

SMALL STEPS TO BIG ACHIEVEMENTS: INNOVATIVE PRACTICE OF "INTERNET PLUS" GOVERNMENT SERVICE OF LOCAL GOVERNMENT IN CHINA

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Abstract: The "Internet plus" government service reform in China has progressed through three stages, namely one-stop service, one-window service, and companion service. This reform has become a significant example of reshaping the relationship between the local government and the public. Utilizing the technology-organization-environment (TOE) framework, technical, organizational, and environmental factors all impact the evolution process of "Internet plus" government services; however, the main driving force differs among them. One-stop service is primarily triggered by external environmental factors with the aim of streamlining foreign and domestic investment approval procedures, resolving complex approval issues, and promoting transparency in government affairs. At that time, basic information technologies were available in administrative service centers rather than widespread internet connections. One-window service is triggered by organizational reform, process reengineering, institutional improvement as well as influenced by top-down reforms to streamline administration and advancements in information technology. It demonstrates an active role and great potential in enhancing administrative efficiency. Companion service is introduced to enhance the local business environment by providing a new online-to-offline experience. Applicants can benefit from personalized services such as Al-generated flowcharts and policy recommendations based on knowledge bases, policy data pools, big data technologies and artificial intelligence. In conclusion, the innovative practice of "Internet plus" government services indicates that integrated operation of online and offline services should be the direction for improving government services. Varied public services along with necessary administrative approval processes should be available both online and offline, in order to provide integrated rather than fragmented services. Information technology, when embedded in organizational and environmental contexts, can play an essential role in the innovation of government services. This may lead to a shift towards a collaborative partnership between the regulator and the regulated, as well as the service provider and the served.

Introduction

The concept of "Internet plus" government service has been at the forefront of local government service innovation in China for many years. The innovative practices in China have not only significantly improved local government services but also sparked theoretical thinking, with some local practices becoming global case studies. How does "Internet plus" government service innovation come about? Is technology the driving force behind each service

reform? What insights can be gained for future innovations?

The innovation of "Internet plus" government services cannot be achieved solely through technology. A generic⁴⁹ framework known as the Technology-Organization-Environment (TOE) framework ⁵⁰ are suitable to explain how the adoption and use of new technologies are influenced by three main components, i.e. the technology itself, the organizational context in which it is used, and the external environment in which the organization operates.

One-stop Service: Environment Context Oriented

One-stop service emerged in the mid-to-late 1990s, marked by the establishment of China's first prefecture-level city administrative service center in Jiangmen City, Guangdong Province on February 28, 1997. This practice rapidly spread throughout the country. As of April 2017, approximately 94.3% of local people's governments at and above the county level had established a total of 3,058 government service centers in China.

One-stop Service: Environmental Perspective

The introduction of the one-stop service is mainly influenced by the external environment, encompassing investment, social, and policy environments.

Investment environment: demand-driven. The early reform of government services by Chinese local governments initiated with optimizing foreign investment approval services and providing a favorable environment for foreign investment, which also reflected the demand orientation of local governments at that time. In the 1990s, the large-scale economic construction and development requirements of local governments coexisted with the relative shortage of domestic funds. Increasing the introduction of foreign investment emerged as an effective means to alleviate the pressure of insufficient funds. Consequently, during this period, the central and local governments adopted a proactive foreign investment policy, and the open area in China expanded from the coastal regions to the inland provinces and cities. As a result, the contracted foreign capital amount in 1992 exceeded the total of the previous 13 years. From 1992 to 2000, a total of 320,000 foreign-invested enterprises were established in China. With the growth of international investment and international enterprises, local governments in China initiated the exploration of the service model of centralizing the approval affairs of foreign investments in administrative service centers, thereby forming the one-stop service model through the aggregation of approval officers and approval resources.

Social environment: problem-solving oriented. The 1990s marked the initial stage for China to establish and build a socialist market economy system, and there was an urgent need for government functions and government services to adapt to the socialist market economy system. With the increase of domestic market entities, the empirical practice of foreign investment approval services

⁴⁹ Zhu,K. & Kraemer, K.L.(2005).Post-adoption variations in usage and value of e-business by organizations: Cross-country evidence from the retail industry. Information Systems Research, 16(1),63.

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promptly expanded to other areas of administrative approvals. One of the early influential examples occurred in 2014 in Chancheng District, Foshan City, Guangdong Province. The establishment of the administrative service center aimed to address issues such as the unresponsiveness of approval officers and overtime handling. The reform has reduced the number of service windows in the service hall by 30%. Meanwhile, with fewer window staff, the number of approval affairs provided has increased by more than three times. The waiting time in line has also been reduced by more than half, and the average processing time has been shortened by 7.5 working days. These achievements have led to the rapid dissemination of such reform practices across the country.

Policy environment: implementation-focused. From the perspective of policy implementation, another factor facilitating the establishment of administrative service centers in local governments during this period was the government transparent initiates. Promoting by the central government in the mid-to-late 1990s, local governments established administrative service centers as important platforms to achieve transparent government. Since there were only few people could access the early government websites via the Internet in 1999, administrative service centers became important windows for local governments to display information to the public, answer public inquiries, and handle various administrative matters. This "face-to-face" communication mode between the government and the public effectively promoted the openness of government information and the construction of a feedback mechanism for government services. Therefore, these practices persist to the present day.

One-stop Service: Organizational Perspective

From an organizational viewpoint, initially, the administrative service center operated as a mailroom as only the acceptance process was relocated. Subsequently, a more profound reformation occurred. There were two principal phases in this reformation. In the first phase, all government departments endowed with approval functions consolidated their approval functions and tasks into one specific office within the organization. In the second phase, all approval service offices from diverse government departments were concentrated in an administrative service center encompassing their administrative domain. This kind of one-stop service has facilitated the handling of approval affairs by the public and enhanced the approval efficiency. As of 2016, the total number of approval affairs processed by administrative service centers throughout China reached 602 million, equivalent to 197,000 for each center and 784 per day.

One-stop Service: Technological Perspective

In the early stages of one-stop service implementation, government informatization was just beginning. The "one-stop service" model was primarily supported by a technology cluster that facilitated a paperless office environment, which included real-time communication technologies such as telephones, emails, and office automation systems. In fact, governments at all levels enhanced the efficiency of approval processes mainly through the concentration of physical space rather than through changes in information technology.

One-window Service: Organizational Context Oriented

One-window service refers to a comprehensive reform in which all staff members at administrative service centers are well-trained to function as can provide a wide range of administrative services, as opposed to a few services. Qualified external employees are recruited for one-window service roles, allowing professional personnel from line departments to spend minimal time on receiving and processing administrative application materials.

One-window Service: Organizational Perspective

Organizational reforms. Organizational reforms, both large and small, have become the most influential factors in implementing comprehensive window reform. Firstly, the municipal administrative service center has been transformed into the municipal government service office, which is part of the municipal government. The municipal government service office is responsible for more comprehensive coordination functions related to government approval processes. Secondly, some regions in China established a bureau exclusively responsible for administrative approval affairs. Although the one-stop service reform had already consolidated both approval departments and personnel within the administrative service center, these government approval functions and associated human resources did not belong to the administrative service center. This meant that the administrative service center had limited influence over the performance of all approval staff. Additionally, it was challenging to establish connections between different administrative approval processes without cross-departmental coordination. However, with the establishment of an administrative approval bureau, all approval staff and functions are centralized within the bureau, allowing for streamlined internal business connections.

One notable example is the Administrative Approval Bureau of Tianjin Binhai New Area, which consolidated 109 seals into a single seal. By streamlining the number of redundant and overlapping approval items, the total number of approval items decreased from 216 to 147. Additionally, the workforce was significantly reduced from nearly 600 approval staff across 18 departments to just 102 personnel within one bureau. Furthermore, the approval time for investment projects and enterprise establishment has been reduced to less than half and one-third of the original durations, respectively. To date, a total of 180 administrative approval bureaus have been established, facilitating the implementation of the "one seal of approval" initiative.

Process reengineering. Organizational reforms are always implemented in tandem with process reengineering. The public no longer needs to stand in separate lines thanks to online reservations and comprehensive window reform. Following the reservation information, applicants can deliver all approval applications in one window.

Process reengineering also occurs when series approval is converted to parallel approval. Public records indicate that most of the investment projects requires 6-10 departments' approvals. The time required for Dazhou, Sichuan province, to review and approve investment construction projects has been cut from



1,042 days to 60 days.

Institutional improvement. Another crucial element in the transformation of government services is institutional improvement. The Internet plus government service reform standards and regulations are presented in the form of local legislation in Shanghai and many other places. These institutions frequently discuss matters such as service standards, construction requirements of administrative service centers, legal effect of electronic seals, and duties of various government levels.

One-window Service: Environmental Perspective

The top-down reform of streamline administration, delegate power, strengthen regulation, and improve services becomes the key environmental factor of the comprehensive window reform. The State Council departments' total approved items decreased from 1692 to 632 with the start of the streamline administration and delegating power reform in 2012. The overall number of approval items has been lowered by 50% to 70% at the provincial level. As a result, the number of approval items dealt with each service windows have been reduced from thousands to hundreds.

One-window Service: Technological Perspective

Integrated online government service platform. In order to link all government departments and offer online access to administrative approval applications with a single login port, an integrated online government service platform supporting a unified home page is vital. Provinces such as Zhejiang, Guangdong, Guizhou, Jiangsu, and others created internet service platforms that encompassed provinces, cities and counties about 2017. The unified login page took the role of the previous disjointed government homepages, greatly simplifying the process for enterprises and the general public to locate the government and its activities. These functionalities are supported by PC and mobile apps.

Service hotlines. A single call and response platform is also required to ensure that the one-window service is qualified. Through the service page's online or offline feedback windows, complaints, questions, comments, and ideas regarding government services can be obtained. The unified call and response platform will then compile all of the data and information for additional analysis that determines the best course of action. More than 400 administrative service centers around China using government hotlines as the unique phone number for approval matters, making it easy for the general public to remember.

Pre-filled forms. Pre-filled forms have become widely utilized in administrative service centers since 2018, thanks to the integration of big data technology and artificial intelligence. This innovation has significantly reduced the time spent by the public on form-filling, as individuals and enterprises now only need to review pre-filled information related to themselves. With the support of electronic license databases, the average number of documents carried by each applicant has been reduced by 14, or 60.2 percent, according to the top five administrative approval affairs.

Express delivery. Since 2018, express delivery services have also been introduced to minimize the need for applicants to travel between administrative service centers and their own locations. At a county-level administrative service center like Yiwu in Zhejiang province, for example, the average daily volume of express parcels related to approval results has exceeded 1,000 pieces. This development has led to a reduction of nearly 300,000 in-person visits annually at service windows.

Companion Service: Technology Context Oriented

Companion service is another recent advancement aimed at enhancing the business environment through an improved service experience. With companion service, administrative approval applicants no longer need to navigate government websites in search of specific procedures or follow steps independently when initiating an application process. Instead, they can directly approach professional staff waiting within administrative service centers for free assistance. These staff members are no longer serve behind windows; rather they sit or stand alongside applicants and patiently listen while providing guidance on completing subsequent application tasks. By entrusting skilled staff with this tedious approval process instead of attempting it alone, applicants can expect a much faster and more efficient service.

Companion Service: Technological Perspective

Knowledge-driven. The government services' knowledge base is highly valuable for enhancing the alignment of approval affairs, processes, materials, and related policies. It facilitates the creation of personalized approval flowcharts, which are then delivered to applicants through QR codes. Applicants can utilize the QR code to access their personal or enterprise files and dynamically track their application progress. Leveraging the knowledge base has significantly increased the number of enterprises served per staff member at the Huangpu District Administrative Service Center from 1 to 26 per day, resulting in a 12-fold improvement in efficiency.

Scene-driven. Providing integrated services based on applicants' specific needs is essential. For instance, if an applicant expresses interest in establishing a convenience store, all relevant approval requirements pertaining to this scenario should be streamlined and provided accordingly. This may involve simplifying the overall process by establishing connections between various approval procedures and disregarding any irrelevant items.

Data-driven. Enterprises and the general public often struggle to identify suitable policies for their needs. To address this issue, the Huangpu District Administrative Service Center has implemented a data-driven policy matching system. This system connects policies that benefit both enterprises and the public and currently incorporates 26 policies from 11 departments for policy matching purposes. The goal is to recommend appropriate policies to enterprises or members of the public.

Virtual settlement. Enhancing vertical integration between district and sub-district level administrative service centers is crucial. By establishing online



virtual settlement connections with 10 sub-district service centers, the Huangpu District Administrative Service Center aims to extend the center's service system and standards down to grassroots levels, in order to make it possible for enterprises nearby to enjoy a standardized service experience.

Companion Service: Organizational Perspective

Organization integration. Not many administrative service centers collaborate with Big Data Centers, but the Huangpu District Administrative Service Center is an exception. This collaboration provides great convenience for the development of government service application scenarios supported by new era digital technology.

Cross-boundary collaboration. The Huangpu District Administrative Service Center initiates new service experiences, such as round table services, through collaboration with different departments specialized in food safety regulation, park and greenbelt management, culture and tourism. Additionally, applicants can now apply for approval affairs of other local governments without leaving their living or working place. Remote guidance will be provided in a timely manner from remote staff to effectively reduce the cost for applicants seeking cross-regional services.

Companion Service: Environmental Perspective

Circumstances change people, and vice versa. In order to better serve enterprises and the public, the Huangpu District Administrative Service Center has been relocated to the most bustling area in Shanghai as of mid-2023. The newly renovated building housing the administrative service center is impressive; standing at its gate offers a clear view of the world-famous Oriental Pearl Tower. Interestingly, after relocation, applicants have become more polite and there has been a significant drop in dissatisfied applicants.

Conclusion

Based on the TOE framework, this article demonstrates that technical factors, organizational factors, and environmental factors all influence the evolution process of "Internet plus" government services for local governments in China. Specifically, from a driving force perspective, external environmental factors primarily influence the launch of one-stop services. The promotion of one-window service reform is mainly due to organizational influences. Additionally, companion service reform benefits from innovative applications of new generation information technology. From an innovation cycle perspective, it is evident that the iterative evolution of "Internet plus" government service innovation in local governments in China is not a process of the latter replacing the former, but rather a process of the latter constantly enriching and developing on the basis of the former. From a regional relations perspective, "Internet plus" government service innovation spreads rapidly among regions, where they are both competitors and partners. This lays the foundation for a virtuous cycle of "Internet plus" government service innovation in China.

The analysis of innovative practices of "Internet plus" government services by

local governments in China not only enlightens us about what has happened, but also prompts us about what will happen in the future. Firstly, it should be noted that with deepening government service reforms, offline services are not canceled or reduced; instead, they are enriched and widespread. For example, 24-hour service halls are available in some district-level administrative service centers and new service spots run as branches of administrative service centers extend to banks, post offices, and residential service centers. Offline services play an extremely important role for enterprises and individuals as they allow applicants to better focus on their own business without being bothered by digital gaps. Secondly, the range of one-stop service, one-window service and companion service continues to expand. One-stop services focus on foreign and domestic administrative approval affairs while one-window services provide various public services alongside traditional administrative approval affairs. Companion services make personalized services flexible and accessible which adds a new experience to previous offerings. Thirdly, digital and intelligent technologies are increasingly pivotal in enhancing government services, fostering heightened service efficiency, and fostering an optimal business environment. These advancements may transform the relationship between regulators and the regulated entities, as well as that between service providers and the served, towards a collaborative partnership which is mutually beneficial.

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