



# Implementation of Access by KAI Innovation in Public Service Transformation at PT KAI (Persero) Regional Division II West Sumatra

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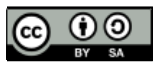
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**Abstract:** This study is based on the changes in services that PT KAI (Persero) made when KAI launched the Access application, which serves as a tool to provide customers with train ticket purchasing services. The purpose of this study is to determine how effectively the Access innovation by KAI is being used, as well as the obstacles faced in its implementation. This type of research is qualitative, and the method is descriptive. Data was collected through documentation studies and interviews. Source triangulation techniques and data analysis techniques were used to test the validity of the data; both techniques involved data preparation, inference, and reduction. The research findings show that this KAI access innovation has been quite helpful to passengers with some additional features, and this innovation has changed the service significantly. However, there are still problems with unclear seat information and applications.

**Keywords:** Innovation, Access by KAI, Public Service Transformation

## Introduction

Technological advances are currently developing very rapidly. One of the things that utilizes this technological advancement is public services. Information technology can be used by public and private sector entities to provide services and information quickly and easily (Herawati et al., 2022). The responsiveness of public service providers fosters service innovation. The idea of innovation in public services requires changes in government, especially in terms of improving public services. In the digital era, transportation service companies innovate by utilizing technological sophistication, such as the use of applications, to support the services they provide to customers. The use of applications allows transportation companies to save time and be more efficient in providing services to customers (Eka, 2021). Quality e-service is defined as internet-based customer service that is interactive and delivered by tech-savvy consumers.

Speaking of transportation services, one of the most popular modes of public transportation is the train, because of the affordable rates and comfort provided. PT Kereta Api Indonesia (Persero), is a leading passenger transportation company in Indonesia that continues to innovate by utilizing technological advances to complement the needs of its customers. PT KAI (Persero) introduced an electronic ticketing system (Fortuna, 2021). Electronic tickets, often known as online tickets, are a means of documenting the process of selling travel tickets to customers without having to physically collect valuable documentation or paper tickets.

In an effort to improve services to train users in Indonesia, PT KAI (Persero) Divre II West Sumatra began using a mobile application called KAI Access in 2014 and in early August 2023 changed its name to Access by KAI (Filgueiras, 2019). The redesign of KAI Access in this latest innovation is based on customer feedback from the Play Store, App Store, Call Center CC121, customer satisfaction surveys, and KAI consultants.

This Access by KAI innovation should be a solution to technological advances provided by KAI to customers to make it easier to use train services through new functions that have more value (Agostino, 2020). In addition to improving existing features, PT KAI is also working on new service capabilities to better meet the needs of its users. We currently offer four featured capabilities: hotel booking trip planner, train tracking, and points (Citra, 2021). Furthermore, there are also improvements to other functions to make it easier for users and adapt to technological advancements, such as booking tickets for KRL, airport trains, Jabodetabek LRT, check-in with facial recognition, ticket transfers, and other cutting-edge train products (Sourdin, 2020).

Before the Access by KAI application, passengers had to come early to order tickets at the counter, and queue long when buying tickets, especially during homecoming and holidays (Didin, 2020). In addition, there are also many brokers who sell tickets at expensive

prices if you buy directly at the counter. However, there are still many obstacles and problems in using the Access by KAI application in the West Sumatra Divre.

Behind the goal of Access by KAI to make it easier for passengers to use the services they provide, there are still several problems that have occurred since the advent of this application. There are several complaints obtained from the scores, reviews, and ratings given by consumers after using the Access by KAI application on the App Store (Apple) and Play Store (Android) (Rossi, 2021). Customers generally have problems using the application, such as the lack of payment methods, frequent errors to exit the application. As a result, passengers feel dissatisfied with the services offered by the Access by KAI application (Wiprächtiger, 2019). The Access by KAI Mobile Application version has been updated and there are several problems, including account registration and login, version updates (loading, bug errors, self-exit), booking features, schedule changes, cancellations, train boarding, transaction payments, seat selection, and passenger discounts (Crivellaro, 2019). Although this Access by KAI program is an improvement from the previous version, it is not the only one, there are still many problems felt by passengers when using it.

The theory used in this study is the concept of innovation, according to Gopalakrishnan and Damanpur, innovation basically refers to something new, whether in the form of ideas, products, methods, or new forms of service (Curtis, 2019). According to Schumpeter, innovation can increase the value of products, services, work processes, marketing, distribution networks, and regulations, which are not only beneficial to the company, but also to stakeholders and society. (Setiawan & Ikbali, n.d.). Innovation in its application has characteristics. According to Rogers (2003), innovation attributes include: relative advantage, suitability, complexity, testability, and observability.

## Methodology

In this study, the authors used a qualitative approach with descriptive methods, which was carried out at PT KAI (Persero) Regional Division II West Sumatra. The parties who became informants in supporting this research involved the Supervisor of Marketing and Sales of Passenger Transport, Ticketing Officer, and passengers (Schiavone, 2019). Data collection was conducted through interviews, and documentation studies. Data validity test was applied through source triangulation. Meanwhile, data analysis techniques involved data reduction, data presentation, and data conclusion drawing and verification.

## Result and Discussion

Based on the research findings, in order to see how the successful application of Access by KAI innovation in Public Service Transformation at PT KAI Divre II West Sumatra can be stated based on the findings, as follows:

### 1. Relative advantage

Access by KAI innovation in service transformation implemented with relative advantages can facilitate passengers in purchasing tickets, reserving tickets far away, and getting train schedule information (Simmonds, 2021). In this Access by KAI innovation, there are benefits that can be obtained such as booking airport train tickets, taxis, blue birds, damri, ordering meals, booking hotels, and topping up credit. Since the implementation of the Access by KAI application, which has more value than the previous application, it can have a significant impact on the service process, where 70% of purchases in the application and 30% of purchases directly. According to Roger (in (Pangestu, 2016), relative advantage is to provide advantages and added value compared to previous innovations, and an invention has an inherent novelty value that distinguishes it from others. If it is associated with this research that this Access by KAI innovation has the latest features and has more value than the previous application (Agostino, 2022; Shin, 2019).

### 2. Suitability

Access by KAI innovation in service transformation at PT KAI (Persero) Regional Division II West Sumatra which is implemented with suitability, is in accordance with what is needed by passengers and the changes are not too different from the previous application. Basically, PT KAI works according to passenger needs or requests (Moore, 2019; Raya, 2020). The reservation feature can help passengers in booking tickets, and can also book tickets for other people without the account owner participating in the trip. According to Rogers (Purba, 2021), suitability is the level of conformity of innovation to the value of past experience and user needs, without discarding ideas from previous innovations in order to facilitate the adaptation process. If it is related to this research that the Access by KAI application is an innovation from the KAI Access application, which in its application does not change the entirety of the previous application but there are several additional features that are in accordance with user needs (Chouraqui, 2020).

### 3. Ease of observation

Based on the results of the study, it shows that the ease of observation of the Access by KAI innovation at PT KAI Divre II West Sumatra is quite helpful for passengers in its use, with the addition of several features from the previous application, which is in accordance with the principle of PT KAI providing a service that can facilitate its users in using the products or services they provide. According to Roger (in Pangestu: 2016), the ease of observation is that an innovation must be proven in terms of how it functions and produces something better. If it is related to this research that this Access by KAI innovation can help and facilitate passengers in using it (Kitsios, 2023; Samuels, 2020).

#### 4. The possibility of being tested

Access by KAI innovation at PT KAI Divre II West Sumatra which is carried out with the possibility of being tested, has conducted trials before being officially used by passengers (Imran, 2019). However, not all passengers know if there is a trial conducted by PT KAI, there are some passengers who do not know if there is a trial. So that passengers start using this application when it is officially used publicly. According to Roger (in Pangestu: 2016), the possibility of being tried is that an innovative product must go through a public testing stage where everyone can evaluate its quality. The opportunity to assess the quality of an innovation. If it is related to this research that the trial on the Access by KAI application has been carried out by KAI both directly at the socket, in public places, even on social media, but not all users know if there is this trial, so many of the passengers use this application after it is official.

#### 5. Complexity

Based on the results of the study, it shows that the complexity of using Access by KAI at PT KAI (Persero) Divre II West Sumatra is still complicated for some passengers. However, as much as possible it is minimized by PT KAI itself, whose name is a product related to any technology, at any time there can be problems in it (Xing, 2021). In using this application, there are several complications in its use, such as information that seats are always full, not being able to book tickets for far away, and the application often logs out. According to Roger (in Pangestu: 2016), complexity is a condition for understanding and using innovation by users, with a higher level of complexity than before (Sheskin, 2020; Xu, 2019). If it is related to this research that the complexity of the Access by KAI innovation does exist, even from several reviews and statements from passengers, there are still complexities in its use, which did not occur in the previous application so that KAI can minimize the complexity of the current application (Agarwal, 2019; Rodima-Taylor, 2019).

### Conclusion

The application of Access by KAI innovation in the transformation of public services at PT Kereta Api Indonesia (Persero) Regional Division II West Sumatra is quite helpful for passengers with the latest features added and the service has also changed significantly with more purchases from the application than direct purchases at the counter. However, there are still complications faced by passengers when using this Access by KAI application. Although KAI always makes improvements regarding this frequent problem, receiving input from users is important for the smooth running of the services provided by PT KAI later.

## References

- Agarwal, A. K. (2019). Innovations in vascular access for hemodialysis. *Kidney International*, 95(5), 1053–1063. <https://doi.org/10.1016/j.kint.2018.11.046>
- Agostino, D. (2020). New development: COVID-19 as an accelerator of digital transformation in public service delivery. *Public Money and Management*, 1–4. <https://doi.org/10.1080/09540962.2020.1764206>
- Agostino, D. (2022). Accounting and accountability for the digital transformation of public services. *Financial Accountability and Management*, 38(2), 145–151. <https://doi.org/10.1111/faam.12314>
- Chouraqui, J. (2020). Public management reforms and the transformation of public services: From international trends to the local scale, how are territories affected? *Annales de Geographie*, 2020(732), 5–30.
- Citra, W. (2021). E-boarding KAI access summative usability analysis with adoption of USE questionnaire. *Journal of Physics: Conference Series*, 1918(4). <https://doi.org/10.1088/1742-6596/1918/4/042134>
- Crivellaro, C. (2019). Infrastructuring public service transformation: Creating collaborative spaces between communities and institutions through HCI research. *ACM Transactions on Computer-Human Interaction*, 26(3). <https://doi.org/10.1145/3310284>
- Curtis, S. (2019). Digital transformation — the silver bullet to public service improvement? *Public Money and Management*, 39(5), 322–324. <https://doi.org/10.1080/09540962.2019.1611233>
- Didin, F. S. (2020). Usability Evaluation of KAI Access Application. *IOP Conference Series: Earth and Environmental Science*, 537(1). <https://doi.org/10.1088/1755-1315/537/1/012019>
- Eka, A. (2021). *Proses Pelayanan Sistem E-Ticketing Pada Kmp. Agung Samudra Ix Di Pelabuhan Ketapang–Gilimanuk Oleh Pt. Pelayaran Agung Samudera Di Dermaga LCM*.
- Filgueiras, F. (2019). Digital Transformation and Public Service Delivery in Brazil. *Latin American Policy*, 10(2), 195–219. <https://doi.org/10.1111/lamp.12169>
- Fortuna, R. R. D. (2021). *Penerapan KAI Access dan Peningkatan Kualitas Pelayanan Transportasi (PT. Kereta Api Indonesia (Persero) Divisi Regional II Sumatera Barat)*.
- Herawati, S., Saktiendi, E., & Raihanah, A. (2022). Analisis Pengaruh Kualitas Pelayanan, Promosi, dan Kemudahan Penggunaan Aplikasi KAI Access terhadap Kepuasan Konsumen PT Kereta Api Indonesia (Persero). *Formosa Journal of Multidisciplinary Research*, 1(6), 1391–1406.
- Imran, M. (2019). Resource and information access for SME sustainability in the era of IR 4.0: The mediating and moderating roles of innovation capability and management commitment. *Processes*, 7(4). <https://doi.org/10.3390/pr7040211>
- Kitsios, F. (2023). Drivers and Outcomes of Digital Transformation: The Case of Public Sector Services. *Information (Switzerland)*, 14(1). <https://doi.org/10.3390/info14010043>
- Moore, S. (2019). Digital government, public participation and service transformation: The impact of virtual courts. *Policy and Politics*, 47(3), 495–509. <https://doi.org/10.1332/030557319X15586039367509>



- Pangestu, W. R. (2016). Inovasi Pelayanan One Stop Service (Studi Peningkatan Kualitas Pelayanan Paspor Di Kantor Imigrasi Kelas I Khusus Surabaya). *Kebijakan Dan Manajemen Publik*, 4(2), 1–7.
- Purba, M. M. (2021). *Pemesanan Tiket Kereta Api Online (E-Ticketing) Menggunakan Aplikasi KAI Access*.
- Raya, A. M. (2020). Tender management relating to imposition of public service obligations on scheduled air routes: An approach involving digital transformation of procurement procedures in Spain. *Sustainability (Switzerland)*, 12(13). <https://doi.org/10.3390/su12135322>
- Rodima-Taylor, D. (2019). International remittance rails as infrastructures: embeddedness, innovation and financial access in developing economies. *Review of International Political Economy*, 26(5), 839–862. <https://doi.org/10.1080/09692290.2019.1607766>
- Rossi, P. (2021). Conflicts fostering understanding of value co-creation and service systems transformation in complex public service systems. *Public Management Review*, 23(2), 254–275. <https://doi.org/10.1080/14719037.2019.1679231>
- Samuels, E. A. (2020). Innovation During COVID-19: Improving Addiction Treatment Access. *Journal of Addiction Medicine*, 14(4). <https://doi.org/10.1097/ADM.0000000000000685>
- Schiavone, F. (2019). Strategic marketing approaches for the diffusion of innovation in highly regulated industrial markets: the value of market access. *Journal of Business and Industrial Marketing*, 34(7), 1606–1618. <https://doi.org/10.1108/JBIM-08-2018-0232>
- Setiawan, A., & Ikbali, G. T. (n.d.). Inovasi Pelayanan Publik di Bidang Pertanian Melalui Aplikasi Among Tani di Kota Batu. *Seminar Nasional Politik Dan Hubungan Internasional*, 1(1).
- Sheskin, M. (2020). Online Developmental Science to Foster Innovation, Access, and Impact. *Trends in Cognitive Sciences*, 24(9), 675–678. <https://doi.org/10.1016/j.tics.2020.06.004>
- Shin, S. C. (2019). Digital Transformation of the Public Service Delivery System in Uzbekistan. *International Conference on Advanced Communication Technology, ICACT, 2019*, 703–709. <https://doi.org/10.23919/ICACT.2019.8702014>
- Simmonds, H. (2021). Mechanisms of service ecosystem emergence: Exploring the case of public sector digital transformation. *Journal of Business Research*, 137, 100–115. <https://doi.org/10.1016/j.jbusres.2021.08.008>
- Sourdin, T. (2020). Court innovations and access to justice in times of crisis. *Health Policy and Technology*, 9(4), 447–453. <https://doi.org/10.1016/j.hlpt.2020.08.020>
- Wiprächtiger, D. (2019). Access-based business model innovation in frontier markets: Case study of shared mobility in Timor-Leste. *Technological Forecasting and Social Change*, 143, 224–238. <https://doi.org/10.1016/j.techfore.2019.02.004>
- Xing, C. (2021). Green credit policy and corporate access to bank loans in China: The role of environmental disclosure and green innovation. *International Review of Financial Analysis*, 77. <https://doi.org/10.1016/j.irfa.2021.101838>
- Xu, X. (2019). Does access to internet promote innovation? A look at the U.S. broadband industry. *Growth and Change*, 50(4), 1423–1440. <https://doi.org/10.1111/grow.12334>