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Capacity Building is Key for Accelerating Open-loop Payments Adoption Among Transit Agencies

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Issue

Open-loop payments systems allow riders to pay fares using general-purpose payment methods like credit cards, debit cards, or mobile wallets (Apple Pay, Google Pay), rather than being limited to a single transit agency's own payment system. Broad adoption of open-loop payments offers major benefits for public transit, including lower costs, greater convenience for riders, and improved operational efficiency.

The California Integrated Travel Project (Cal-ITP) has helped pave the way for transit agencies interested in this technology by providing resources, guidance, and hands-on support. Cal-ITP works directly with transit agencies to address known challenges and identify solutions to emerging barriers. Understanding how agencies decide whether to adopt open-loop and other technologies is key to ensuring the effectiveness of programs like Cal-ITP. To explore this, we surveyed transit agencies in California to identify the factors that influence adoption of open-loop payments.

Key Research Findings

Agency adoption of open-loop payment varies widely. California and U.S. transit systems are still in the early stages of shifting towards open-loop payments. Survey results show a high degree of variation in adoption. Some agencies are actively implementing open-loop, others are considering it, and many have yet to begin (see Table 1). As adoption accelerates, additional resources may be needed to assist agencies that are not (or cannot be) among the early adopters.

Open-loop Payments Implementation	Count	Percent
No, my agency has not considered it	10	18%
No, my agency has considered it, but decided against it	4	7%
No, but my agency is currently considering it	19	33%
Yes, my agency is in the process of implementing open payments	15	26%
Yes, my agency has implemented open payments	9	16%
Total Reporting		57

Table 1. Implementation of Open-loop Payments.

Agencies with greater capacity and facing fewer challenges are more likely to adopt open-loop. The survey asked respondents about staff capacity, barriers, and other priorities in the context of considering open-loop payments. Six measures were produced based on their responses to items related to each of these topics. *Barriers* is a count of barriers that are reported to be small or substantial. *Priorities* is a count of actions that are a higher priority than open payments. *Time* is the count of open-loop system elements that staff may have or have sufficient time for. *Knowledge* is the count of open-loop system elements staff are somewhat or very knowledgeable about. *Support* is the count of groups that support or strongly support open-loop. *Innovation* is the count of statements about agency support for innovation the respondent agrees or strongly agrees with. Among agencies

currently considering or implementing open-loop payments, the counts for staff time, knowledge and support are all significantly higher than for those who have not considered or have decided against open-loop (see Figure 1). These findings suggest that capacity—both in resources and expertise—is a key factor in moving toward open-loop payment systems.

Adoption often happens alongside other innovations.

Agencies were also asked about implementing other technologies including Global Transit Feed Specification (GTFS), multimodal payment integration, mobile ticketing, on-demand transit service, realtime information, and on-board Wi-Fi. Most agencies have adopted GTFS (80%) and realtime information (89%). On average, agencies have implemented about three of these innovations. The number of adopted new technologies is higher, at 4.2 on average, for agencies currently implementing open-loop compared to agencies that already adopted open-loop (3.4 on average) and agencies currently considering open-loop (3.2 on average).

Support for open-loop payments is high. Agencies reported that all internal and affiliated groups—including the agency’s board, executive team, planners, operations, IT team, passengers, community-based organizations—support open-loop payments for their agency. Fewer than 5% of agencies reported opposition from any groups. Approximately, 70% or more of all agencies reported all groups were supportive or very supportive of open-loop. The only exceptions are drivers (about 56% reported to support or strongly support) and community-based organizations (about 64% reported to support or strongly support).

More Information

This policy brief is drawn from the report, “Transit Agency Adoption of Open-loop Payments in California.” The report can be found on the UC ITS website at <https://www.ucits.org/research-project/rimi-4j/>. For more information, contact Susie Pike at scpike@ucdavis.edu.

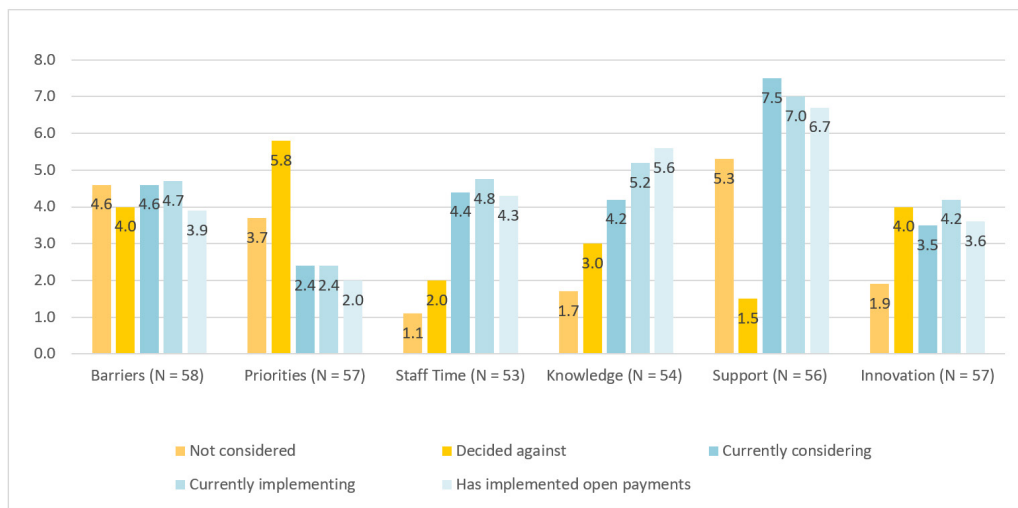


Figure 1. Mean Measures of Barriers, Competing Priorities, Capacity, with respect to Open-loop Payments Adoption.^{1,2,3}

¹We estimated analysis of variance for each measure. All are statistically significant at the 0.01 level, except the number of barriers.

²Sample sizes vary due to item non-response.

³The number of items varied across measures (e.g., 8 priorities were listed, while only 6 barriers were listed).

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