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The state of grocery retail 2023

South Korea



March 2023

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Foreword

Over the past five years, the modern South Korean grocery market has been stagnant, with annual growth limited to approximately 1 percent. While the overall size of the market has held steady, its dynamics have completely shifted. The hypermarket and supermarket category, which accounted for about 20 percent of total retail sales in South Korea in 2017, had traditionally been the dominant format, but now it is smaller than both the online and convenience store categories. This shift was caused by a combination of four major forces.

Demographic change. South Korea's population demographics have changed dramatically at an accelerated pace. In 2020, the country hit the "population death cross"—when the number of newborns is less than the number of the deceased.¹ In addition, single households accounted for approximately 35 percent of total households in 2021, up ten percentage points over the past decade. The increase in single households accelerates the channel shift from hypermarket and supermarket to online and convenience stores.

Isolation due to COVID-19. During the early stages of the COVID-19 pandemic, the South Korean government enforced a "vaccination pass" for public spaces, including hypermarkets and supermarkets. People had to show their vaccine pass or a negative PCR result to access stores. On top of this rule, people were afraid of going to public spaces because of the risk of infection. As a result, people preferred to go to convenience stores within a short distance of their homes or to buy things online, and this combination accelerated the movement among channels.

¹ "Total population and population growth rate," Korean Statistical Information Service (KOSIS), accessed January 19, 2023.

Fierce competition from e-commerce players. Major online players continued to make heavy investments in logistics to build up infrastructure for faster delivery. For example, Coupang committed more than 1.5 trillion won (\$1.25 billion) to establish new logistics centers.²

Elderly shoppers go mobile. Older generations of South Koreans are becoming more digitally savvy.³ Consider that the largest viewer segment on YouTube is now people over the age of 50, accounting for one-quarter of total hours viewed. This familiarity with online content is leading older shoppers to shift their spending to mobile channels. In response, brands are adapting their products for the elderly: for example, healthy foods for consumers with diabetes and foods that are easy to swallow.

Grocery has also become a hotbed of activity for capital markets. After Coupang's successful IPO resulted in a market cap of more than \$100 billion,⁴ multiple major players—such as Market Kurly, Oasis, and SSG.com—are eyeing a similar path.

This report, *Unlocking growth opportunities: The state of grocery retail 2023 South Korea*, explores in greater depth these trends and their potential impact on the country's grocery retailers. In the next few chapters, we will explore the recent changes to consumer behavior, new revenue expansion opportunities for retailers, and how grocery retailers and brands can target specific demographic groups, such as Gen Z consumers.

Our goal is to help CEOs stay ahead of market shifts and pursue growth. We hope this report offers valuable insights to support that goal.

² Eun-young Kim, "Coupang attracted 1.4 trillion won in investment last year...half of US investment in Korea," Chosun Biz, January 25, 2022.

³ Eunbi Lee, "The YouTube app, the most used generation is 'over 50,'" YTN, February 23, 2021.

⁴ Joshua Franklin, Joyce Lee, and Chibuike Oguh, "Coupang surges to over \$100 billion valuation after \$4.6 billion IPO," Economic Times, updated March 12, 2021.

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Five trends that will define South Korean grocery in 2023

The ability to respond quickly to evolving consumer preferences could separate market leaders from the pack.

by Younghoon Kang and Jeongkeun Kim

Over the past five years, disruptive forces have reshaped retail grocery in South Korea. Demographic patterns, including the rise of single-person households and the embrace of mobile channels by elderly shoppers, have implications for physical stores and digital commerce alike. Rising competition from e-commerce players has forced traditional grocery retailers to elevate their online game. And the pandemic further changed consumer preferences—not just fostering an embrace of online channels but also increasing the popularity of convenience stores.

Executives have become adept at responding to a shifting landscape. So what lies ahead? Our research, analysis, and work with clients suggest five trends will have an outside impact on the grocery market in the coming year.

Eating behavior: South Koreans want convenience

South Korean consumers are increasingly shifting from cooking from scratch to eating out or more conveniently. What does “convenience” mean? According to our 2021 South Korea grocery survey,¹ 45 percent of consumers prefer prepackaged and partially cooked fresh meals that require some preparation (compared with 34 percent of the world), and 41 percent order prepared foods for delivery (versus 24 percent of the world).

The home meal replacement (HMR) market was expected to reach about 5 trillion won (\$4.3 billion) in 2022, up twofold

from five years ago.² Both start-ups and large food and beverage companies are competing fiercely in this growing market; this is especially apparent in the meal-kit category, which barely existed five years ago. Meal kits are popular among higher-income groups and have become a premium offering. Department stores and popular offline restaurants are also developing their own meal-kit offerings.

The food delivery market has also expanded dramatically. For decades, South Korean consumers preferred to order food from restaurants by phone. This was possible because restaurants were nearby in highly populated cities; today, South Korea is one of the most urbanized countries, with 91.8 percent of its population living in cities.³ The emergence of mobile food-delivery platforms has increased food-delivery orders even more by offering a variety of food options, a convenient ordering process, and options to filter high-quality restaurants. Coupang entered this market a few years ago, an indication of its growth. Online food delivery transactions reached 25.7 trillion won in 2021, a more than ninefold increase over four years.⁴ It now exceeds the online food and beverage market, at 24.3 trillion won. Because the market is made up of a few dominant players, the South Korean government is keeping an eye on how it develops, and some regional governments are launching their own services. In China, the national government is pressing the large delivery players to decrease their commissions.⁵

¹ McKinsey survey on consumer behavior during COVID-19, conducted March–June 2020.

² Jaehyung Cho, “Catch the 4 trillion won HMR market,” *AJU Business Daily*, April 27, 2020.

³ “2021 urban planning statistics,” Ministry of Land, Infrastructure and Transport and Korea Land and Geospatial Information Corporation, June 27, 2022.

⁴ Soo-hyun Yoon, “Online food transaction amounts to 58 trillion won... ‘The largest ever’ as food delivery rises,” *Newsprime*, February 7, 2022.

⁵ Jaeyong Jeong, “China puts pressure on food delivery platforms to cut fees... Meituan shares plummeted,” *Yonhap News Agency*, February 22, 2022.

Brick and mortar: Not a sinking ship for everyone

In Asia, South Korea has the highest share—86 percent—of modern grocery retail (supermarkets, hypermarkets, and discounters).⁶ This trajectory has been fueled by the growth of hypermarkets (25.7 trillion won in 2021) and supermarkets (25.8 trillion won). However, traditional leaders are ceding market share to upstarts that are addressing changing consumer preferences.

For example, buying groceries (especially fresh products) has been the primary reason for consumers to go to physical hypermarket stores. The share of grocery as a percentage of sales in this format continues to rise, from 56 percent in 2016 to 67 percent in 2021 (Exhibit 1). Yet this

trend is not influential enough on its own to compensate for the declining share of hypermarkets in South Korea.

Meanwhile, special formats—such as convenience stores, warehouse clubs, and discounters—are experiencing sustained growth, a reflection of the increased desire among consumers to shop at a conveniently located store that has everything they need under one roof (see sidebar, “Deep dive: Consumer behavior of single-person households”).

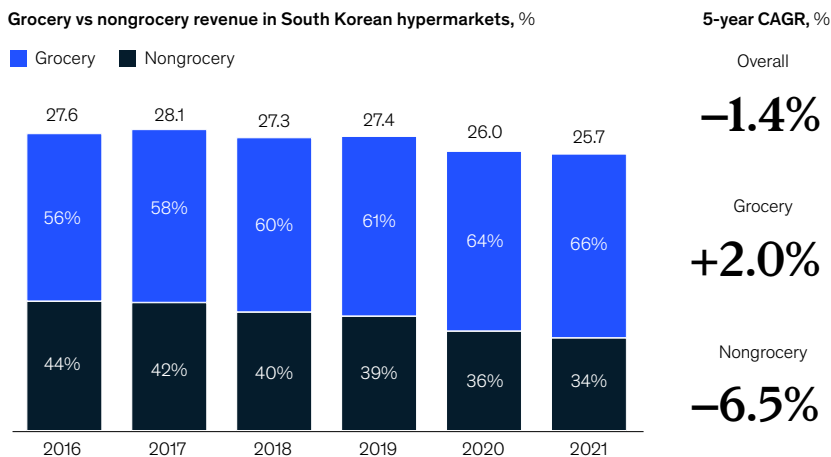
Convenience store revenue grew more than fourfold, from \$5.8 billion in 2010 to \$24.7 billion in 2021,⁷ surpassing hypermarkets and supermarkets. The total number of stores rose to more than 49,300 in 2021, equal to one convenience store for every 1,049

⁶ Market sizes (retailing, South Korea, 2010–2021), Euromonitor, accessed December 13, 2022.

⁷ Market sizes (retailing convenience stores, South Korea, 2010–2021), Euromonitor, accessed December 13, 2022.

Exhibit 1

Grocery sales have continued to grow in South Korean hypermarkets and provide a reason to go to physical stores.



Source: Euromonitor

Deep dive: Consumer behavior of single-person households

Single-person households now account for more than 30 percent of the South Korean population.¹ These consumers prefer shopping online versus in stores such as hypermarkets, largely because many don't own a car. The convenience store is their main channel thanks to its proximity, the availability of small portions, and plentiful promotions. Compared with other consumers, single-person households are much less concerned about healthy eating, environmentally friendly goods, and natural products. Due to the rapid growth of these households, grocery brands and retailers cannot afford to overlook this segment.

¹ Statistics Korea, transaction value of online shopping mall by commodity groups/coverage for goods, sales by product group, accessed December 13, 2022.

people.⁸ Even with this increase, South Korea has already surpassed countries such as Japan, where the ratio was one convenience store for every 2,021 people in 2021. Rather than simply relying on expanding their footprint, grocers are also focusing on qualitative growth, developing unique products that can be found offline only, and adding categories such as fresh produce and wine. For instance, E Mart²⁴

sold more than three million bottles of wine in 2021.⁹

Warehouse clubs also continue to expand. High-income consumers and large households regularly visit this format, but small-business owners are the biggest purchasers. For these reasons, conventional retailers (such as E-Mart) are planning to increase their footprint in warehouse clubs.

Although convenience has become a higher priority for consumers, supermarkets and hypermarkets will have to do more than be located in close proximity. They should seek to rigorously develop new reasons for consumers to visit. For example, retailers have started to offer a wide range of beer and wine because most alcohol cannot be purchased online. Similarly, some hypermarkets are creating "deli corners" for cooking fresh foods (such as steak and lobster) in an attempt to draw people to the hypermarket for meals as well as shopping. Maintaining profitability will continue to be a never-ending challenge.

Online: Growth will come from the elderly population and fresh products

During the COVID-19 pandemic, online shopping increased significantly worldwide. In South Korea, it grew to more than 41 percent of total retail and approximately 24 percent in grocery.¹⁰

In South Korea, online has the potential to grow significantly in specific segments, such as elderly consumers. Just 9 percent of baby boomers indicated that Coupang,

⁸ Ibid.

⁹ Jaeun Lee, "E Mart 24 sold 3.05 million bottles of wine last year ... At the end of the year, 'one bottle in four seconds' was sold," Money Today, January 6, 2022.

¹⁰ Market sizes (retailing, South Korea, 2010–2021), Euromonitor, accessed December 13, 2022; Statistics Korea, transaction value of online shopping mall by commodity groups/coverage for goods, sales by product group, accessed December 13, 2022.

the largest e-commerce player, is their main grocery channel (compared with 19 percent of Gen Xers and 30 percent of millennials). Consumer segments that have been slow to embrace online in grocery pointed to several factors: in our survey, 39 percent of respondents cited the quality of the fresh foods, and 24 percent pointed to delivery charges, high minimum order value, and too much packaging. Among baby boomers, 26 percent report that the online selection is not large enough, and product descriptions are insufficient. Despite the current lower penetration of online shopping for this consumer segment, their online consumption

gradually increased. According to a Korea Consumer Agency survey, in 2021, online consumption by elderly people (aged 60 and over) rose tenfold over the previous two years, far outpacing the overall twofold rise during this period.¹¹

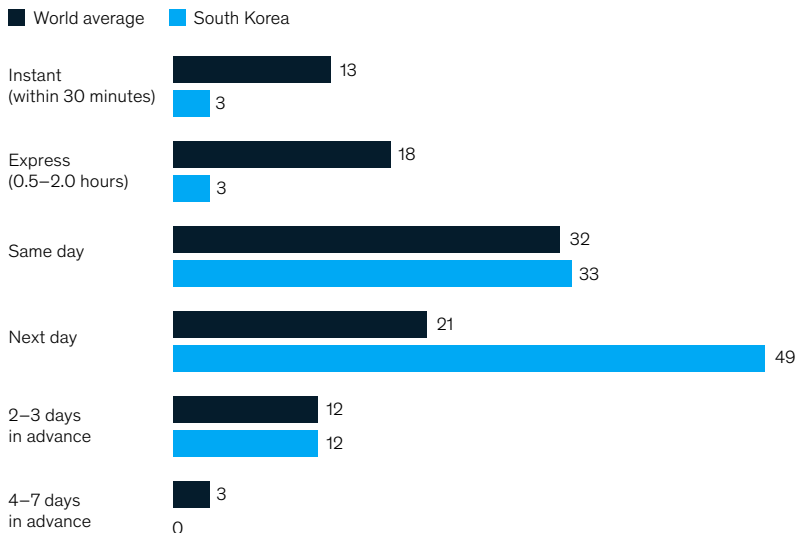
Delivery speed and low delivery costs are top priorities for most of the world, but that is not the case for South Korean consumers, who prefer next-day delivery over instant delivery. One reason could be the prevalence of convenience stores and well-developed, next-day “dawn delivery” offerings (Exhibit 2).

¹¹Taeyoung Jung, “82% of Koreans have experienced online shopping ... For the first time, more than half of those over 60 have experienced online shopping,” *Angjun Journal*, November 10, 2021.

Exhibit 2

Nearly half of South Koreans prefer next-day delivery, compared with one-fourth of shoppers globally.

Delivery preferences,¹ % of shoppers



¹Question: What time frame of delivery would you prefer when shopping for groceries online?
Source: Shinhan Card; Hana Securities; Gmarket

‘Sustainability’ is more than just a buzzword in grocery

South Korean consumers have typically expressed less interest in environmental responsibility across retail categories, but grocery is an exception. Compared with consumers in other countries, South Korean shoppers show a significantly higher willingness to pay more for environmentally friendly grocery goods that minimize the amount of packaging.¹²

As income levels grow and people are more focused on quality of life, they have shown a greater interest in healthy eating. What’s more, they are willing to pay higher prices to get healthier products. Grocery retailers have responded by launching new products with less sugar, fewer artificial ingredients, and additional nutrients, a move that has boosted revenues. Organic grocery retailers recorded double-digit growth in sales in fiscal year 2020, and Oasis saw a jump of 50 percent in 2021 compared with the previous year.

Packaged-food players have also worked on sustainability over the past several years. Plastic bottles without labels to facilitate recycling are just one of the more visible changes on store shelves. Meanwhile, consumers have traditionally expected food producers to maintain higher standards for quality and sustainability.

One of the primary factors preventing consumers from buying online is too much packaging used in delivery. In response, leading e-commerce retailers, such as Coupang and Market Kurly, have introduced reusable-packaging programs.

Bifurcation in spending: Searching for premium and value for money

Traditionally, premium grocery catered to a smaller share of consumers, but that base is now increasing. Lotte Department Store’s premium-grocery category grew by more than 35 percent annually over the

¹² Aimee Kim, Paul McInerney, Thomas Rüdiger Smith, and Naomi Yamakawa, “What makes Asia-Pacific’s Generation Z different?,” McKinsey, June 29, 2020.

While South Korean consumers have typically expressed less interest in environmental responsibility across retail categories, grocery is an exception.

past two years,¹³ and Hyundai Department Store recently started live streaming content on premium local delicacies, drawing customers primarily in their 20s and 30s.¹⁴

Consumer goods companies are pursuing strategies in the premium category to make up for declining operating profit caused by soaring prices for grains and other raw food. But not every retailer has been successful. Consumers routinely conduct significant research before they buy, and their digital literacy is higher than ever. In this market, new premium products that lack a clear value proposition have not resonated with consumers, many of whom are still actively seeking ways to save money and get the best promotions. To break through, grocers need to understand the attributes for which consumers are willing to pay more, rather than just adding fancy ingredients so they can charge higher prices.

Discounters and variety stores have also taken hold: this format grew 8 percent per year over the past five years, reaching \$3 billion in 2021.¹⁵ Penny stores such as Daiso and No Brand have gained share in grocery

with a value proposition that focuses on value for money and smaller units. No Brand's sales increased at a CAGR of 32 percent from 2017 to 2021, and its food category continues to grow, especially as it expands into categories such as biscuits, canned food, and ice cream.

Affluent consumers also visit penny stores, attracted by "category killer" grocery items such as snacks and HMRS.

Collectively, these trends have major implications for grocers, from their operating models and store formats to their investments in analytics and technology. Winning retailers will carefully monitor changing consumer behaviors and market patterns and respond quickly to gain an advantage.

¹³ Soohyun Yoo, "Eco-friendly and quality premium food gains popularity," ENews Today, April 20, 2022.

¹⁴ Seongyeon Jang, "Hyundai Department Store's live commerce specializing in fresh food, first broadcast on the 25th," Seoul Finance, May 24, 2021.

¹⁵ Brand Shares (Retailing Discounter & Variety Stores, South Korea, 2017–2021), accessed December 13, 2022.

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Eat, play, love: How Gen Z is shaping Korea's grocery retailers

Korea's emerging Gen Z consumers want food that's convenient, varied, and ethically and environmentally friendly. Retailers should take note.

by Younghoon Kang and Jeongkeun Kim

While the size of Generation Z in Korea is lower than the Asian average, by 2025, people born between 1997 and 2010 will constitute about 10 percent of Korea’s population and exercise significant influence in the market. These digital natives were born and raised surrounded by the Internet, currently average more than five hours daily on a mobile device, and—having entered adulthood during a global pandemic—are leading the acceleration of consumers toward e-commerce, especially in the grocery sector.

Eat: Searching for convenience

Gen Z’s adoption of online food purchasing has long-term implications for grocery retailers. First, Gen Z’s critical buying factor is convenience: 74 percent of respondents to our Korean Grocery Shoppers survey cited “going to a store where you can buy

everything you need under one roof” as the most important factor in their decision making, followed by 60 percent who cited “most conveniently located stores” as an important factor.¹ Second, they are generally bigger consumers of out-of-home food. Especially when compared with baby boomers—those born between 1946 and 1964—Gen Z respondents express a higher-than-average interest in using prepackaged, partially cooked fresh meals; ordering food via delivery; or eating in a restaurant.

Play: Experimental eating

Korea’s Gen Z population is more likely than other generations to experiment with new foods and recipes, including exploring imported foods. Their historic love of premium goods is well known, and Gen Z now appears to be moving toward premium dining and grocery. They are looking for exotic spices such as basil

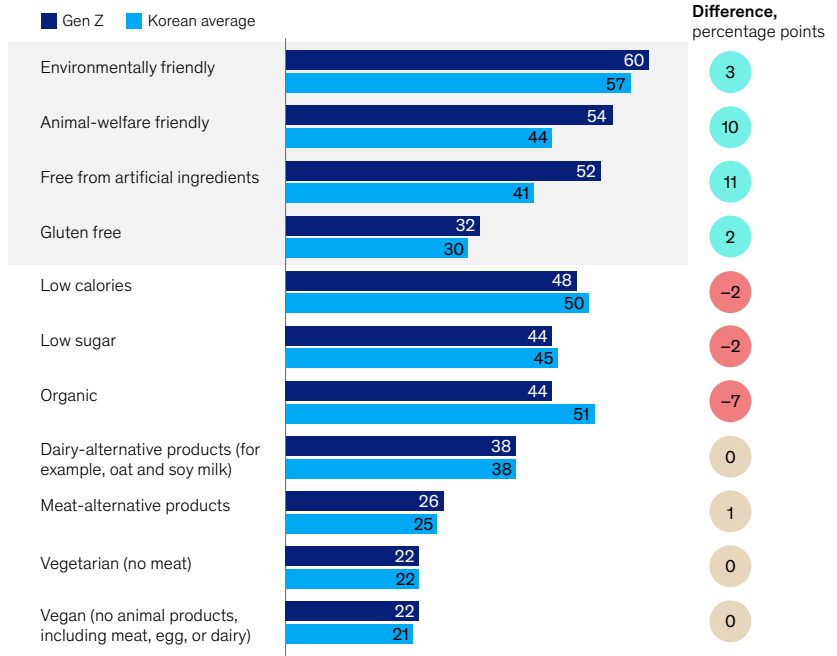
¹ McKinsey’s Korean Grocery Shoppers Survey, November 2021, n = 1,030.

Gen Z’s adoption of online food purchasing has long-term implications for grocery retailers.

Exhibit

Korea's Gen Z consumers prioritize ethical, sustainably sourced food.

Food products respondents expect to spend more money on in 2022 compared with 2020, %



Source: 2021 McKinsey Korea grocery survey

McKinsey & Company

and dill, premium meal kits developed in collaboration with fine-dining restaurants, and trendy liquors such as natural wine. For example, premium grocery sales at Lotte Department Store jumped 50 percent in 2021 among consumers in their 20s and

30s.² And when international travel was put on hold and house parties replaced dining out, Gen Z began considering food as a lifestyle experience to be showcased on social media.

² Shin Min-kyung, "Lotte introduced 'premium groceries' New Year's gift set for MZ generation," News 1 Korea, January 16, 2022.

Love: Natural, environmentally friendly food

Korea's Gen Z consumers prioritize food that's ethically and sustainably sourced (exhibit). In grocery, the generation generally looks for products that are animal welfare friendly and do not contain artificial ingredients. They oppose unhygienic

and cruel animal livestock breeding environments and are starting to link their consumption to their areas of interest. Interestingly, they don't seem to be the biggest followers of dietary trends (such as veganism or vegetarianism) and healthy-eating diets (such as those focused on low sugar or reduced calories).

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South Korea's next sales frontier: Retail media networks

The ability to respond quickly to evolving consumer preferences could separate market leaders from the pack.

by Younghoon Kang and Jeongkeun Kim

It's no secret the COVID-19 pandemic accelerated online purchasing around the globe.

In South Korea, this dramatic shift in consumer behavior added fuel to an already strong e-commerce sector; in fact, online channels today account for 41 percent of total retail sales in the country, the highest share in the world.¹ The problem? For retailers already struggling with profitability, growing online demand is exacerbating an existing problem. Retail media networks (RMNs) could provide a solution. An RMN is essentially a digital version of a retailer's offline advertising, appearing on its own website or mobile application. In an environment of rising costs and compressed margins, it can improve e-commerce operations in two ways: by adding new revenue through the sale of advertising and by improving sales through more sophisticated, targeted marketing.

Despite South Korea's advanced e-commerce market, RMNs currently account for 1 percent of total online sales revenue, estimated to be \$2 billion annually.² We estimate it will grow to about \$10 billion within the next three to five years—or around 5 percent of total e-commerce revenue—if it follows the path of other nations active with RMN, notably the United States. But while South Korean companies have a long way to go, those getting it right may secure a sustained competitive advantage.

Understanding RMNs

Consider two scenarios. In the first, a retailer haphazardly targets a consumer with digital advertisements, serving up web advertisements based on general browsing behavior and hoping for a response. In the second, another retailer with a deep understanding of the consumer's online and offline purchasing behavior and actual purchasing data is able to provide targeted digital advertisements to a consumer on its own website or mobile app.

These scenarios demonstrate the power of RMNs. Just as brands target customers in stores with promotional material and other marketing, RMNs seek to provide the same experience on a retailer's online channels. RMNs are considered a critical digital-advertising mechanism because of their ability to target consumers in the last mile of their online purchasing journey—that is, just before they make a purchasing decision. By targeting consumers exhibiting clear purchasing intent with RMN advertisements, retailers are more likely to encourage the desired outcome.

So why consider RMNs now? Collecting data other than directly from consumers is becoming more challenging as privacy protection continues to increase. For example, Apple limits the tracking of advertiser identifiers, and Google Chrome does not provide cookie data to third parties. So the ability to access first-

¹ *Offline and online growth key drivers*, Mirae Asset Securities Research, September 16, 2021.

² "RMN that grew Amazon with the ad revenue of \$31Bn," Maekyung Economy, April 22, 2022.

party data of retailers is likely to become increasingly important due to privacy concerns.

To meet growing demand for online purchasing, retailers are looking to improve profitability to offset the cost of creating and scaling e-commerce operations—especially in low-margin businesses such as grocery, in which retailers also maintain expensive brick-and-mortar physical stores. The ability to sell digital advertising offers a potentially attractive opportunity to enhance profitability (Exhibit 1). For example, Amazon would also record a loss if not for its income from advertising.

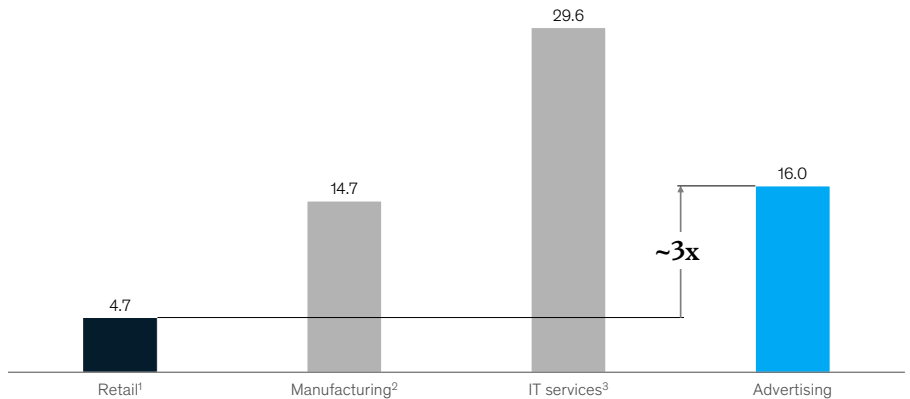
Retailers have an inherent competitive edge through RMNs, which use first-party data to provide personalized advertisements based on actual activity. They enable retailers to take advantage of existing marketing technology competencies to create personalized consumer experiences, and brands can pursue personalized marketing by drawing on customer data from digital touch points and offline activity.

In the United States, where RMNs are relatively mature, advertising sales account for 3 to 5 percent of the total e-commerce revenue for retailers (except for Amazon) and are growing at a fast pace annually. RMN

Exhibit 1

The advertising industry offers profit margins three times higher than that of retail.

Average annual EBITDA margin, Q3 2021, by industry, %



¹Includes department and discount retail, grocery stores, specialty retail, and technology retail.

²Includes aerospace and defense, automotive and truck manufacturers, and miscellaneous manufacturers, construction and mining machinery, and industrial machinery and components.

³Includes internet services and social media, software and programming, computer processing, and cloud services.

Source: S&P 500; McKinsey analysis

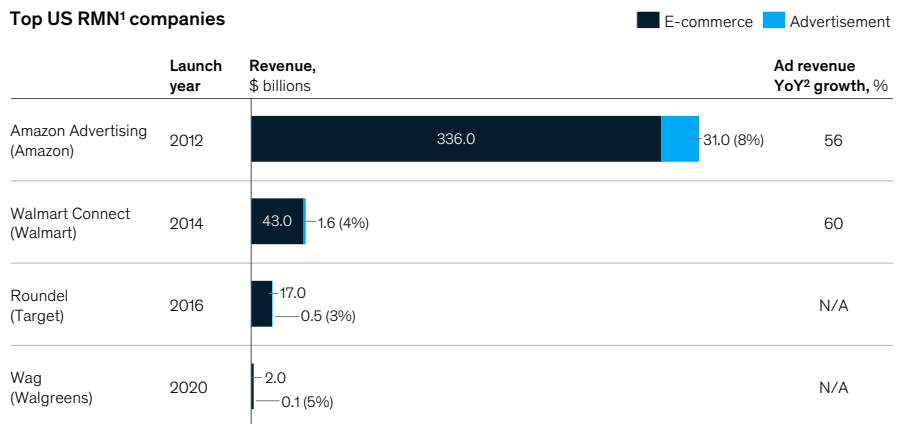
revenue is forecast to continue to grow, and more than 25 new companies have entered the market in the past two years.

Amazon is in the process of commercializing all aspects of on-site advertising. It generates advertising revenue today by focusing on using a variety of owned channels such as mobile apps (for example, Twitch and live shopping) and Fire TV. But the commerce media space is also becoming increasingly crowded as cross-category and specialty retailers such as Target and Walgreens launch and scale their own RMNs (Exhibit 2).

Various types of RMNs are being launched, depending on the core business model. Some companies equipped with internal data capabilities are offering small to medium-sized advertisers the ability to target online-centric consumers. Other RMNs are trying to build in-house data capabilities and appeal to large corporate advertisers. To date, the players with scale have been able to combine the technological and capability requirements to enable effective in-house RMNs. We expect smaller and regional players to increasingly use plug-and-play solutions, with third parties providing the same services to vendors and monetizing accordingly.

Exhibit 2

Top retailers are beginning to launch retail media networks of their own, growing the market.



¹Retail media networks.
²Year over year.
 Source: AdExchanger; Aishwarya Venugopal and Melissa Fares, "Walmart investors eye push into advertising, healthcare following pandemic boom," Reuters, February 17, 2021; "Amazon.com announces fourth quarter results," Amazon, February 3, 2022; "Edited transcript: TGT.N - Q4 2021 Target Corp earning call & financial community meeting," Refinitiv, March 2022; Walmart 2022 annual report, Walmart, 2022; McKinsey analysis

South Korea's RMN opportunity

The RMN market in South Korea is currently worth about \$2 billion, or about 1 percent of total e-commerce revenue, and is estimated to grow fivefold in the next few years. Coupang leads the RMN market in South Korea, but its market size is low compared with top global players such as Amazon and Walmart (Exhibit 3).

Coupang's strategy resembles that of Amazon. Third-party sellers flow in through its "well-made" consumer experience (Rocket delivery).³ As competition between third-party sellers intensifies, Coupang's consumer data-driven advertising becomes more efficient, maximizing advertising sales and distribution fees.

South Korea's e-commerce sales are already the highest in the world as a share of the retail market. Embracing the opportunity and potential of RMNs could help the country's retailers better address

growing consumer demand for online channels, improve margins, and offset the cost of investing in technology and distribution infrastructure. Additionally, Korean offline retailers with multiformat businesses from department stores, hypermarkets, supermarkets, convenience stores, and shopping malls to multiplex theaters, coffee shops, and restaurants have exceptional opportunities to build an ecosystem RMN play.

Retailers can start by considering five key requirements for an RMN business.

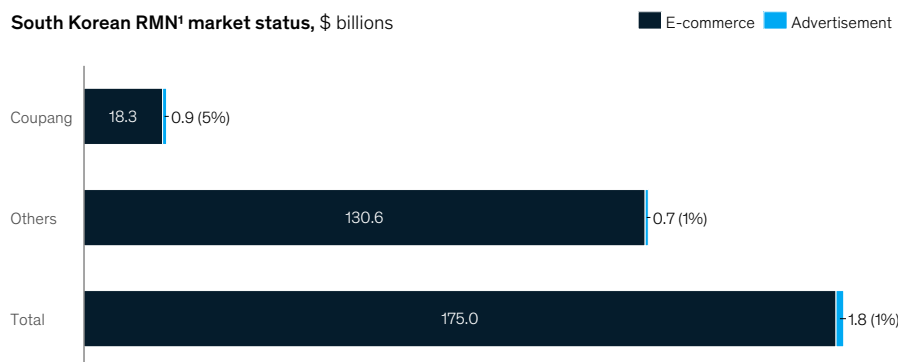
1. Product vision: What is the vision of the RMN business?

2. Go-to-market strategy and sales: What is the best incentive and sales scheme to effectively motivate the media agencies and brands?

³ Gina Heeb, "Coupang—The Amazon Of South Korea—just became the largest foreign IPO on wall street since Alibaba. Here's what you need to know," Forbes, March 11, 2021.

Exhibit 3

South Korea's retail media network market still has room to grow.



¹Retail media network.
Source: Heo Chul, "MN grew Amazon to \$31 billion in RMN revenue," Maeil Economy, April 22, 2022

3. **Operational management:** What is the most convenient interface for managing sales, inventory, and consumer conversion?

4. **Data:** How can we build the analytics model to maximize the return?

5. **IT architecture:** What is the most effective IT architecture to ensure real-time advertising, monitoring, and data sharing?

The key is managing the RMN systematically as part of a broader strategy to embrace the omnichannel marketplace. Hence, retailers should develop their overall marketplace strategy build on a successful stand-alone RMN business. They should also keep in mind that the consumer's experience in the retailer's channel is critical, meaning advertisements from RMNs should not undermine the overall experience.

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How technology can elevate grocery stores in South Korea

Grocers must reimagine physical stores to keep pace with consumer preferences. Technology will supply a critical boost in this shift.

This article is a collaborative effort by Tyler Harris, Younghoon Kang, Jeongkeun Kim, Alexandra Kuzmanovic, and Jaya Pandrangi, representing views from McKinsey's Retail Practice.

The past year continued to reveal the ways in which the pandemic, evolving customer preferences for grocery, and macroeconomic trends have converged to reshape the traditional role of physical stores. As grocers seek to adapt, technology can streamline store operations—from checkout and talent management to merchandising and replenishment—and provide a better in-store environment for customers, all while helping to manage costs.

Stores under pressure

In many ways, the four-wall operating model of the grocery industry has changed only incrementally over the past several decades. However, four primary forces will challenge long-held conventional wisdom and compel grocers to adapt.

Staffing shortages and rising labor costs.

About one million roles remain open in the US retail industry, even with upgraded incentives and benefits such as year-end bonuses for in-store employees and tuition assistance.¹ As fierce competition for retail store employees has pushed wages and benefits costs higher, grocers have responded by investing more in retention and upskilling efforts. South Korean retailers have also been affected by a steadily rising minimum wage, which increased by 5.1 percent in 2022, compared with a record 16.4 percent increase in 2018.²

Increased stockouts. While omnichannel offerings have made supply chains more complex, broader shifts in the economy

have had a greater effect on operational resilience and cost structures. Logistics carriers continue to operate at reduced capacity due to a declining supply of container ships and an 11 percent reduction in overall capacity from September 2020 to June 2021.³ These developments are further squeezing the industry's already tight margins. Our analysis shows that the pandemic's impact on retailers could decrease EBITDA by 20 to 40 percent in the near term, with 15 to 20 percentage points of that decrease enduring if supply chain shocks go unaddressed.

South Korean retailers, however, have not been severely hit by supply chain issues; leading retailers such as E-mart and Lotte Department Store notched a more than 10 percent increase in EBITDA margins from 2021 to the first quarter of 2022.

This is partly because the South Korean retail industry is mainly domestic, making it less vulnerable to global geopolitical issues. South Korean retailers are still tracking global risks as well as a potential strike among the country's truckers, but many retailers (including Coupang and Market Kurly) are using their own logistics infrastructure to mitigate the risk.⁴

Fluctuating foot traffic. Lockdowns in the early phases of the pandemic resulted in a precipitous drop in foot traffic, but the grocery sector has rebounded. After vaccines became widely available to the public in spring 2021, foot traffic increased, even eclipsing prepandemic levels at times. For example, foot traffic was 7.6 percent higher in December 2021 compared with

¹ "Table A. Job openings, hires, and total separations by industry, seasonally adjusted," US Bureau of Labor Statistics, November 1, 2022.

² "The minimum wage in 2023 is 9,620 KRW ... More than 2 million KRW per month," BBC News Korean, June 30, 2022.

³ "Ten steps retailers can take to shock-proof their supply chains," McKinsey, November 11, 2021.

⁴ Park Il-Kyung, "Logistics crisis due to transport workers' union strike," UPI News, June 7, 2022; Seo Min-Ji, Yujin Oh, and Kim Tae-Heon, "Domestic industry caught up in global risks," i24News, March 23, 2022.

the same period in 2019.⁵ Superstores experienced a similar trend in the latter half of the year, even though the shopping week that included Thanksgiving and Black Friday was down 12.5 percent from 2019. South Korean retailers saw a similar rebound in their revenue growth, mainly because of the department store sector. Their offline revenues rapidly recovered from the 2020 decline, with an increase of 7.5 percent in 2021 from the previous year. In addition, the department store sector enjoyed notable offline revenue growth of 24 percent in 2021. Yet the grocery sector still suffered from a decrease of 2.3 percent in offline revenue in 2021.⁶

A shift from stores to e-commerce. While all these factors are putting added pressure on the role of stores, the capstone trend is that e-commerce has increasingly lured shoppers away from traditional grocery stores. The move toward convenience and safety has fueled the rise of new delivery models, blurring the strict boundaries of the traditional store's physical location. In the next five years, we estimate that 20 to 40 percent of grocery e-commerce volume could be fulfilled from alternative locations. Losing this volume will challenge the economics of many stores. Consumers who continue to shop in stores are already seeking a different experience: self-checkout adoption has increased by almost 20 percent since the beginning of the COVID-19 pandemic, and 75 percent of respondents who have started or increased their use of self-checkout said they intend to continue to use it.⁷ South Korea has

also experienced accelerated growth in the e-commerce market, with online penetration hitting 41.2 percent in the first half of 2021, compared with 31.9 percent in the first half of 2019. Market Kurly and Oasis, for example—the leading South Korean e-commerce grocery stores—increased revenues by more than 50 percent in 2021. Overall online retail revenue has grown by more than 15 percent a year since 2019.⁸

Using in-store technology to improve customer experience and reset cost structures

In light of these challenges, 2022 will be a critical year for retailers to use technology to make their physical stores resilient for the future. Many grocers and retailers have already experimented with tech-enabled customer experiences and store operations. The combination of increased pressure on margins and well-tested technologies means retailers have both the motivation and the opportunity to make sustained investments across a set of levers. According to our analysis, advanced tech-enabled checkout, talent management, merchandising and replenishment, and store environment maintenance can help the grocery industry create distinctive in-store experiences for customers and reduce costs by as much as 15 to 30 percent.

Self-checkout

Gone are the days when consumers were willing to wait in longer lines so a cashier could weigh produce or bag groceries. Instead, customers increasingly value the

⁵ Brin Snelling, "What 2021 foot traffic trends mean for the future of physical retail," *Forbes*, December 22, 2021.

⁶ "2021 annual sales trends," South Korea Ministry of Trade, Industry and Energy, January 27, 2022.

⁷ Jérémie Ghandour, Tim Lange, Andreas Seyfert, and Alessandro Turco, "Consumer-goods companies must transform their planning end to end," McKinsey, November 24, 2021.

⁸ *Offline and online growth key drivers*, Mirae Asset Securities Research, September 16, 2021; Lee Young-ah, "Food goes online ... Grocery order soars by 71%," TechM, April 7, 2021; "2021 annual sales trends," January 27, 2022.

safety, speed, and convenience offered by self-checkout, which can reduce friction for consumers and, crucially, free up employees for other operational tasks such as stocking and ad hoc customer assistance. When properly implemented, tech-enabled self-checkout can improve in-store productivity by 6 to 12 percent by reducing the labor hours required for operation.

Self-checkout is now table stakes for grocers, with future-facing checkout technologies such as mobile scan-and-go checkout not far behind. Several retailers have already deployed mobile-scanning technology to help customers save time by checking out while they shop, thereby avoiding standing in line as well as unloading and reloading their carts. This real-time purchasing information also allows retailers to dynamically offer promotions and suggestions. At the same time, visual analytics, specifically AI and camera vision, can help address nagging issues such as shrinkage (the loss of inventory through errors and theft) and help retailers use the analysis of visual data to improve process efficiency.

South Korea's Hyundai Department Store collaborated with AWS to introduce their Uncommon Store in 2020. Consumers use a mobile QR code to enter the store; they then pick up what they want to purchase and leave the store. The store processes payment using a customer's preregistered payment method within five minutes of consumers leaving the store. The

Uncommon Store attracted more than 100 customers at the time of opening.⁹

Self-checkouts are also actively used by leading South Korean retailers, and an increasing number of customers are embracing self-checkouts as a convenient way of shopping. The number of fully cashierless convenience stores in the country reached 2,800 in June 2022, an increase of 14 times from the whole year of 2019.¹⁰ Many in the convenience store industry expect to compensate for escalating labor costs from increased minimum wage with cashierless stores.¹¹

Talent management

The talent landscape has changed dramatically over the past two years. Retail positions were once considered highly desirable because they offer flexible hours, product discounts, and other benefits. Today, other sectors offer the same—if not better—value proposition. In light of current labor shortages, attracting workers requires far more than a “Now hiring” sign or an online ad. Employers must instead pursue a multipronged strategy: smarter and digitalized hiring, automated management to lighten workloads, and scaled efforts to train and retain employees.

These solutions can be useful at every step of the hiring journey. For instance, predictive analytics can help automate resume screening and reduce manual efforts by 55 percent. When automatic screening is done well, store managers

⁹ Jeong Ki-Young, “Contact-free era ... Hypermarkets and convenience stores are also ‘cashierless,’” *Junggi*, March 4, 2022.

¹⁰ Lim Chan-Young, “Self-checkout that takeover part-time job ... Unmanned stores increased 14 times in 3 years,” *Money Today*, July 11, 2022.

¹¹ *Ibid.*

can spend more time on activities that directly improve store performance, such as coaching and analysis. These same analytical tools allow retailers to understand which candidate personas will help them succeed and to take early action to retain the right workers.

Once hired, employees can benefit from digital training. One major retailer has made virtual-reality (VR) training available to associates and has deployed gamified digital-training sessions to all US locations to build capabilities and drive engagement and retention.

Additionally, in our experience, AI-powered workforce planning and scheduling can save stores more than 10 percent in labor costs. These tools use AI to predict demand based on variables outside the store, such as traffic and weather patterns, and store-specific information. Retailers can use these insights to match staffing to each store's needs while providing workers with stability in scheduling. Multiple South Korean retailers are also using AI for resume screening, VR training, and logistics scheduling. BGF Retail has incorporated AI-based resume screening, and GS Retail has been collaborating with KT, the leading telecommunication company in South Korea, to digitally optimize delivery routes and work schedules.¹²

Merchandising and replenishment

Inventory management, including counting products, identifying out-of-stock SKUs, and replenishing store shelves, accounts for a significant share of the in-store workload.

Grocers have been dabbling in robotics to manage these activities for the past several years, but two recent developments have changed the game. First, technology has evolved to allow robots to start to wear two hats (for example, the same robot can manage stockout checks and cleaning), which strengthens the business cases for automation and makes investments more palatable. Second, retailers no longer have the labor resources to cover all activities, so they must rely on automation to complete tasks. The use of robotics for tasks that are especially difficult or labor intensive, such as price tag validation, can support sales by improving in-stock rates and pricing and monitoring planogram compliance. In one pilot, robots detected 14 times the addressable out-of-stock situations compared with manual scans, reducing out-of-stock facings by 20 to 30 percent.¹³

Since most of out-of-stock validation, in-store stock replenishment, and price tag validation are executed by store workers,

¹² Gong Tae-Yoon, "Hyundai department store AI competency test, LG ViewInter HR ... AI recruitment solutions diversified," Korea Economic Daily, March 3, 2021; Byun Se-Young, "Autonomous network optimization' ... How far has AI logistics come?," Hans Economy, November 19, 2020.

¹³ "Schnuck Markets becomes world's first grocer to deploy intelligence robots chainwide," Schnucks, August 26, 2021.

retailers have a lot of flexibility to improve efficiency and reduce costs by integrating robots into store operations in the near future.

Maintenance and store environment

To maintain more prevalent in-store technology and equipment, grocers can automate monitoring and enable predictive maintenance. These tech-enabled tools serve a dual purpose: they help to minimize the labor required to do routine maintenance checks and they increase food safety in grocery environments by automating tasks previously open to human error. By embedding Internet of Things (IoT) sensors throughout the store's tech and standard equipment (such as coolers and freezers), organizations can remotely detect and even predict maintenance events and then deploy remote support or shared-service teams to address an issue before it disrupts store operations. An IoT-enabled approach reduces the time store teams spend on not only monitoring in-store tech and equipment but also troubleshooting and coordinating support. Collectively, these efforts can boost the productivity of store teams by 1.5 percent, a significant amount when deployed across the whole store fleet. Furthermore, using automatic temperature monitors that send alerts when temperatures are outside of acceptable range—for example, in freezers and at prepared-food stations—

increases overall food safety and minimizes time spent on manual data collection.

In South Korea, cashierless butcher shops powered by various IoT technologies are emerging; such technologies can, for example, detect the opening of refrigerator doors and control the refrigerator's inside temperature. These stores are more advanced than the previous vending-machine model of cashierless stores. Also, Shinsegae I&C is reportedly launching a remote maintenance and security service.¹⁴ This offering will use IoT sensors to control temperature and humidity and detect unexpected events such as a fire or violence in the store. This kind of service will help cashierless stores operate more efficiently and effectively with minimum engagement of labor.

Investments in technology used to feel optional for grocers—an opportunity to experiment or increase the “wow” factor in stores rather than to support mission-critical operations. Today, a wide range of affordable, field-tested technologies can help retailers reduce the cost structure of their stores while delivering a better experience for both consumers and employees. Audacious investments in technology should be the next step for the industry.

¹⁴ Jun Lee, “Unmanned butcher shop ‘Meat King’, minimizing labor costs, increasing additional sales,” Foodnews, June 27, 2021; “Smart store core technology advancement ... AI detects people who have collapsed and manages remote stores with IoT,” Spharos, November 14, 2021.

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Using sustainability to transform food systems in South Korea

Now is the time for grocers to develop strategic sustainability plans focused on value creation and think more broadly about the role they can play in encouraging change across the full value chain.

This article is a collaborative effort by Sebastian Gatzer, Steve Hoffman, Nikola Jakic, Bartosz Jesse, Younghoon Kang, Jeongkeun Kim, Bill Mutell, and Daniel Roos, representing views from McKinsey's Retail Practice.

Increasingly severe global weather events and the urgent tone of the 2022 UN Climate Change Conference (COP27) have made it crystal clear: now is the time to truly prioritize sustainability. And while climate may be top of mind, it can no longer be separated from other concerns about how we live and make supporting economies more sustainable.

To address these problems, it is crucial to consider the food system, which accounts for 34 percent of global greenhouse-gas (GHG) emissions. In South Korea, for example, GHG emissions from agricultural products accounted for 3 percent of the country's total emissions in 2018; the Carbon Neutrality and Green Growth Commission has set the goal of cutting emissions by 38 percent by 2050.¹

It's not simple to reform a system that plays a critical role in people's health and that more than 500 million farmers, workers, and employees around the world rely on. Yet pressure from stakeholders has never been stronger: consumers are demanding sustainable products and services, investors are shifting to sustainable investments, regulators are implementing new and tighter sustainability regulations, and pressure from nongovernmental organizations (NGOs) is increasing.

We believe grocers are in a unique position to be a driving force in this much-needed sustainability transformation. They're ubiquitous—even the smallest town has a grocer. They're integral to local and national economies and are often the largest private employer in an area.

Grocers also have the power to both influence consumer choices and collaborate with farmers, suppliers, and

even other grocers. Finally, they can benefit from the transition because sustainability can go hand in hand with value creation. In fact, our analyses show that while sustainability presents potential risks, it also offers opportunities for grocers' top lines, margins, and costs.

Making sustainability a strategic imperative

Many food retailers have already kick-started their sustainability efforts with portfolios of initiatives that typically span decarbonization, packaging, assortment, and social sustainability. South Korean grocers have quantified their starting point and defined concrete actions to address sustainability topics, yet many of them are not confident they will achieve their sustainability targets.

The problem? Grocers associate sustainability with significant costs and have not solved the challenge of creating value through commercializing green activities, which has slowed progress. They are simultaneously juggling other critical strategic transitions, such as digitalization. Grocers also find it difficult to set up much-needed upstream collaboration with farmers and suppliers.

We believe grocers need to make sustainability an integral part of their businesses with a strategic perspective based on value creation and tailored to their specific circumstances. We have identified three areas of focus that will help grocers succeed:

1. five key sustainability themes for holistic impact
2. levers grocers can use to capture efficiency, growth, and margin-

¹ Jaemin Kim, "Carbon Neutrality and Green Growth Commission is launched," *Farminsight*, October 26, 2022.

- improvement opportunities while managing potential downsides
- 3. an operating model enabling grocers to successfully manage the sustainability transformation

1. Focusing on the five sustainability topics that matter

While looking at the food system's sustainability from an environmental,

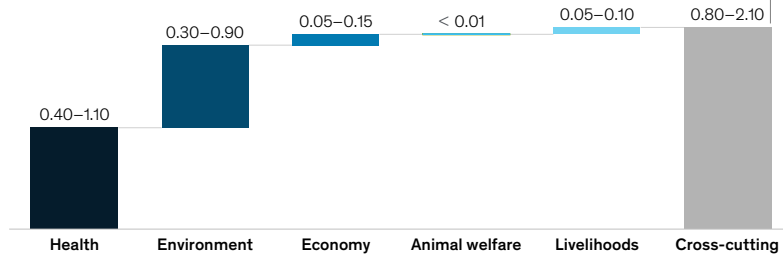
social, and governance (ESG) perspective is a good start, grocers can go further. We sought to create a framework for grocers to provide insights about the most important dimensions. Our research into stakeholder requirements and external costs of the food system suggests grocers focus on five explicit dimensions: health, the environment, the economy, animal welfare, and livelihoods (HE²AL). Within this framework, we further identified 15 topics that should matter most to grocers (Exhibit 1).

Exhibit 1

Grocers can help mitigate the external costs to society from food through 15 sustainability levers.

Cost to society per \$ spent on food, \$

For every dollar spent on food, there is an estimated **\$0.80–\$2.10** in external costs



Sustainability levers for retailers



Health

- 1 Enable healthy lives through healthier assortment (incl private labels)
- 2 Ensure food safety



Economy

- 8 Secure food access and affordability
- 9 Increase supply chain resilience



Livelihoods

- 11 Protect human rights
- 12 Ensure fair pay



Environment

- 3 Decarbonize own operations and value chain
- 4 Achieve plastic waste and packaging circularity
- 5 Eliminate or reduce food waste
- 6 Reduce biodiversity impact, including deforestation
- 7 Increase resource efficiency (eg, water)



Animal welfare

- 10 Strengthen animal welfare



Cross-cutting

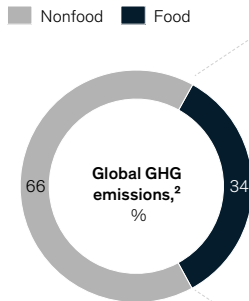
- 13 Create product transparency and traceability
- 14 Champion standards, certifications, and sustainable policies
- 15 Market sustainability activities

Source: Food and Land Use Coalition; Perotti; Rockefeller Foundation; Sustainable Food Trust

Exhibit 2

Food systems account for more than a third of global greenhouse-gas emissions.

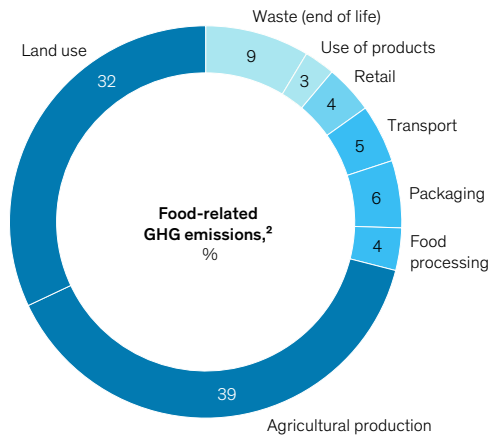
The global food system is a key contributor to global greenhouse-gas (GHG) emissions, accounting for 34% of emissions.



While grocers directly contribute only 4% of food-related GHG emissions, they are uniquely positioned to influence and support the decarbonization of suppliers and farmers upstream and enable sustainable consumption choices of consumers downstream.

Stakeholder with direct influence

Consumer Grocer CPG¹ Farmer



Note: Global top-down perspective; figures may not sum to 100%, because of rounding.
¹Consumer packaged goods.
²CO₂ equivalent.
 Source: Crippa et al., "Food systems are responsible for a third of global anthropogenic GHG emissions," *Nature Food*, March 8, 2021, Volume 2

Retailers should focus on all HE²AL dimensions and look at the full value chain to maximize value creation and sustainability impact. Looking at the full value chain is important because many value creation opportunities and much of the sustainability impact come from interactions with suppliers and customers.

Take decarbonization as an example. While the food system accounts for more than a third of global GHG emissions, only about 4 percent of grocers' direct contribution is from their own operations (Scope 1 emissions) and from purchased electricity and heat (Scope 2 emissions).

Most emissions are generated along the value chain (Scope 3 emissions), with about 80 percent stemming from land use, agricultural production, food processing, and packaging (Exhibit 2).

This means grocers need to focus on two elements. First and foremost, they should work on their own footprints and optimize their own operations. This can be a significant—and expensive—investment of time and resources, requiring anything from making thousands of stores energy efficient to sourcing green energy and reshaping cooling technologies and logistics.² But it holds the potential for

² "Seven Eleven adopts 110 eco-friendly EVs for ESG," *Newdaily*, October 10, 2022; "CU becomes the first to adopt EV shipping among CVS players," *ET News*, April 23, 2021.

grocers to make a sizable contribution to sustainability and create value. South Korean retailers are taking several actions. For example, convenience-store operators such as 7-Eleven and BGF Retail have adopted electric vehicles (EVs) for their logistics. Similarly, SSG.com, the online mall run by Shinsegae Group, is operating EVs equipped with cold-chain technology.³

Second, grocers should take a holistic view of GHG emissions created along the entire value chain, reviewing how their assortment and sourcing choices and policies contribute to them. Grocers can reduce Scope 3 emissions while creating value by taking actions such as introducing transparency requirements for all products, changing product assortment (for example, introducing lower-emission alternatives), adjusting specifications (such as specifications on shape or size that can cause farmers to waste “nonfitting” produce), supporting farmers who want to develop emission-reducing agricultural production, or improving supply chain financing based on the GHG footprint of the supplier. Tackling Scope 3 emissions can be quite complex because grocers need to collaborate with their partners in the value chain. However, given the large share of total emissions and grocers’ central position in the value chain, this step is required to decarbonize the food system. Major retailers (such as Hyundai Department Store, Lotte, and Shinsegae)

have announced plans to reduce the plastic content of packaging and recycle used plastics.⁴ E-mart also published the Product Sustainability Initiative, a guidebook that articulates metrics for gauging the sustainability of products from suppliers.⁵

Along the five HE²AL dimensions, grocers should identify opportunities to fundamentally—and credibly—differentiate themselves and create competitive advantages, allowing them to maximize sustainability impact and value creation. This does not imply grocers need to be sustainability leaders across all 15 topics, but they should make conscious choices about where they want to lead, where they want to benefit from resource productivity gains, and where they just want to comply with regulations. The following five factors can help grocers prioritize their efforts:

- the company’s starting point (baseline)
- the position of competitors
- stakeholder expectations, especially those of (future) consumers and regulators
- the company’s “appetite to do good,” reflecting its purpose
- the overall resulting potential for value creation, including upsides and downsides

³ Hwang Hee-Kyung, “SSG.com starts shipping with EVs equipped with cold chain,” Yonhap News Agency, November 26, 2020.

⁴ “Eco-friendly trends in department store industry; Drive for ESG management,” *ET News*, June 6, 2021.

⁵ “E-mart makes guidebooks on production and distribution of ‘sustainable goods,’” UPI News Korea, June 19, 2022.

These opportunities then need to be translated into concrete targets that can be communicated internally and externally.

2. Creating value from the sustainability transformation

Grocers can generate significant value from a well-positioned sustainability transformation. The value generated can come from six types of value creation levers, which can be further grouped into reducing downside risks and seizing the opportunities sustainability offers (Exhibit 3).

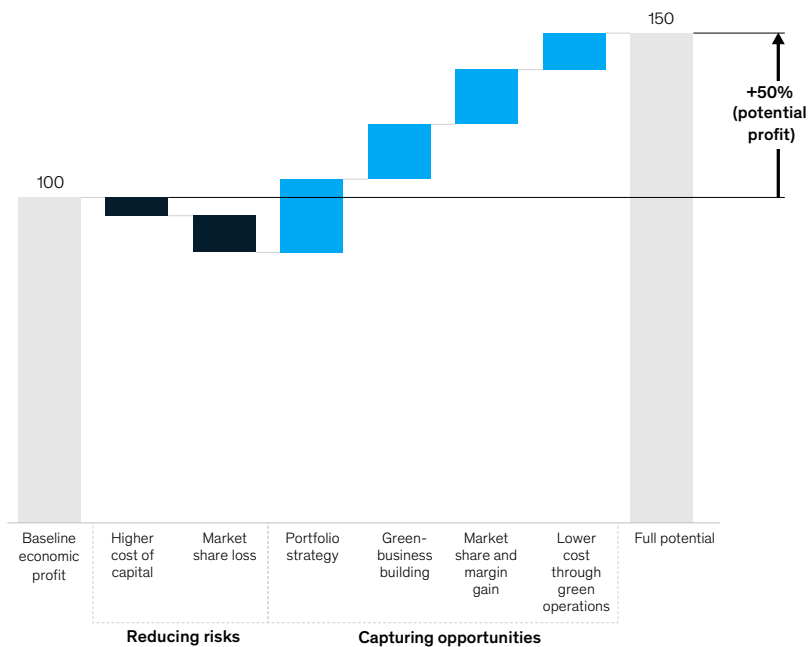
Reducing risks

A strong sustainability strategy reduces several downside risks companies might otherwise face, making such a strategy an important source of potential value. Companies with low ESG ratings will face increasingly higher costs of capital as capital is moved to sustainable companies. By improving their ESG ratings, grocers can get access to capital at better rates. For example, major commercial banks in South Korea have released ESG loan products that offer better rates for companies that

Exhibit 3

Sustainability value creation levers can drive economic profit.

Illustrative economic profit, modeled with top-down assumptions, baseline = 100



Source: McKinsey analysis

meet ESG criteria. The National Pension Service of Korea and most asset managers in South Korea have launched ESG funds to invest in companies with higher ESG scores.⁶ The Social Responsibility Investment (SRI) ratio of the three largest South Korean public pension funds has risen 13-fold, from just 1 percent five years ago to 13 percent today.⁷ Several NGOs are also lobbying regulators to extend the carbon tax to food, increasing the cost of these products. By proactively working across the supply chain to reduce GHG emissions, grocers can avoid these additional costs.

In addition, as consumers increasingly patronize more sustainable companies, grocers risk losing market share to sustainability leaders. By offering a wider range of healthy and sustainable options and decarbonizing their own operations and the value chain, grocers can gain market share. Although there is still considerable uncertainty around how sustainability will play out, there's a clear business case for acting to mitigate downsides.

Capturing opportunities

Sustainability strategies can do more than mitigate risk and reduce downsides; they can also give grocers a competitive edge and allow them to take advantage of new opportunities. We outline some potential strategies for grocers below.

Portfolio strategy. Grocers can begin reorienting their portfolios toward sustainability at the level of their broader ecosystems. They can rigorously allocate capital—for example, by investing in sustainable parts of the business, managing unsustainable parts through

cash flow, or scaling down and divesting—and think about organic and inorganic moves. There are many attractive sustainability value pools beyond grocery that often have significantly higher growth and margin potential. Grocers can evaluate their potential to extend beyond their core business, whether by focusing on adjacent segments that strengthen the core business or by leveraging consumer data as an ecosystem backbone to provide highly valuable services. South Korea's three largest retailers (Lotte, Hyundai, and Shinsegae) used their existing assets to enter the EV-recharging-station business, for example.

Sustainable business building. Some ambitious sustainability innovators are emerging in South Korea's food system—for example, Farm8 and N.Thing (in vertical farming), Unlimeat and WeMeet (protein alternatives), and Botash and CaretBio (packaging circularity). Yet established grocers typically struggle to build new sustainable businesses successfully. While they face real challenges, such as brand credibility and incubating agile new ventures within larger corporate structures, established grocers are also held back by a lack of ambition and an unwillingness to disrupt themselves before someone else does. These are missed opportunities. Established grocers have significant advantages that should make them the natural owners of sustainable-business building.

Market share and margin gain.

Consumer companies are increasingly gaining market share and margins by differentiating through sustainability. The three principal levers are branding and marketing, sustainable value propositions

⁶ Jung Ho Jeong, "National Pension Service (NPS) invests in ESG credit fund – Agreement with Blackstone," Infomax, August 25, 2022.

⁷ "Korean pension funds are constantly increasing the proportion of SRI," Gtitt.net, accessed June 22, 2022.

and differentiation, and green pricing—especially as sustainability premiums begin to materialize. Leaders in sustainability increasingly allocate shelf space and resources to sustainable products; they outpace conventional products by a factor of seven. For instance, Orga Whole Foods, a subsidiary of Pulmuone that focuses on distributing eco-friendly food directly to customers, turned a profit in 2020 after years of building its brand.⁸

Sustainable operations and supply.

More-sustainable operations can add value and contribute significantly to better performance. Often, we find that up to 50 percent of operational levers can be net present value-positive (NPV-positive) or NPV-neutral and can improve financial performance through cost reductions. Grocers should therefore approach sustainability investments in the same way that they approach other investments:

⁸ "How did Orga Whole Foods, an organic farming brand of Pulmuone, turn into profit-making," Econovill, October 6, 2021.

Grocers should approach sustainability investments the same way they approach other investments: by prioritizing the most economically efficient options.

by prioritizing the most economically efficient options. Grocers can use marginal abatement cost curves to prioritize NPV-positive or NPV-neutral levers (Exhibit 4). Such cost curves show the cost of each investment and rank investments by their return on capital.

3. Setting up the sustainability transformation for success

Maximizing sustainability impact and value creation requires a holistic

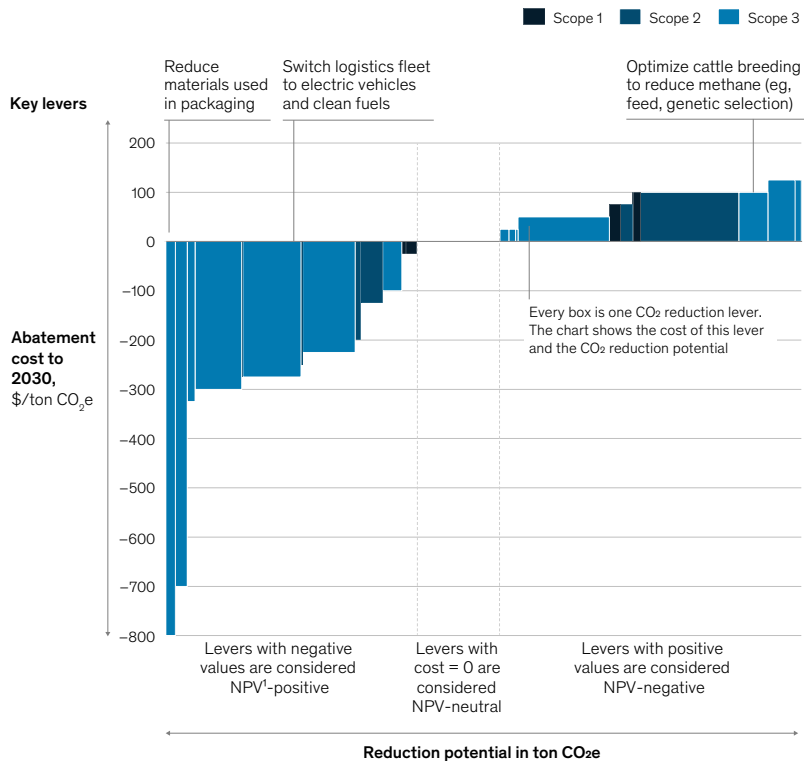
transformation approach with the right operating model. Like any business transformation, sustainability is hard to achieve because it requires a substantial number of changes to the business and to cross-functional collaboration.

Sustainability efforts should therefore be anchored by the CEO and board, who should model a green culture. They should

Exhibit 4

Carbon-abatement cost curves can support decisions about the sequence of implementation.

Exemplary marginal-abatement cost curve for grocery retailers
Levers to abate CO₂-equivalent (CO₂e) emissions, 2030 view



Note: Additional potential from Scope 3 downstream levers not included.
¹Net present value.
 Source: McKinsey Decarbonization Lever Library; McKinsey GreenGauge; McKinsey analysis

be supported by a central team led by a chief sustainability officer who reports to the CEO and acts as the main orchestrator and know-how provider across the organization. Business units should take the lead in developing and executing specific sustainability initiatives, with sustainability embedded in performance management as a measure of progress that can ensure accountability both internally and externally. Moreover, grocers should invest in data collection and reporting across the value chain to be able to manage upstream and downstream impact. Many South Korean retailers, such as BGF Retail and GS Retail, have organized task forces specializing in sustainability to lead diverse ESG initiatives.⁹

The food system requires fast, systemic change to become sustainable. Grocers can be a driving force and create significant additional value, but sustainability is a multiyear challenge requiring leadership and focus throughout the organization as well as investments. We recommend three steps leaders should take now:

- Assess the sustainability baseline and define an ambition with concrete impact targets (such as financial, carbon abatement,

waste diversion, and supplier engagement). These should be based on the organization's starting point, purpose and internal "appetite to do good," the behavior of competitors, stakeholders' expectations, and the resulting potential for value creation.

- Implement a well-defined and prioritized set of sustainability initiatives that maximize sustainability impact across the HE²AL dimensions and generate value for the business across all five types of value creation levers. Think strategically about how to involve suppliers, differentiate through sustainable own brands, and invest in transparency.
- Adapt the operating model to anchor sustainability in the day-to-day business decisions most relevant to the articulated ambition across the value chain. This enables consumers to make sustainable choices, optimizes operations, and allows the organization to collaborate with farmers, suppliers, and peers.

⁹ "Introduction to sustainable management," GS Retail, accessed June 22, 2022; "Overview of ESG management," BGF Retail, accessed June 22, 2022.

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