A Digitalized Full-Process Working Closed Loop: Systematically Enhancing Risk Prevention and Control Capabilities

—— *China's Digital Invoice Anti-Fraud Early Warning System*

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CONTENTS

Part 01

Implementation Background

Nationwide Rollout of Fully Digitalized Electronic Invoices

Three Databases & One Map
+
Case Data Analyst

Issued, delivered, and stored digitally at zero cost, with the same legal effect as paper invoices

Shifting from "invoice-based tax administration" to "data-driven, classification-based precision supervision"

Enables symmetric information sharing among issuers, recipients, and tax authorities

Part 02

Implementation Pathway

Three Databases & One Map + Case Data Analyst
Risk Prevention and Control Mechanism

Case data analysts regularly deconstruct and analyze each risk case, extracting key insights, identifying patterns, and proposing recommendations.

Officially launched nationwide on December 1, 2024

"Case Collection
—Methodology Extraction
—Strategy Development
—Model Optimization
—Rapid Nationwide Deployment"

Regular centralized work sessions and group discussions

Standardized Workflows

—— "Three Databases" (a digitalized "Merck Manual")

Case Dataset (analogous to a "patient case database")

Cases are systematically compiled in a standardized data format—without deduplication—by describing and recreating the violation process in plain, scenario-based language.

Methodology Dataset (analogous to a "virus database")

The "signature" characteristics of fraudulent methodologies are analyzed and extracted, deconstructed into "element-based" techniques—with additions only and no deletions.

Strategy & Measure Dataset (analogous to a "treatment protocol database")

This shifts prevention and control measures from ex-post data extraction and manual analysis—essentially "chasing after" fraudsters—to a more systematic approach where indicator rules are embedded in the information system, combining pre-event and in-process prevention with ex-post manual reinforcement.

Standardized Workflows-

"One Map" (a panoramic "bamboo" overview)

Uses the entire lifecycle of taxpayer business activities as the main trunk, business scenarios as branches, and "methodology + case" as leaves. This provides commanders and managers with a panoramic "risk prevention and control operations map," ensuring that once a case occurs, the breach point and responsible role can be quickly located, enabling timely adjustments to responsibilities and reinforcement of support.

Deployment Map

A Set of Management Mechanisms

Strengthen the management of case data analysts through full-process documentation, performance disclosure and comparison, incentive and training programs, and empowerment support. Based on the completion of case data analysts' work items, evaluation of provincial-level tax authorities and individual analysts is reinforced through personal point systems and linked organizational and individual assessments, mobilizing the enthusiasm of both provincial authorities and individual analysts.

A Set of Work Guidelines

Clarify routine and centralized work items, solidify provincial-level risk prevention responsibilities while giving full play to the headquarters' role in integration and guidance. By specifying business descriptions, work processes, work standards, and completion timelines for each item, standardize and regulate case analysis work, improving the quality of "Three Databases, One Map" entries. By standardizing the research and optimization of digital invoice indicator models, promote the translation of "Three Databases, One Map" findings into practical outcomes.

A Working Platform

Focus on leveraging digital technologies to support the efficient conduct of case analysis work and implement quantitative management of case data analysts.

Relying on the Golden Tax Phase IV "Smart Tax Support" (underwater data support) and the "Integrated" risk management system (above-water functional applications), achieve a full-process closed loop connecting all stages from case collection to indicator deployment to prevention and control outcomes.

By consolidating, capturing, and automatically generating information needed for case analysis, reduce the workload on case data analysts while continuously improving the quality of the "Three Databases, One Map."

Part 03

Implementation Outcomes

"real-time prevention and online control"

01

Pre-event:
Preset rules enable online prevention (primarily machine-based)

02

In-process:
Behavioral analysis enables real-time control (machine + human)

03

Post-event:
Penetrating linkage enables timely enforcement (human + machine)

Implementation Outcomes

According to statistics, the "Three Databases, One Map + Case Data Analyst" mechanism controls over 90% of digital invoice risks through the "pre-event + in-process" stages combined, achieving a prevention-first approach that advances false invoicing prevention from loss mitigation and recovery to loss-free operation.

Part 04

Future Improvement Directions

Future Improvement Directions

01

Apply new technologies such as Large Language Models

02

Make full use of the "Three Databases & One Map + Case Data Analyst" Mechanism

THANKS