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Scaling Effective Regulatory Consultation in Emerging Economies Through Crowdsourced Co-Creation: A Field Experiment with Small Hotels in Thailand

Abstract

Can digital public consultation programs increase firms' trust in the regulatory authority of governments and improve firm contributions to the fundamental quality of government regulation? While evidence indicates that in-person public consultation improves voluntary compliance by increasing the legitimacy of regulations, there is reason to doubt this mechanism's viability when consultation is conducted online, where lack of human interaction may lead participants to feel unheard. With an aim towards both a more engaged experience and higher quality of inputs into the regulatory design process, we piloted what we term the Regulatory Room, an online space where legal experts help firms refine their comments before submission to the digital public consultation system. Our randomized controlled trial tested the impact of this innovation compared to standard digital public consultation during the revision of a regulation governing small hotels in Thailand. We find strong evidence that access to the Regulatory Room improves commenting firms': a) views of the quality of the consultation process; b) views of the government's regulatory legitimacy; c) perceived understanding of the draft regulation; and d) beliefs that their submitted comments will be read and understood by officials. Behaviorally, we further find evidence that access to the Regulatory Room increases the probability that a firm submits a comment into the Thai government's digital public consultation system and, most importantly, improves the quality of the comments they submit. These findings bode well for the possibility that a more facilitated and interactive digital public consultation system can meaningfully enhance both voluntary regulatory compliance by firms and the quality of business regulations in emerging economies.

1. Introduction

By erasing physical distance and dramatically reducing marginal costs, digital technology allows governments to consult larger, more diverse, and more representative sets of firms in the design of new business regulations (World Bank 2017). This is a promising development, especially for resource-constrained emerging economies, as the procedural justice literature shows that consulted parties are more likely to see the resulting rules and governing authorities as legitimate (Tyler 2006; Thibaut and Walker 1975; Kim and Mauborgne 1993; Moorman, Blakely, and Niehoff 1998; Murphy 2005) and to forgo self-interest maximization in favor of more socially responsible, other-regarding behaviors (Ehrhart 2004; Moorman, Blakely, and Niehoff 1998; Tepper and Taylor 2003). More recent work has further shown that in-person government consultation of firms in the rule-making process increases participating firms' propensity to invest in compliance (Malesky and Taussig 2019, 2017).

However, transitioning to virtual consultation is not without its perils. In particular, research on crowdsourcing of solutions to resolve collective challenges in the private sector indicates that the feedback in digital realm is plagued by overwhelming volumes of irrelevant, unclear, or infeasible submissions (Djelassi and Decoopman 2013; Acar 2019; Beck et al. 2022; Barbier et al. 2012) and contributors who feel their voices have been ignored (Hanine and Steils 2019; Piezunka and Dahlander 2015). Indications are that online versions of so-called "notice and comment"¹ (N&C) systems for government consultation are similarly characterized by noisy inputs and resentful participants (Bull 2021; Balla et al. 2021; Handan-Nader 2023). These challenges bring into question the virtues and sustainability of digital N&C, particularly in light

¹ For more on N&C, see: <https://www.acus.gov/sites/default/files/documents/IB014-Rulemaking.pdf>.

of evidence that positive reactions to procedural justice tend to be dwarfed by negative reactions to perceived injustice (Miller 2001; Li, Ren, and Luo 2016; Skogan 2006).

In this paper, we introduce and test the viability of an innovation to the digital N&C process meant to overcome these potential pitfalls. Specifically, we test the impact of participation in an enhanced digital N&C experience that includes the opportunity to receive direct guidance from legal experts on how to tailor firms' comments to be as clear and constructive as possible before final submission to government regulators. The intent of the intervention is to strengthen firms' perceptions of procedural justice, their likelihood of actively contributing to a process aimed at achieving societal goals at lower cost to affected firms, and, ultimately, the actual quality of business regulation. This innovation has parallels in the literatures on crowdsourcing and co-creation of scientific advances, where researchers have demonstrated the benefits of dedicated facilitators who engage actively with online contributors to ensure common understanding and focus idea generation on desired organizational goals (Kittur and Kraut 2008; Rock, McGuire, and Rogers 2018; Franzoni and Sauer mann 2014). As noted in Ito (2018), reliance on such purposeful facilitation has long been the norm when bringing people together to work through complex collective challenges in-person.

We developed and piloted this innovation, which we term "the Regulatory Room," through close collaboration with the government of Thailand,² an emerging economy plagued by significant social divisions (Hicken and Selway 2012; Sombatpoonsiri 2020), cynicism about

² Thailand was actually the second country where we collaborated with government on development of a Regulatory Room. Our previous effort in Myanmar, a substantially more underdeveloped emerging economy, was stymied by the tragedy of that country's military coup on February 1, 2021. However, our work in Myanmar allowed us to hit the ground running in Thailand, with the conceptual framework relatively fully developed.

the state's regulatory authority (Roitner-Schobesberger et al. 2008; Wongprawmas and Canavari 2017), and rampant non-compliance by the business community (OECD 2020; Arif et al. 2018). In particular, we worked closely with Thailand's Digital Government Development Agency (DGA) over two years,³ beginning in spring 2021, to develop the detailed design of, and to pilot, our Regulatory Room concept within the existing structure of the Law Portal,⁴ a digital N&C platform launched by DGA in 2021. We then tested the impact of this innovation in January and February 2023 with a randomized controlled trial (RCT) design that exposed a sample of 90 small- and medium-sized enterprises (SMEs) to either a pilot version of the Regulatory Room or the standard online N&C process (i.e. digital N&C without access to support from legal experts).

Our results provide cause for optimism regarding the benefits of online government consultation of firms during the design of new business regulations. With respect to procedural justice, we find strong and robust evidence that providing firms with an opportunity to participate in the Regulatory Room led to larger improvement in their views of both the overall quality of the consultation process and the government's legitimacy as a regulator, as compared to firms that were only invited to submit comments online. Specifically, the positive change in evaluations of the quality of the consultation process was 216 percent greater for firms invited to the Regulatory Room than for those in the Control. Similarly, the positive change in the evaluation of the government's regulatory legitimacy was 347 percent greater for firms in the Treatment group. Firms invited to the Regulatory Room also rated their understanding of the

³ Thailand's Digital Government Development Agency (DGA), established in 2018 has the official the mission of digitizing all aspects of the Thai government. The DGA plays the leading role in building, maintaining, and improving the country's digital infrastructure to improve public service delivery and create a public platform for citizens' digital participation in governance.

⁴ The Law Portal can be accessed at <https://law.go.th/>.

draft regulation's requirements 35 percent higher than the Control group and expressed 25 percent greater confidence that regulators would understand their submitted comments. With respect to the innovation's stimulation of more socially responsible behavior, firms exposed to the Regulatory Room were 169 percent more likely to submit comments on how to improve the draft regulation through the digital N&C platform. Furthermore, with respect to the ultimate goal of actually improving business regulations, we find sizable positive treatment effects of Regulatory Room access on objective third-party measures of the constructive value of submitted comments.⁵

⁵ Scores of the treatment group on the five-point scale were 23% (0.56 points), 33% (0.76 points), and 37% (0.73 points) higher than the control group for relevance, feasibility, and comprehensibility respectively.

1. Experimental Sample and Design

Figure 1 shows the full schedule of all design elements implemented in the project, which lasted from the beginning of January 2023 to the end of February 2023.

[FIGURE 1 ABOUT HERE]

Our Empirical Opportunity

After careful review of all of the government’s upcoming regulatory drafting plans and upon the advice of DGA, we selected the Thai Department of Provincial Administration’s Ministerial Regulation on the “Type and Criteria for Hotel Business” (henceforth referred to as the focal draft regulation). The Thai government’s motivation for this proposed regulation was the lack of feasible existing guidelines to allow smaller-sized accommodations businesses to obtain official hotel licenses. Existing guidelines included requirements with which only large hotels could realistically comply, leading many firms in the industry to avoid registering formally with the state at all.⁶ The absence of feasible requirements has also led many small hotels to forgo installing fire and safety equipment or adopting security-promoting practices altogether, thereby endangering their guests. Without a hotel license, these small hotels and lodging accommodations could not access government assistance programs and faced added legal and financial vulnerabilities if anything in their operations went wrong or otherwise attracted the attention of authorities. The proposed requirements for a firm to qualify for and obtain a license as a small-sized hotel according to the new focal draft regulation are shown in *Table 1*.

[TABLE 1 ABOUT HERE]

⁶ Some firms also resisted registering to avoid paying taxes.

Online Appendix 1 displays the Law Portal webpage for the focal draft regulation. The webpage contained the name of the regulation, the rationale behind the proposed regulation, an overview and essential content of the proposed regulation, stakeholders who were anticipated to be impacted by the regulation, and the full draft of the regulation. Additionally, it included a comment submission section that featured multiple-choice questions for respondents to express whether they agreed, disagreed, or had alternative opinions on each of the proposed requirements. Furthermore, respondents could provide an open-ended response for each clause of the regulation.

Our Sample

Recruitment. In January 2023, we engaged local hotel associations⁷ to recruit relevant firms to participate in the study. In keeping with the primary target of the focal regulation and consistent with the findings of past work on the value to society of government consultation of SMEs, in particular, we asked these partner organizations to only recruit smaller-sized firms, limiting eligibility to those with less than 100 employees. Within the three weeks between our project onset and the opening of N&C for our focal regulation, we were able to recruit 90 sample firms.⁸

Study Design

Random Assignment. We engaged sample firms for approximately two weeks in late January 2023 to conduct a Baseline survey that gathered demographic and background information on

⁷ The local hotel associations that we worked with are the *Thai Hotels Association* and its local chapters: the Northern Chapter, Eastern Chapter, Western Chapter, Southern Chapter, and the I-San Hotel Association.

⁸ We had three weeks between the selection of the focal regulation and the opening of the official N&C process in which to recruit our sample.

the firm and its owner(s), including perceptions of the N&C process and the government's regulatory legitimacy. We then randomly assigned firms into two groups, blocking on firms' region of operation and the gender of their main owner, resulting in 47 firms in Control and 43 in Treatment.

Balance Tests. **Table 2** presents balance tests across Control and Treatment, which allow us to rule out potential confounding factors.⁹ The lack of statistically significant differences for any observable characteristics gives us confidence that our blocked random assignment produced Control and Treatment groups that were also comparable in terms of other unobservable features at the individual and firm levels.

[TABLE 2 ABOUT HERE]

Treatment. Both Control and Treatment firms were emailed the full draft regulation, a brief summary of its key contents, information about how the draft regulation would impact their operations, a link to a Google Form that allowed them to submit comments on the proposed regulation, and a document explaining what the N&C process is and how to navigate the Google Form to submit comments. The questions on the Google Form were identical to the ones posted on the Law Portal (See *Online Appendix 3*).¹⁰

The excerpts below from responses to open-ended questions in the Endline interviews with three sample firms provide a sense of the experience and virtues of the standard digital N&C system experienced by those in the Control group:¹¹

⁹ Description of the variables used in the balance test is provided in *Online Appendix 2*.

¹⁰ For this pilot policy evaluation, the DGA elected to pilot the Regulatory room in parallel with the regular Law Portal to minimize the amount of additional work and the potential for technical glitches.

¹¹ See *Online Appendix 4* for the original Thai language for all of the quotes included in the paper.

- “I view it as a good idea to open up an online public space that allows the public to submit comments. People will have better access to the government. The government will also get information about the problems faced by the people. [This] will be a good thing for the country.”
- “This system allows citizens better access to the notice and comment process, especially hotels outside of Bangkok. [It] makes [me] feel more involved in the regulation drafting process. The government will also get to know how the various hotels think about the draft law. A louder voice may make the government listen to small hotels more.”
- [I] like how I have time to think and write without pressure. If it is a typical notice and comment process, an official may ask [a question] and I would have to answer instantly. If I cannot think of anything, I do not know what to say. Also, if [I] have many comments, I would not encroach on others’ time [in the online notice and comment process].

The key distinction between the experiences of firms in Treatment and those in Control was that the Treatment group was also invited to participate in the newly constituted Regulatory Room. The particular form of Regulatory Room that we constructed together with DGA involved the opportunity for firms to join one of three identically designed online sessions, during which a legal expert was available to advise firms on how to best communicate their suggestions for improvement to the focal draft regulation. Firms in the Treatment condition were provided with the times and dates for these three online legal advice sessions, asked for their availability and session preferences, and then assigned accordingly and sent an email with the appropriate Zoom link to avoid having too many attendees in any one session. In the end, 8 firms took part in the first session, 13 in the second, and 13 in the third. For experimental consistency, the same legal expert—who was contracted by PKM Consulting Group,¹² the Thai legal and research consultancy that we hired to implement the program—managed all three sessions, the length of which ranged from 60 to 90 minutes. During each

¹² For more information on PKM Consulting Group, see <https://pkmconsultinggroup.com>.

session, the legal expert gave clarifications about the focal draft regulation and its implications, reviewed participants' draft comments on how to improve the draft regulation, and offered feedback on how to improve the comprehensibility, relevance, and feasibility of those comments.

The following Endline quotes from three firms that experienced the Regulatory Room treatment illustrate the intended additional opportunities and value offered by the Treatment:

- “Providing free legal advice to smaller hotels that may not have the resources to hire someone to help is a good idea, as government officials may not even finish reading the comments that are unclear or lack substance. If officials do not read comments, the [notice and comment] process will be rendered useless.”
- The conversation with the expert also provides [me] with other information, such as the impact of various requirements, legal vocabulary, and language. Additionally, [the conversation] is useful in writing comments because it helps [me] write more substantive and to-the-point comments. [I] hope that these more to-the-point comments will help the government understand what [I] am trying to communicate.
- [I] see it as a good thing that there is an attempt to help firms like us in writing comments on the draft law. A complete and meaningful notice and comment process requires a reliance on the effort and determination of both parties. If the hotel side cannot clearly communicate our demands, we cannot expect the government to take us seriously.

Consistent with previous theory on the firms most likely to benefit from N&C, one Treatment firm specifically argued that public consultation has particular value for regulations covering the activities of smaller firms:

“The Regulatory Room may help improve the quality of firms' comments, promoting the effectiveness of the government's design and enforcement of laws, making them more appropriate and better. But there is still some concern because [I] feel that sometimes the government acts fairly only on laws that do not have large capital backing.”

Data Collection. In addition to the Baseline survey conducted before random assignment to Control and Treatment, we also engaged all sample firms for our Endline survey a month

later in late February 2023. Both surveys involved phone interviews carried out by King Prajadhipok's Institute.¹³

Data

Dependent Variables. **Table 3** describes our core survey and behavioral dependent variables, the questions from which the survey measures were each derived, and whether those questions appeared in both surveys or just at Endline.

[TABLE 3 ABOUT HERE]

Beyond our survey data and accounting of online submissions, we also constructed an additional dependent variable to directly test the Better Law Mechanism. In particular, we asked a different legal expert—who was working as a commercial lawyer at a law firm and not otherwise associated with the project—to conduct a blinded review of all comments submitted by sample firms. The reviewer read and rated each comment without knowing the associated firm's identity or treatment status. The reviewer was asked to evaluate the quality of each comment on three criteria on a five-point scale: 1) relevance; 2) comprehensibility; and 3) feasibility. Specifically, the expert was asked to rate the following statement on relevance: "This comment discusses content that is relevant to the content of the regulation under consideration." In rating comprehensibility, the reviewer was asked whether the: "The comment is coherent and easy to understand." Finally, the reviewer was asked to assess feasibility: "Government agencies can take substantive actions during the revision process based on the comment." The options the reviewer chose from for all three categories ranged

¹³ For more on King Prajadhipok's Institute, see: https://www.parliament.go.th/ewtadmin/ewt/parliament_parcy/ewt_dl_link.php?nid=64779&filename=RIA_KPI.

from “Strongly Disagree” = 0 to “Strongly Agree” = 4. In total, there were 31 submitted comments.

Regression Methods. Our main analyses involve Ordinary Least Squares (OLS) regression and the following standard difference-in-differences specification, whenever we were able to measure the outcome variable in both the Baseline and the Endline:¹⁴

$$DV_{it} = \beta_0 + \beta_1 \text{Endline}_t + \beta_2 Z_i + \beta_3 \text{Endline}_t * Z_i + X_i \gamma + \varepsilon_{it},$$

Above, DV_{it} represents firm i 's answer to a particular survey question at time t . Endline_t is a dummy variable that takes a value of 1 for a response from the Endline survey and takes a value of 0 for a response from the Baseline survey. Z_i is the treatment status of firm i where the variable takes a value of 1 if the firm is invited to participate in the Regulatory Room and 0 otherwise. X_i is a vector of pre-treatment control variables that include the head of the firm's gender and the firm's region. ε_{it} is the error term. When the outcome variable could not be measured at Baseline, we regressed the outcome on the treatment variable using only Endline data, maintaining all the other model specifications.

Note that our estimand is an intention to treat effect (ITE), where we compare those invited to participate versus those who were not invited. This addresses the potential that some participants invited to enter the Regulatory Room might not do so. Because some treated participants did indeed choose not to join, our results can be viewed as a lower bound for the

¹⁴ We decided to employ OLS over ordered probit due to the bias in maximum likelihood estimators when using fixed effects (Nikell 1981, Fernandez-Val 2009). As robustness tests, we also reran all analyses using either probit or ordered probit regression in *Online Appendices 5 and 6*, depending on whether our dependent variable is dichotomous or ordinal and categorical. We include these alternative analyses in the online appendices and report on all instances where the statistical significance of results varied meaningfully across these methods. In addition, we present a graph of predicted probabilities after each maximum likelihood regression in the online appendices.

full effect of the Regulatory Room treatment. That said, ITEs and treatment effects on the treated (TET) are likely to be very similar, as 79 percent of firms assigned to Treatment attended a Regulatory Room session—an extraordinarily high compliance rate.¹⁵ Standard errors are clustered at the treatment session level, including categories for the Control, Treatment firms that opted out of the Regulatory Room, and the three grouped sessions. Clustering is necessary to address any correlations in errors that may have occurred due to group interactions with each other and with the expert during the Regulatory Room interactions.

2. Experimental Analysis Results

Testing the Procedural Justice Mechanism. **Table 4** presents key results relating to the two dependent variables for testing the Procedural Justice Mechanism. Results on the impact of the Regulatory Room on sample firms’ views of the quality of the consultation process are presented in Columns 1-2, while those for the Regulatory Room’s effect on their views of the government’s regulatory legitimacy are laid out in Columns 3-4. Columns 1 and 3 show results without any control variables, while Columns 2 and 4 introduce controls for blocking variables.

[TABLE 4 ABOUT HERE]

The coefficient for Treatment (β_2) is not statistically significant in any models in Table 2, suggesting that views on the quality of the consultation process were statistically balanced at Baseline across Control and Treatment. The coefficient for Endline (β_1), in contrast, is statistically significant in all of the models at the 0.05 level, suggesting that Control firms improved their views of the consultation process quality and the government’s regulatory

¹⁵ *Online Appendices 7 and 8* further addresses this non-participation issue by using 2SLS regressions to estimate the TET of participation in the Regulatory Room on outcomes of interest. The main thrust of empirical findings holds.

legitimacy between the survey rounds. These results point to the positive impact of providing firms with information on the focal regulation, as well as the opportunity to submit comments on the regulation online. Most importantly, the coefficient on the interaction term, the diff-in-diff coefficient (β_3), is statistically significant at the 0.05 level in all models. This suggests that an invitation to participate in the Regulatory Room led to a greater positive change in SMEs' perception of the consultation process' quality and the government's regulatory legitimacy, beyond the positive impact derived from providing firms with information about the regulation and the opportunity to submit comments online.

The fully specified Column 2 shows that, between the two survey rounds, Control firms had a 0.286-point increase on a five-point scale above the Baseline score for their evaluation of the consultation process quality (2 to 2.286).¹⁶ An invitation to participate in the Regulatory Room, in turn, led firms to increase their rating of the quality of the consultation process over the same period by 0.905 points above the Baseline level (2.052 to 2.957) on the same five-point scale. This difference in over-time changes (0.905 - 0.286) is reflected in the large and highly significant diff-in-diff coefficient (β_3) of 0.619, which implies that the improvement between survey rounds in their perceptions of the digital N&C process was 216 percent greater in Treatment than in Control.¹⁷ This clearly indicates a more positive impact on views of the quality of the consultation process through the opportunity to participate in the Regulatory Room, relative to only gaining access to the typical digital N&C process.

¹⁶ Using the constant in Model 1 that is not adjusted for control variables.

¹⁷ (.619/.286)*100=216%

For firms' views of government's regulatory legitimacy, the fully specified Column 4 shows that Control firms' rating of the government's regulatory legitimacy increased by 0.128 points between Baseline (1.956) and Endline (2.084) on the five-point scale. Again, the difference-in-differences coefficient suggests a larger increase in perceived government legitimacy amongst Treatment firms of 0.444, or 347% greater than the increase in Control group. This provides additional evidence that inviting SMEs to participate in the Regulatory Room enhances the positive impact of participation in the digital N&C process on views of the government's regulatory legitimacy.

Testing the Better Law Mechanism. Due to the small number of firms that provided comments (n=31), we use a simple t-test in *Table 5* to compare group means of our expert measurement of the different components of comment quality for Control and Treatment.¹⁸ *Figure 2* displays a bar graph to visualize the differences in mean scores between Control and Treatment across the three criteria. All differences are significant at the 95 percent level. For Relevance, the mean expert scores were 2.44 for Control and 3.00 for Treatment, a difference in means of 0.56 points on the five-point scale, which represents a 23 percent difference between the two groups. The results for Comprehensibility and Feasibility are even larger. The expert scored Treatment firms' comments as 33 percent more comprehensible, roughly a 0.76 difference on the five-point scale. Finally, the expert scored firms' suggestions from the Regulatory Room as 37 percent more feasible, about a 0.76-point difference. These findings

¹⁸ Results are robust to multiple regression.

provide suggestive evidence that access to the Regulatory Room significantly improved the quality of suggestions, in line with the Better Law Mechanism.

[TABLE 5 AND FIGURE 2 ABOUT HERE]

Our Endline survey also provided additional support for the Better Law Mechanism, in the form of qualitative evidence about the Regulatory Room’s impact on the focal regulation’s relevance, comprehensibility, and feasibility. With respect to improvement of the regulation’s relevance, one firm came to their Regulatory Room with a focused complaint about the tax rate for hotels still being too high for small hotels. The legal expert explained to this firm that the focal regulation was not intended to address this issue and was not drafted by the relevant authorities for tax policy. This helped avoid a scenario whereby the firm submitted a comment that it felt strongly about but was of no constructive use to regulators, which, in turn, could have easily led to the firm feeling that its input was ignored and thinking less of government.

Another telling qualitative example from our Regulatory Room was improvement in the comprehensibility of the feedback provided by a resort business that wanted to allow customers to spend the night on rafts floating on the water. Previously, the Department of National Parks, Wildlife, and Plant Conservation forbade this business idea, even after the owner produced a permit from the Marine Department. The focal draft indicated that accommodations on water were allowed, as long as they followed the Marine Department’s Navigation in the Thai Waters Act or other relevant laws, but the owner was not clear whether or not this meant his business idea was now viable and unsure of how to even articulate his problem to get a clear answer. The legal expert helped the firm to frame the comment in terms of the focal regulation’s need to clarify competing jurisdictions between the government agencies governing human activities on

the water. This was clearly a complex case that the regulatory designers had not fully considered and where clearer communication helped increase the odds of constructive revision of the draft and clarity for the firm.

Finally, with respect to feasibility, four different firms across Regulatory Room sessions all noted that the draft wording about the requirement for “sufficient lighting” was problematically vague and left the firms unsure of their responsibilities. To improve the feasibility of the comments, the legal experts suggested that the firm submit a comment that directly asked the government agency to specify the minimum level of lighting in a measurement unit such as lux, such that firms could have a clear benchmark that would help them install the correct lighting to meet the government’s requirement. Similarly, firms were also concerned about the number of fire extinguishers that they were required to install. Although the draft regulation included the size of the fire extinguisher that a lodging is required to have, the draft regulation did not specify how many. Rather than just writing a comment saying that the requirement was unclear, the legal expert suggested that firms be more specific by submitting a comment that directly asked the government agency to specify the quantity of fire extinguishers per square meter.

Additional Results of Relevance to Both Mechanisms. **Table 6** presents additional results for firms’ perceived understanding of the regulation and their propensity to submit comments to the digital N&C system. As in Table 4, Columns 1 and 3 show results without control variables, while Columns 2 and 4 bring in blocking variable controls. All standard errors are again clustered at the session level. The coefficient for firms’ perceived understanding of the regulation is positive and statistically significant at the 0.05 level across Columns 1-2. For the

fully specified model in Column 2, firms invited to participate in the Regulatory Room rated their understanding of the regulation 35 percent higher (2.795 versus 2.064) on the five-point scale, as compared to those that were not invited.

[TABLE 6 ABOUT HERE]

Similarly, the coefficient for whether or not a firm submitted any comment at all on the digital N&C system is also statistically significant at the 0.05 level across Columns 3-4. For the fully specified model presented in Column 4, an invitation to participate in the Regulatory Room increased the probability that a firm would submit a comment by 32.3 percentage points above the Control group probability of 19.1 percent (a 169 percent difference). In summary, there is consistent evidence that an invitation to participate in the Regulatory Room leads firms to have a higher level of perceived understanding of the focal draft regulation and higher likelihood of contributing a comment on how to improve it.

Finally, *Table 7* presents results on how the Regulatory Room influenced firms' expectations of whether submitted comments would be understood and used, respectively, by government regulators. Models are again organized across columns in the same order as in Tables 4 and 6. The coefficient for firms' expectation that their comments will be understood by the government agency is positive and statistically significant at the 0.05 level across both models in Columns 1-2. Based on the fully specified results from Column 2, Treatment firms rated the statement of government's comprehension more positively than Control firms by 0.541 points, on a five-point scale—a 24.5 percent increase (2.761 versus 2.2).

[TABLE 7 ABOUT HERE]

Disappointingly, while still positive in Columns 3-4, the coefficients for the outcome on firms' expected likelihood that their comment would be used by the government agency is not statistically significant in either the model with or without control variables. Therefore, we cannot conclude with confidence that Regulatory Room participation improved firms' expectation of comment utilization by the government. Nevertheless, overall, Table 7 presents evidence of Regulatory Room benefits consistent with both the Procedural Justice and the Better Law Mechanisms.

3. Discussion and Conclusion

The results of our study indicate that even a modestly conceived Regulatory Room applied in a challenging environment was able to meaningfully influence perceptions and behavior of emerging economy SMEs in ways that better the health and safety of their communities. These results support the viability of extending both the Procedural Justice Mechanism and the Better Law Mechanism to the digital realm. Our evidence that appropriate innovation can allow feelings of procedural justice to be fostered through online engagement has broad implications for application of technology towards other management goals where procedural justice has been shown to be important. As for the Better Law Mechanism, we are not aware of any previous studies providing similarly evidence of broad-based feedback from SMEs objectively improving the quality of business regulation—whether through in-person or online consultation. Together, these findings point to both mechanisms as critical pathways to progress towards the ultimate outcome of greatest societal concern: increasing firms' compliance with social-welfare-enhancing business regulations.

With respect to the crowdsourcing literature, our findings push forward evolving understanding of the constructive potential of co-creation with outside contributors and demonstrate the relevance of such co-creation for the work of government. We also contribute to broader theory on the nature of the wisdom of crowds. Whereas much of the discussion to date has been about the challenges of dealing with atypical and more distant types of contributors, our study shows, in contrast, how SMEs can help government to essentially “stress test” their regulatory drafts by accounting for conditions or scenarios with which the experts it normally relies on may not be familiar or may not have understood to exist. Such use of crowdsourcing is relevant to the needs of not only government but also entrepreneurial and for-profit enterprises to get broad-based input on nascent ideas, plans, products, or services.

We hope that our study will serve to further nudge management theory, in general, to grant a greater and more dynamic role to government. Of particular relevance to the findings in this paper is management research about firm influence on government institutions, which has tended to frame government as a relatively passive participant, susceptible—especially in emerging economies—to corruption by well-resourced business interests (Hillman, Keim, and Schuler 2004; Lawton, McGuire, and Rajwani 2013). While this is often the case, it is also true that government approaches to engagement with the business community vary substantially across time and space and include genuine and serious efforts to protect society from the negative externalities of business operations. In the particular case highlighted by this paper, government used digital technology to reach out to a diverse and representative set of firms for help in shaping business regulations to more effectively achieve social protection aims by better fitting requirements to the widest possible range of real-world business conditions. By giving

such agency to government, we contribute to a richer literature on the political activities of firms that is able to account for how constructive co-creation between government and firms is not only possible, but has potential, under certain circumstances, to significantly benefit society.

Existing management research on the political activities of firms generally uses the specific term corporate political activity, reflecting a focus on large firms, rather than SMEs. This work frames these activities as non-market strategy aiming to change government policies in ways that create firm-specific competitive advantages. This is likely an accurate reflection of the reality of most political activity by firms around the world, as it is corporations that have the means to meaningfully engage with the state. Given their shareholder mandates, they are also under significant pressure to use all the tools at their disposal to maximize bottom-line financial performance by all means available. SMEs, in contrast, are unlikely to see feasible prospects for bending institutions—especially distant national institutions—to their individual benefit. Their leadership is also more likely to be embedded in a local community in ways that more regularly and naturally pressure them to balance performance goals with the need for a social license to operate (e.g., Howard-Grenville, Nash, and Coglianesse 2008). Furthermore, from the government perspective, even beyond issues of corruption, officials are likely to find it much easier to work with corporations, given their smaller numbers and dedicated government relations staff and other resources. The budgetary costs and managerial challenges of breaking from this status quo are imposing even in relatively resource-rich advanced economies.

Acknowledging these realities, academic theory generally aims to not only describe things as they are, but also to explore novel frontier developments that help to map out the full realm of the possible. Such mapping of the possible is of particular value when grappling with

grand challenges within existing business-society relations (George et al. 2016; George et al. 2023), such as the one of relevance for this paper, i.e. how to begin to address the frighteningly high rates of regulatory non-compliance by businesses in emerging economies. From this perspective, it is problematic that there is an evident bias towards large firms and away from SMEs in the literature on the political activities of firms, in particular, and the broader management literature, in general. A recent review of the business ethics literature, for example, suggests that SMEs are still generally studied only as outliers (Dacin et al. 2022)—rather than as the overwhelming majority of firms that they are.

In this context, another contribution of our paper is to shed rare light on SMEs and how their activities and approaches differ fundamentally from those of the larger elite firms that are the focus of most management research. With specific respect to the political activities of firms literature, SMEs' large numbers, diversity, and lack of resources and regular contact with national government officials means that they possess knowledge and experiences that policy makers do not gain access to through their typical engagement with large, politically connected firms. Policy makers are also less likely to be swayed in favor of special interests that run counter to public interests when engaging with SMEs, given their relative limited capacity for high-level corruption. Given this reality, it is certainly possible that the Better Law Mechanism for which we find support in this paper may not necessarily apply in the same way and degree to government engagement with larger firms. In fact, given corporations' greater capacity for influence, it may even be more likely that a Weaker Law Mechanism could hold, whereby government consultation of larger firms leads instead to a watering down of a regulation's social protections. As a result, bringing SMEs into study of the political activities of firms helps

to clarify how the nature and the results of engagement between firms and government both vary significantly with firm size.

Our study's findings are also of relevance to public policy practitioners looking urgently for concrete solutions that can be implemented within tight budgetary constraints. Our discussions with dedicated officials across multiple emerging economies during the process of designing our study made clear that they did not have the funds to reach the more diverse and distant sources of feedback they wanted to reach during the regulatory design process through in-person engagement. For them, it was clear that nothing could match the reach of the Internet being accessed by entrepreneurs using smart phones in even the most remote areas of their countries. Additionally, our study also indicates that making access to online legal assistance more widely available during the regulatory design process should make it easier for government officials to understand the new inputs they get from historically neglected corners. Thai government officials, for instance, expressed concerns to us about citizens' ability to submit practical comments, given the majority of the public lacks legal training and a comprehensive understanding of the regulatory design process. As a result, DGA has signaled a strong willingness from their side to establish the Regulatory Room as a permanent function of the Law Portal, especially given the relatively low costs for implementation.

Despite our rigorous RCT approach, this study is, of course, not without its limitations. As always, there is the need for further work to explore external validity across different types of regulation, different industries, and certainly different country contexts. Further research is also urgently needed to confirm the connection between the elements of the Procedural Justice and Better Law Mechanisms we study in this paper and the ultimate outcome of greatest

interest, which is the regulatory compliance of participating firms—as well as the compliance of other firms in their networks. Our sample size also constrained our ability to explore the potential heterogeneous effects of important distance measures, ranging from those based on a firm’s distance from the policy making center to those based on differences of ethnicity and community politics.

Additionally, we see significant value in further exploration of the effectiveness of different variations to the Regulation Room concept. A first variation of particularly clear importance relates to whether a Regulatory Room is best staffed by non-governmental legal experts, as done in our study, or by government-employed representatives. Sample firms noted the benefits of both approaches in our Endline survey. The tradeoff would appear to be between the independence and easier projection of shared interest, in the case of non-government experts, against the benefits of direct representation and responsiveness, in the case of government representatives. Substituting officials into the expert role would also introduce some challenges for the state itself. Previous research on online public consultation in Australia found that government officials were open to the idea of direct engagement but were worried about what they would and would not be authorized to say and how that would be determined. Further reflecting the complexity of such an arrangement, that same study went on to conclude that “governments seriously intent on engaging in online public consultation need to implement fast-track approval procedures, authorization of additional spokespersons on specific topics, and development of pre-prepared responses on a range of questions and topics (Macnamara 2010: p. 7).”

Another variation of the Regulatory Room that requires further research relates to whether it is best to engage participating firms in groups, as we did in this study, or through individual-level consultations. On the one hand, participants in our Thai version of group-based consultation experienced group learning, hearing diverse views they might not otherwise hear and gaining an appreciation of the challenging task of balancing interests that regulators regularly face. On the other hand, a more individualized approach would provide the benefits of privacy. In open-ended questions in our Endline survey, sample firms advocated for the benefits of both approaches. Clearly, however, an individualized approach would be more resource-intensive and therefore more challenging for many emerging economy governments to implement.

Likely greater cost was also an issue with the third potential variation raised by sample firms in the Endline survey and, in our view, also worthy of further study: whether or not the Regulatory Room should include communication in multiple modes (e.g. online messaging in addition to video-based engagement) and rounds (e.g. back and forth before and after the video-based engagement). On the other hand, one might also explore whether costs can be cut through some substitution of video engagement with online messaging. A related alternative that could help with cost would involve public posting either of video sessions or of online messaging exchanges (with further potential for social media approaches like upvoting to help firms find the most useful information). However, our discussions with policy makers in some emerging economies revealed that such an approach might not prove feasible due to fears of public discourse online that could involve dissent and criticism of the government itself. We also see the need for research into what types of outreach are most effective in encouraging

firms to take up N&C opportunities to engage in the regulatory design process. Furthermore, sample firms in our study's treatment expressed a desire for further acknowledgement from government regulators that they had heard and would seriously consider their feedback while making revisions before implementation of the final regulation.

In sum, there remains much work to do, but our results in this study provide reason for optimism regarding the promise of new digital N&C systems to deliver tangible societal benefits.

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Table 1: Proposed Requirements for Small-Sized Hotels to Qualify for Government’s Formal License

Topic	Details
Size of hotel	“A lodging within one building or several buildings not exceeding ten rooms and the total number of occupants not exceeding thirty people, which is established to provide temporary accommodation for travelers or any other person with compensation in return.”
Hotel with lodgings floating on water	<p>“A building [used as a hotel] in the form of a raft, floating on water, or with structures encroaching on the water....must comply with the following criteria and conditions: First, provide floaters or life jackets equal to the number of occupants of each room. These devices should be installed in a location that is easily accessible by occupants, and a sign indicating the location of the devices should also be installed. Second, provide sufficient lighting.”</p> <p>“A building used as a hotel in the form of raft, a stationary floating structure, or a building encroaching on a body of water must have evidence showing that it is legally permitted, according to the Navigation in the Thai Waters Act or other relevant laws, to operate the building as hotel.”</p>
Hotels with lodgings in the form of tent or marquee	“A building [used as a hotel] in the form of tent, marquee, shed, or any other similar forms of a building must provide sufficient lighting in the room and the corridor between that building and any other areas of the hotel.”
Fire safety	“[A hotel] is required to be equipped with portable dry chemical or carbon dioxide fire extinguishers. The size of the extinguisher should not be less than 15 pounds.”
Locks	“[A hotel] is required to have a device that allows the room to be locked from inside and outside, but requirements for the door to have a peephole or other methods that allow occupants to view the outside from inside as well as requirements for deadbolts should not apply.”
Bathroom	“[A hotel] is required to have a bathroom and toilet that meets hygienic standards in every room, except for dormitory-style rooms that charge guests per person.”

Table 2: Balance Tests for Observable Characteristics

Variable	Means		t-test			Observations
	Control	Treatment	Difference-in-Means	T-statistics	p-value	
<i>Individual-level variable</i>						
Head of firm gender (female = 1)	0.362	0.349	-0.013	0.126	0.900	90
Respondent was head of firm = 1	0.680	0.674	-0.006	0.064	0.949	90
Respondent's level of education	2.489	2.581	0.092	0.565	0.574	90
Previous employment in government = 1	0.106	0.146	0.040	0.555	0.581	88
View of quality of consultation process at baseline	2.000	2.048	0.048	0.185	0.854	87
View of legitimacy at baseline	1.956	1.805	-0.151	0.730	0.467	86
<i>Firm-level variable</i>						
Years in business	10.979	10.628	-0.351	0.386	0.701	90
Capital size (8-point scale)	2.277	2.163	-0.114	0.908	0.367	90
Previous year performance (5-point scale)	1.915	2.000	0.085	0.405	0.687	90
Rural location = 1	0.617	0.674	0.057	0.564	0.574	90
Region						
North	0.213	0.233	0.020	0.223	0.824	90
Northeast	0.191	0.186	-0.005	0.065	0.948	90
Central	0.149	0.140	-0.009	0.125	0.900	90
East	0.064	0.047	-0.017	0.357	0.722	90
West	0.106	0.093	-0.013	0.209	0.835	90
South	0.277	0.302	0.025	0.266	0.791	90
Firm type						
Sole proprietorship	0.128	0.163	0.035	0.467	0.642	90
Limited partnership	0.191	0.209	0.018	0.208	0.835	90
Limited company	0.660	0.581	-0.079	0.757	0.451	90
Collective	0.021	0.047	0.026	0.650	0.518	90

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

Table 3: Dependent Variables and Their Sources

Mechanism Tested	Dependent Variable Name	Survey Question / Statement	Source	
			Baseline	Endline
Procedural Justice	<i>N&C Process Quality</i>	How would you rate the quality of government agencies' consultative process? ¹⁹	X	X
	<i>Government Regulatory Legitimacy</i>	Government agencies have sufficient understanding of businesses like this one to effectively carry out their regulatory duties. ²⁰	X	X
Better Law	<i>Relevance</i>	This comment discusses content that is relevant to the content of the regulation under consideration. ²¹	Measurement judged by external legal expert.	
	<i>Comprehensibility</i>	The comment is coherent and easy to understand. ²²		
	<i>Feasibility</i>	Government agencies can take substantive actions during the revision process based on the comment. ²³		
Both Procedural Justice and Better Law Mechanisms	<i>Respondent's Understanding of Focal Regulation</i>	Could you rate your understanding of the draft on a scale from 1 to 5? ²⁴	X	X
	<i>Government Understanding of Submitted Comments</i>	The Department of Provincial Administration fully understands the content of the comments that your firm submitted. ²⁵		X
	<i>Government Will Use Submitted Comments</i>	The Department of Provincial Administration will use comments submitted by your firm to make changes to the draft regulation. ²⁶		X
	<i>Submitting a comment to the online platform</i>	Behavioral measure of whether firm submitted comment (1 if yes, 0 if no).	Behavioral measure based on submissions to Google form.	

¹⁹ Responses are "Needs major improvement", "Needs minor improvement", "Satisfactory", "Good", and "Exceptional", where "Needs Improvement" takes a value of 0 and "Exceptional" that takes the value of 4.

²⁰ Responses range from "Strongly Disagree=0" to "Strongly Agree" =4.

²¹ Responses range from "Strongly Disagree=0" to "Strongly Agree" =4.

²² Responses range from "Strongly Disagree=0" to "Strongly Agree" =4.

²³ Responses range from "Strongly Disagree=0" to "Strongly Agree" =4.

²⁴ Responses range from "Not at all" = 0 to "Fully Understand" = 4.

²⁵ Responses range from "Strongly Disagree" = 0 to "Strongly Agree" = 4.

²⁶ Responses range from "Strongly Disagree" = 0 to "Strongly Agree" = 4.

Table 4: Digital N&C, the Regulatory Room, and the Procedural Justice Mechanism

Dependent Variable:	Firms' views of consultation process quality (0-4)		Firms' views of government's regulatory legitimacy (0-4)	
	Without controls	With controls	Without controls	With controls
	(1)	(2)	(3)	(4)
Treatment	0.048 (0.100)	0.052 (0.097)	-0.126 (0.118)	-0.117 (0.116)
Endline	0.283*** (0.000)	0.286*** (0.003)	0.131*** (0.000)	0.128*** (0.004)
Treatment x Endline	0.622** (0.171)	0.619*** (0.173)	0.444** (0.146)	0.444*** (0.152)
Female		-0.035 (0.129)		-0.113 (0.104)
Constant	2.000*** (0.000)	1.932*** (0.078)	1.956*** (0.000)	1.730*** (0.212)
Region FE	No	Yes	No	Yes
Session	Yes	Yes	Yes	Yes
Clustered SE	Yes	Yes	Yes	Yes
Observations	175	175	174	174

* p < 0.10, ** p < 0.05, *** p < 0.01;

Robust standard errors, clustered at session level, in parentheses.

Table 5: Regulatory Room's Effect on Group Means for Comment Quality (T-Test)

Quality Criterion	Means		T-Test		
	Control	Treatment	Difference-in-Means	T-statistics	p-value
Relevance (0-4)	2.44	3	0.56	2.53	0.02
Comprehensibility (0-4)	2.33	3.09	0.76	2.66	0.02
Feasibility (0-4)	2	2.73	0.73	2.46	0.02

Table 6: Regulatory Room's Effect on Firm's Understanding of the Regulation and Propensity of Comment Submission

Dependent Variable:	Firms' understanding of the regulation (0-4)		Submitting a comment to the online platform=1	
	Without controls	With controls	Without controls	With controls
	(1)	(2)	(3)	(4)
Treatment	0.727*** (0.074)	0.731*** (0.063)	0.320*** (0.050)	0.323*** (0.060)
Female		0.108 (0.087)		-0.129* (0.071)
Constant	2.064*** (0.000)	2.168*** (0.074)	0.191*** (0.000)	0.044 (0.131)
Region FE	No	Yes	No	Yes
Session Clustered SE	Yes	Yes	Yes	Yes
Observations	90	90	90	90

* p < 0.10, ** p < 0.05, *** p < 0.01;

Robust standard errors, clustered at session level, in parentheses.

Table 7: Regulatory Room's Effect on Firms' Expectations on Understanding and Utilization of Submitted Comments

	Firms' expectations that government officials understand comment (0-4)		Firms' expectations that government officials use the comment in revision (0-4)	
	Without controls	With controls	Without controls	With controls
	(1)	(2)	(3)	(4)
Treatment	0.567*** (0.073)	0.541*** (0.064)	0.247 (0.174)	0.249 (0.170)
Female		-0.068 (0.186)		0.150 (0.219)
Constant	2.200*** (0.000)	2.156*** (0.140)	1.872*** (0.108)	1.608*** (0.171)
Region FE	No	Yes	No	Yes
Session Clustered SE	Yes	Yes	Yes	Yes
Observations	88	88	89	89

* p < 0.10, ** p < 0.05, *** p < 0.01;

Robust standard errors, clustered at session level, in parentheses.

Figure 1: Full Schedule of the Experimental Conditions

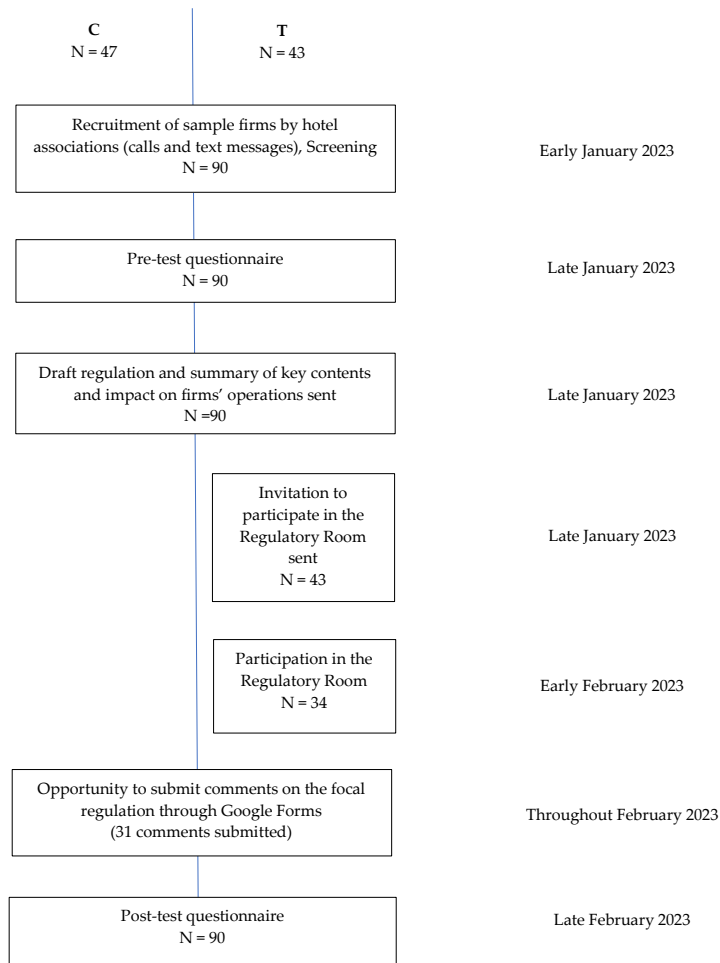


Figure 2: Assessment of Comment Quality by Legal Experts

