



Singapore Food Culture: The Road Ahead is Plant-based

abillion

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Key Takeaways

- More Singapore restaurants are joining the plant-based movement, but there remains significant potential to enhance vegan-friendliness across the board.
- Cafés / bistros are popular among socially responsible consumers due to a wider variety of vegan dishes offered. Plant-based demand at cafés / bistros is likely to grow in tandem with the proliferation of the flexitarian lifestyle in Singapore.
- Room for more variation of plant-based dishes in Asian cuisine. Some forward-looking F&B players have charged ahead with innovative plant-based Asian offerings.
- Local F&B players can accelerate market penetration and visibility in the plant-based sector through strategic partnerships. There are sizable opportunities for traditional F&B companies to reinvent themselves and tap on the global sustainability movement.

Get plugged into the **fast-growing market** of plant-based business.

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About abillion:

At abillion, we're working to drive a global movement for plant-based food and earth-friendly products. abillion is a digital platform that assists people that want to make sustainable choices. Using the abillion app, members can discover vegan food and vegan and cruelty-free products. abillion, launched in 2018 by CEO Vikas Garg, is unique in harnessing social media for social good. Whenever a member chooses sustainability and shares a review, the member is rewarded with a donation that can feed a hungry child, educate a child for a day, plant a tree or save an animal life. The abillion app has been downloaded by nearly one million people around the world and through its giving program, the company has donated US \$750,000 to life-saving causes around the world. abillion members from over 140 countries have contributed more than 850,000 reviews of vegan dishes and vegan and cruelty-free products. Consumer reviews, along with consumer insights, are shared with business owners, influencing more than 100,000 brands worldwide to offer more sustainable options.

About our dataset:

This study is based on data collected on the abillion app from September 2017 to June 2021. The data was contributed by 2K Singapore members, who collectively posted 46K and 13K dish and product reviews respectively. Our dataset is primarily driven by Generation Z and Millennial consumers, with roughly half of our active Singapore members aged between 18 and 35 years old. Reviewed dishes are not only found at vegan restaurants, but also F&B shops which serve non-vegan items in addition to at least one plant-based dish. Overall, our dataset spans 4K vegan and non-vegan F&B establishments.¹ In this study, we mainly focus on dish reviews to analyse trends in Singapore's retail dining market. When members post a review, some go further to add cuisine and establishment type information to restaurants. In our cuisine and establishment type analysis, we therefore rely on a smaller restaurant dataset which comprises 2.5K and 1.6K F&B shops with cuisines and establishment type information respectively. Cuisines are organized in an in-house dining cuisine taxonomy with hierarchical levels. See Annex A for detailed breakdown.

¹ In this report, we use the term 'restaurants' loosely to refer to F&B establishments.

Full Report

In our previous report, we found that interest in conscious consumption in Singapore [doubled](#) in 2020. As eating out continues to play [a large part of Singapore's food culture](#), it is no surprise that rising environmental consciousness has influenced the country's dining habits. (1) In 2020, total local F&B sales amounted to S\$7.8 billion. (2) With plant-based orders [growing exponentially](#), transitioning to a more vegan-friendly menu offers potential business rewards for local F&B players. (3)

Over the past year, we have seen more exciting collaborations between food tech startups, local traditional food manufacturers and F&B establishments to co-develop and introduce new plant-based offerings in their menus. With more consumers seeking sustainable or healthier non-meat options, the demand for plant-based foods has provided an opportunity for the different players in the food ecosystem to co-innovate and develop products of a higher premium.

- *Bernice Tay, Director of Food Manufacturing, Enterprise Singapore*

Harnessing insights from our dataset (46K dish reviews across 4K F&B establishments), we uncover insights and highlight business opportunities in Singapore's plant-based dining sector.

This report is supported by [Enterprise Singapore](#).

More Singapore restaurants joining the plant-based movement; Significant potential to enhance vegan-friendliness across the board

In the last four years, we've witnessed more Singapore restaurants join the plant-based movement. The number of restaurants on the abillion app surged by

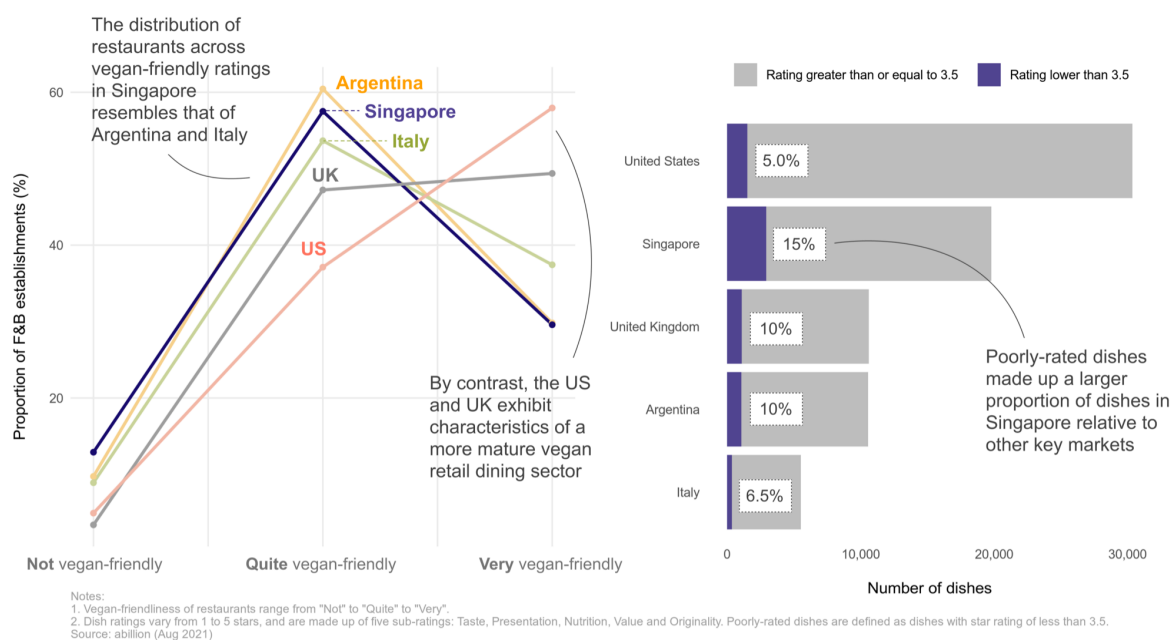
5X from 2017 to 2021, with growth driven both by new restaurants as well as existing restaurants incorporating vegan items.

Nonetheless, there exists sizable opportunities for local F&B players to enhance their plant-based offerings. On the abillion app, consumers can rate restaurants as "Not", "Quite" or "Very" vegan-friendly, based on the breadth of vegan options available. Comparing Singapore to other key markets (e.g., US, UK, Argentina, Italy), Singapore has the largest proportion of restaurants (13%) rated as "Not" vegan-friendly.² The distribution of restaurants across vegan-friendly ratings in Singapore resembles that of Argentina and Italy. By contrast, the US and UK exhibit characteristics of a more mature vegan retail dining sector with a higher share of F&B shops rated as "Quite" or "Very" vegan-friendly.

When consumers review a dish, they provide a star rating that ranges from 1 to 5, with 5 being the best grade. We discovered that poorly-rated dishes, defined as having a star rating of below 3.5, made up a larger proportion of dishes in Singapore, relative to other key markets. For example, 15% of dishes reviewed in Singapore were given a poor vegan-friendly rating, higher than that in the US (5.0%), Italy (6.5%), UK (10%) and Argentina (10%).

Figure 1: Budding plant-based segment in Singapore's retail dining scene

Significant opportunities for local restaurants to catch up with their US and UK peers in terms of plant-based offerings

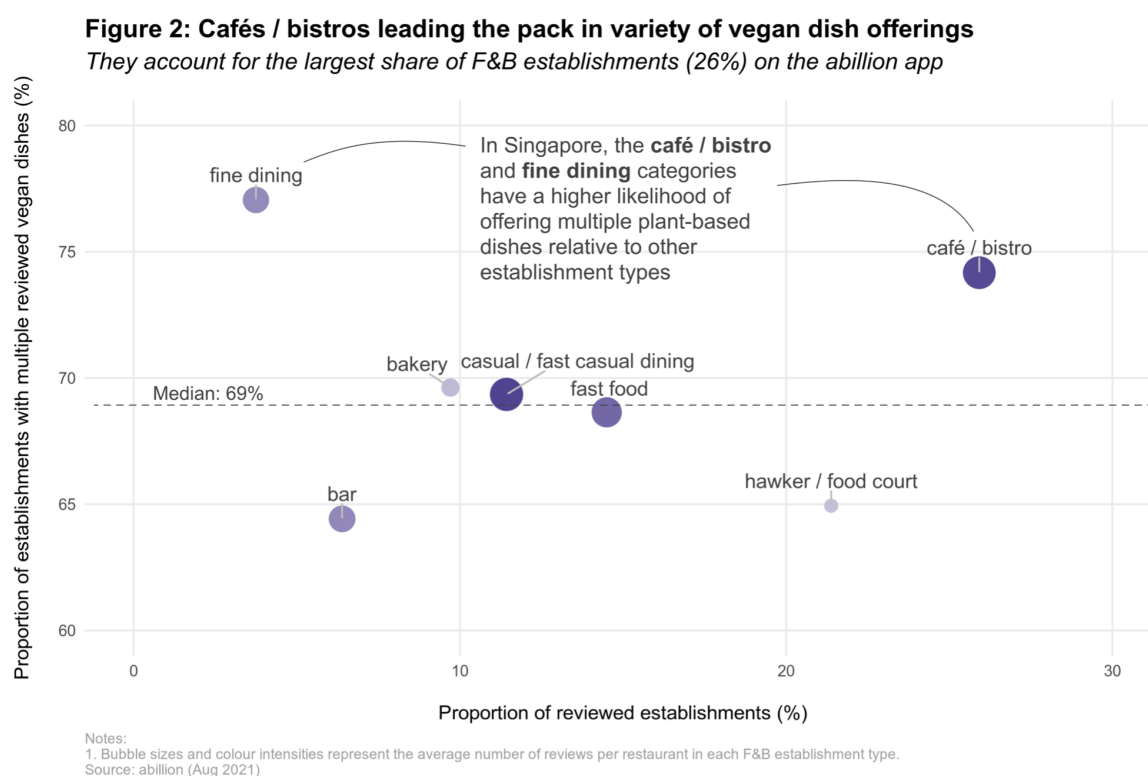


² In our sample, there were 14K, 4.4K, 2.7K and 2.2K reviewed restaurants in the US, UK, Argentina and Italy respectively.

Both findings underscore a local market gap to enhance current plant-based offerings in Singapore. In our previous report, we found that interest in conscious and plant-based living among Singapore consumers [surged](#) in 2020, driven by a heightened sense of social, environmental, and health awareness. Taken together, there are market opportunities for local F&B establishments to improve their vegan offerings and appeal to the rapidly growing conscious consumer group in Singapore.

Cafés / bistros, fine dining F&B establishments tend to offer a wider range of vegan dishes

Across all cuisines, two thirds of F&B shops in Singapore had more than one vegan dish reviewed on the abillion app. In terms of establishment type, cafés / bistros accounted for the largest proportion of reviewed F&B shops.



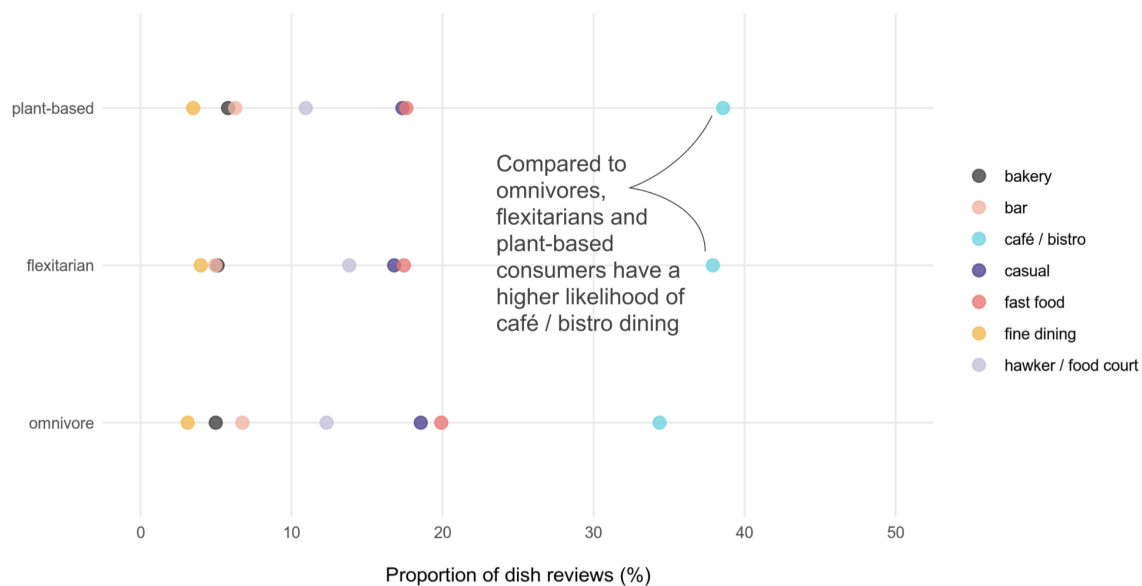
Furthermore, 74% of cafés / bistros had multiple vegan dishes reviewed, higher than the overall median of 69%. Likewise, 77% of fine dining restaurants offer more than one plant-based menu item. However, fine dining establishments only accounted for 3.8% of reviewed restaurants.

Cafés / bistros popular among consumers seeking plant-based options

Consumers curious about the plant-based lifestyle are flocking to cafés / bistros. Across all identity types, abillion members in Singapore were the most likely to have a plant-based meal at a cafe / bistro, relative to other establishment types. Breaking down our dataset by establishment type and member identity, we found interesting dining behavioural traits across plant-based, flexitarian and omnivore consumers. In particular, we found a higher probability of café / bistro dining among plant-based and flexitarian consumers compared to omnivores, likely due to the wider variety of vegan dishes offered at these F&B shops. Notably, omnivores on the abillion app had a higher likelihood of reviewing a vegan dish at fast food outlets than plant-based or flexitarian members.

Figure 3: Flexitarians / plant-based Singapore consumers flock to cafés / bistros

They are more likely to have a plant-based meal at cafés / bistros than omnivores



Notes:
1. An omnivore is a person who consumes both plant-based food and meat. A flexitarian consumes plant-based food with the occasional inclusion of meat.
Source: abillion (Aug 2021)

We had previously highlighted that flexitarians were the fastest growing consumer segment in Singapore. In the next 2-3 years, we expect the demand for plant-based options at cafés / bistros to grow in tandem with the proliferation of the flexitarian lifestyle in Singapore. Cafés / bistros should consider offering more plant-based options (e.g., swapping out meat ingredients for plant-based meat, or providing non-dairy options for coffee) to consumers to stay ahead of the curve. For instance, nomVnom Bistro is a hot favourite among conscious diners in Singapore. The bistro has more than 100 plant-based dishes reviewed, with dishes

spanning burgers, pizzas and dessert tarts.

nomVnom Bistro

6 Eu Tong Sen St, #03-105/106/107, Singapore 059817



Lion's Mane Truffle Burger
VEGAN
★★★★☆106



Popeye's Delight Pizza
VEGAN
★★★★☆14



Original Vegan Egg Tart
VEGAN
★★★★☆29



Nom Nom Nuggets
VEGAN
★★★★☆15

Similarly, since its first review in Feb 2020, [Genius Central](#) has spiked in popularity among Singapore consumers. It has an extensive range of vegan dishes (more than 50 dishes reviewed on abillion) amidst non-vegan options.

Genius Central

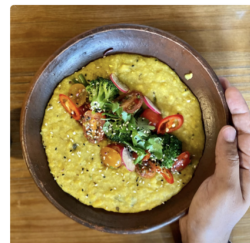
#01-01, 7-13 Amoy Street, Singapore 049949



Vegan Nachos
VEGAN
★★★★☆32



Turmeric Soy Latte
VEGAN
★★★★☆3



Khichdi
VEGAN
★★★★☆28



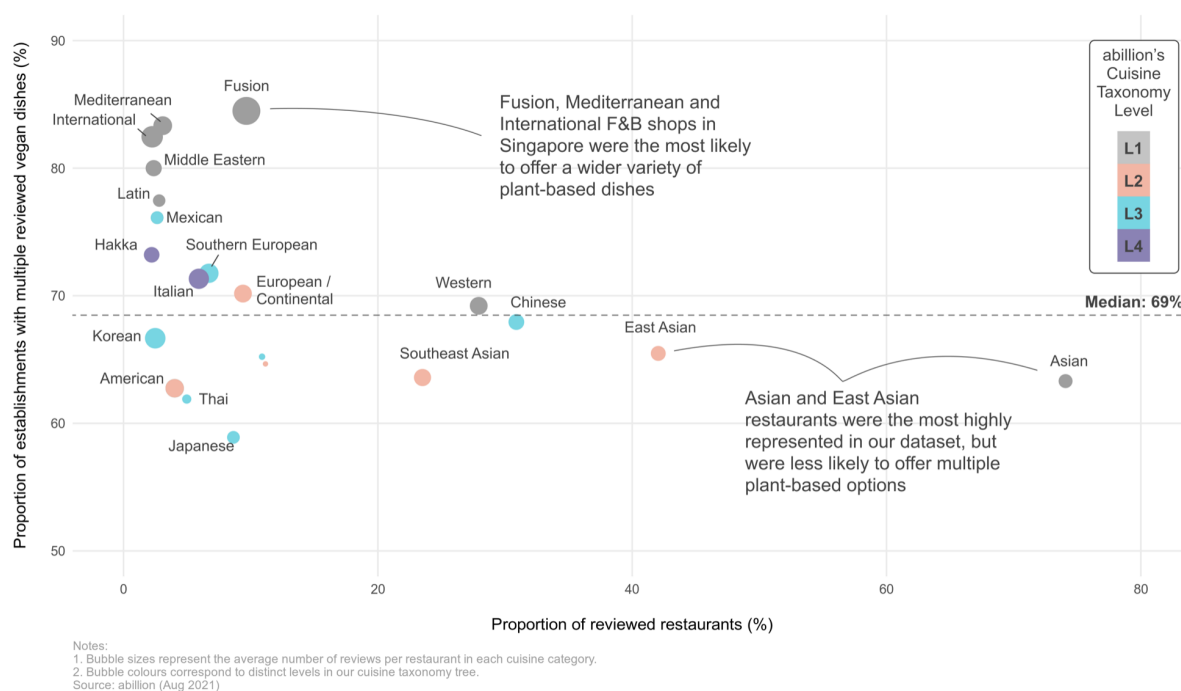
Falafel Bowl
VEGAN
★★★★☆28

Room for more variation of plant-based dishes at Asian restaurants

Asian and East Asian restaurants were the most represented in our dataset at 74% and 42% respectively.³ However, only 63% and 65% of them offered more than one plant-based option, lower than the overall median of 69%. By contrast, Fusion, Mediterranean and International restaurants, which made up 9.7%, 3.0% and 2.2% of F&B establishments on the abillion app respectively, were the most likely to offer multiple plant-based dishes. For F&B shops serving Asian and East Asian cuisines, this represents a sizable business opportunity to act quickly and broaden plant-based offerings for consumers.

³ Cuisines are organised in an in-house dining cuisine taxonomy with hierarchical levels.

Figure 4: Potential for Asian restaurants to catch up with their Fusion, Mediterranean and International peers
They are the most prevalent in Singapore but had a relatively lower tendency of providing multiple plant-based menu items



Recognising this market gap, [Phuture Foods](#), a Malaysian food technology company, created plant-based meat products specifically for Asian cooking. Phuture Foods' products can be found across numerous Asian dishes in local restaurants, such as [Privé](#) and [The 1925 Brewing Co.](#)

By incorporating rice protein into Phuture Mince through our proprietary processing technology, we have successfully recreated the fatty mouthfeel desired in Asian cuisines. Optimised to absorb flavours during cooking, our Phuture Mince allows chefs to increase the performance of their dishes to amaze their existing customers while attracting new customers with plant-based options on their menus.

- Jin Yin Lim, Chief Operating Officer, Phuture Foods

The 1925 Brewing Co is a leading example of how plant-based research & development to adapt Asian recipes led to higher demand and sales from

omnivores and vegans alike. The F&B player reported overwhelmingly positive consumer response to its [Vegan Dumpling](#) dish, to the extent that they eventually dropped their Roast Pork Dumplings in favour of the Vegan Dumplings.



There aren't many difficulties in adapting the use of plant based ingredients in Asian recipes, especially when the product form factor is in a form which is very easily pliable in many of the Asian dishes (i.e., minced). The product is so similar to the actual minced, that it makes the barrier of entry to use the product so low, which is extremely advantageous for the time-starved worker in the kitchen to pick up very quickly without requiring much training. Because it is plant based, there is no need to worry about undercooking the ingredient, as it poses no food safety issues with consuming it raw. Other bonuses include longer shelf life.

- *Ivan Yeo, Head Chef & Co-Founder, The 1925 Brewing Co*

Encouraged by the strong positive response, The 1925 Brewing Co has doubled-down on the plant-based movement. The company set up a local facility to produce ready-to-eat and ready-to-cook Asian and Western meals, with each meal centred on a type of plant-based meat (e.g., chicken, beef, seafood). These products are anticipated to hit the shelves of most major supermarkets by the end of the year. As the market penetration of plant-based dishes continues to rise, there will be a positive multiplier effect on consumer interest as exposure and access to a more sustainable lifestyle increases for the mass population.

It's encouraging to see plant-based food manufacturers, such as Phuture and Growthwell, work with local F&B establishments to develop dishes and products that are catered to the local Asian Palate. Localised plant-based products introduced on menus include dumplings, satays and *paus* (a type of Chinese steamed buns). As we begin to see these being included in menus across F&B establishments, consumers will have more opportunities to experience plant-based products and hopefully accept them as part of their regular meals.

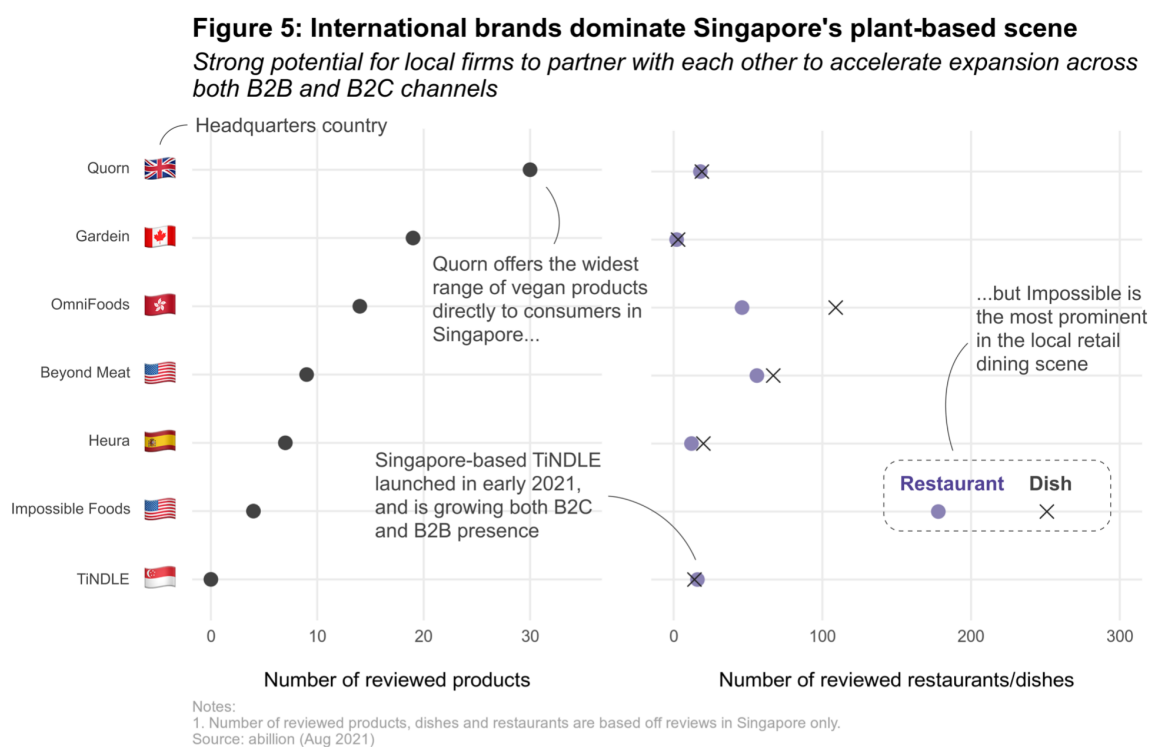
- *Bernice Tay, Director of Food Manufacturing, Enterprise Singapore*

Local brands can expand presence with B2C and B2B partnerships

Our study also revealed differences in plant-based meat brands' go-to-market strategies.⁴ For instance, in the business-to-consumer (B2C) channel, UK-headquartered [Quorn](#) offers the widest range of unique vegan products, followed by [Gardein](#) and [OmniFoods](#). In the coming months, we anticipate the presence of Quorn products in the Singapore market to deepen further, as proceeds from its [recent IPO](#) are likely to fuel its Asian expansion. (4) For retail dining, [Impossible Foods](#) has the widest presence in Singapore. Notably,

⁴ In this section, we combine dish and product reviews to compare CPG brands' go-to-market strategies. For the seven plant-based meat brands considered, we analysed 570 and 2.1K product and dish reviews in Singapore respectively.

OmniFoods is reviewed across fewer local F&B establishments but is featured in a larger number of dishes than [Beyond Meat](#). This reflects the higher cooking versatility of OmniFoods products in Singapore, likely due to its pork-like texture and mince or strip forms. In our previous study, we found that these types of alternative meat were [quickly gaining popularity](#) among Singapore consumers.



The presence of international brands featured in the local dining scene indicates strong potential for collaborations between local plant-based brands and restaurants. For instance, Phuture Foods penetrated the local food service market to raise brand recognition of its Asian-friendly products ahead of its direct-to-consumer launch. Collaborating with restaurant chefs also helped to educate consumers about the potential cooking methods and recipes using Phuture products.

Our penetration of the food service market paves the way for chefs to unleash their culinary flair to ignite the unlimited possibilities for consumers in the subsequent retail rollout of our Mince and Ready-to-Cook products. Our products are designed to cook not only in western

applications (grill, pan-fry, bake), but also in Asian cooking methods such as boiling, steaming and wok-frying. We're excited about rolling out Phuture products directly to consumers so that they can whip up delicious Asian dishes at home.

- *Dave Ong, Head of International Markets, Phuture Foods*

[Growthwell](#), a Singapore-based plant-based food innovation company, shared similar sentiments on a restaurant-first approach. Earlier this year, the company co-launched [Akamaru 1.0](#) - a vegan ramen - with leading Japanese restaurant chain, [Ippudo](#). The plant-based ramen, which features Growthwell's soy-based vegan *chashu* (simmered or braised pork), was launched as a part of a temporary promotion from May to June 2021, but has since been extended multiple times due to stronger-than-anticipated consumer demand.

A restaurant-focused strategy made a lot of sense for us, especially due to Asia's strong culture of eating out. It is critical for us to be on the menu of many restaurants, as this would allow guests to try and enjoy our products. This can then spur them to eat plant-based food more regularly both at home and when dining out. Growthwell was selected to help Ippudo introduce more plant-based ramen options, and we're excited to continue working with them to make plant-based options more accessible in Japanese dining.

- *Ronald Dalderup, Growthwell Foods, Chief Marketing Officer*

The plant-based producer is currently beta-testing its products (including alternative seafood products) with more restaurants in Singapore and projects more dish launches in the coming months. The company sees consumer

awareness and product iteration as benefits to entering restaurants before ramping up direct-to-consumer channels. In particular, fine-tuning the taste and texture of their products to better cater for Asian cooking is a key focus area.



Likewise, Singapore plant-based chicken brand, [TiNDLE](#), launched earlier this year and has forged strong restaurant partnerships with local F&B players such as [Three Buns](#), [WOOSHI](#), and Privé. The brand recently allowed consumers to make direct retail purchases through the [Good Food People](#).

Good Food People was the first platform to retail the newly launched TiNDLE plant-based chicken in Singapore. We see enormous upsides resulting from the emergence of local plant-based brands. This allows us to work with brands on the R&D front and subsequently help them with real-time product feedback, co-branding projects, and localized brand campaign mechanics, among others. We hope to see more food manufacturing facilities in the region, as this will gradually drive production and logistic costs down. This means that these products will become more affordable and ultimately reach a larger portion of the population.

- *Frantz Braha, Director, SaladStop! & Good Food People*

As more consumers look to purchase products directly, we foresee the direct-to-consumer channel playing a crucial role to bootstrap sales growth for plant-based manufacturers. Indeed, Good Food People shared that they received a strong consumer response to its e-commerce launch, with plant-based proteins and ready-to-heat dishes performing particularly well. The retailer will be relaunching its website in the next few months, with new features, partnerships and plant-based recipes. In the upstream segment, there are also ample opportunities for traditional F&B manufacturers to work with plant-based companies to share domain knowledge and manufacturing capabilities. [Yeo's](#), for instance, has strengthened its foothold in plant-based dairy by teaming up with [Oatly](#), a fast-growing oat-based milk manufacturer headquartered in Sweden.

Our strategic partnership with Oatly helps us to tap the surging demand in this region for plant-based dairy. We believe that this segment will continue to grow exponentially as consumers become more aware of the impact of their food and beverage choices on their health and the environment. We have also been actively exploring opportunities to invest in and nurture companies in the plant-based and food technology space.

- *Samuel Koh, Group CEO, Yeo's*

Oatly and Yeo's will [jointly invest S\\$30 million](#) in a manufacturing facility in Singapore to produce oat-based drinks for the region. (5) We advise plant-based brands and traditional F&B players to strike partnerships across the production chain to accelerate market penetration and visibility in the plant-based sector.

Menu innovations and partnerships crucial to stay ahead of the plant-based curve

Our study of 46K consumer reviews across 4K F&B establishments in Singapore revealed ample opportunities for local dining players to enhance their vegan offerings. Cafés / bistros were highly popular among diners seeking plant-based options in Singapore, especially among those who identify as flexitarian or plant-based. This reflects the relatively wider range of plant-based dishes offered at cafés / bistros and the preferences of Millennials and Gen-Z consumers which represent around half of abillion's active member base in Singapore. As flexitarians continue gaining force, menu innovations are critical to capture market share among socially responsible consumers. Specifically, there are significant opportunities to enhance the range of vegan offerings at Asian restaurants.

We hope that more food manufacturers and F&B establishments can leverage the ongoing momentum and be part of the journey to bring plant-based foods to the masses. Companies interested in this market can leverage FoodInnovate, a multi-agency initiative led by Enterprise Singapore, which facilitates access to resources, partners and distribution channels to innovate and commercialise new food products. For example, we have organised curated platforms to bring together food tech players, food manufacturers and F&B players to meet and explore possible partnerships. Through these collaborations, we look forward to creating more sustainable, nutritious and delicious plant-based foods for Asia and beyond.

- *Bernice Tay, Director of Food Manufacturing, Enterprise Singapore*

We advise local players to pursue strategic partnerships to accelerate market penetration and visibility in the plant-based sector. Finally, companies seeking to reinvent themselves and tap on the global sustainability movement can also leverage [FoodInnovate](#), a multi-agency initiative led by Enterprise Singapore.

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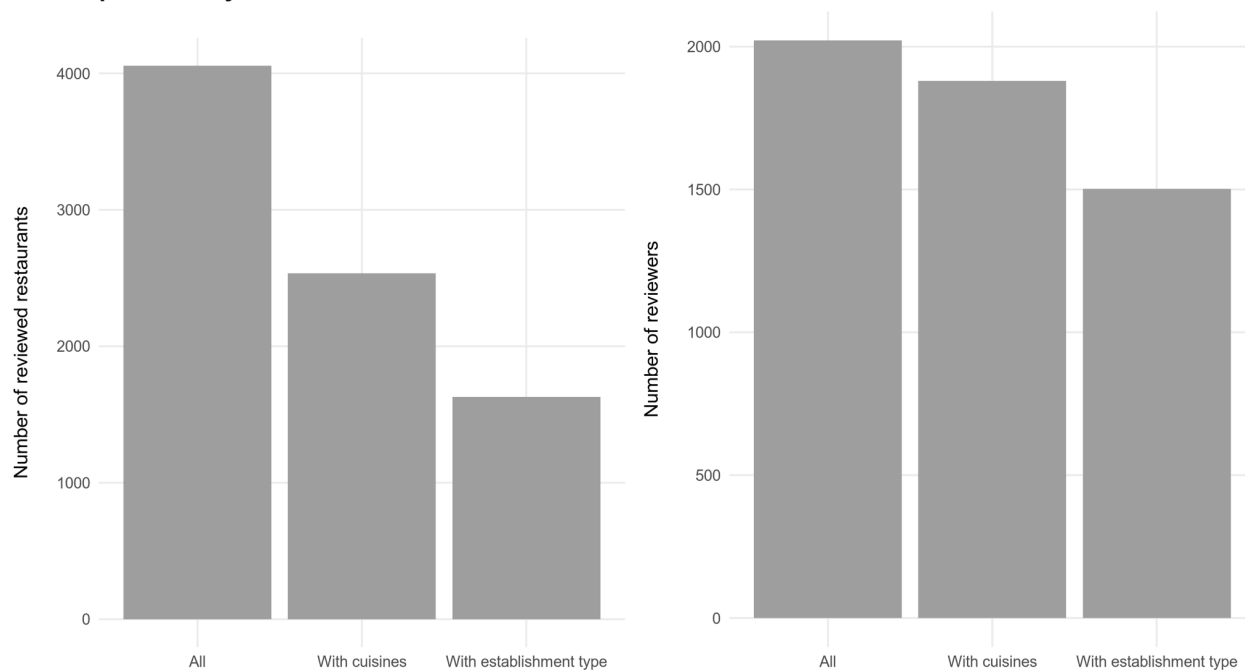
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Annex A

Annex A: Insights from 46K dish reviews across 4K F&B establishments in Singapore, with data provided by 2K abillion members



Source: abillion (Aug 2021)

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