffected by the cancellation. Further, we find that this pattern holds even in regions where firms were not directly affected by the license cancellation, i.e. the relatively lower performance improvement is evident even when we only consider regions where a firm's license was not cancelled. Given the importance of managerial oversight in ensuring network service quality, we conclude that the Supreme Court's decision had a negative effect on firm performance through the diversion of managerial attention.

BACKGROUND: TELECOM LICENSE CANCELLATION IN INDIA

Since the start of deregulation and liberalization of the telecommunications industry in India in the early 1990s, the sector has witnessed significant growth, especially in wireless cellular services. In order to compete in the Indian wireless sector, firms need to bid for and acquire a license from the central government that entitles them to use spectrum – electromagnetic frequency bands – for commercial services. Licenses are allocated on a regional basis with companies needing to obtain a separate license to operate in each of India's 22 regions. During the early years, from 1994 to 2007, licenses were issued by the government in a staged manner to introduce mobile services, private players, and competition into the market. A new large scale 2G (second generation digital services) license and spectrum allocation round was initiated in 2007 and concluded in 2008 with 122 licenses being issued. By 2010 a total of 15 telecom firms were operating in India offering services to 535 million customers (see Table 1) making India one of the largest and most competitive wireless telecommunications markets in the world.

In February 2012, the telecom sector in India was affected by an adverse political action. Following a ruling by the Indian Supreme Court (SC), the State cancelled all 122 2G licenses

that were allocated in 2008 and ordered a new round of 2G license and spectrum auctions to take place. The Supreme Court ordered the license cancellation due to procedural irregularities in the manner in which the licenses were originally awarded. The Court concluded that the 2008 license allocation procedure had been "wholly arbitrary, capricious and contrary to public interest" (Supreme Court of India, 2012: 86) while the Comptroller and Auditor General noted that changes in the license allocation process implemented by the Ministry of Telecommunications appeared to be designed to favor some firms over others (CAG, 2010: 29) indicating that the license allocation process had been tainted by corruption.

The Court's decision was viewed as a "shock" and it surprised many in the telecom industry (Financial Times, 2012). Many political actors had previously worked behind the scenes to reassure telecom firms that their investments and operations were safe, notwithstanding the case moving through the court system. In particular, the government attempted to regularize some of the inconsistencies without declaring the licenses void. Thus, while the Supreme Court's decision was the result of several years of investigation and litigation, for the firms involved the license cancellation was an unexpected action by the State. Furthermore, as the decision to cancel the licenses was driven by irregularities in the allocation process, it appears to have been unrelated to the firms' initial decisions to acquire those licenses or firms' performance in the affected regions. Therefore, the Supreme Court's decision can be viewed as an external political shock, and the period before and after the decision as a natural experimental setting in which we can investigate the effects of adverse political actions on firm performance.

------- Insert Table 1 About Here ------

THEORY AND HYPOTHESES

The decision of the Indian Supreme Court is an example of government behavior scholars have typically associated with "political risk". While the Supreme Court's decision appears to have been the result of enforcement of the rule of law by rendering a corrupted licensing process void, it bears the distinct characteristics of adverse political action: the decision emanates from the institutions of government; it takes place after firms have made investments and committed resources (Vernon 1971); and it has potentially serious and negative consequences for the firms that are implicated. Without a license for a given region, telecom firms can no longer continue to offer services in that regions and thus the Supreme Court order amounts to an *ex post* denial of the right to operate after firms have already sunk costs and established operations.

Prior research has centered on the effect of political risk on firms' investment location and entry mode decisions as well as on unpacking how firms can manage their exposure to political risk effectively (Henisz & Delios, 2001; Holburn & Zelner, 2010; Henisz, Dorobantu & Nartey, 2014). Our focus here is instead on the effect of adverse political events after they occur (Blake & Moschieri, 2016), and specifically, their effects on *firm performance*. In this regard, scholars have typically linked adverse political actions to firm performance through their direct impact on the firm's ability to exploit its assets fully and maximize cash flows and returns (Kobrin, 1979). For example, governments have been viewed as directly impeding profit opportunities by raising entry barriers, providing rivals with favorable regulations, opportunistically expropriating the assets of a firm, or changing regulations to penalize particular operations (see, for example, Farge and Wells, 1982; Henisz, 2000; Henisz and Zelner, 2005; Click, 2005; Garcia-Canal and Guillen, 2008).

In this study we develop an alternate and complementary pathway through which adverse political action can affect performance. We propose that in the wake of adverse political events, managerial attention is redirected from dealing with operational to political factors resulting in a decline in firm performance. In developing this argument below, we limit our analysis to the effect of adverse political actions bearing two characteristics. First, we focus on political actions that are unanticipated *ex ante*. This means that the action was not imminent prior to the firm's investment in projects that were ultimately affected by the action. In addition, it means that developments surrounding the political action occur rapidly such that firms are unable to prepare contingency plans in response. Second, we are interested in adverse political actions that have a potentially large and negative effect on the firm's operations, survival, or profitability.[2]

Adverse Political Actions: New Demands on Managerial Attention

Attention can be understood as the "noticing, encoding, interpreting, and focusing of time and effort" on issues (problems, opportunities and threats) and responses to those issues (Ocasio, 1997: 189). One of the most enduring insights of research on attention in firms is that decision-makers within an organization are limited in their attention capacity (e.g. Simon, 1947; Cyert and March, 1992; Barnett, 2008; Hansen and Haas, 2001; Corner et al., 1994). In many situations individuals are unable to process all of the information that is available to them and therefore decision-makers are selective in where they focus their attention at a specific moment in time (Schneider and Shiffrin, 1977). The selectivity of attention is important because perception and

[2] Beyond the Indian telecom context, examples of such actions include the nationalization of the Spanish oil company Repsol-YPF by Argentina in 2012 (BBC 2012), the State's cancellation of an airport construction contact for GMR – an Indian infrastructure company –in the Maldives (Reuters, 2012), and the introduction of capital controls in Venezuela leading to a $2.4 billion hit to P&G's bottom line (Ng and Chen, 2015).

action are more likely to occur towards issues that are the focus of managerial attention than those that are not (Ocasio, 1997; Barnett, 2008; Eggers and Kaplan, 2013).

While there are a variety of situational and organizational factors that can influence where managers choose to focus their attention at a given time (see, for example, Barr et al., 1992; Hansen and Haas, 2001; Greve, 2008; Ocasio, 2011; Gavetti et al., 2012; Eggers and Kaplan, 2013), our focus in this study is on the impact of a specific change in the external environment of the firm: an adverse political action by government authorities that seriously impinges on the firm's ability to operate profitability. We argue that when such an event occurs, it will capture a significant amount of managerial attention. This occurs for three reasons. First, adverse political actions are discreet events that are direct, high profile and unusual and therefore easily noticeable and intrinsically interesting to managers. Government actions like the cancellation of 2G licenses in India are thus unlikely to be missed by the firm's managers who may otherwise ignore more gradual or peripheral changes in the firm's environment. Furthermore, managers are likely to dedicate more of their attention towards addressing adverse political action due to its novelty. Research on diversification has found evidence that managerial resources, such as attention, are more likely to be devoted to new segments, projects and products and this may be in part because they are more exciting (McNamara and Bromiley, 1997; Roberts & McEvily 2004); what Schoar (2002: 2393) refers to as the "new toy effect".

Second, managerial attention is often allocated according to a hierarchy of objectives whereby low priority goals are only attended to after higher priority objectives are achieved (Greve, 2008). If an adverse political action challenges the firm's ability to achieve its primary business objectives and has negative implications for the firm's performance, it follows that responding to it and mitigating its impact will become the firm's overriding priority and a key

focus of attention at multiple managerial levels. Thus, for example, India's decision to cancel licenses and demand they be re-auctioned became an overriding concern for the affected firms as it threw into question their ability to operate at all in some or all of the Indian regions where they were present.

The third reason for attention-capture is that events associated with adverse political action are unusual or uncommon; hence, managers must dedicate greater attention and effort towards understanding and responding to them. In a landmark study, Shiffrin and Schneider (1977) draw an important distinction between automatic and controlled attention processing. While automatic processing occurs in a routinized and unthinking manner to experienced stimuli (Ocasio, 1997; Levinthal and Rerup, 2006), controlled processing occurs when individuals are confronted with new information or novel situations that require adaptation and it requires individuals to devote greater attention (Vogus and Welbourn, 2003; Swanson and Ramiller, 2004; Corner et al., 1994). The unusual and often idiosyncratic nature of adverse political actions means that managers will typically lack experience and practice in responding to and managing them. Consequently, defaulting to established routines and automatic processing is seldom an option. Even when managers understand their political environment well, they often do not possess comprehensive planned responses to specific incidents of adverse political action (Herbane et al., 2004). Therefore, following adverse political action, managers will need to be actively focused on understanding and interpreting the event and finding the appropriate response (Moschieri, 2016). In this, managerial attention will turn to a range of possible activities such as organizing and participating in meetings to discuss how the firm should respond to the political action, intensive lobbying of political actors to try and persuade the government to alter its position, and engaging other stakeholders that can help mediate between

the firm and the governments' positions. The extraordinary circumstances will also require managers to dedicate more attention to communications with stakeholders such as the media, suppliers, employees and investors to understand their concerns as well as communicate what actions the firm will be taking to cope with the political shifts it is experiencing. Managers may also be required to develop new business plans and practices to respond operationally to the new political status quo. While some of these activities are unlikely to be completely foreign to managers the need to perform them all in the same time frame while quickly adapting to the specific and often unique conditions created by a given adverse political action mean a significant departure from business as usual, which in turn means substantial demands on the attention of decision-makers.

Recent research and anecdotal evidence on how firms respond to challenges in their nonmarket environment support our contention that managerial time and attention are likely to be drawn towards coping with adverse political actions. For example, in a study of 50 conflicts involving mining companies and communities, Davis and Franks (2014) find that staff time, including that of senior management and CEOs, is the single most often overlooked cost in managing such conflicts. They note that a senior manager operating in a challenging context estimated spending only 1/3 of his time on actually doing his job with the rest spent on managing conflicts with local communities. Similarly, Wells and Ahmed (2007) write about managerial actions in the case of a power project dispute in Indonesia. When the US investor-led Karaha Bodas geo-thermal power project was cancelled by the Indonesian government in 1997, the subsequent months saw significant investment of time and attention of US and local managers in attempts to resolve the crisis. In addition to lobbying the Indonesian government to reinstate the project, the firms also lobbied in Washington DC for US diplomatic intervention. In addition,

they evaluated steps for collecting political risk insurance, filed a claim for damages at international arbitration and formulated exit plans.

Anecdotal evidence regarding the effects of the Indian Supreme Court order mirrors these other examples regarding the new attention demands that are made by adverse political events. For example, when Telenor – a Norwegian telecommunications company – found its licenses to operate in India cancelled in 2012, managing the fallout of the cancellation occupied significant amounts of its staff's time and attention in the weeks and months that followed (The Hindu, 2012; NDTV Profit, 2012; Times of India, 2012; NetworkWorld, 2012; Economic Times, 2012). Managers' attention was channeled in a number of new directions as the company marshaled diplomatic support from their home government, negotiated with the Indian government over re-licensing fees, claimed damages from the Indian government through international arbitration, sued the country's telecommunications regulator in the highest court, dissolved a joint venture partnership and sought compensation from its Indian partners.

Attention Diversion and Performance

The flipside of managerial focus being directed towards addressing adverse political actions is that other aspects of the firm's operations and activities are likely to receive less attention. Fisman and Svensson (2001), find, for example, that constant engagement with government officials and bureaucrats (which is likely to occur in the aftermath of an adverse political action) results in less time spent attending to normal business activities. This is because not only is the attention capacity of individual managers finite, but so is the firm's stock of managers.[3] Thus, any decision to (re)-allocate managerial attention carries with it opportunity costs, which extant

[3] Penrose (1959) argues that external consultants or extra staff cannot easily replicate the knowledge and experience that incumbent managers possess in the short run and thus there is a limit to what managerial teams can do.

research suggests can negatively impact a firm's performance.[4] For example, Levinthal and Wu (2010) argue that managerial time and expertise is a capability that is not "scale-free"; diversifying firms may experience lower average return since managerial attention is spread across a greater number of activities and segments. Similarly, Eggers (2012) argues that when managers are required to divide attention across product development in different domains, poorer quality products result. Further, managers seldom allocate their attention across activities evenly. Therefore, in situations where new information and activities attract a disproportionately large amount of attention, poor performance is most likely to result in the execution of older activities from which attention has been drawn away. Schoar (2002) and Roberts & McEvily (2004), for example, find that new factories and new products outperform older ones partly because managerial resources are channeled towards newer operations. Similarly, during periods of discontinuous change that impose new demands on managers' attention, the performance of routine activities suffers (with respect to the rate of latent errors) (Ramanujam 2003).

We similarly argue that since responding to adverse political actions is likely to attract a significant amount of managerial attention, attention will be diverted away from gathering, processing and acting upon information that is relevant to the normal operations of the firm causing the performance of those operations to suffer. Given our focus on the wireless telecommunications industry in India, we center our analysis on the delivery of *network service quality* as our key performance metric. Network performance has traditionally been a key differentiator among telecom firms and has therefore commanded significant investment of resources. However, in India, telecom firms (e.g. Bharti Airtel, Vodafone, BSNL) have moved to

[4] One could argue that this does not apply if the firm has managerial attention slack. However, for opportunity costs not to exhibit themselves in this context the degree of slack would have to be significant given that adverse political actions are likely to make significant demands on managers' attention. We believe this to be unlikely in most instances.

a "managed services" model in which they outsource network operations to service providers or *vendors* (e.g. Nokia, Ericsson, Alcatel-Lucent).[5] Under this model, telecom firms' managerial role has shifted from planning, designing, building, and operating the network to exercising oversight of, and managing the relationship with network vendors to ensure high levels of network performance. This role requires ongoing managerial attention and intervention from telecom firms who must constantly monitor network performance to ensure that performance benchmarks, established in service level agreements (SLAs) with vendors, are met. Furthermore, parts of the network may be owned and operated by different vendors who may at various times be competing and partnering with each other. Hence, ongoing relationship management, trust building, and careful selection of vendors are crucial for successful operations. Telecom firms also need to provide pertinent strategic and tactical information to allow vendors to prepare and accommodate expected changes and requirements (TM Forum Insights, 2009). Past research has found that such inter-organizational communication on quality, time, and customer responsiveness between partners is important to ensuring performance (Paulraj, Lado and Chen, 2008) and alliances are more successful when partners exchange timely, accurate, and relevant information (Chen and Paulraj, 2004). However, when managerial attention is redirected to resolving adverse political actions such as the Supreme Court's cancellation of 2G licenses, the regular monitoring of network operations is likely to be lower, oversight of vendors is likely to decline and firms may fail to provide critical information and feedback to vendors in a timely manner. Consequently, network service quality performance will likely suffer.

A further implication of our argument linking adverse political action, attention diversion and performance is that firms' may experience a decline in performance in locations other than

[5] http://www.tonsetelecom.com/sites/default/files/download_page/14/tonse_telecom_managed_services_scenario_in_india_18477.pdf, accessed 9 July 2015

those that that are directly affected by the political action. This is likely to occur when diversion of managerial attention leads to a decline in managerial oversight of resources that are centrally managed but utilized across multiple locations including locations that are not directly affected by the adverse political action. One might conceive of such shared assets and resources as those that afford the firm economies of scope such that they are managed centrally but benefit the firm's operations in multiple locations. The classical theory of international expansion, for example, notes the importance of leveraging common resources across the firm's locations of operation (Dunning, 2001). If an adverse political action causes the firm to divert attention away from the management of common assets, the negative effects on performance should be felt in all jurisdictions where those assets contribute to the firm's activities.

An example of a common asset or resource that might be affected by political events in this way is a firm's relationship with key partners such as suppliers and service providers. Firms often maintain a relationship with the same partners across multiple jurisdictions but manage a key portion of the relationship centrally. This dynamic is present in the relationships between telecom firms and network services vendors in India, which often stretch across multiple regions. For example, Nokia provides network services to 10 telecom firms across India's 22 regions.[6] Thus, a telecom firm's relationship with a vendor can be viewed as a common, multi-location resource or asset that must be managed to ensure high network performance. It follows that, the diversion of managerial attention away from monitoring, coordination and information-sharing with vendors for firms affected by the Supreme Court's decision to cancel 2G licenses is likely to result in diminished network performance across multiple locations, including those locations in which the affected firms did not have any licenses cancelled.

[6] http://in.networks.nokia.com/in-india/nokia-networks-in-india

Thus, to summarize, we argue that in general when a firm experiences an adverse political action, managerial attention is diverted towards responding to the political challenge, which has a negative impact on the firm's performance of its normal operations and activities. This effect on performance can extend beyond those jurisdictions directly affected by the action to other locations when attention is diverted away from the management of multi-location assets or resources. When this logic is applied to the cancellation of 2G licenses in India, we expect that following the Supreme Court's decision, affected firms will experience a decline in network performance, including in regions where their licenses were not cancelled.

Hypothesis 1: The cancellation of 2G licenses in India negatively influences affected firms' overall network service quality performance.

Hypothesis 2: The cancellation of 2G licenses in India negatively influences affected firms' network service quality performance in regions where their licenses were not cancelled.

EMPIRICAL ANALYSIS

Methods

A methodological advantage of investigating the effects of the Indian 2G license cancellation is that we can treat the Supreme Court's decision as an exogenous treatment in a natural experimental setting. As noted above, the Court's decision came as a surprise to the telecom firms involved and it was unrelated to the firms' initial decision to acquire licenses and invest in certain regions in 2008, or their performance. In cancelling *all* 122 licenses granted in 2008, the Court did not discriminate across firms or regions. Furthermore, the specific regions and

spectrum involved in the 2008 auction (and subsequent license cancellation) were determined by the Ministry of Defense based on what spectrum they felt could be made available for non-military/commercial purposes. The Ministry of Defense's decision to release spectrum in a particular region was not influenced by market factors but instead by the amount of spectrum already distributed as well as the region's importance to national security (Sukhtankar, 2015). Thus, we divide the telecom firms operating in India into treatment and control groups as follows: those who had licenses cancelled in the Supreme Court order (treatment) and those who did not (control). Table 2 indicates the firms and the share of 2G operations affected by the Court's decision.

---- Insert Table 2 About Here ----

One might suggest that the treatment and control groups differ significantly in that the former were willing to participate in a corrupt license distribution process and that this willingness may be potentially correlated with firm performance. This is unlikely to be the case. We acknowledge that it is possible that some firms were complicit in the corrupted license allocation process in 2008, however these are most likely to have been those firms that the Ministry of Telecommunications allowed to acquire licenses even though they suspiciously failed to meet the Ministry's own requirements to bid for spectrum. Many of these unqualified license recipients quickly sold their licenses on to qualified operators. Indeed, as many as two thirds of the licenses awarded in 2008 ended up being transferred to firms other than the original licensees through a series of transactions, mergers, acquisitions and sales. Therefore, those firms that may have been complicit in the corrupt nature of the licensing process were typically not among those that held the licenses in 2012 when the Supreme Court order was issued. Thus, there is unlikely to be a systematic difference between the treatment and control groups in terms

of their acquisition of licenses through corrupt means. However, some underlying differences do exist between the treatment and control groups. Most notably, on average the firms in the treatment group were newer players in the industry; they did not have prior operations in the country. Foreign stakes in these firms were also higher. For example, Norway's Telenor, Russia's Sistema, and UAE's Etisalat all entered the country by acquiring licenses from original awardees in the 2008 round.

These differences notwithstanding, the treatment and control groups exhibit generally similar performance trends prior to the Supreme Court's decision indicating that our context lends itself to a difference-in-differences analysis. For example, Figure 1 shows the trends for the two groups on one network performance parameter – the ratio of calls terminated unwillingly to all call attempts (or *call drop*). Panel A compares the average performance of the treatment and control groups in the region of Mumbai while Panel B compares the performance of two specific firms – Tata Teleservices (treatment group) and BSNL (control group) – possessing similar subscriber bases and national footprint in the Himachal Pradesh region. In both panels, the pre-treatment trends (the area to the left of the solid vertical line) for both groups are similar indicating that a difference-in-differences specification is appropriate.

---- Insert Figure 1 About Here ----

Our unit of analysis is the firm-region-quarter making our outcome variable quarterly network performance at the regional level. We pool observations into pre- and post- Supreme Court order periods to mimic a simple two period analysis as follows:

$$Y_{i,r,t} = \alpha + \beta * Post\ SC\ order_{i,r,t} + \gamma * Treatment_{i,r,t} + \delta\ (Post\ SC\ order * Treatment\ )_{i,r,t} + \eta \ln(subscribers)_{i,r,t} + \varepsilon_{i,r,t}$$

In our first set of analyses, we consider how the performance of the treatment and control group changes across *all* regions in India after the Supreme Court issued its order to cancel the licenses. Including firm-regions affected by the Supreme Court decision is possible because the cancellation of licenses was not implemented immediately after the Court's decision. Instead firms were allowed to continue operations under "cancelled" licenses for several months after the Supreme Court order until a new auction of spectrum could take place. Therefore, we are able to observe firms' performance in regions where their licenses were cancelled by the Supreme Court order after the order was given. In our second set of analyses we exclude firm-regions that were directly impacted by the Supreme Court order, thereby comparing differences in performance before and after the Supreme Court decision between the two groups among regions where the firms are not directly affected by the adverse political action. We restrict our analysis to the period 2010-2012. Although the 2G licenses were awarded in 2008, some firms subsequently bid for and won 3G licenses in an auction held in 2010. Furthermore, the cancelled licenses were auctioned again in November 2012. Thus, to prevent these auctions from influencing our results, we examine firm performance during the four quarters of 2010 and 2011, and the first three quarters of 2012.

Variables & Data

Dependent variable

Our outcome of interest is firm performance and specifically network service quality. We use three measures of technical network performance that are reported at the firm-region level for each quarter. These measures are described in Table 3 and data are obtained from the Telecom Regulatory Authority of India (TRAI) quarterly reports of telecom services performance

indicators. Higher values indicate better network performance for the *call setup success* and *call good* measures while the opposite holds for the *call drop* measure. While the average values of these measures are generally within the benchmark range established by the TRAI, there is significant variation across firm-region-quarters.

---- Insert Table 3 About Here ----

Independent variables

We include a dummy *Post SC order* which takes the value of 1 for the time period after the Supreme Court license cancellation and 0 otherwise. This variable is coded 1 for about 26 percent of the sample. A second dummy variable, *Treatment,* is included to indicate the treatment group and takes the value 1 for the eight firms that found their licenses cancelled by the Supreme Court order. Approximately 50 percent of the sample has a value of 1 for this variable. Finally, to investigate the effect being in the treatment group after the Supreme Court's decision we include the interaction term between *Post SC order* and *Treatment.*

Control variables

We control for the number of subscribers (logged) for each firm-region-quarter as the load on the network may influence the network performance parameters. In addition, we include firm-region dummies in some of our analyses to account for firm and region specific factors that do not vary during the period of our analysis, such as whether a particular firm offers 3G services in a region, the amount of spectrum available to the firm in the region or the vendor(s) a firm collaborates with in the region.

Results

The results for our first set of analyses including all firm and region combinations are reported in Table 4. In all models we employ OLS regression with robust standard errors while firm-region dummies are included in Models 4-6. Our main variable of interest is the interaction term between the period after the Supreme Court order (*Post SC order*) and *Treatment*. In all models, this variable is statistically significant at conventional levels and with the expected sign. However, to fully interpret the effects of the Supreme Court's license cancellation we estimate the marginal effects of being part of the group of firms affected by the cancellation (*Treatment*). These marginal effects are reported in Table 5. The middle column indicates that before the Supreme Court decision, firms in the treatment group performed better, on average, than those in the control group across all three indicators of performance (recall that lower values indicate stronger performance for *call drop*). However, following the Supreme Court's decision (right-hand column), being part of the treatment group does not lead to statistically significantly superior performance relative to firms in the control group with respect to the connection maintenance measures of *call drop* and *call good*. For *call setup success,* firms in the treatment group still perform relatively better following the Supreme Court order; however the margin of difference drops considerably. In other words, prior to the Supreme Court order, the treatment group's call set up success rate was 0.38 percentage points higher than that of the control group but after the Supreme court order, this figure was only 0.17 percentage points, a 55 percent decline in the treatment group's advantage. While the marginal effects may appear to be small, they are substantively significant. The TRAI expects firms to exceed 95 percent for *call setup success* and *call good,* while the ratio of calls dropped should be less than two percent (see Table 3). Thus, in practice there is a high floor on these performance metrics and a generally narrow

range within which performance is expected to vary (e.g. between 95 and 100 percent for *call good*). Within the context of this small range, apparently small changes and differences in performance are in fact significant.

---- Insert Tables 4 And 5 About Here ----

Overall, what these results indicate is that experiencing an adverse political action such as a license cancellation has a negative impact on a firm's operational performance and that this negative impact can affect even strong performers. What transpired following the Supreme Court's decision in India was not that those firms directly implicated by the decision began to perform worse than those that were not affected by the decision; rather their earlier performance advantage over the unaffected firms was eroded significantly.

In order to examine Hypothesis 2, in our second set of analyses we restrict the sample to those firm-regions that are not affected by the Supreme Court order. Table 6 presents results when we re-estimate the models from Table 4 excluding firm-regions affected by the Supreme Court order directly. Consistent with the results in Table 4, the coefficient of the interaction term between *Post SC order* and *Treatment* is significant in all models with the expected sign. Table 7 reports the marginal effects of being part of the group of firms that experienced the treatment (license cancellations) for each of our three measures of performance, when restricting our sample to the firm-regions unaffected by the Supreme Court order. The pattern observed in Table 5 also emerges in Table 7. Following the Supreme Court order, those firms who had their licenses cancelled by the Court experienced a decline in quality of network performance relative to those firms that experienced no cancellations, and this relative decline was present in regions where their licenses were *not* cancelled by the Court.

---- Insert Tables 6 And 7 About Here ----

As a robustness test we repeat the above analyses employing a more standard panel estimation strategy instead of a difference-in-differences approach. In this analysis the main independent variable is *Affected firm post SC order* and takes the value of 1 in time periods following the Supreme Court's decision for firms who had some or all of their licenses cancelled. We include firm-region fixed effects, time dummies and cluster robust standard errors. The results are reported in the Appendix (Tables A1 and A2) and they are generally consistent with the results reported in Tables 4 and 6. Thus, overall we find strong evidence of the license cancellation having a negative impact on firm performance. This relationship is present when we examine all firms in all regions in India and when we limit our analysis to firm-region combinations that were not directly affected by the Supreme Court's decision.

Alternate explanations

While our theoretical argument linking adverse political events, and the Supreme Court's license cancellation in particular, to diminished performance stressed the role of attention diversion as the key causal mechanism, we are unable to measure managerial attention directly in our empirical analysis. Prior research has relied on annual reports or other public documents to measure managerial attention, however our context is less suited to using such measures, given the short time period we study and our focus on firms' internal activities. Nonetheless, as our earlier discussion of Telenor indicates, anecdotal evidence provides support for our proposed mechanism. In addition, our measures of performance capture technical service quality, which is influenced *directly* by managerial actions. Thus, it is highly likely that the changes in performance we observe reflect changes in managerial attention and oversight. Finally, our finding that relative performance in regions not directly affected by the license cancellation

declines for firms implicated in the Supreme Court's decision provides additional validation of our causal mechanism as this result is consistent with the attention diversion mechanism that we present. To further increase our confidence that our results are driven by our central theoretical mechanism, we next evaluate and rule out several alternate mechanisms that may lead to the same empirical relationship we observe.

Anticipation of policy diffusion

Extant research suggests that as firms anticipate the potential for policies to diffuse across locations, they alter their strategic behavior and decisions (Fremeth & Shaver, 2014; Blake 2015). If firms anticipate that adverse political actions will diffuse into new locations, they may refrain from investing in the maintenance of their operations in these locations leading to lower performance. Thus, rather than diversion of managerial attention, the negative performance effects we observe in firm-regions not directly affected by the Supreme Court's decision may be driven by a conscious decision of the firms to cut back on effort and resources in those locations.

This explanation is, however, very unlikely to have been the case in the context of the telecom license cancellations in India in 2012. In all respects, the cancellation of licenses was a one-time event; the irregularities in the license allocation process that resulted in their cancellation was relatively idiosyncratic and no other auctions or license distributions were under the kind of scrutiny or investigation that the 2008 round witnessed. Thus, firms had little reason to anticipate that their licenses in other regions in India would also soon be cancelled. Further, underinvestment of resources in network maintenance is also a doubtful explanation *unless it is a result of the attention diversion* we argue takes place following the Supreme Court order. While network maintenance directly affects our performance metrics of interest, by virtue

of service level agreements (SLAs) between vendors and telecom firms, responsibility for investment in network maintenance and operation falls on the former who must meet the expectations and benchmarks set in the SLA. These SLAs are generally established as long-term multi-year contracts (e.g Nokia and Bharti Airtel had a 4-year contract) and are unlikely to have been altered in the few months after the Supreme Court order, our sample time period. Thus, the SLAs, by establishing clear performance benchmarks and expectations of the vendors, "lock in" the necessary investment and resources for network maintenance. Underinvestment is therefore only likely to occur if the vendors are shirking their SLA commitments. This is most likely to happen if telecom operators' managers are not dedicating sufficient attention to monitoring their relationship with the vendor and its fulfillment of the SLA. Thus, to the extent that underinvestment takes place, it does so because managerial attention has been diverted, which is consistent with our theoretical argument.

Spillover of negative consumer expectations

Another alternative explanation for our findings is that the performance effects we observe are driven by negative consumer expectations spilling over across regions. For instance, a consumer in an unaffected region might anticipate poor telecom service because of the troubles facing the firm in other regions. Given the low switching costs for consumers in this industry, affected firms may thus lose customers even in unaffected regions. However, our models control for the number of subscribers in each firm-region. Further, the technical performance measures used in the analysis are unlikely to be negatively affected by consumers switching to alternative operators.

Technical barriers for improvement

Our results indicate that when comparing the pre- and post- Supreme Court decision periods, the firms affected by the decision (treatment group) displayed lower performance improvement relative to their unaffected peers (control group). Given that the average performance of the affected firms was higher than that of the unaffected firms, an alternate explanation might be that the affected firms were constrained in the improvement of performance metrics by technological barriers. In other words, the *ex ante* higher performing firms could not improve their performance as much as their unaffected peers (control group) because they were closer to the technological frontier. However, even if this were true, to explain our findings from a difference-in-differences analysis would require that reaching the technological barrier was somehow correlated with the Supreme Court's decision. Since it was political and legal factors that led to the Supreme Court order, rather than performance metrics of the affected firms, this explanation is unlikely in our context.

CONCLUSION

This study examined the impact of an adverse political action on firm performance. We proposed that following an action by government authorities that has negative implications for a firm's operations, the firm diverts managerial attention away from core business activities, which results in a decline in performance. We argued further that when the diversion of managerial attention leads to a decline in managerial oversight of resources that are centrally managed but utilized across multiple locations, the negative impact on performance can occur even in locations that are not directly affected by the adverse political action but nonetheless share resources with the affected locations.

We evaluated this proposition in the context of the relative operational performance of telecom firms in India following a decision by the country's Supreme Court to cancel 122 2G licenses in 2012. We found that following the Court's decision, firms that had licenses cancelled experienced a decline in their quality of network service relative to those firms that experienced no cancellations. Moreover, we found that this relationship held for all firm-region combinations and when we confined our analysis to firm-regions that were not directly affected by the Supreme Court's decision. Not only do the results provide support for the argument that adverse political action can harm performance through the diversion of managerial attention, but they also suggest that political risk can follow the firm and have a negative impact on firm performance across multiple locations.

The argument and findings we present in this paper extend our understanding of the impact of political risk in three important ways. First, although a range of studies have identified the risk of adverse political actions as a significant factor in international expansion, extant research on managing and responding to such risk has focused primarily on entry strategies of multinational firms such as location choice, entry mode, or asset pricing (e.g. Henisz & Delios, 2001; Jensen, 2003; Jandhyala and Weiner, 2014). In contrast, few studies have sought to theorize and empirically evaluate the managerial and performance effects of adverse political actions when they occur. Thus, by focusing our analysis directly on the impact of adverse political actions on firm performance, this paper sheds new light on the effects of political risk.

Second, by focusing on the allocation of managerial resources and attention, our paper highlights a relatively underexplored theoretical pathway through which political risk, and adverse political actions in particular, can influence firm performance. Our argument and findings suggest that when seeking to assess the impact of political actions on performance,

scholars should not just consider the action itself and the direct constraints it places on firms' abilities to maximize revenues and returns on their investments, but also the potential for managerial attention to be diverted. One implication of this is that the performance costs of adverse political action may begin to exhibit themselves even before an action is fully implemented. For example, the announcement or proposal of a negative action by the government may be enough to divert managers' attention significantly towards managing the political challenge facing the firm thus resulting in a negative impact on performance. Moreover, factors identified in the extant literature such as a firm's stock of political capabilities (Holburn & Zelner 2010), or the hospitability of political markets (Bonardi, Hillman and Keim 2005) are likely to shape the amount of managerial effort and attention that firms will need to divert away from core business activities towards crafting political strategies in response to adverse political actions. Unfortunately, the empirical sample in this study is too limited to probe further into the potential moderating effects of political capabilities and political market conditions on the relationship between adverse political actions and performance, however it is a potentially important and fruitful extension of our analysis for future research.

Third, we show that the effects of adverse political action on performance can extend beyond those locations that are directly affected by the action itself. This contrasts with much extant political risk literature that views political risk as a location-specific phenomenon such that national or subnational political boundaries demarcate risks and their effects on firm strategy, performance and risk assessment (Garcia-Canal & Guillen, 2008; Jandhyala, 2013; Berry 2006; Meyer & Nguyen, 2005). Our study takes a step towards explaining the cross-locational implications of political risk and suggests that when adverse political actions occur in one location, their impact on performance can follow the firm into other locations. Further, the

assumption implicit in much of the literature is that multiple location firms have an advantage in addressing political risks; their greater mobility and flexibility provide an advantage in bargaining situations with host governments. However, our results suggest that the advantages of multiple locations may be attenuated when adverse political actions channel managerial attention away from multi-location resources and assets, causing firms to be less able to geographically contain the effects of political events on their performance.

The managerial implications of our findings are twofold. First, firms need to be circumspect when investing in high political risk locations as when they encounter serious government actions that harm their interests the effects may not be localized. Moreover, even the threat of adverse political action might force firms to channel managerial attention away from core operations leading to diminished performance. Second, firms need to be sensitive to the managerial strain and consequent effects on performance that may materialize in the wake of political challenges. Managers need to take steps to ensure that by addressing political difficulties in one location they are not reallocating too many resources away from functions that ensure performance is maintained in other jurisdictions that are not encountering such difficulties.

One step that firms can take, and have taken, is to develop dedicated divisions to handle political relations, which can insulate managers in operational divisions from having to pay attention to political challenges. The extent to which "corporate affairs" units and similar divisions can limit attention diversion is likely to be a function of the scale and scope of the specific political challenge a firm is facing We have stressed that our arguments and analysis apply particularly to political actions that have a potentially large negative effect on the firm and this is the case in our chosen context - the Indian 2G license cancellation. The decision by the

Indian Supreme Court was not only a high-profile move, but also one that threatened the survival of the firms in this market. Facing such a challenge, an "all-hands-on-deck" approach that diverts managerial attention at all levels of the organization is likely. However, when political actions are perceived to have smaller effects, less demands on managerial attention are likely to result and consequently, routine operations may not be negatively affected to such a degree and the negative spillover effects vis-à-vis performance across locations may be smaller. Identifying the scope and types of political actions that divert more/less managerial attention from core operations is an important subject for future work.

Although the likelihood of adverse political action in a location has been shown to discourage investment (Wei, 2000; Jensen, 2003; Jandhyala, 2013), considerations other than political risk often lead firms to make large investments in countries where the risk of adverse political action are significant (Holburn & Zelner, 2010). For example, Soule et al (2014) note that as firms compete ever more vigorously for resources, efficiency gains and market opportunities around the world, they invest in high political risk countries in growing numbers. Moreover, firms are often attracted to higher risk countries by incentives offered by host governments. Thus, firms increasingly find themselves operating in high-risk political environments and are more likely to experience adverse political actions. Therefore, understanding how political risk can impact investments and performance post-entry is crucial and this paper takes a number of steps down towards further developing this understanding.

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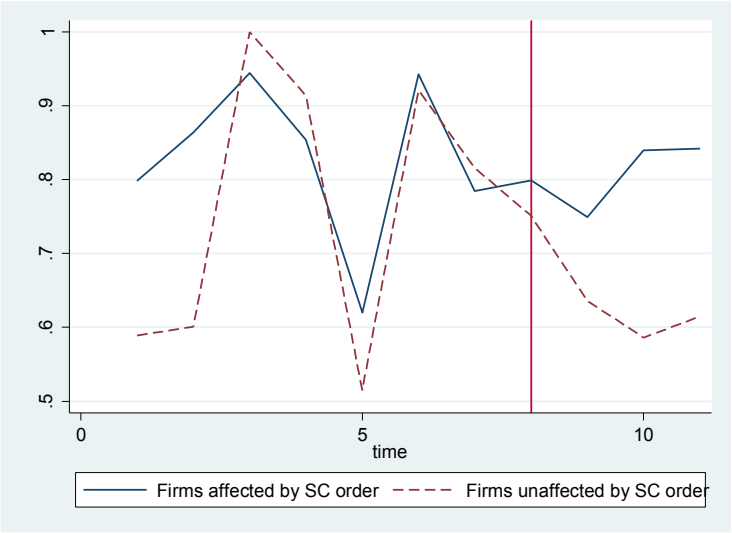
Table 1: Telecom firms with wireless services in India, June 2010

	Firm	Subscribers (in millions)	# regions with operations
1	Aircel	41	19
2	BSNL	72	20
3	Bharti Airtel	137	22
4	Etisalat DB Telecom	0.01	15
5	IDEA (Spice)	68	22
6	Loop Telecom	2	1
7	MTNL	9	2
8	Quadrant	0.6	1
9	Reliance	111	22
10	STel	1.3	3
11	Shyam (Sistema)	5	12
12	Tata Teleservices	72	22
13	Uninor (Telewings)	6	13
14	Videocon	1	5
15	Vodafone	10	22
	Total	535	

Note: A firm may have licenses for more regions than in which it operates.

Panel A – Comparison of treatment and control groups' performance in the Mumbai region



Panel B - Comparison of Tata (affected firm) and BSNL (unaffected firm) in Himachal Pradesh

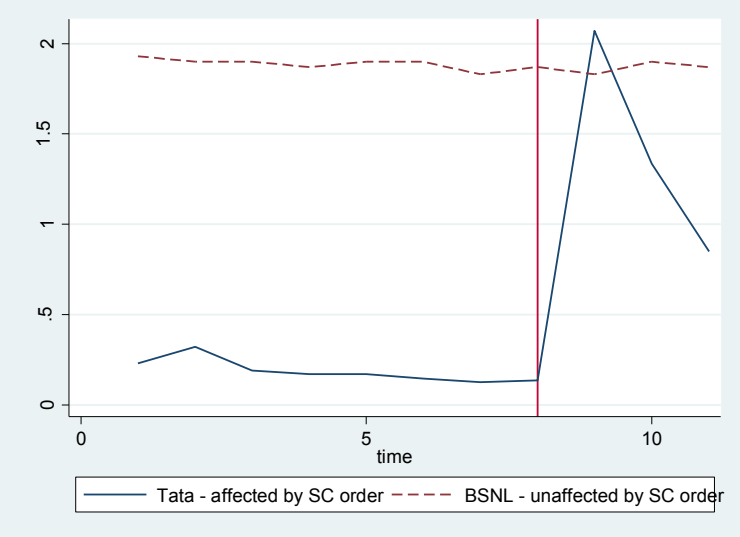


Figure 1 – Performance of treatment and control groups

Table 2: Impact of the 2012 Supreme Court order on Telecom firms

	Firm	# licenses cancelled	% of 2G footprint cancelled
1	Aircel	-	-
2	BSNL	-	-
3	Bharti Airtel	-	-
4	Etisalat DB Telecom	15	100
5	IDEA (Spice)	13	31*
6	Loop Telecom	21	90
7	MTNL	-	-
8	Quadrant	-	-
9	Reliance	-	-
10	STel	6	100
11	Shyam (Sistema)	21	95
12	Tata Teleservices	3	14
13	Uninor (Telewings)	22	100
14	Videocon	21	100
15	Vodafone	-	-
	Total	122	

*Spice lost 49%, acquired by IDEA
Source: IBN (2012), Economist (2012)

Table 3: Technical performance metrics of firms used in analysis

Variable	Description	Benchmark value (TRAI, 2014)	Mean	SD	Min	Max
Call setup success	Ratio of established calls to call attempts (%)	>= 95%	98.64	1.14	88	100
Call drop	Ratio of calls terminated unwillingly to all call attempts (%)	<= 2%	0.89	0.73	0	25.82
Call good	Connections with good voice quality (%)	>= 95%	97.94	1.93	48.88	100

Table 4: Pooled cross-sectional results, all firm-regions included

	-1-	-2-	-3-	-4-	-5-	-6-
	Call drop	Call good	Set up success	Call drop	Call good	Set up success
Treatment	-0.1132**	0.3618**	0.3793**	0.3229	1.0006*	0.1839
	(0.036)	(0.120)	(0.061)	(0.241)	(0.414)	(0.226)
Post SC order	-0.1928**	0.5415**	0.3165**	-0.1830**	0.5566**	0.3217**
	(0.045)	(0.112)	(0.073)	(0.034)	(0.091)	(0.043)
Post SC order X Treatment	0.1465**	-0.4316**	-0.2133*	0.1473**	-0.5240**	-0.2715**
	(0.054)	(0.145)	(0.091)	(0.040)	(0.125)	(0.056)
ln(subscribers)	0.0408**	-0.0901**	-0.0125	0.002	0.0052	0.0613+
	(0.004)	(0.011)	(0.008)	(0.019)	(0.069)	(0.032)
Firm-region dummies	No	No	No	Yes	Yes	Yes
Constant	0.4119**	98.9157**	98.5714**	0.5780*	97.8914**	98.3453**
	(0.059)	(0.211)	(0.134)	(0.282)	(1.015)	(0.456)
Number of observations	2,310	2,294	2,292	2,310	2,294	2,292
R-squared	0.04	0.04	0.03	0.41	0.46	0.71

Note: Robust standard errors in parentheses. Etisalat DB Telecom and STel were dropped from the estimation sample as they exited the country following the SC order.
+ p<0.10, * p<0.05, ** p<0.01

Table 5: Effect of change Treatment = 0 to Treatment = 1

	Post SC order = 0	Post SC order = 1
Call drop	-0.11*	0.03
	(0.04)	(0.04)
Call good	0.36*	-0.06
	(0.12)	(0.11)
Call setup success	0.38*	0.17*
	(0.06)	(0.08)

Note: Robust standard errors in parentheses, * p<0.05
Based on Models 1-3 of Table 4

Table 6: Pooled cross-sectional results, excluding firm-regions affected by the Supreme Court order

	-7-	-8-	-9-	-10-	-11-	-12-
	Call drop	Call good	Set up success	Call drop	Call good	Set up success
Treatment	-0.2085**	0.4162**	0.6169**	0.2564**	-0.3437	-0.3476**
	(0.041)	(0.116)	(0.062)	(0.093)	(0.560)	(0.109)
Post SC order	-0.1848**	0.5083**	0.3006**	-0.1411**	0.3456**	0.2938**
	(0.046)	(0.106)	(0.072)	(0.031)	(0.078)	(0.042)
Post SC order X Treatment	0.2311**	-0.6165**	-0.4178**	0.1904**	-0.5092**	-0.4195**
	(0.062)	(0.182)	(0.097)	(0.043)	(0.099)	(0.063)
ln(subscribers)	-0.0457*	0.2944**	0.1749**	-0.3441**	1.7302	0.2894**
	(0.021)	(0.086)	(0.031)	(0.076)	(1.087)	(0.101)
Firm-region dummies	No	No	No	Yes	Yes	Yes
Constant	1.7212**	93.0936**	95.7337**	5.5288**	73.2116**	95.0828**
	(0.308)	(1.370)	(0.480)	(1.089)	(15.577)	(1.453)
Number of observations	1,533	1,525	1,523	1,533	1,525	1,523
R-squared	0.02	0.03	0.06	0.36	0.46	0.75

Note: Robust standard errors in parentheses. Uninor (Telewings) and Videocon were dropped from the estimation sample as they had no firm-regions unaffected by the SC order. Etisalat DB Telecom and STel were dropped from the estimation sample as they exited the country following the SC order.
+ p<0.10, * p<0.05, ** p<0.01

Table 7: Effect of change Treatment = 0 to Treatment = 1

	Post SC order = 0	Post SC order = 1
Call drop	-0.12*	0.03
	(0.04)	(0.05)
Call good	0.37*	-0.23
	(0.12)	(0.14)
Call setup success	0.40*	0.18*
	(0.06)	(0.08)

Note: Robust standard errors in parentheses, * p<0.05
Based on Models 7-9 of Table 6

APPENDIX

Table A1: Panel models, all firm-regions included

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-
	Call drop	Call good	Set up success	Call drop	Call good	Set up success	Call drop	Call good	Set up success
	All regions	All regions	All regions	All regions	All regions	All regions	All regions	All regions	All regions
Affected firm post SC order	0.1323**	-0.5056**	-0.2658**	0.1323	-0.5056+	-0.2658	0.1323**	-0.5056**	-0.2658+
	(0.047)	(0.142)	(0.088)	(0.124)	(0.264)	(0.150)	(0.042)	(0.127)	(0.141)
ln(subscribers)	0.0411	-0.0235	0.0587	0.0411	-0.0235	0.0587	0.0411*	-0.0235	0.0587
	(0.027)	(0.083)	(0.041)	(0.051)	(0.087)	(0.065)	(0.015)	(0.079)	(0.036)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm-region Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standard errors clustered	Firm-region	Firm-region	Firm-region	Firm	Firm	Firm	Region	Region	Region
Constant	0.5184	98.1097**	97.8049**	0.5184	98.1097**	97.8049**	0.5184*	98.1097**	97.8049**
	(0.323)	(1.116)	(0.558)	(0.680)	(1.190)	(0.881)	(0.201)	(1.060)	(0.473)
Number of observations	2,310.00	2,294.00	2,292.00	2,310.00	2,294.00	2,292.00	2,310.00	2,294.00	2,292.00
R-squared	0.03	0.02	0.05	0.03	0.02	0.05	0.03	0.02	0.05

Note: Robust standard errors in parentheses. Reported R-squares are within-firm-region measures. Etisalat DB Telecom and STel were dropped from the estimation sample as they exited the country following the SC order.

+ p<0.10, * p<0.05, ** p<0.01

Table A2: Panel models, excluding firm-regions affected by Supreme Court order

	-10-	-11-	-12-	-13-	-14-	-15-	-16-	-17-	-18-
	Call drop No cancelled regions	Call good No cancelled regions	Set up success No cancelled regions	Call drop No cancelled regions	Call good No cancelled regions	Set up success No cancelled regions	Call drop No cancelled regions	Call good No cancelled regions	Set up success No cancelled regions
Affected firm post SC order	0.2212**	-0.4572*	-0.4044**	0.2212*	-0.4572	-0.4044**	0.2212**	-0.4572**	-0.4044**
	(0.074)	(0.195)	(0.094)	(0.097)	(0.304)	(0.125)	(0.060)	(0.136)	(0.121)
ln(subscribers)	-0.0616	2.1941	0.4145+	-0.0616	2.1941	0.4145	-0.0616	2.1941	0.4145
	(0.193)	(1.696)	(0.223)	(0.183)	(1.521)	(0.338)	(0.157)	(1.614)	(0.251)
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm-region Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standard errors clustered	Firm-region	Firm-region	Firm-region	Firm	Firm	Firm	Region	Region	Region
Constant	2.1231	64.7872*	92.2923**	2.1231	64.7872*	92.2923**	2.1231	64.7872*	92.2923**
	(2.743)	(25.330)	(3.326)	(2.610)	(22.771)	(4.975)	(2.206)	(24.078)	(3.775)
Number of observations	1,533.00	1,525.00	1,523.00	1,533.00	1,525.00	1,523.00	1,533.00	1,525.00	1,523.00
R-squared	0.04	0.06	0.06	0.04	0.06	0.06	0.04	0.06	0.06

Notes: Robust standard errors in parentheses. Reported R-squares are within-firm-region measures. Uninor (Telewings) and Videocon were dropped from the estimation sample as they had no firm-regions unaffected by the SC order. Etisalat DB Telecom and STel were dropped from the estimation sample as they exited the country following the SC order.+ p<0.10, * p<0.05, ** p<0.01