The paper offers a review of ideas and practices relating Taiwan railway Administration (TRA): unique and distinctively different to North American and European counterparts. Emphasis is placed on how technology and standards actually influence operational performance, customer experience, and organizational culture; including: technology and standards priorities be explicit in public schedules? What is an appropriate level of standardization? Is technology better thought of as workplace assistance and functional replacement?

ACKNOWLEDGMENTS

The authors thank the TRA for providing access to its data and allowing photographs. C.C. Young (BOTHSR), Prof. T.C. Kao, Prof. Y.C. Lai, Powen Huang, and K.C. Liu (NTU), Dr. S.T. Chan, Sally Kao, and Kevin Yeh (TRTC) were helpful in providing access to this information. TRA's fare control occurs at origin, destination, and en-route. Conductors use portable thermal ticket printers to sell onboard fares. 50% penalty fare applies for those failing to purchase tickets before arriving at destination.

TRA's TYPICAL TRACK ARRANGEMENTS

• Side Platforms and Through Tracks
• Up Main/Down Loop

Simple, robust, single-purpose machines with a foolproof. Employees have to “get it right the first time”.

Prioritizing Investment Based on Technology Characteristics:

• Technology as Workplace Assistance, not Functional Replacement:
• Automation

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TRA's operation policies may be labour-intensive but include functional and ergonomic customer service staff. TRA volunteers are a mixture of retired railway employees, student trainees, and members of the public.

Advance-purchase ticket machines have touch screens and allow credit and debit card payments (left) computerized ticket machines provide real-time customer information.

On long distance trains, cloistered cars move through traditional exchange/transfer areas for passengers (left); sandwiched commuter exchange stations (movement authorized) with Platform operator (right).

A daily mine RPO of 1,400 passengers is typical. The TRA has delayed only 27 days since requiring replacement equipment.

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A friendly, modern, and professional environment is an essential; technology can aid in achieving this goal.

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