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Platformization's Elsewheres: Japanese Convenience Stores and the Platform Economy

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Abstract

Platformization's elsewheres refers to other locations and places where platformization as a process takes place. This article focuses on the franchised Japanese convenience store as a particularly salient site from which to understand platformization in Japan. It is also crucial for thinking the platform economy historically and regionally within Asia where Japanese-style convenience stores abound, as well as globally given how Japan's convenience stores were a model of the internet-connected mobile phone that in turn becomes a model for iPhone and Android smartphones. Focusing on the convenience store and its Japanese trajectory of development allows us to see the process of platformization of the franchised, networked, logistically-enabled convenience store from the 1970s to the present. The convenience store is, I argue, a crucial, if overlooked, site for platformization in Asia and beyond. It is also a key site for rethinking the most central of feelings to the platform economy: convenience.

Keywords

platformization, platform histories, convenience stores, Asia, Japan, logistics, retail, convenience

The "platform economy" arguably first emerged in Asia, as terminological formulation or discourse at least. While the term "platform economy" takes hold in the anglophone world around 2015 (Kenney & Zysman, 2016), and "platform" takes center stage in framings of social media in the mid-2000s, "platform business" was the terminology of choice in Japan going back to the mid-1990s. There, in 1994, a special issue of the technology journal *InfoCom Review* was published on the topic of "Platform Business" (*Purattofōmu bijinesu*), edited by management researchers Imai Ken'ichi and Kokuryō Jirō (Imai & Kokuryō, 1994). Kokuryō followed up with an English language publication on the "platform business" (Kokuryo & Takeda, 1997) a few years later. One of the case studies Kokuryō and his co-author take up is a used car sales network, AUCNET, which they describe as: "a multimedia, on-line used car auction system in Japan . . . founded in 1984" (Kokuryo & Takeda, 1997, p. 10).

Origin stories are always fraught, and I offer the above as a provocation to suggest the value of alternative lineages and periodizing otherwise, building on my earlier work that argues for Japan's significance in historicizing the platform economy (Steinberg, 2019). Of course, there is a good chance the term "platform business" was used earlier, elsewhere, and simply not discovered yet. Doubtless, too, the transnational networks of Kokuryō (including his studies at the Harvard Business School) impacted his coining of "platform business" upon returning to Japan. This is an underappreciated lineage rather than a single origin.

Yet, lineages that diverge from the standard accounting of things can shift our perspective in valuable ways, much as Benedict Anderson's (Anderson, 1991) tracking of the emergence of nationalism in the colonial peripheries rather than the metropoles reversed then-standard accounts of the historical diffusion of nationalism from center to periphery, focusing attention on the medium of the newspaper. Refusing standard accounts of platforms is a part of emergent counter-narratives (Athique, 2019; Chen, 2020; Pollio, 2025; Steinberg, 2022; Zhang, 2023), which variously challenge the location, timeline, and even meaning of platform as term, emphasizing the placed-ness of theory (Cirolia et al., 2023).

This article focuses on the *franchised Japanese convenience store*. The trajectory of its development allows us to see the process of platformization of the franchised, networked, logistically-enabled convenience store from the

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1970s to the present. The convenience store is, I argue, an overlooked site for platformization and the platform economy in Asia and beyond. It is also a key site for rethinking the most central of feelings to the platform economy: convenience.

Humble yet geographically ubiquitous, the Japanese convenience store allows us to consider *platformization's elsewheres*, by which I mean different sites (convenience stores) and different geographies (Japan) of the platformization of the economy, retail, society, and life. In so doing, I borrow Andrea Pollio's "Silicon elsewheres" (Pollio, 2025) coinage and others' emphasis on platformization as a process; one that marked by "*the penetration of the infrastructures, economic processes, and governmental frameworks of platforms in different economic sectors and spheres of life*" (Poell et al., 2019, pp. 5–6).[1] Platformization as becoming-platform or of being incorporated into the platform economy is a process that occurs unevenly and differently; grounded in specific locations as "actually existing platformization" (Van Doorn et al., 2021).

In what follows, I draw on archival and critical sources on the Japanese convenience store, from government reports and popular books promoting the retail format in the 1970s, to newspaper articles and convenience store industry periodicals, to books penned by Japanese management and distribution specialists from the 1980s onwards. Its status as a site where we observe the triple innovation of franchised retail format, logistical refinement, and technological mediation (notably networked computing) is another reason that the convenience store should be a crucial part of the platform story in Asia.[2] I also build on previous work arguing for the convenience store's crucial role in the reconfiguration of the cultural logic of convenience within platform capitalism (Neves & Steinberg, 2024). In this article, I treat the convenience store as a site where the platform economy unfolds and another lineage from which to see its development.

Centering the convenience store also allows us to respond to the prompt of this special issue to examine platforms from the perspective of Asia and to build platform histories from out of particular cases—in this case, the convenience store. By platform, I here refer to two distinct elements: the platform as a technological base upon which other systems were built, and the platform as a digital intermediary in a multisided market—both meanings operative in Japan as of the 1990s (Steinberg, 2019). Platform scholarship on Asia has offered, in my view, two crucial insights: (1) digital platforms often graft themselves onto preexisting modes of labor organization and production (Zhang, 2023, p. 105); and (2) platformization depends on continuities with earlier forms of industrial organization and capital accumulation more than ruptures (Athique, 2019, p. 68). Building on these insights, this article follows how existing retail networks are leveraged to construct the platform economy in Asia, emphasizing how platformization unfolds over a longer period of transformation, in a site-specific manner. The convenience store here is both a site of platformization and a formative element of the platform economy as it migrates to the mobile phone. I emphasize this convenience store lineage not to redefine the platform in total but instead to foreground the physical retail lineages that influence platformization into the present—in Japan, Asia, and well beyond.

This extends a larger project on platformization in Japan that deals first with its historical and conceptual genealogy, with its industrial roots in Toyotism in the formation of the platform concept (Steinberg, 2022), and here, with a combined industrial, technological, and experiential approach to the platformization by and of the convenience store. In the following sections, I first give a brief account of the franchised Japanese convenience store and its context, focusing on how it was understood and narrated. Next, I detail four aspects of the convenience store as it intersects with platforms: (1) as an early adopter of digital technologies for store stock management during the 1980s; (2) as one of the first places in which digital and platform-mediated services were introduced, and where e-commerce was to take place; (3) as an inspiration and model for Japan's most influential internet platform, Docomo's i-mode; and (4) as a crucial site to understand one of digital platforms' main offerings and promises: convenience. Indeed, behind my choice of the convenience store as object of focus lies a larger concern with the ways that convenience has been used as a lure to new technologies, whether they be streaming services (Lotz, 2017), digital payments, e-commerce (West, 2022), or logistics and delivery services (Beverungen, 2024).

7-Eleven Japan, a subsidiary of retailer Ito-Yokado, was at the forefront of many of these changes, so I reference this chain most frequently in the following sections. To highlight the convenience store's position vis-à-vis the rise of the platform economy, I focus on the systemic nature and scale of franchised model, rather than highlighting the individual owners and workers. By way of conclusion, I reflect on how this attention to the convenience store might help us reroute and rewrite platform history in Asia.

The Convenience Store Revolution

Convenience stores in their current, globally popular form were born in the United States, reinvented in Japan, and reexported to or reinvented in large parts of Asia and the world where the "Japanese-style" convenience store remains dominant (Satō & Ajia konbini kenkyūkai, 2021, p. 4). No company better illustrates this transnational trajectory than 7-Eleven. What would become the first 7-Eleven (owned by the Southland Corporation) was established in the United States in 1927, an ice vendor that had the idea to sell bread and eggs alongside the ice. The convenience store retail format developed over the course of the 20th century with a particularly marked rise in the number of convenience stores during the 1960s (Graves, 2017). Prescient Japanese observers like Abe Akio, a salesperson at a milk company at the time, first took note of the format in the United States in the

early 1960s and began advocating for its adoption in Japan as of the late 1960s (Abe, 1972, p. 6).

Early Japanese convenience stores, established in the late 1960s and early 1970s, were either standalone stores or loosely grouped together in voluntary chains. The turning point for the industry was the introduction of 7-Eleven. The 7-Eleven store concept and operating manual was licensed to Japanese retailer Ito-Yokado in 1973, with its first Japanese store opening in 1974. 7-Eleven's operations were essentially reinvented through a combination of the introduction of fresh foods, logistical innovation, novel networked information systems that allowed information gathering and new ordering systems, and rapid, if geographically selective, expansion first through Japan and then through large swaths of Asia subsequently. 7-Eleven Japan's runaway success and financial value led it to buy out Southland Corporation in 1991 when the latter was in financial difficulties. Japanese 7-Eleven operatives subsequently remodeled the 7-Eleven chain in the United States, leaning heavily on fresh foods and distribution systems introduced first in the Japanese context, as well as the franchising system that was the primary model in Japan. Prior to this, over half of American 7-Eleven stores were owner-operated, meaning the head company owned and operated the stores, rather than leaving that to a franchisee (Kotabe, 1995).

In Japan, the convenience store has developed from a novelty to a ubiquitous part of the urban and rural landscape. In sleeper towns proximate to urban agglomerations, convenience stores are clustered around train stations, where commuters drop in on their way to work to buy an energy drink, children and teenagers come to buy snacks and peruse magazine racks, and workers stop off at the end of the night for prepared foods as they return home. In densely populated urban areas, they are spread throughout the landscape, from train stations to street corners to inside office towers. In rural areas, they equally are a central stopping point for those on bikes or cars. The convenience store has made itself the hub of life in Japan, a life infrastructure according to both companies and the government (Ujikawa, 2025), and has begun—over the last 30 some years, with the 1991 acquisition of 7-Eleven US by Ito-Yokado which coincided with Japanese convenience store chains' global expansion—to remake convenience stores worldwide in its image.

There are two, not incompatible, ways of narrating the rise of convenience stores in Japan. The first focuses on entrepreneurs and store technology; the second on state guidance. Both offer windows into how the convenience store system works and how it has been narrated over the past five decades.

In the first, entrepreneurial account, key actors encountered convenience stores during trips to the United States and came away impressed by the format. In the early 1970s, Ito-Yokado employee Suzuki Toshifumi brought the idea to his employer and secured the licensing of the store for the Japanese market—then the only market outside of the United States, Canada, and Mexico that 7-Eleven expanded into. Suzuki became and remains a legend in Japan for the innovations he undertook at the helm of 7-Eleven, which eventually grew to the largest chain of convenience stores in Japan (21,500 stores in Japan and 84,000 stores globally in 2024), with double the income of the biggest supermarket chain in the country (Negō & Hiraki, 2015, p. 17) and 50% more stores than its nearest competitor. Not unlike tech entrepreneurs Jeff Bezos or Steve Jobs, Suzuki is revered for his dedication to innovation in store design, technological systems (including innovations in logistics and delivery hubs, reducing the total number of daily deliveries to stores), and food provisioning. Odes to Suzuki and the Japanese convenience store abound in Japanese, with 7-Eleven foremost among mentions for its number of stores and, more often than not, at the vanguard of technological adoption in the industry.

The Japanese convenience store's early adoption of information technologies, particularly in the 1980s, is often attributed to Suzuki's managerial prowess. That 7-Eleven would, in the late 1990s, see itself as a competitor to e-commerce via a "clicks-and-mortar" strategy is only one example of the company's embrace of social and technological trends. Even before this time, there were a significant number of Japanese books touting 7-Eleven's information strategies, often bearing the keyword *revolution* in the title, including: *7-Eleven's POS Revolution: The Challenges of Information Individualization* (Kunitomo, 1986) and *The Logistical Information Revolution of Ito-Yokado's 7-Eleven: Leader Suzuki Toshifumi's Responsive Management for Change* (Ogata, 1991). These books describe 7-Eleven's visionary deployment of new technologies of information gathering and order management.

Four years after opening its first store, 7-Eleven Japan rolled out its first integrated information system in 1978; its second one in 1982 (including this time a point-of-sale (POS) system with its famed "item-by-item management" functionality), and newer systems every few years. In so doing, the company put itself at the forefront of technological innovation and the celebratory discourses around such innovation that followed. The drive for fresh food provision like bento, onigiri, and other foods and the small store footprint meant that continual delivery and restocking of inventory—and inventory management systems—were at the heart of the Japanese convenience store chains, which are described as "massive fast food chains" (Negō & Hiraki, 2015, p. 122). Yet, 7-Eleven and its corporate challengers' entrepreneurial embrace of technological innovation is only part of the convenience store story.

A second way of narrating the rapid rise of the retail format is via the lobbying of the Small and Medium Enterprise Agency (Chūshō kigyōchō), a subdivision for the influential Ministry of International Trade and Industry (MITI; now the Ministry of Economy, Trade and Industry). MITI pushed for the uptake of convenience stores, with an emphasis on

rationalizing small retail stores and adopting the franchise store system. This drive to rationalization was modeled on what MITI saw as a new organization of retail, the American franchise as the organizational form (Callaci, 2021). Before Suzuki and Ito-Yokado inked its agreement with 7-Eleven head company and opened its first store in 1974, the Small and Medium Enterprise Agency had already assembled a team of experts from across the dairy industry, business schools, and large-scale retailers like Daiei (which owned supermarkets, department stores, and so-called general merchandising stores) to pool their expertise and explore the merits of the franchised convenience store for Japan.

The result was the aptly titled *Convenience Store Manual* (Konbiniensu sutoa manyuaru) (Small and Medium Enterprise Agency, 1972). Drawing lessons from the American model of convenience stores as well as making their own recommendations as to the ideal store format, the 1972 report established the parameters for the convenience store industry in Japan. The authors were especially inspired by the U.S. franchised chain store system (Umezawa, 2020). The *Manual* was written by a committee chaired by a professor from the Hitotsubashi University business school and comprised a number of individuals and research groups. This included a representative from the department store and supermarket giant Daiei, which a few years later launched the Lawson convenience store chain; a representative from the early Rookie Chain convenience store company in Japan; and, among others, Abe Akio, the sales representative from one of Japan's major milk products company (Yukijirushi) who we encountered earlier. Abe wrote what is likely the first book on the convenience store industry published in Japan in 1971 and several more books on the convenience store by the mid-1970s, becoming one of the most vocal proponents of the retail format.

The lead role taken by MITI is itself of note. MITI was once termed the "pilot agency" of Japan that steered the direction of the Japanese economy, particularly in the postwar years of the "economic miracle." A crucial part of the developmentalist state or what Chalmers Johnson described as Japan's "plan-rational economy" (Johnson, 1982, p. 16), MITI's role in the convenience store story is a crucial counterpoint to the innovator narrative, especially since many of the innovations adopted are implementations of a retail system mapped out in the 1972 report. The convenience store became an unlikely meeting point between MITI and its intra-governmental competitor, the Ministry of Posts and Telecommunications (MPT), which oversaw the liberalization of national telecommunications provider NTT's telecommunication lines as of 1982 (Akhavan-Majid, 1990, p. 165)—essential for convenience stores' increasing reliance on data communications. The role of both in the convenience store offers an important reminder of the crucial role of the "activist state" (Anchordoguy, 2005, p. 11) in establishing or guiding digital capitalism and the platform economy in Asia and beyond (Qiu & Chan, 2025; Steinberg et al., 2025).

The aim in introducing the American convenience store model was, as the Secretary of the Small and Medium Enterprise Agency writes in the preface to the Manual, to "modernize and rationalize small size retail businesses" through the adoption of "the convenience store method" (Small and Medium Enterprise Agency, 1972, p. i). Modernization (*kindaika*), rationalization (*gōrika*), and making efficient (*kōritsuka*) are the motifs of the study. At the time Japan had 1,470,000 small retail stores (defined as stores with fewer than five employees), mostly operated as family businesses, about 700,000 were involved in the sale of foods. The authors of the report stated that "making [small retail stores] as efficient and modern as possible would be of great importance to the national economy" (Small and Medium Enterprise Agency, 1972, p. 4). The report also emphasized that the adoption of the franchising system would be ideal (Small and Medium Enterprise Agency, 1972, p. 6). Over the 1970s and into the 1980s onwards, the franchising system would become the norm in Japan, whereas it was often used in tandem with the owner-operated model in the United States, Canada, and elsewhere.

As we can see from both versions of Japanese convenience store history—the entrepreneurial and the state-guided—technology, a commitment to store systems, and the rationalization of retail were central to the convenience store model that was to come. Regardless of whether these narratives signal the genius of the corporate innovator or the genius of the system as guided by the state, they find common ground in figuring the convenience store industry as a part of the technology sector. They treat it in the same vein as auto industry innovators like Toyota before it and tech industry innovators thereafter.

Technologies of Convenience

Convenience stores reshaped the retail landscape in modern Japan like very few formats before them. While department stores (introduced in the 1880s) and supermarkets (introduced in the 1950s–1960s) were both relatively new retail formats, these stores relied on preexisting wholesaler-governed distribution systems, as distribution scholar Yahagi (1994) details. The franchised convenience store was novel in this regard. Once there were enough stores in place, convenience store head offices gained leverage over wholesalers and increasingly dealt with food producers directly, even producing products together to create a 7-Eleven line of foods, say—something supermarkets had never done. For this reason, analysts of the convenience store in Japan view it as having fundamentally transformed the retail landscape in a manner that the supermarket did not do (Larke & Causton, 2005). While supermarket chains reconfigured the entire food system in the United States (Hamilton, 2018), this was not the case in Japan, with existing wholesalers and food systems remaining dominant and store chains being smaller in scale.

Only convenience stores would have an upstream impact on what food was produced and how, such that Yahagi and others (Marutschke, 2011; Yahagi, 1994) see the convenience store as a system, with the stores themselves as only the most visible part of a larger network of retail. As early as 1975, 7-Eleven's Suzuki Toshifumi articulated a similar view in a speech reprinted in a 1975 issue of a food industry magazine, quoted by the journalist Umezawa Satoshi: "What I want to emphasize is that this is a system industry . . . . [I]f you don't understand the system behind the surface of it [i.e., the store layout and product offerings], you'll never see how convenience is formed" (Umezawa, 2020, p. 38). Convenience is a system, not a store.

Governing this shift in retail and the production of the system of convenience was the chain head offices' embrace of novel technologies of tracking sales, ordering items, and managing deliveries from suppliers to distribution hubs, and then from these hubs to stores. 7-Eleven was one of the earliest adopters of information systems that connected store to head office; other major chains like Lawson and FamilyMart followed quickly in suit. Information gathering and management were key to convenience stores. Two of the foremost analysts of 7-Eleven argue that: "7-Eleven Japan can be viewed as an 'information industry' in two ways. The first is due to the dependence of the headquarters on its satellite income sources and the second is the information system employed throughout the entire chain" (Ishikawa & Nejo, 2002, p. 7).

These information systems had several primary purposes. The first was the control of inventory. By the mid-1980s, these systems allowed for the item-by-item tracking that helped stores carry the amount of onigiri or bento or drinks needed at a given moment of time, with employees reordering more before the items were sold out. This was based on the Toyota model of inventory management known as just-in-time or zero inventory. Japanese convenience stores were one of the earliest retail adopters of this zero-inventory management technique pioneered in auto manufacture but incorporated into convenience stores via Japan's 7-Eleven (Naruo & Toma, 2007).[3] 7-Eleven's first information system was introduced in 1978, connecting corporate headquarters with chain stores online, replacing the hand-written ordering system that had preceded it (Ishikawa & Nejo, 2002, p. 18). 7-Eleven's second information system launched in 1982, this time including the so-called POS tracking and integration, allowing "item-by-item management," a "very significant" advance that enabled stores to tabulate best-selling items (versus those that were not) and place orders in a more targeted manner (Ishikawa & Nejo, 2002, p. 23). Along with the new POS cash register system came an "electronic order book" (EOB) system, handheld mobile devices that allowed for item-by-item ordering and did away with paper-based management. The EOB system was developed by Japanese convenience stores, with 7-Eleven again at the forefront. In the words of Susumu Ogawa:

> The goal of the store-ordering system is to accomplish streamlined just-in-time inventory, which improves store efficiency by removing 'dead' and slow-selling items, replacing these with better-selling items, and providing forms to assist in analysis of data, including data related to dead items, ordering efficiency, and new product sales (Ogawa, 2002, p. 580)

7-Eleven Japan has had at least five more information systems since that time, each introducing a new set of tools for inventory management and service provision (Mukai, 2018). Earlier systems used telephone lines for data transmission; as of 1991, 7-Eleven relied on Integrated Services Digital Network (ISDN) lines in Japan for more rapid data transfer.[4]

Of particular note, however, is 7-Eleven's third integrated information system which, from 1985 onwards, allowed the collection and association of consumer information with purchases. Check-out clerks would now begin a transaction by punching in the gender (male/female) and age group (of five possible age ranges) of the buyer before scanning their items (Ishikawa & Nejo, 2002, p. 33). This information would then be used in the development of new products. This use of technology to gather consumer data parallels similar such developments in the United States at the time. Today, data collection is key to so-called surveillance capitalism and digital platforms generally. However, the retail roots of this data collection are often neglected. Turow (Turow, 2017), building on the prescient work of Beniger on retail as early information processors (Beniger, 1986) and Oscar Gandy on the panoptic sort (Gandy, 1993/2021), argues that retail in the U.S. context is an underappreciated space for the operationalization of user surveillance. The same is true for 7-Eleven Japan in particular, which pioneered retail surveillance in Japan and, in the 1990s, brought it to its U.S. subsidiary.[5]

Services and E-Retail

Many of the innovations described earlier were about inventory management and later user surveillance for product development. These were *relatively invisible to the store users* aside from the important element of being able to buy what one wanted when one wanted it. Inventory management was crucial since stores generally carry only 3,000 items at most and had a very small storage space, requiring multiple food deliveries per day.

By the 1990s, these information systems *increasingly became consumer-facing*, such that convenience stores over the 1990s became all-purpose service points, where one could pay one's electricity bills, buy auto insurance, and purchase brand items via catalog orders. These and other services were rolled out over the late 1980s into the 1990s, with the bulk of new services rolled out in 7-Eleven and other chains in the 1990s. Newspaper headlines in *Asahi shinbun* at the time called this the "Acceleration of de-thingification"; as sales growth of traditional best-sellers either stagnated or declined, convenience stores increasingly saw the future of

growth in service offerings ("Konbini, Datsu 'Mono' Ka Kasoku," 1999). There were many such offerings on hand. Utility bill payments; ATMs (since ATMs at banks had short opening hours and were closed on holidays); downloading songs and software; reserving airplane tickets or package tours; ordering books and then picking them up upon delivery; buying auto insurance; ordering CDs, DVDs, and multimedia. The convenience store became a place where many things we now associate with the commercial internet could happen. One book on the IT systems of 7-Eleven describes the 1985–2000 period as the "era of the search for the variety and convenience of services" (Mukai, 2018, p. 102). After this pivot in the 1990s, services became key to convenience chain operations. David Marutschke describes this aspect of convenience stores as "not only selling merchandise but also providing bank, postal and delivery services, acting as ticket agents, accepting utility payments and even handling laundry, home cleaning services, printing services, garbage pick-up tickets and online shopping" (Marutschke, 2011, p. 5).

By the early 1990s, convenience stores moved slowly toward a "clicks-and-mortar" model of e-commerce. Mail delivery to stores started as of 1990; catalog orders for items bought via and delivered to the convenience store around the same time; soon after, plane ticket and package trip purchases; and book ordering and delivery as well. By the late 1990s, convenience store chains' competitors were e-commerce outfits like Amazon or Rakuten. This built on the networked aspect of the store, both in terms of its franchise model and in terms of the information technologies that supported these services.

This de-thingification and the shift toward convenient services would be increasingly mediated by computer terminals in the stores. Between 1995 and 1998, information terminals were installed in all major chains (ampm in 1995; Sankus in 1996; Lawson in 1997; only 7-Eleven would buck the trend, focusing on its multifunctional printers and ATMs instead) ("Konbini Jōhō Tanmatsu Hirogaru," 1999). Most representative of these consumer-facing multimedia internet terminals was Lawson's "Loppy" machine. Loppy landed in all stores in the Lawson chain of convenience stores in February 1998. Described as a multimedia terminal, the Loppy persists to this day in stores, a red installation about 5 feet tall, with a touch-screen interface and a phone to a call-line for help.

Loppy's touch-based interface allows you to buy everything from song downloads to Tokyo Disneyland passes and tickets to the Ghibli Museum. Even if you pay at the terminal itself, you must exchange your receipt for an actual ticket at the Lawson counter with a human being. It is internet-connected and information-dense, requiring patient navigation through multiple different screens to arrive at the page and product of choice. Once there, customers would print an invoice of the desired item, to be scanned and paid for at the cash register. Loppy machines remain in all Lawson stores to this day, albeit often sidelined and awkwardly placed alongside other inventory stored in the front part of the stores. Today, Loppy looks a little more like computer history warehoused in stores, but when it was rolled out, it was the technological vanguard.

Other stores had similar touch-screen machines, most made by IBM, all of which allowed you to buy catalog goods via the screen, paid for at the counter. In other words, convenience stores were something like the Sears catalog for the internet—just like Amazon was to become (West, 2022, p. 31). It is at this point that we most clearly see the convenience store starting to present itself *as a platform*—a technologically supported, internet-connected intermediary to other goods and services. Stores functioned as intermediary platforms for ticket sellers and ticket buyers; package trip sellers and buyers; and book sellers and buyers—among other services offered. By the late 1990s, franchise head offices would view the convenience store as a site for the development of a "Japanese style e-commerce" (日本型 EC) as the trade publication *Gekkan konbini* (Convenience Store Monthly) termed the phenomenon.

Japanese-style e-commerce appears repeatedly in *Gekkan konbini*'s reporting in the year 2000, in its April and June issues in particular. The industry magazine acknowledges a certain contradiction in the term's use in relation to convenience stores: "Given that the original meaning of the term e-commerce is a system wherein buyers complete their purchase on the internet, it does not necessarily require a physical store" (Kato, 2000, p. 18). This could allow the disintermediation of the store itself. Still, convenience store operators were of the view that providing the consumer the option to do their e-commerce *through* the convenience store would only lead to more options for the consumer—and potential profits for the convenience store chains (Kato, 2000, p. 18). By 1999, most chains, including 7-Eleven, had set up e-commerce units, aiming to either piggyback on terminals already in stores or to use web interfaces to facilitate pickup and payment to be done in store. Given the relatively low fixed-line PC internet use in Japan at this time and the preference for cash over credit card purchases, one can see why the clicks-and-mortar strategy would seem a smart bet. Convenience chains were also keenly aware that their very "reason for existing was providing consumers with the feeling of convenience"; that convenience changes with the times; and that "they could not fall behind on providing convenience"—prompting their venture into e-commerce (Kato, 2000, p. 19).

i-Mode: A Convenience Store on Your Phone

Convenience stores played an even more crucial, if underappreciated, role in the platformization of society: as models for the internet-enabled "feature phone" and the smartphone thereafter. For this, I briefly turn to the i-mode mobile internet system and platform, launched in 1999 by telecommunication

giant NTT DoCoMo (Natsuno, 2003; Steinberg, 2019). Within 3 years of its launch, i-mode became the largest internet service provider (ISP) in the world with 30 million subscribers to its service. It had a significant impact on its users' lives and a formative role in the development of the platform economy. i-mode is the model for the commercial internet, popularized via its significant influence on the iPhone and Android smartphones (Enoki, 2015).

When planning the contours of the service, the three main visionaries of the project Matsunaga Mari, Enoki Keiichi, and Natsuno Takeshi used the convenience store as a model and convenience as a frequent refrain for what the service offered (Natsuno, 2003). The availability of compelling content tailored to the small-screen, low-data, mobile environment was viewed as crucial to the take-up of i-mode. Docomo VP Enoki compares the i-mode strategy of curating content and offering services to that of a convenience store, as distinct from a department store. PCs are like department stores wherein one finds a wide variety of goods, are open limited hours, and where one ventures only irregularly, whereas:

> Mobile phones are more like convenience stores, where only a selection of goods are on display in the limited space available. The contents have to be simple, but the convenience comes from the fact that they can be accessed at any time . . .. That was the starting point of the i-mode business model. (Enoki quoted in Coates & Holroyd, 2003, p. 72)

Enoki believed that "if we could concretize the [Japanese] convenience store concept in i-mode, it would become an engine for its success" (Enoki, 2015, pp. 99–100). The success of i-mode would seem to vindicate Enoki's hunch, becoming the digital equivalent of the convenience store (Enoki, 2015, p. 93; Natsuno, 2003, pp. 138–140). Convenience stores and the i-mode and smartphone systems that follow provide a model of limited items, combined with always-on, near-at-hand convenience. These convenience stores in your hand are consumer-facing iterations of the EOB devices first used to track inventory; now used to directly access virtual inventory for online ordering.[6]

Android and the iPhone modeled themselves on i-mode (Enoki, 2015, p. 182; Kawakami, 2015, p. 100), and i-mode modeled itself on the convenience store. We can say, then, that convenience stores are one of the now-forgotten models for the smartphone full stop. Both are portals to the on-demand provision culture and services. Significantly, i-mode involved not simply the invention of a kind of smartphone; it also engrained the telecommunications company-mediated purchase of digital goods and services. It was a platform; a digital intermediary that allowed users to pay for contents and subscriptions via their monthly mobile phone bill, and that, like the convenience store, allowed access to services including airline booking and news (Natsuno, 2003). It was even described as a platform at the time, by Natsuno (2003) and others.

Smartphones are characterized as "always-on computing" (Hodge, 2020, p. 65), based on what Natsuno had in 2003 termed the "always-connected, always-there" i-mode mobile phone (Natsuno, 2003, p. 141). This mobile phone was a portal to on-demand "contents"—spatially near to hand and temporally always connected—much like convenience stores for content and services. Not unlike the convenience store, open 24/7, i-mode and the smartphone that followed ushered in an era of the always on, always available, always ready, on demand.

Convenience: Platform Feeling

The convenience store is essential to platform history in Asia and beyond not only as an inspiration for i-mode, however. It is also central for its emphasis on *the feeling of convenience*—baked into convenience stores' DNA, built into i-mode, and now theorized as an essential quality of platforms, globally. Streaming video services prioritize, as its users do, "the 'convenience of on-demand streaming programming' and access over its catalogue size" (Lotz, 2017, p. 30). We live, we are told, in a culture of convenience.

Emily West has recently accounted for convenience in the case of Amazon, primarily in the North American context. There, she describes Amazon's service as being "defined by the convenience and ease of the consumer" (West, 2022); elsewhere in her book, she glosses convenience as friction-free (45) and personalization (106). Yet the contours of convenience are profoundly affected by geography, urban configurations, and cultural expectations. Most work around convenience assumes North America as a model and convenience as a static feeling. Given the crucial role of convenience stores in Japan and, as of the 1990s, across Asia, we can use the store and debates around it to better fill in the contours of what convenience means for the convenience store in Asia, versus what it means for Amazon or other platforms in the United States.

Convenience is relational and situational, as convenience store industry advocates like Abe Akio recognized in the 1970s in his comparison of United States to Japan, and in calling for a Japan-style convenience store (Abe, 1972, p. 63), or as convenience store industry executives recognized in their push toward "Japanese-style e-commerce" in the late 1990s. We need to hold onto this relational aspect of convenience as the term is being used increasingly as a default explanatory framework for why users gravitate to payment apps or other platforms. Convenience certainly is a key characteristic of the platform era—a lure and an atmosphere and later a life infrastructure that invites users to platforms and convenience stores alike, and keeps them there. Of this I am convinced and explore in greater depth with Joshua Neves elsewhere (Neves & Steinberg, 2024).

Yet the meaning and context of convenience must be interrogated, not assumed. For Amazon, it appears, convenience is a maximalist choice and what Armin Beverungen

terms "convenience delivered" (Beverungen, 2024). For the convenience store we can highlight its characteristics of being small (in size and inventory), always on (24/7), nearby (usually a 5-minute walk from anywhere in urban centers), always available (inventory restocked just in time), and multi-purpose (goods and services) as being crucial to its convenience. It is the convenience of *availability in proximity*—not in delivery.

The convenience store is also a zone of experimentation for expectations of what convenience looks and feels like in Japan, and in Asia. Over the course of this article, I have mapped subtle shifts in the convenience on offer: from foods and drinks when needed to bill payments and online purchases for store delivery. The nature and promises of convenience shift over time and geography. Generalizations about our culture of convenience should hence be anchored in the specific locations we experience it in and calibrated to the forms of convenience on offer from retail and other services—online and offline. Some elements of convenience may be portable; some, like the locality of the convenience store and the goods on offer, may not be. Platformization certainly features convenience prominently; the convenience store offers us a site to explore further the specific expectations and feelings that are produced therein—and how they are translated outside the stores themselves.

Conclusion: Platform History in Asia

Used car sales network AUCNET was for Kokuryō one site for understanding the platform economy. This article has shown the convenience store to be another even more crucial site for mapping the process of platformization in Asia. It follows the evolution of the convenience store from a U.S.-inspired model to a Japanese model over the 1980s and 1990s, from platform precursor, to platformized, to model for the feeling and interface of the platform economy. This article charts the *where* of platforms (the convenience store as a site for platformization), the *how* of platforms (i-mode and the smartphone thereafter as a pocket-sized, miniaturized convenience store), and the *feeling* of platforms (the convenience of goods and services in proximity). The zigzagging trajectory of the convenience store in platformization shows that platformization is a contingent process that involves the transnational flow of people (Japanese retail analysts studying U.S. formats), retail forms, capital, novel technologies, and even feelings (namely convenience). We may have arrived at a relatively stable definition of platforms, consistent to a degree across geocultural milieus. Yet we have yet to fully explore the multiplicity of sites and differential modes of platformization that inform the platform economy—sometimes locally, in Japan; sometimes globally, via the convenience store to i-mode to iPhone trajectory; and sometimes regionally, via the technologized convenience store and its continuing role in the mediation of the platform economy in Asia.

In this account, the convenience store is, first, a kind of platform precursor. It is a model of a technologically-dependent system of goods and service provision, built on communication networks as well as the commercial model of the franchised store. It later became an early model for the digital platform as an intermediary in the offering of goods and services—the now-orthodox definition of platforms—from travel packages to books, particularly during its shift to services in the 1990s (a model *of* the platform internet, as clicks and mortar). It finally becomes visible to us *as* the platformed internet, via i-mode, and the latter's impact on smartphone and app stores thereafter, as a model for the platformed internet. The smartphones we hold in our hands, and that you may be reading this very article on, are, to some degree, products of the i-mode project and informed by the convenience store.

In so focusing on the convenience store, we develop an account of platformization and a lineage of platform history from Asia, responding to this special issue's prompt to rethink platform studies *in and with* Asia. New or overlooked lineages or parallel histories allow us the opportunity to revisit sedimented assumptions about the when, where, and how of the platform economy. They also allow us to see Asian regionality with a different lens. Japanese-style convenience stores are ubiquitous in Asia, whether Japanese-owned (7-Eleven or FamilyMart) or not (South Korean-owned chains GS25 or CU). Significantly for the trajectory mapped here, GS25 rebranded as a "lifestyle platform," particularly in its Vietnamese branches (Le, 2021), while further innovating the food-and-services model that characterizes the Japanese convenience store. In the Philippines, 7-Elevens are places to cash out one's daily wages earned via app-based gig work, a crucial node of the platformization of the economy (Soriano, 2024). The convenience store is one site from which to see the inter-Asian connectivity of the platform economy, as well as its local variations.[7]

The broader lesson to draw is that platform studies should be open to finding what objects, practices, or networks come into view if we start not from what we think we know of the platform economy (online, social, smartphone-mediated) or what is most legible to us as platforms today, from the vantage point of the present. Rather we should start from what, in specific contexts, (1) aligns itself with platforms; (2) serves as the inspiration for platforms; (3) presents itself as platforms; or (4) can be used to examine the manner in which platformization occurs in a specific geocultural milieus.[8]

Convenience stores remain a key site for understanding variant models *of and for* the platformed internet—one of platformization's most notable elsewheres. They are sites where the platformization of society, economy, culture, and life is undertaken and continually reinvented—in Japan and across Asia. As such, it is worth considering what the study of convenience stores can teach platform studies about alternative sites, unrecognized lineages, and now just-perceptible futures.

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Notes

1. By Silicon elsewheres Pollio refers to the manner in which "Silicon Valley" becomes a mobile term, becoming "Silicon Savannah" in Kenya and other variations in other capitals amid what he terms the globalization of techno-capitalism.
2. In retail literature, the convenience store is a *retail format* or type (distinct from other formats like the department store or supermarket). The franchise is one *organizational form* this format takes. There are independent convenience stores, voluntary chains that link together independently owned stores into a loose organization, and the now-standard *franchise* (or franchised store), the focus of this article, wherein one company (e.g., 7-Eleven Japan) licenses the use of the name, store manuals, computer systems, and supply chains to a licensee who operates the store.
3. Just in time and logistics are key elements of the convenience store's story. On logistics and supply chains in other contexts, see Cowen (2014); Hockenberry et al. (2021); and Tsing (2009).
4. The closest U.S. comparator to 7-Eleven Japan's emphasis on inventory management and logistics is Walmart, on which see LeCavalier (2016).
5. For an account of surveillance in Japan into the present, see Humphrey (2022).
6. I thank Diane Wei Lewis for suggesting this connection between the smartphone and the EOB in a personal correspondence.
7. I am grateful to Adrian Athique, Gerard Goggin, Cheryll Ruth Soriano, Haiqing Yu, Jack Qiu, and others from the Digital Transactions Asia Conference for their feedback on this section.
8. Elsewhere I term this the paraplatform (Steinberg, 2024).

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