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THOUGHT LEADERSHIP BRIEF

Regional Innovation Policy Experiments in China: Should City E-Hailing Measures be Generalized?

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KEY POINTS

- China's regionally decentralized innovation system and policy experiments are misunderstood by many who posit a top-down, homogeneous system rather than a large, multilayered system that features interaction between central government and mid-level entities and affords considerable autonomy to city and regional policymakers.
- A case study of four Chinese cities shows that measures designed to regulate the business e-hailing have not been generalized across all regions/cities in China, but instead reflect conditions and factors that are specific to each of the cities.
- E-hailing measures adopted by the four cities differ from one another and in some cases conflict with city development policies or the central government's own guidelines.
- Innovation policies should be implemented at the regional/city level to ensure adoption of the right policy solutions for particular contexts.

ISSUE

China's central government has promoted innovation through several policymaking channels, including measures designed to be implemented at the regional and city levels. In a recent initiative the Ministry of Transportation established national "Temporary E-Hailing Service Management Measures" to address the potential benefits and problems associated with the rapidly expanding e-hailing industry. E-hailing enables customers to use electronic devices to arrange for transportation through ridesharing services, and these e-hailing measures were designed to enable cities to develop their own measures to regulate the business. The measures set in motion what amounts to a series of experiments (hence the inclusion of the word "Temporary" in the program's title), purportedly to provide data to be used in designing the most effective regulatory measures.

This case is interesting in part, however, because academic researchers and many other observers have characterized the central government's approach to such regionally focused policymaking as a top-down, linear process following a model that begins with a policy launch and proceeds directly through an "experiment" to feedback and eventually to dissemination of a single policy. That is, the prevailing view is that the central government, after monitoring policy experiments and assessing the outcomes, then broadly disseminates the policy deemed best among the tested policies across Chinese regions or cities. I and colleagues who work in innovation studies and related areas suspected that this model oversimplifies the reality of innovation policymaking in China.

In the study we conducted to examine this question, we chose four Chinese cities that had recently adopted versions of the central government's e-hailing measures. We selected the four cities – Xi'an, Chengdu, Beijing, and Guangzhou – based on several criteria: (1) *administrative rank* – we chose three sub-provincial capitals because of the relative policymaking independence they enjoy as well as Beijing because of its special status as the national capital, which would seemingly add weight to its policymaking decisions; (2) strategic position – each selected city is a Tier-1 or New Tier-1 city in *China Business News Weekly's ranks*; (3) socioeconomic situation – based on GDP per capita, registered/permanent populations, and city district populations; (4) geographical location – we wanted to balance near-coastal with interior cities; and (5) representativeness – each city was deemed to be well known as an important location.

Finally, for each of the four chosen cities, we conducted a content analysis of relevant city government documents that relate to the e-hailing measures. We classified these documents into four areas – population policy, innovation policy, traffic policy, and environmental policy – to assess relationships between the e-hailing measures each city adopted and policies each had implemented in these four areas.

ASSESSMENT

Broadly speaking, we found that the top-down, linear model of the implementation of innovation policies in China does not fit the facts on the ground. Instead, we derived three main takeaways from our study: (1) Each of the four cities adopted its own e-hailing measures, which are related in unique ways to the four abovementioned policy areas; (2) each of the four cities pursues unique goals in the four policy areas, suggesting that the factors that inform the measures differ considerably across the cities; and (3) each of the four cities follows its own policymaking *logic*, which of course affects the specific e-hailing measures it has adopted.

Figure 1. Location and Strictness of City Measures in Xi'an, Chengdu, Beijing, and Guangzhou

We developed a scoring system to rate each city's measures, enabling us to rate those measures as strict, moderate, or less stringent. A summary of our findings regarding the four cities' measures follows:

Xi'an: We found that Xi'an's e-hailing measures clearly conflict with its policy goals for population and innovation, and are partially inconsistent with its traffic and environmental goals. This conclusion is supported by evidence gathered from interviews with Xi'an e-hailing drivers, most of whom cannot understand why the city limits e-hailing so strictly, considering its potential as a channel for attracting new residents, encouraging innovation, and diversifying the traffic system. Xi'an thereby illustrates the complexity of city governments' attitudes to innovation insofar as Xi'an's e-hailing measures are inconsistent with its own related policy goals. This inconsistency is especially conspicuous for an innovative industry like e-mailing that requires regulation to operate effectively.

Chengdu: Chengdu's e-hailing measures generally align well with its policy goals, reflecting the results of our interviews with e-hailing drivers there, many of whom have come from rural areas to open innovative businesses as ridesharing drivers. Nevertheless, Chengu's e-hailing measures do not constitute a potentially generalizable policy. As they are based on the city's unique features – a large rural population and almost non-existent air quality problem – its policy works only in this context. Moreover, the sharp differences between Chengdu's and Xi'an's measures indicate that even two cities in similar geographical and socioeconomic situations can harbor distinct underlying concerns and deploy divergent policymaking procedures, reflecting their distinct logical policymaking principles. Policy generalization therefore cannot be an outcome of the central government's policy experiment in Chengdu.

Beijing: As China's capital city, Beijing features massive population pressure, an emphasis on scientific and technological as opposed to service innovation, a well-developed taxi system, and poor air quality. Beijing's e-hailing measures address these factors and align with the city's policy goals. We reinforced these findings in our interviews with Beijing taxi company managers, most of whom feel that there are sufficiently many licensed taxis in Beijing given its population pressure, long-term commitment to developing licensed taxi services, and air pollution. While these measures are reasonable and serve Beijing's needs, they are distinctive enough to make them unfit for generalizability across China.

Guangzhou: Guangzhou's e-hailing measures, which are generally consistent with its policy goals, are relatively moderate, as indicated in our interviews with e-hailing drivers and companies. Indeed, our interviewees reported that they had experienced little or no impact, either positive or negative, from Guangzhou's measures. Such moderation is suitable for a city with moderate population-control objectives, a combined emphasis on public and private transportation, and normal air quality. Nevertheless, the measures are also somewhat inconsistent with the city's stress on e-services, Internet+ technology, and new-energy automobiles. Here again Guangzhou's unique situation and policymaking mix, given its moderate urban problems, make it difficult to generalize its e-hailing measures nationwide.

Figure 2. Summary of Practical Regulations of the Four City Measures

Note: * "-" stands for "No requirement." ** Special regulations applying to cars using renewable energies including hydro power and electricity. In practice, it refers mostly to electric cars.

Regulation \ Cities		XI'AN	CHENGDU	BEIJING	GUANGZHOU
PRICE SETTING		Government-guided	Market	Government-guided	Market
DRIVER ELIGIBILITY		Xi'an hukou	Chengdu residential permit	Beijing hukou	Guangzhou residential permit
TECHNICAL VEHICLE REQUIRE-MENTS	**WHEEL BASE**	≥ 2700mm	-*	≥ 2700mm	-
	LENGTH	≥ 4850mm	-	-	≥ 4600mm
	WIDTH	≥ 1810mm	-	-	≥ 1710mm
	HEIGHT	≥ 1450mm	-	-	≥ 1420mm
	DISPLACEMENT	1.8T/2L ~ 3L	≥ 1.4T/1.6L	≥1.8T/2L	≥1.75L
NEW-ENERGY CAR**		Wheel base ≥ 2650mm; Range ≥ 250km		Wheel base ≥ 2650mm;	Wheel base ≥ 2650mm; Range ≥ 100km
SUMMARY OF REGULATIONS		**Strict**	**Less stringent**	**Strict**	**Moderate**

Putting it succinctly, we found in our study that the central government's e-hailing measures are *not* generalized across regions or cities. Instead, the cities themselves ultimately make e-mailing policy based on their own unique conditions. This undermines the conventional wisdom that China's innovation policy system, and its program of innovation policy experiments, follows a linear, top-down logic. On the contrary China follows a multivalent innovation policymaking logic. Its policy experiments have less to do with imposing top-down policies and much more to do with allowing cities and regions to craft innovation policies that are tailored to their unique situations.

RECOMMENDATIONS

As the above report of our study's findings makes clear, China's innovation policy scene accommodates considerable variation across cities and regions. The logic of Xi'an's measures seems inconsistent with its goals, whereas the logic of Chengdu's *Measures* perfectly aligns with its goals. The measures tested in Beijing and Guangzhou fall between these cases, with a mix of consistency and inconsistency. For cities that do not follow the same policymaking logic, such a national–city policy mix seems ill-suited to informing strategies for potentially generalizing policies across China.

Ultimately, then, I recommend that China embrace the complexity of the issues that cities and regions across this vast country face and forgo any attempt to disseminate policies that succeed only under the unique conditions that characterize individual cites and regions across the entire country. Fortunately, China's current innovation policymaking regime departs from the conventional conceptualization of a top-down innovation system that conducts logically coherent regional policy experiments with regional governments serving as experimental laboratories to enable the central government to generalize successful cases. Such regional policymaking reflects unique regional situations, policy goals, and policymaking logic. Our e-hailing cases therefore identify the ultimate purpose of an innovation system driven by policy experimentation: an experiment succeeds only to the extent that it serves a region's or city's unique needs, not the central government's needs. Only when and if such customization is permitted can regional governments effectively regulate, manage, implement, and spread an innovation.

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