



Report on e-commerce in export markets and the current level of participation, barriers and opportunities for Queensland agri-food exports

The State Government of Queensland acting through the Department of Agriculture and Fisheries



[KPMG.com.au](https://www.kpmg.com.au)

—

July 2021

Disclaimer

Inherent Limitations

This report has been prepared as outlined in the Scope Section. The services provided in connection with this engagement comprise an advisory engagement, which is not subject to assurance or other standards issued by the Australian Auditing and Assurance Standards Board and, consequently no opinions or conclusions intended to convey assurance have been expressed.

No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by stakeholders consulted as part of the process.

KPMG have indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within the report.

KPMG is under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form.

The findings in this report have been formed on the above basis.

Third Party Reliance

This report is solely for the purpose set out in the Scope Section and for the Queensland Department of Agriculture and Fisheries information, and is not to be used for any other purpose

This report has been prepared at the request of Queensland Department of Agriculture and Fisheries in accordance with the terms of KPMG's engagement contract dated 2 October 2020. Other than our responsibility to Queensland Department of Agriculture and Fisheries, neither KPMG nor any member or employee of KPMG undertakes responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party's sole responsibility.

© 2021 KPMG, an Australian partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International. Liability limited by a scheme approved under Professional Standards Legislation.

July 2021

Contents

1.	Executive Summary	7
2.	Market summaries	15
3.	Introduction	28
3.1	Overview of e-commerce	28
3.2	Origin and purpose of this report	29
3.3	Project objectives and scope	30
3.4	Limitations	30
3.5	Exclusions	31
3.6	Project approach	31
3.7	Outline of the report structure and content	31
4.	General agri-food e-commerce considerations	32
4.1	Introduction	32
4.2	E-commerce business models	32
4.3	Agri-food product characteristics	34
4.4	Supply chain barriers for future growth	35
4.5	Supply chain challenges for future growth	37
5.	What are the key markets where e-commerce capability is important?	39
5.1	Selection of the key markets	39
5.2	Japan (Retain)	40
5.3	China (Retain)	45
5.4	South Korea (Retain)	51
5.5	United States of America (Growth)	59
5.6	Indonesia (Growth)	64
5.7	Malaysia (Growth)	70
6.	Capability and support requirements of Queensland agri-food businesses	75
6.1	Assessment framework	75
6.2	Capability themes	75
6.3	Assessment	76
6.4	Participation and appetite for adoption	77
6.5	Current capability	79
6.6	Current gaps	80
6.7	Outcomes of consultations	81
6.8	Key takeaways for e-commerce capability	82
6.9	Summary of Government Assistance, Support Tools and Grants	82

6.10	Initiative Focus Definition	83
6.11	Key takeaways for e-commerce support	85
7.	Key finding and recommendations	86
7.1	Summary of key insights	86
7.2	Recommendations	88
7.3	Examples of different approaches to e-commerce export development	90
7.4	Export potential data by market for key sectors	100

List of tables

Table 1: Critical market overview	9
Table 2: Government e-commerce expertise and programs	10
Table 3: Overview of key e-commerce models and strategies	32
Table 4 Barriers, opportunities and challenges key insights	34
Table 5 Supply chain challenges	35
Table 6 Supply chain barriers	36
Table 7 Supply chain challenges	37
Table 8: Priority markets	39
Table 9: Top exports from Queensland to Japan	41
Table 10: Agriculture products in which demand exceeds supply (Japan)	42
Table 11 Key in-country grocery retailers	44
Table 12: Top Queensland exports to China	47
Table 13 Top Chinese imports of Consumer-Oriented Products and Competition.....	47
Table 14: Agriculture products in which demand exceeds supply (China).....	48
Table 15 Key in-country grocery retailers	50
Table 16: Top exports from Queensland to South Korea	52
Table 17: Top Korean Imports of Consumer-Oriented Products and Competition.....	52
Table 18: Agriculture products in which demand exceeds supply (South Korea)	54
Table 19 Key in-country grocery retailers	57
Table 20: Top exports from Queensland to USA	61
Table 21: Agriculture products in which demand exceeds supply (USA)	62
Table 22 Key in-country grocery retailers	63
Table 23: Top exports from Queensland to Indonesia	66
Table 24 Top Indonesian imports of consumer-oriented products and competition	66
Table 25: Agriculture products in which demand exceeds supply (Indonesia)	67
Table 26 Key in-country grocery retailers	68
Table 27: Top exports from Queensland to Malaysia	71
Table 28 top Malaysian imports of consumer-oriented products and competition	71
Table 29: Agriculture products in which demand exceeds supply (Malaysia)	72
Table 30 Key in-country grocery retailers (additional companies listed in Appendix x)	73
Table 31 Assessment matrix.....	76
Table 32 Market consultations.....	78
Table 33 Current capability matrix.....	79
Table 34 Current gaps matrix	80
Table 35 Key takeaways	82
Table 36: Gaps identified from industry.....	83
Table 37: Summary of key government assistance	83

Table 38 Key government assistance, support tools and grants	84
--	----

1. Executive Summary

What is the background, purpose and scope of this report?

KPMG was commissioned by the Queensland Department of Agriculture and Fisheries (DAF) to research and analyse data regarding current trends in key export markets, specific to the agri-food sector and shifts to e-commerce post COVID-19.

This report seeks to provide DAF with a fact base to inform future policy and industry development decisions to best support the agri-food industry in achieving success through e-commerce export channels.

The scope of the analysis focuses on international markets. DAF has not sought to understand in detail how Queensland agri-food exporters can be better placed to reach customers in other states domestically. In short, the rising opportunity in e-commerce channels in export markets mirrors similar growth in the Australian domestic market, where agri-food products are increasingly available for purchase online.

Why is e-commerce important to consider as part of future strategies and plan to maintain or grow Queensland agri-food exports?

Major supermarkets, online platforms and wholesalers have faced disruptions to their business models as a result of emerging food service sector trends and contexts. Growth in uptake of e-commerce, further accelerated by COVID-19, has been a significant disruptor in the sector. The supermarket industry has experienced the highest increase in online traffic (34.8%) during the pandemic period, despite global retail falling by 5.7%. It is expected that the e-commerce channel will continue to grow in importance in the future.

However, a nuanced approach to agri-food e-commerce is warranted. Despite the significant acceleration in e-commerce food sales, shopping in store or in person is expected to continue as the dominant channel for consumers in international markets (and in Australia). Recent surveys indicate that 70% of global consumers still prefer to buy their groceries at brick-and-mortar supermarkets. Food related e-commerce sales in Australia (5.1% of total grocery sales) remain small in comparison to other product categories.

Consultations with Trade and Investment Queensland (TIQ) personnel have highlighted that e-commerce channels in future are likely to materially influence the market share of a Queensland product in an export market. There was recognition across export markets generally of the importance of the channel to retailers and wholesalers as these organisations explore new business models given COVID-19 and other disruptive events. A key example in Singapore has been the shift of food importers and wholesalers towards B2C (Business to Consumer) e-commerce in response to reduced trade in food service industries. Similar changes have occurred in Australia's domestic market. Wholesalers in Sydney and Melbourne, such as Harris Farms and VicMeats, have rapidly shifted to B2C e-commerce models.

Are all agri-food products suitable for e-commerce trade?

E-commerce success for agri-food products is influenced by the nature and characteristics of the product. There are two main product groups where e-commerce may be utilised.

Ambient, shelf-stable artisanal products with unique attributes are well suited to e-commerce channels. Their shelf life means they are easy to ship to any market, they are not susceptible to food safety issues, inventory has a lower risk profile – leading to overall lower cost and risk in e-commerce. Largely produced by small-medium sized enterprises, these products often attract high price points and can leverage a luxury or quality brand positioning. This group should be the focus for Queensland agri-food support programs initially.

Bulk, fresh categories and processed products can link to e-commerce via extension of existing channels and their click and collect or home delivery services. Queensland has advantages in the raw agricultural and minimally transformed product space for such products (such as wheat and soybeans).¹ However, fresh and time sensitive food products (meat, fresh fruit and some beverages) will rely upon more complex supply chains to maintain product integrity for the end consumer. This supply chain involves the end-to-end cold storage solutions offered by most fresh food e-commerce platforms, run by distributors who have direct relationships with online retailers. While Queensland

¹ Greenville, J, Duver, A & Bruce, M 2020, [Analysis of value creation in Australia through agricultural exports: Playing to advantages](#), Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra

agri-food producers will not likely be listing products directly on these websites, it is important for them to understand this ecosystem and to challenge their import partners to target these sales channels.

Therefore, traditional wholesale or B2B (Business to Business) transactions will likely remain a significant channel for fresh and time sensitive products, though e-commerce and click & collect models should be incorporated to respond to the growing digitalisation of the sector.

What e-commerce models suit Queensland agri-food products?

Queensland is globally competitive in fresh produce categories such as horticulture, seafood and red meat. However, as previously raised, due to the inherent characteristics of our fresh produce, there are greater challenges in utilising B2C e-commerce channels due to a need for complex cold chain or temperature / time sensitive supply chains. Thus, for fresh, time sensitive produce, and because of the complex trade protocols that exist for agri-products, B2B e-commerce models where traditional retailers support last-mile logistics represent more viable pathways for increasing participation in export market e-commerce.

This model is based on a partnership or built-in service by third parties (retailers or platforms) who manage in-country distribution and logistics and offers benefits of localisation to a particular market. Consultations with industry and Government representatives noted e-commerce requires significant attention to cultural specificities and language nuances such as labelling and format. Furthermore, the cost and complexity of last mile distribution is not contemplated by Australian exporters when these systems are already established by retailers and platforms.

Queensland's agri-food products that are shelf stable and ambient in nature are well-suited to e-commerce. The challenge here is to gain market awareness of the products and increase participation in export markets for these types of products given the low levels of direct e-commerce participation noted by Queensland businesses. Thus, products with strong brand attributes will be better suited to e-commerce, such as artisanal unique products.

What are the critical markets where e-commerce capability will be essential to retaining and growing Queensland's market share?







There is generally higher online grocery adoption across Asian countries, which are key markets for Queensland exports, whilst Europe has had a slower uptake.

The key export markets considered in this study are **Japan, China, South Korea, the USA, Indonesia, and Malaysia**. Queensland holds strong existing export market share in the majority of these markets. Given the acceleration of e-commerce for food products, online capability has been identified as potentially key to maintaining or increasing market share in these locations in the future.

Error! Reference source not found. **Error! Reference source not found.** summarises the key points concerning e-commerce trade for each of these markets.

These markets were prioritised based on agreed parameters and to reflect a diversity of opportunities for Queensland agri-food exports. While other markets could be included, these markets were selected because of their adoption of e-commerce, future growth potential driven by demographic factors, status as existing export markets, and being accessible for Queensland agri-food product. The report has not intended to do a full sweep of markets in which Queensland has opportunities.

Table 1: Critical markets overview for Queensland

Market	Japan	China	South Korea	USA	Indonesia	Malaysia
Market						
Market type	Retain	Retain	Retain	Grow	Grow	Grow
Total Export of Queensland Agricultural Products (2019-20) ²						
Export (US\$ billion)	\$1.4	\$1.6	\$0.92	\$1.0	\$0.27	\$0.062
Percent of total exports from Queensland	19.5%	21.8%	12.5%	13.5%	3.7%	0.8%
Rank of Queensland Exporter ³	Fourth	Second	Tenth	First	n/a	n/a
All Products E-Commerce Value (US\$ billion)	\$150.1	\$1,300	\$115.4	\$744.1	\$13.6	\$4.0
Food, beauty and health e-Commerce out of all products (%)	4.4%	3.4%			6.8%	8.3%
E-commerce growth rates (CAGR to 2021) (all products) ⁴	6.2%	9.2%	6.4%	10.2%	34.6%	24%
Population (million)	126	1,400	52	328	271	32
Median age (years)	48.4	38.4	43.7	38.4	29.7	29.2
Priority products	Easy to prepare meals, processed vegetables and fruit and tree nuts and peanuts	Consumer-oriented products; fish, nuts, fruit and vegetables	Consumer-oriented products; Non-alcoholic beverages, Frozen seafood	Meat (except poultry), alcoholic beverages, processed food	Bovine cuts (frozen), consumer oriented products	Dairy products, processed fruit, fresh fruit, seafood and wine and beer
Key opportunities	Metro areas	Packaged goods in high trust product categories	Partnerships with local specialist distributors	Channels via established niche retailers and distributors	Targetting the rising young middle class population	Health and wellness orientated products
Key players	Rakuten, Aeon	Alibaba, JD.com	Coupang – Rocket Fresh, SSG.com and Market Kurly	Amazon, Walmart	Shopee, Lazada	Lazada, Shopee

² <https://www.qgso.qld.gov.au/statistics/theme/economy/international-trade/exports> (2019-2020) Updated February 2021.

³ https://www.worldretailcongress.com/media/Global_ecommerce_Market_Ranking_2019_001.pdf

⁴ <https://www.jpmorgan.com/merchant-services/insights?tab=global-payment-reports>

E-commerce model recommended	In country partnerships for perishables Platform sales for packaged shelf stable product	In country partnerships for perishables Platform sales for packaged shelf stable product	In country partnerships for perishables Platform sales for packaged shelf stable product	In country partnerships for perishables Platform sales for packaged shelf stable product	In country partnerships for for perishables Platform sales for packaged shelf stable product	In country partnerships for perishables Platform sales for packaged shelf stable product
Key barriers and challenges	Localised content expectations, single language market	Trade relationship between Australia and China	Localised content expectations, single language market	Market dominated by several large players with extensive supply chains	Need for import licences and partnerships	Halal restrictions, low smartphone penetration, customer's digital security concerns and income inequality

What are the insights from existing food exporters to gain insights into their level of participation in e-commerce?

Consultations held with 15 companies of various size and agri-food production categories across Queensland, revealed that existing direct participation in e-commerce in export markets was low. There was also a low appetite for e-commerce adoption expressed by the interviewees.

The key points from the interviews:

- Given the current environment, there is a lower appetite for risk or movement into new channels for businesses.
- Many organisations have limited resources (financial and expertise) to form and implement a new market entry.
- Businesses may struggle to scale production to meet the volume of demand in a new export channel.
- There is a perception amongst Small and Medium Enterprises (SMEs) that they will not be able to compete in large international markets as a result of their scale and market share.

However, half of respondents to a Queensland DAF survey, conducted in September 2020, noted that they were generally aware their product ultimately was traded in an export market via an e-commerce channel. Thus, while direct to consumer e-commerce was highly dependent on the capability and product type, indirect participation in e-commerce in export markets was common. This further supports a focus on targeting in-country partners who can consolidate orders and create scale for shipments in export markets, or the pursuit of B2C channels for higher value Queensland artisanal products.

What are existing government e-commerce programs and what is their applicability to agri-food exporters in Queensland and to high priority products?

Table 2: Government e-commerce expertise and programs

Skill/Capability	Requirement	Description
Department of Foreign Affairs and Trade (DFAT)	Free Trade Agreement Portal	Provides tariff information on several key markets (China, Japan, South Korea and Malaysia)
Austrade	Online exporting: Guide for AU business	Detailed step by step export guide for e-commerce, designed to support Australian business owners in understanding the online exporting opportunity
	Country specific e-commerce guides	Guide to doing business online in export markets for selected countries
	International readiness indicator	Tool for new exporters only to determine readiness for (traditional) export

Skill/Capability	Requirement	Description
	Guide to exporting	Detailed step by step guide to prepare for export with considerations, steps, and risks to manage
Grants (Federal/Austrade)	Export Finance Loans	Government finance loans options for export
	Export Market Development Grant Program	Grants scheme that encourages small- and medium-sized Australian businesses to develop export markets
	International Freight Assistance Mechanism (IFAM)	COVID-19 response to support the ongoing supply chains
	IFAM Export Grants	Airfreight capacity and lead time support for established exporters
	Package Assisting Small Exporters (PASE) Grants Scheme	Grant to aid small businesses overcome the barriers of exporting
TIQ/other Queensland Government agencies	Export Market Overviews for Queensland	Detail on selected Queensland target export markets (non e-commerce and agriculture) with current and future sought after product groups
	Target trade commissioners and international representation	Target markets have in-market Australian representation through TIQ with detailed insights for new market considerations and planning
	Grant: Go Global Export Program	Medium size enterprise support for export market development
TIQ/other Queensland Government agencies	Export Market Overviews for Queensland	Detail on selected Queensland target export markets (non e-commerce and agriculture) with current and future sought after product groups
Queensland Government (Business Queensland)	Grant: Business Growth Fund	Support for small and medium size businesses
	Grant Small Business Digital Grant	Small business support for the development of digital capability

What do the data and trends identified mean for maintaining market share of Queensland exports?

- There is no evidence (at this stage) that the shift to e-commerce channels in key markets is putting existing Queensland export values or volumes at risk. The majority of Queensland exports are bulk exports such as beef, wheat, sugar and other products which will be further processed, packaged or transformed closer to the consumer.
- In existing markets, there has been a shift towards e-commerce for food and beverage retailers as they seek to meet changing customer needs for convenience and safety. Queensland exporters should aim to maximise their attractiveness to channels such as click and collect and home delivery and understand what it takes to win in these emerging channels.
- In Asia in particular, e-commerce is a high-content, information-heavy platform. Consumers can be sophisticated and demanding of user experience and will expect in-depth information of products available for purchase. Exporters need to be prepared to meet these demands by providing detailed and extensive product information to partners to help position products in market. This may include high-quality image decks, information on ingredient sourcing, history of the brand and story of the product. This may also include the need to expand e exporters' own websites and online presence. E-commerce presents a need for retail ready packaging of current bulk commodities (eg. beef) in Queensland, which could increase jobs in this operation.
- Greater knowledge of the changes in buyer behaviours, and establishing relationships with businesses converting to e-commerce models, are key to ensuring Queensland products are participating in e-commerce channels.

What do the data and trends mean for growing market share and where can these gains be made via e-commerce?

- There is opportunity for shelf stable and ambient products from Queensland to target market entry in a number of international locations and platforms.
- Better marketing of Queensland products is needed. Queensland products need to be discovered and experienced by consumers to position them to take advantage of emerging trends in consumer behaviours and appetites. This will require effort in market research and consumer profiling.
- Logistics and delivery infrastructure presents a challenge for fresh and frozen categories in emerging e-commerce platforms. The pathway to market in these locations will be to target relationships with-in country retailers, wholesalers and distributors for fresh and frozen product who have appropriate last-mile capabilities, in a B2B model.
- Direct to customer (D2C) models and subscription grocery services are noted to be growing in popularity in many markets. Targeted relationships and support, especially where there are product characteristics favouring Queensland product, such as traceability, clean and green or health credentials, represents the next wave of B2B opportunities. This is similar to the observation for established export markets where relationships with and knowledge of buyers for the major e-commerce players is key.
- The establishment of a 'Queensland' portal or brand on e-commerce marketplaces and platforms is not recommended due to the significant ongoing management that would need to be maintained by either the Government or a dedicated resource. However, there is opportunity to position products under an umbrella 'Australia' landing page, a prospect which has already seen success in Taiwan. While D2C or B2C is possible, this will favour only the ambient shelf stable artisan products unless sophisticated supply chains and partnerships with importing entities are developed.

What are the steps to growing e-commerce market share for exporters, and how can Government support this growth?

Agri-food exporters seeking to grow their e-commerce presence in international markets will generally have to follow a series of steps to strategically manage risk and to be successful in market entry/expansion. Government could support these businesses at varying stages of their e-commerce export development:

1) Identifying 'where to play'

Export destinations need to be identified, which involves prioritising and targeting markets according to alignment with product demand, e-commerce channel opportunity, market access and consumer preferences, amongst other factors. Certain markets will be more or less suited to premium Queensland brands. Forming a detailed market entry strategy based upon these results will provide an exporter with a clear business case for investing into e-commerce export development in a given market.

Government support role:

Government can aid exporters with providing detailed market intelligence that is focused on e-commerce export opportunities rather than general export. This should include consideration of product readiness for e-commerce, digital readiness in-market, and how to maximise market share online. Advice should also be targeted towards product segment. Artisan/ambient products may be able to utilise existing TIQ programs and new dedicated e-commerce initiatives. Fresh/frozen commodity products sold in bulk, particularly those such as seafood, red meat and tropical fruit where Queensland has competitive advantages, will need a deeper understanding of e-commerce channels in target markets and the disruptive potential that digital sales holds.

2) Connecting into key e-commerce partners

Exporters will need to engage with e-commerce platforms, and distribution partners. Conducting due diligence on potential partners as to their market coverage, track-record and capabilities according to the product type (i.e. cold storage capacity) should be undertaken to ensure appropriate access to customers and channels.

Government support role:

Exporters can be supported through research-based introductions, whereby e-commerce capability is a key component of recommending appropriate partners to exporting businesses. Direct e-commerce connectivity to in-market platforms, retailers and distributors can be offered through events targeted at developing Queensland's online export channel. Whilst ambient products are likely to be able to work directly with major e-commerce platforms in markets, businesses exporting fresh or frozen goods may require additional support with aligning to logistics partners.

3) Developing practical skills and processes

Alongside building the supply chain into the target export market, exporters will need to consider how to best engage with e-commerce trade in their target market and manage ongoing success. Exporters should consider how digital traceability, cold chain logistics (where required) and accompanying marketing and commercial strategies can be built into the supply chain, with key considerations as to time sensitivity for fresh goods.

Government support role:

Specific e-commerce capability development should be offered through training, resource development, and utilising existing programs in the e-commerce space. This will involve both internal DAF and TIQ upskilling, and external initiatives to drive improved knowledge amongst Queensland exporters. Resources should be aimed at tracking key emerging issues relating to e-commerce and ensuring related stakeholders are able to proactively respond to digital trends in export markets.

Based upon these steps and the associated role of government at each stage, a number of recommended initiatives could be developed to support exporters with growing e-commerce market share.

Theme	Recommendation
-------	----------------

Implement support instruments	Establish a program of e-commerce export development specifically targeted at artisanal agri-food products.
	Develop Queensland agri-food information packs for sharing / utilisation with potential buyers and importers in international markets, conveying key attributes of products where Queensland has competitive advantages.
	Develop targeted program to 'meet and greet' export market business buyers for wholesalers, retailers, distributors and D2C food and beverage companies participating in e-commerce in their local market.
	Continue to commission and refine the series of surveys previously conducted to gauge export market participation – including a specific e-commerce capability.
	Offer specialist research-based advice for strategic product development and marketing that is relevant for both product (ambient and fresh) and target market.
Upskilling departmental resources	Develop internal training programs and resources to enhance department understanding of key issues – particularly customer needs and stakeholders in the market/s. Resources should be specific to e-commerce trade and focus on the priority markets identified.
Connecting the willing with Queensland and Australian export support programs	Leverage the extensive services that are already offered, such as the product innovation services of DAF Coopers Plains, and ensure an e-commerce specific lens becomes the focus of programs.

2. Market summaries

The following pages include export market snapshots for the countries assessed within the report:

- Japan
- China
- South Korea
- USA
- Indonesia
- Malaysia



In 2019/20, Japan is Queensland's second largest agri-food export market, representing 19.5%⁶ of total agricultural commodity exports value. It is an established trading partner and is worth US \$1.4 billion⁴ to Queensland annually. Japan's e-commerce market is the 4th largest globally and is valued at US \$150.1 billion⁴, presenting opportunities for established Queensland exports such as red meat and seafood, and ambient categories such as vitamins which are growing in the ageing Japanese population. Since 2015, e-commerce has grown at a single-digit rate in Japan. The market values quality of produce and the strong provenance stories of Queensland produce, particularly in the red meat sector. Trade is facilitated by the Japan - Australia Economic Partnership Agreement which presents a number of tariff benefits for Queensland produce across fresh products in particular, improving price competitiveness in the market.

Macro Overview

Population	126.3 million ⁴
Median age	48.4 years ⁵
Queensland Agri-Food export value 2019-20	US\$1.4 billion ⁶
E-commerce market value	US\$150.1 billion ⁶

Queensland's Major Agri-Food Exports to Japan 2019-20

- 26% Crude Animal and Vegetable Materials (US \$18.9 million)
- 26% Cereals and Cereal Preparations (US \$18.3 million)
- 25% Vegetables and Fruit (US \$18.3 million)
- 15% Cork and Wood (US \$10.7 million)
- 4% Animal Oils and Fats (US \$2.8 million)
- 4% Miscellaneous Edible Products and Preparations (US \$2.9 million)

Queensland's Meat Product Exports to Japan 2019-20

- 91% Beef Meat (Fresh, Chilled and Frozen) (US \$1.59 billion)
- 9% Offal (Fresh, Chilled and Frozen) (US \$151 million)

⁵ World Bank

⁶ Refer to relevant country specific section of core report



Opportunities for Queensland E-commerce Exports⁶

Alongside growing the quality brand reputation of Queensland red meat through increased use of the e-commerce channel, Japanese consumers are seeking more convenient and easier to prepare meals. Going forward, this means that processed snacking and ready-meal items will hold increasing opportunity.



Tree nuts and peanuts



Processed Vegetables



Premium red meat



Fresh & processed fruit



Ready to eat meals and take-home food



Distilled spirits, wine and beer



Cheeses



Condiments and sauces

E-commerce & Supply Chain Considerations

- B2B and B2B2C models via platform or third-party channels are important for e-commerce agri-food participation in Japan.
- In Japan, the major B2B and B2B2C e-commerce platforms are:
 - Rakuten.
 - Yahoo! Shopping.
 - Amazon Japan.
- Amazon has had a major disruptive effect on the Japanese e-commerce market, with the U.S. giant investing heavily in infrastructure, improving cold chain logistics for fresh produce distribution.
- Delivery in Japan is aided by the nation's relatively small size, and well-developed logistics infrastructure.
- Despite Japan's typically rapid adoption of new technologies, mobile commerce uptake remains relatively low (*just under a quarter of completed e-commerce sales*). Websites and platforms remain key.
- B2C sales within Japan requires significant market presence, a strong brand and specialist market knowledge.

Barriers to E-commerce Success

- Japanese *consumers have specific tastes*, with a unique culture meaning that exporters must tailor products to the market and design a brand that accommodates cultural preferences.
- An *ageing population* limits the online audience somewhat, however there are targeted opportunities in certain products that target health and diet management for example.
- There is a *low level of English language penetration* in Japan, meaning that e-commerce listings and brands should be translated and managed in Japanese.
- Japan is known for *strict regulation* in food safety and customs processes. Compliance requirements are high for businesses exporting to Japan.



China is the third largest importer of

Queensland agri-food products, representing 16%⁴ of total value. It is an established market and is worth US\$1.6 billion⁴ to Queensland annually in agri-food exports. Overall, China is Australia's top agricultural market by a significant margin, worth over a quarter of Australia's total trade and approximately a third of total exports. China's e-commerce market is the second-largest in the world, valued at US\$1.3 trillion⁴, with major platforms such as Alibaba and JD becoming global in scope. As a market, 1.4 billion⁴ total addressable consumers with growing wealth means there is significant competition, however opportunities exist to expand into regional cities where demand for quality foreign produce remains untapped. The Chinese market particularly values provenance across fresh produce, infant formula and nutraceuticals, and thus traceability across the e-commerce supply chain may help Queensland exporters to distinguish from lower quality products.

Macro Overview

Population	1.398 billion ⁴
Median age	38.4 years ⁵
Queensland Agri-Food export value	US\$850 million ⁶
E-commerce market value	US\$1.3 trillion ⁶

Queensland's Major Agri-Food Exports to China

- 41% Vegetables and Fruit (US \$122.8 million)
- 30% Cork and Wood (US \$91.2 million)
- 7% Feeding Stuff for Animals (US \$22.4 million)
- 7% Cereals and Cereal Preparations (US \$22.3 million)
- 6% Animals Oils and Fats (US \$17.1 million)
- 5% Miscellaneous Edible Products and Preparations (US \$14.6 million)
- 4% Textile Fibres (US \$12.4 million)

Global agricultural e-commerce imports

- 29% Fish and Seafood (US \$15.4 million)
- 23% Dairy Products (US \$12 million)
- 16% Fresh Fruits (US \$8.6 million)
- 16% Beef (US \$8.4 million)
- 12% Pork (US \$6.4 million)
- 4% Poultry (US \$2 million)

Queensland's Meat Product Exports to China

- 97% Beef Meat (Fresh, Chilled and Frozen) (US \$1.472 billion)
- 2% Offal (Fresh, Chilled and Frozen) (US \$25.9 million)
- 1% Sheep Meat (Fresh, Chilled and Frozen) (US \$13.6 million)



Opportunities for Queensland E-commerce Exports⁶

The COVID-19 pandemic has influenced the way Chinese consumers have purchased food, with staples such as rice, noodles, eggs, dairy and frozen products all increasing in sales volumes. Demand continues to grow for infant and adult health products that are safe and trusted, meaning ambient goods from Queensland exporters who can prove security across the supply chain will gain interest across e-commerce platforms.



Fish products



Tree nuts



Fresh and dried fruit



Processed vegetables



Dried fruit



Dairy products



Infant formula



Nutraceuticals



E-commerce & Supply Chain Considerations

channels are key for e-commerce agri-food success in the Chinese market.

- In China, major e-commerce platforms include:
 1. Alibaba
 2. JD.com
 3. Pinduoduo
- Through this model, Australian exporters sell to these e-commerce platforms as consolidators of product, who in-turn sell throughout China on online supermarkets and malls.
- China is a world leader in mobile commerce, and this method of shopping dominates e-commerce in the country, with almost three out of every four of China's e-commerce transactions carried out on a mobile device. Use of WeChat is important to connect to consumers.
- The China-Australia Free Trade Agreement offers comprehensive tariff benefits for agri-food products in particular, with most fresh goods able to access the China market with 0% tariffs levied.

Barriers to E-commerce Success

uncertainty as to market access and opportunities for Australian agri-food in the near-term.

- The Chinese market is *highly competitive*, with many foreign brands saturating the major cities, and margins low in some product areas. Exporters must target untapped regions and cities where consumer demand remains unmet.
- Given the *scale of demand* in China, exporters may face challenges in being able to quickly grow production to meet demand. Sophisticated supply and demand planning is required.
- *Regulations* around food and health products can be complex in the market and subject to change.
- *Independent websites* are an entry point for Australian companies, however they currently account for little in the way of transaction volume in China

South Korea

food annually. Korea's e-commerce market is the third largest in Asia, behind China and Japan, valued at \$115.4 billion⁴ and is in the top 5 fastest growing globally. Consumers are digitally savvy and increasingly engage with foreign brands through e-commerce. With the establishment of the Korea-Australia Free Trade Agreement, Australia enjoys reduced tariffs on a number of food products, with certain windows for fresh produce quotas/tariffs meaning seasonality is an important consideration. However, Korea is a complex single market in which specialist knowledge and skill is critical. As well, there is a heavy reliance on third-party merchants selling through online marketplace platforms.

Macro Overview

Population	51.71 million (2019) ⁴
Median age	43.7 years ⁵
Queensland Agri-Food export value	US\$930 million ⁶
E-commerce market value	US\$115.4 billion ⁶

Queensland's Major Agri-Food Exports to South Korea

- 27% Crude Animal and Vegetable Materials (US \$13.6 million)
- 22% Cereals and Cereal Preparations (US \$11.5 million)
- 21% Miscellaneous Edible Products and Preparations (US \$10.9 million)
- 11% Vegetable and Fruit (US \$5.4 million)
- 9% Animal Oils and Fats (US \$4.6 million)
- 5% Beverages (US \$2.6 million)
- <5% Sugars, Sugar Preparation and Honey (US \$1.2 million)
- <5% Feeding Stuff for Animals (US \$1.1 million)
- <5% Coffee, Tea, Cocoa, Spices, etc (US \$0.44 million)

Global agricultural e-commerce imports

- 19% Beef (Frozen) (US \$2055 million)
- 16% Food Preparations (US \$1758 million)
- 14% Pork (Chilled or Frozen) (US \$1600 million)
- 12% Fish (Frozen – Not Fillets) (US \$1294 million)
- 11% Crustaceans (US \$1200 million)
- 9% Mollusks (US \$951 million)
- 8% Beef (Chilled) (US \$868 million)
- 6% Coffee (US \$662 million)
- 5% Fish Fillets (US \$582 million)
- <5% Cheese and Curd (US \$555 million)

Queensland's Meat Product Exports to South Korea

- 90% Beef Meat (Fresh, Chilled and Frozen) (US \$1.06 billion)
- 9% Offal (Fresh, Chilled and Frozen) (US \$101.2 million)
- 1% Other (US \$6.1 million)



Opportunities for Queensland E-commerce Exports⁶

COVID-19 has led to an increase in health-conscious food consumption. This means that health and functional food products are increasing in popularity, alongside a growing focus on quality and safety in the supply chain. Korean consumers particularly demand premium meats and proteins, which plays to Queensland export strengths, alongside growing opportunities for horticulture.



Non-alcoholic beverages



Food preparations



Butter



Beef



Poultry

E-commerce & Supply Chain Considerations

- In South Korea, retailers and direct partnerships are critical. Cross border B2B relationships and participation in e-commerce via B2B2C are important channels.
- Key in country grocery retailers include:
 - Coupang – Rocket Fresh
 - SSG.com (Which includes eMart)
 - Market Kurly
 - LotteOn
- E-commerce exporters should partner with in-market buyers or agents to communicate the safe, quality, nature of Queensland products.
- Retailers benefit from high mobile usage for e-commerce sales, established distribution networks and e-commerce infrastructure.
- The established and mature e-grocery and home delivery models mean that the key opportunity is to partner with Mass Grocery Retailers and distributors to feed into existing channels for high quality, safe produce.
- B2C requires significant market presence and specialist knowledge.

Barriers to E-commerce Success

- Due to the relationship-driven way of doing business, it is important to *connect with a trusted partner* in the market to support development of an online presence.
- There is a *strong reliance on intermediaries* in the Korean market for sourcing international produce. Connecting into third parties to be able to reach customers is an additional step that Queensland exporters must take.
- Korean *food regulations are strict* and subject to change. Compliance requirements are high for Australian agri-food exporters.
- South Korean consumers tend to *prefer locally-sourced products*, thus there is competition against domestic produce. Exporters must clearly convey their points of difference when marketing online.



The USA accounts for 15% of Queensland agri-food exports. It is an established trading partner, and is worth US\$1.6 billion to Queensland annually (current agri-food export value). The USA's e-commerce market is the biggest in the world, valued at US\$744.1 billion, with high individual wealth and a large addressable consumer base that have access to many specialist and broader e-commerce platforms. The USA is a favourable growth market for Queensland agri-food products as consumers have the propensity to spend on high quality products, are interested in the product origin stories. There is also movement towards demanding more natural, healthy foods. Additionally, the USA is considered to be underserved by Australia in the e-commerce agri-food space, and thus represents upside potential for export growth, that can further be facilitated by the Australia – United States Free Trade Agreement and ongoing market access protocol negotiations which will smooth entry and improve competitiveness for Queensland agri-food products.

Macro Overview

Population	328.2 million (2019) ⁴
Median age	38.4 years ⁵
Queensland Agri-Food export value	US\$1.6 billion ⁶
E-commerce market value	US\$744.1 billion ⁶

Queensland's Major Agri-Food Exports to USA

- 26% Miscellaneous Edible Products and Preparations (US \$32.15 million)
- 25% Vegetables and Fruit (US \$31.2 million)
- 15% Crude Animal Vegetables Materials (US \$18.6 million)
- 12% Beverages (US \$15.3 million)
- 10% Sugars, Sugar Preparation and Honey (US \$12.2 million)
- 6% Animal Oils and Fats (US \$6.9 million)
- <5% Dairy Products and Bird Eggs (US \$4.3 million)
- <5% Cereal and Cereal Preparation (US \$2.6 million)

Queensland's Meat Product Exports to USA

- 91% Beef Meat (Fresh, Chilled and Frozen) (US \$1.59 billion)
- 9% Offal (Fresh, Chilled and Frozen) (US \$151 million)



Opportunities for Queensland E-commerce Exports⁶

The USA relies on imports in numerous agri-food products where demand significantly outweighs supply. Queensland red meat and horticulture brands are particularly demanded for their quality reputation, with the latter also enjoying counter-seasonality versus the US domestic producers. Australian wines are also highly regarded.



Coffee



Wine



Cocoa



Fresh & processed vegetables



Fresh fruit

E-commerce & Supply Chain Considerations

- Queensland agri-food exporters can target either niche online grocery platforms in the US market, or the larger corporatised e-commerce operators – meaning there is diversity of opportunity depending upon the objectives of the exporter. In the USA, major e-commerce brands include:
 1. Amazon
 2. Koger
 3. Walmart
- To improve quality of service, many US retailers have begun investing in their own delivery and logistics operations to facilitate and improve rapid distribution across the states. This vertical integration gives them control over their entire supply chain, which also enhances freshness of agri-food products in last-mile.
- E-commerce exporters should look to partner with large, trusted platforms, who benefit from innovation and having economies of scale, especially for last mile logistics in a large geographic market.

Barriers to E-commerce Success

- The e-commerce market is *highly competitive and dominated* by a small number of large players. Holding relationships with one of the few key players is critical to succeeding in the US market.
 - These retailers have large supply and distribution networks which make it very difficult for new entrants to enter the market.
 - Amazon is building their own dedicated air delivery network.
- There is a *significant competition* in the market from South America for fresh produce such as horticulture, and domestic manufacturers for ambient goods. Differentiating Queensland produce is critical through targeted branding.
- Though the *Free Trade Agreement* offers a number of tariff and non-tariff benefits for agri-food exporters, these are not comprehensive across all categories and a thorough review of tariff classifications is required.
- The US has *strict food and health product regulations* and exporters must ensure compliance for a number of customs requirements and certifications before selling.



Indonesia is Queensland's tenth-largest export market and is worth US\$148 million⁴ to Queensland annually (current agri-food export value). Indonesia's e-commerce market is currently small, worth only US\$13.6 billion⁴, however Indonesia has been recognised as a key growth market for Queensland exporters due to its young, vast population that is growing in wealth. The recently signed Indonesia-Australia Comprehensive Economic Partnership Agreement is also likely to smooth historical issues in agri-food trade relating to quota and licensing, which will significantly improve market access to a major export destination on Queensland's doorstep. E-commerce has seen significant growth between 2013-2018, of 196.7% in that period⁴.

Macro Overview

Queensland's Major Agri-Food Exports to Indonesia

Population

270.6 million (2019)

- 77% Vegetables and Fruit (US \$10.5 million)
- 9% Miscellaneous Edible Products and Preparation (US \$1.2 million)
- 6% Feeding Stuff for Animals (US \$0.81 million)
- 5% Cork and Wood (US \$0.71 million)
- <5% Crude Fertilisers (US \$0.20 million)
- <5% Sugars, Sugar Preparation and Honey (US \$0.13 million)
- <5% Beverages (US \$0.10 million)

Global agricultural e-commerce imports

Queensland's Meat Product Exports to Indonesia

- 26% Fresh Fruit (US \$1368 million)
- 25% Dairy Products (US \$1323 million)
- 17% Food Preparations and Miscellaneous Beverages (US \$868 million)
- 16% Beef and Beef Products (US \$851 million)
- 12% Fresh Vegetables (US \$626 million)
- 4% Chocolate and Cocoa Products (US \$191 million)

- 64% Beef Meat (Fresh, Frozen and Chilled) (US \$132.4 million)
- 29% Offal (Fresh, Chilled and Frozen) (US \$61.2 million)
- 7% Other (US \$15.1 million)



Opportunities for Queensland E-commerce Exports⁶

Consumption in

Indonesia has been influenced by the growing health consciousness of individuals. Thus, foods such as dairy, beef, nuts and high-quality fruit and vegetables are increasing in import value. There are likely to be growing opportunities for fast moving consumer goods such as infant formula and confectionary as discretionary spending shifts towards health-focused, premium products.



Dairy products



Baked goods



Infant formula



Confectionary



Premium meats



Seafood



Fruit snacks

E-commerce & Supply Chain Considerations

- Partnerships leveraging a B2B and B2B2C model via platform or third-party channels are key for e-commerce agri-food participation in Indonesia. Key online platforms include:
 - Shopee
 - Lazada
 - Tokopedia
 - Gojek
- Platforms have all been able to leverage Indonesia's young, mobile savvy population.
 - Shopping on mobile devices is already Indonesia's primary e-commerce model accounting for 52% of all completed transactions.
 - Of which US\$7.1 billion is completed on mobile devices
- Close proximity to Indonesia means that Queensland exporters hold a geographic advantage compared to other exporting nations – able to reach consumers faster and with quality of product intact.

Barriers to E-commerce Success

- Indonesia is challenged by *infrastructure capacity and quality*, with cold chain facilities in particular making fresh food distribution challenging and impacting upon quality.
- The *size and scale* of Indonesia, spread across multiple islands and with challenging terrain, mean that exporters must be targeted as to which ports and cities they focus on for exports, and optimise supply chains to reach areas where demand is strongest.
- Indonesia has traditionally been challenging for agri-food export trade as a result of *domestic self-sufficiency policies* leading to strict quota and licensing requirements being placed on Australian produce.
- Compared to other markets in the region, *digital infrastructure remains limited*, which means e-commerce potential for reaching Indonesia's large population is constrained in the near-term.



Malaysia is a mid-scale market for Queensland exporters, spending A\$1.35 billion⁴ on food imports from Australia in 2015. However, Malaysia is only a minor importer of Queensland e-commerce agri-food products, worth US\$47 million⁴ annually. Likewise, Malaysia's total e-commerce market is small and valued at US\$4 billion⁴. Despite this, Malaysia is viewed as a growth market as a result of streamlined market access requirements for agri-food products, facilitated by the Malaysia-Australian Free Trade Agreement, and a large potential consumer base, with 32 million⁴ total consumers. Logistics infrastructure is improving and online-readiness is driving e-commerce platform growth, which means Malaysia will play an increasing role in Queensland agri-food exports, including in highly demanded product categories such as dairy, alcohol and fresh horticulture.

Macro Overview

Population	31.95 million (2019) ⁴
Median age	29.2 years ⁵
Queensland Agri-Food export value	US\$47 million (2019) ⁶
E-commerce market value	US\$4 billion ⁶

Queensland's Major Agri-Food Exports to Malaysia

- 36% Feeding Stuff for Animals (US \$13.4 million)
- 25% Vegetables (US \$9.5 million)
- 14% Cork and Wood (US \$5.2 million)
- 9% Crude Animals and Vegetable Materials (US \$3.5 million)
- 7% Miscellaneous Edible Products and Preparations (US \$2.7 million)
- 4% Sugar, Sugar Preparations and Honey (US \$1.4 million)
- <4% Beverages (US \$1.1 million)
- <4% Dairy Products (US \$0.70 million)

Global agricultural e-commerce imports

- 39% Fresh Fruit (US \$533 million)
- 34% Beef and Beef Products (US \$485 million)
- 12% Tree Nuts (US \$176 million)
- 6% Potatoes (Fresh or Chilled) (US \$78 million)
- 4% Pork and Pork Products (US \$61 million)
- 3% Dried Fruits (US \$36 million)
- <3% Vegetables (Frozen) (US \$29 million)

Queensland's Meat Product Exports to Malaysia

- 95% Beef Meat (Fresh, Chilled and Frozen) (US \$24.58 million)
- 5% Other (US \$1.3 million)



Opportunities for Queensland E-commerce Exports⁶

Malaysia has seen an increase in demand for fresh foods, and consumers become more aware of the health benefits of quality horticulture products. As Malaysian tastes change, there has also been growth in beverage imports and quality processed foods that Malaysian consumers can increasingly afford.



Dairy products



Processed & fresh fruit



Seafood



Wine and beer

E-commerce & Supply Chain Considerations

- Partnerships leveraging a B2B and B2B2C model via platform or third-party channels are key for e-commerce agri-food participation in Malaysia. Key online platforms include:
 1. Lazada
 2. Shopee
 3. Tesco
 4. Jaya Gorcer
 5. Mydin
 6. HappyFresh
- Platforms have all significantly invested in local distribution hubs in an effort to expand their e-commerce footprints in the country – which has also improved logistics and last-mile delivery.
- Several international brands have also signalled their intention to grow in the market, recognising the improved maturity of e-commerce and untapped consumer potential.
- Cross-border sales account for four out of every ten e-commerce transactions in Malaysia – strong international connectedness signals improving trade supply chains and resonance of quality foreign brands with local consumers.
- Mobile commerce and social media has become the fastest growing platform accounting for 47% of all e-commerce transactions – which will be important for Queensland exporters to target.

Barriers to E-commerce Success

- Malaysia is *culturally diverse*, and exporters must target specific consumer segments with dedicated branding and product configurations. Halal requirements are an important consideration in Malaysia, for example.
- The *market remains segmented* between consumers who have high income and can afford foreign produce, and those who continue to be price conscious. Brands should list on platforms that appeal to the consumers they are targeting and recognise the stratification of Malaysian consumers.

3. Introduction

Background & Context

KPMG was commissioned by the Queensland Department of Agriculture and Fisheries (DAF) to collate and analyse data regarding the current trends in key exports markets specific to the agri-food sector and shifts to e-commerce post COVID-19.

3.1 Overview of e-commerce

3.1.1 What is e-commerce and how does it relate to agri-food products?

“E-commerce refers to the buying and selling of goods or services using the internet, and the transfer of money and data to execute these transactions. E-commerce is a type of distribution channel and is often used to refer to the sale of physical products online, but it can also describe any kind of commercial transaction that is facilitated through the internet.” – *Shopify*

Overview of e-commerce⁶

- In 2019, retail e-commerce sales worldwide amounted to US\$3.53 trillion and e-retail revenues are projected to grow to US\$6.54 trillion in 2022.
- In 2019, e-retail sales accounted for 14.1 percent of all retail sales globally. This figure is expected to reach 22 percent in 2023.
- B2B e-commerce is anticipated to be the area of largest e-commerce growth from 2020 to 2025. Thus, a key supply trend likely to emerge includes food service and manufacturing sectors procuring more frequently through online channels.
- More than half of the fastest-growing e-commerce countries are from Asia-Pacific region, with China representing 55% of the global e-commerce market.
- Consumers are increasingly demanding value-driven brands who use environmentally friendly packaging, have eco-friendly supply chains and green manufacturing practices - and for these products to be available or visible online.

3.1.2 What are the trends globally for agri-food e-commerce?

Online grocery shopping or e-grocery is a small part of the e-commerce sector but shows significant growth potential.

The Global online grocery opportunity

- The adoption of online grocery shopping varies across countries. Shopping in-store remains the dominant channel, with 70% of consumers preferring to buy their groceries at brick-and-mortar supermarkets worldwide⁷.
- There is generally higher online grocery adoption across Asian countries, whilst Europe has had a slower uptake (with the exception of the UK & France).

⁷ Statista

- Although online grocery shopping is projected to grow over the coming decade, sales remain small in comparison to other e-commerce product categories, such as fashion and electronics^{8,9}.

Australian agri-food e-commerce opportunity

- Online grocery in Australia is still emerging, with the current estimate for FY20 being that ~5.1% of all grocery sales were processed online. Online sales revenue was AU\$5.8 billion for FY20, compared to the total supermarket revenue of AU\$113.3 billion¹⁰.
- Amazon estimates that 78% of all Australian small businesses will continue to use e-commerce and digital tools over the next year. Amazon's research showed that 42% of small businesses are focusing this year on growing their digital presence¹¹.
- Despite the small size of the channel as a percentage of all grocery, online demand has rapidly grown with a year-on-year increase of 29.7% from 2015 – 2020. The industry is projected to continue growing at 10.1% per year from 2020 – 2025 and total AU\$9.3 billion by FY25¹⁰.
- Australia Post has found that more than 1.3 million households shopped online for the first time in 2020, up 57% from the previous year. These consumers spent more than \$50.5 billion online, and e-commerce accounted for 16.3% of total retail spend¹².
- Geography, logistics and delivery pricing present ongoing challenges and barriers in the domestic market. The emergence of Click and Collect services has been advantageous – mitigating consumer concerns surrounding the safety and quality of perishable products. In a recent survey, 61% of consumers also reported free shipping is a key factor in their decision to shop for groceries online. As such, agri-businesses may consider embedding complementary shipping to boost uptake^{7,10}.

How COVID-19 has impacted e-commerce prospects

- COVID-19 has accelerated the growth of online grocery worldwide, with the supermarket industry experiencing an increase in online traffic (34.8%) despite global retail growth falling by 5.7%⁷.
- Although Australia's online grocery sector grew by 56% in 2020, online shopping for food and groceries continues to account for a small portion of e-commerce sales and value¹⁰.
- Online grocery's share of the supermarket industry is expected to be higher than what it was before the pandemic but is unlikely to continue to grow at the same trajectory.

3.2 Origin and purpose of this report

In response to the disruption caused by COVID-19 on Queensland's economy and export of agri-food products, Stage Two of Queensland's Economic Recovery Strategy allocated \$5 million to reinvigorate agricultural trade relationships. The aim of this funding is to support e-commerce and virtual trade facilitation in key markets and assist coordination of demand for additional regular air freight services. This initiative is linked to priority 5 of the Economic Recovery Plan, 'Growing Our Regions'.

Despite COVID-19 disruptions, confidence in the rising demand for Queensland's clean, green food and agricultural products persists. Across international markets, and especially in Asia and the Middle East, there is a growing wealthy, middle class population that is increasing the demand for quality imported foods. Australia, and Queensland with its strong agri-food industry, is a key supplier with 63 per cent of the AU\$40 billion food export value attributed directly to the Asian and Middle Eastern markets¹³.

⁸ Kantar

⁹ Oberlo

¹⁰ Ibisworld

¹¹ <https://mhdsupplychain.com.au/2021/03/31/almost-80-per-cent-of-small-businesses-to-continue-with-e-commerce-amazon-finds/>

¹² <https://mhdsupplychain.com.au/2021/03/31/australia-post-record-number-of-people-shopping-online/>

¹³ Export 2030 – delivering fresh food fast

However, consumer behaviour is changing, and an expected legacy from COVID-19 is the shift to online buying of agri-food products which has accelerated and is likely here to stay.¹⁴

This report seeks to provide DAF and TIQ with a fact base to inform future policy and industry development decisions to best support the agri-food industry in achieving success through e-commerce export channels.

A note about the focus of this report

The Australian Bureau of Agricultural and Resource Economics (ABARES) expects that most key trade settings governing agriculture will remain unchanged by COVID-19. Food will continue to be processed close to the final consumer, and Australian agriculture will continue to participate in global value chains, for bulk, intermediate and more consumer-facing products.

Given this report seeks to investigate e-commerce opportunities for Queensland agri-food product, the focus is upon the more consumer-orientated product opportunities (i.e. those which involve minimum processing or change prior to sale to consumers). Agri-food products of this nature represent products which suit e-commerce channels.

It is noted that there remain significant opportunities in international trade for products within the bulk and intermediate product categories (per the USDA's Foreign Agricultural Service definitions), as argued by ABARE's 2020 analysis of value creation through agricultural exports, especially for raw and minimally transformed products. This report however does not address the bulk and intermediate product opportunities directly and concentrates on the consumer-orientated product categories.

3.3 Project objectives and scope

The scope of this project was to consider:

- The critical markets where e-commerce capability will be essential to retaining and growing Queensland's market share, including describing why such capability is critical and why these markets are important to Queensland;
- The high priority products or product categories where e-commerce capability is required to remain competitive, for each critical market;
- The barriers, opportunities and support requirement to maintain and grow Queensland's market share in key markets;
- How well Queensland agri-food products are participating in e-commerce, with comparison to competing export countries where possible;
- The suite of existing government e-commerce expertise and programs that exist and applicability to agri-food exporters;
- Any gaps which may exist in the support offered for particular markets, supply chain elements or capability development for business; and
- Recommendations about the opportunities and priority actions by industry and Government to grow Queensland's market share in critical e-commerce markets.

3.4 Limitations

The findings within this report have been based upon consultations with agri-food businesses who agreed to interviews, interviews with Trade Investment Queensland Commissioners in the key critical markets and consideration of publicly available literature. Proprietary data sets, such as Nielsen and other data providers were not used but are acknowledged as a future source of insight. This means that limited data on agri-food exports from Queensland and the particular products traded on e-commerce platforms in certain global markets was aggregated and summarised at a high-level. Whilst consultations and engagement with e-commerce platform services have provided some data, particularly on the nature of products, there is less information available regarding specific products at an individual

¹⁴ Greenville, J, McGilvray, H & Black, S 2020, [Australian agricultural trade and the COVID-19 pandemic](#), Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, pp.8, Export 2030 – delivering fresh food fast

product type. We have therefore relied upon product category insights and secondary data to develop the observations and recommendations.

3.5 Exclusions

For the avoidance of doubt, KPMG is not expressing views on any particular policy or program agenda. While the report does acknowledge and highlight the general trends and policy positions towards e-commerce capability building in Australia and other markets, this is necessary to understand the context within which observations concerning this report are made and does not represent an endorsement of those trends or policy positions.

3.6 Project approach

To execute the project, KPMG followed the approach set out below.

- Engaged with key stakeholders to collect relevant data designed to aid desktop research and analysis concerning the nature, value and context in which e-commerce participation occurs in Queensland.
- Conducted desktop research of publicly available sources of data and research on e-commerce. Of particular interest were insights and data gathered post the outbreak of COVID-19.
- Conducting consultations with:
 - DAF representatives;
 - TIQ representatives;
 - Agri-food industry organisations such as Agrifutures, Meat and Livestock Australia and Hort Innovation Australia, to obtain insights as to the industries perspectives and views on the subject matter;
 - Agri-food industry actors which included companies of various organisation complexity, market orientation, products and size, to obtain insights as to the industries perspectives and views on the subject matter.
 - Shopify, a global e-commerce service provider, who provided insight into the trends occurring globally in e-commerce from a service provider perspective.

3.7 Outline of the report structure and content

The remainder of this report is set out as follows:

- Section 4 – considers the unique challenges of agricultural products (including fresh products from Australia) for e-commerce from a supply chain perspective and explores e-commerce models in general terms. This addresses the universal issues that exist irrespective of the markets and products themselves.
- Section 5 - explores market specific insights for the key markets selected for study.
- Section 6 – considers the capability and skills of Queensland agri-food businesses in relation to undertaking e-commerce. Consultations with agri-food businesses formed the basis of understanding the level of participation in e-commerce, the strategies utilised and the associated challenges, barriers and opportunities.
- Section 7 – presents the key findings and options available to DAF for developing the capability and participation of Queensland agri-food business in e-commerce.

4. General agri-food e-commerce considerations

Section overview

This section considers the unique challenges agricultural products face in supply chains which are focussed upon the e-commerce channel to consumers.

4.1 Introduction

E-commerce success for agri-food products is influenced by the nature and characteristics of the product.

Consumer-orientated products suit e-commerce far better than bulk products and intermediate products which require significant in country processing. The latter product categories are better suited to traditional wholesale markets or B2B transactions. Queensland enjoys significant competitive advantages in the raw agricultural and minimally transformed product space for such products (such as beef and sugar)¹⁵.

There are several key considerations, irrespective of specific markets or products that should be noted when considering the question of how to win in the agri-food e-commerce space. These are outlined below.

4.2 E-commerce business models

4.2.1 What are the key e-commerce business models?

It is important to consider the strategy, model and channel for e-commerce success for agri-food products. Strategy is necessary to determine the overarching approach to e-commerce sales, including where products are sold and to whom. An e-commerce model then details how the business will pursue this strategy, using different channels to deliver e-commerce capabilities.

There are several key strategies, models and challenges to be considered when understanding e-commerce success for agri-food products:

Table 3: Overview of key e-commerce models and strategies

Strategy	Model	Channel	Implications	Example
Sell to intermediary party	B2B	Platform model	<ul style="list-style-type: none">Business sells their product directly to an online platformOnline platform manages all aspects of sales and distribution	<ul style="list-style-type: none">Online supermarket¹⁶

¹⁵ Greenville, J, Duver, A & Bruce, M 2020, [Analysis of value creation in Australia through agricultural exports: Playing to advantages](#), Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra

¹⁶ <https://www.agr.gc.ca/eng/international-trade/market-intelligence/reports/e-grocery-market-in-china/?id=1504037238257#a4>

Strategy	Model	Channel	Implications	Example
		Third Party in Country	<ul style="list-style-type: none"> • Business partners with local retailer or wholesalers/distributors to manage all aspects of sales and distribution • Partner with pre-prepared meal kit or packaged grocery D2C businesses as an emerging trend. • Quick and easy to establish brand presence in local country 	<ul style="list-style-type: none"> • Local retailer¹⁷
Sell direct to consumer	B2C	Online marketplace	<ul style="list-style-type: none"> • Business sets up virtual “stores” on established online marketplaces • Ability to sell on domestic or cross-border marketplaces • 3 types of stores¹⁶ <ul style="list-style-type: none"> ○ Flagship store – companies sell their own brands ○ Exclusive shop – single brand store front in a marketplace run by an authorised brand reseller ○ Boutique store – multi-brand store front that acts like a reseller 	<ul style="list-style-type: none"> • Online mall¹⁶
		Social Media	<ul style="list-style-type: none"> • Business sells through social media channels • Business can build brand following and connect directly with consumers • Platform may struggle against established online marketplaces 	<ul style="list-style-type: none"> • Facebook marketplace¹⁷
		Independent channel	<ul style="list-style-type: none"> • Business sells through their own independent channels • Business has full content, data and pricing control • Platform may struggle against established online marketplaces 	<ul style="list-style-type: none"> • Website¹⁷

Competitor nations are utilising a number of different e-commerce models. In the USA, B2B and B2C models are widely used. One such example is Amazon¹⁸, which has 48% market share in the online grocery market, alongside annual sales of over USD\$2.1 billion; over three times more than the nearest competitor. To achieve this scale, Amazon effectively utilises both B2B and B2C models by operating as a marketplace for sellers and buyers.

In Canada¹⁶, e-commerce exporters effectively use online hypermarkets and malls to export to countries such as China. Some exporters also use independent websites to export to markets; although online marketplaces remain the preferred method of e-commerce engagement. Likewise, India also utilises online marketplaces in B2B and B2C. In particular, global e-commerce sites like Amazon and Alibaba, alongside domestic marketplaces like Flipkart, are widely used.

In Argentina, exporters primarily utilise a third party in country model, where products are usually sold through the websites of local importers. Some exporters also use e-commerce marketplaces, as well as social media platforms.

¹⁷ <https://www.trade.gov/ecommerce>

¹⁸ <https://www.agr.gc.ca/eng/international-trade/market-intelligence/reports/an-overview-of-e-commerce-trends-in-the-united-states/?id=1502377601261>

4.2.2 What e-commerce models suit agri-food products?

Queensland is naturally endowed with a competitive advantage in the production of fresh produce. The challenge for Queensland is that the inherent characteristics of our fresh produce is not well suited to B2C e-commerce channels due to a need for complex cold chain or temperature / time sensitive supply chains. Thus, for fresh, time sensitive produce, and because of the complex trade protocols that exist for agri-products, B2B e-commerce models represent more viable pathways for increasing participation in export market e-commerce.

This would involve models where third parties manage the in-country distribution and logistics either via a platform model or a third-party in country model. A primary benefit is the in-depth localisation benefits such a model would provide. Consultations with industry and government representatives noted e-commerce requires significant attention to cultural specificities and language nuances. A key example is the difference between the content marketing expectations and norms of Japanese versus Australian consumers. Japanese digital / e-commerce marketplaces are content heavy, very busy and complex compared to the wide-open spaces of Australian minimalist design trends.

For Queensland's agri-food products that are shelf stable and ambient in nature, B2C e-commerce is better suited. The challenge here is to gain market awareness of the products and increase participation in export markets for these types of products given the low levels of direct e-commerce participation noted by Queensland businesses. Thus, products with strong brand attributes will be better suited to B2C e-commerce, such as artisanal unique products.

4.3 Agri-food product characteristics

While generally (non-food) e-commerce is seen to be a low barrier channel for businesses to enter, especially for cross-border e-commerce, the characteristics and nature of agri-food products add significant complexities that make e-commerce more challenging as a channel to markets and consumers.

The key findings from consultations with logistics and industry organisations are noted in Table 4 below.

Table 4 Barriers, opportunities and challenges key insights

Key insights	
Ambient is the short-term winner	<p>Ambient products have limited requirements or complexity for e-commerce supply chains to accommodate. Especially for e-export it should be considered as the best suited product group in the short term.</p> <p>Cold chain (fresh/chilled and frozen) is likely to be more suited as a medium- or longer-term opportunity given their complexities specifically for supply chain</p>
Small entities are disadvantaged	<p>Supply chain industry consults clearly defined the challenges and disadvantage faced by small entities. Scale and purchasing power for logistics and supply chain services will be particularly costly in smaller volumes and present a significant barrier that will be felt more by smaller entities considering agri-food exports via e-commerce</p>
Transportation and packaging costs are key barriers	<p>Transporting agri-food products, via either air or sea freight comes at significant cost to producers. Further, e-commerce requires different supply chain sub-processes and elements such as pick and pack for B2C orders. Packaging for established entities moving to e-commerce will be particularly challenging given potential requirements changes from current operations.</p> <p>There is innovation happening in the packaging space, however it remains costly especially for the aforementioned cold chain requirements.</p>

4.3.1 Ambient versus fresh and frozen product types

Ambient agri-food products present significantly fewer supply chain challenges compared with fresh or frozen product. Table 5 outlines the key differences and challenges associated with the different types of product.

Table 5 Supply chain challenges

Product category	Product description	Observations
Ambient	Packaged, consumer ready and value-added products not requiring cold chain, such as tree nuts	<ul style="list-style-type: none"> Depending on target market all or some food products may still be subject to biosecurity, food import laws, and regulations that need to be followed and declared In some cases, domestic production of packaged, value added products can be costly compared with alternative markets
Fresh/Chilled	Fruit and vegetables or proteins such as beef require cold chain logistics	<ul style="list-style-type: none"> High perishability or time sensitivity due to short product shelf life Increased costs associated with refrigerated transport Varying product temperature requirements may not allow for easy consolidation or logistics collaboration Requires uninterrupted supply chain integrity without delays given time sensitivity – this may complicate the distribution and logistics choices required, for example utilising more than one third party logistics (3PL) in the event one has delays or issues as a backup for products E-commerce does not allow for the same consumer experience or selection that retail does. For example, there is significant difference between online consumers' receiving ripe or slightly green bananas due to a lack of choice, compared to an in-store consumer free to select products based on visual characteristics The last mile of delivery requires extensive planning, coordination and communication to succeed, given a lack of visibility and reliance on in-market personnel to ensure products are delivered efficiently and quality is maintained.
Frozen	Frozen seafood or beef	<ul style="list-style-type: none"> Requires uninterrupted supply chain integrity Processing, storage and warehousing require significant energy use that can present two challenges 1) regional or remote resource reliability and 2) significantly higher cost associated with frozen products than ambient products Exporting frozen products via e-commerce presents fewer challenges than fresh or chilled, however supply chain will likely align to bulk traditional export (sea freight) and is therefore likely to require substantial volumes of products to justify shipping space (aligned more to B2B) Depending on agri-food product and quantity, the product may still require traditional export/import processes and approvals, as well as compliance with biosecurity regulations Sophistication of cold chain logistics systems are highly variable between international markets to support frozen product.

4.4 Supply chain barriers for future growth

The strength of existing channels and cost of logistics are the greatest barriers to future growth and e-commerce viability. Retail grocery remains the primary agri-food channel with added advantages such as no additional delivery costs offered by major retailers.

This is reflected in the low levels of e-commerce adoption by agri-food producers in Queensland. All supply chain and logistics industry consults highlight low viability of low-cost agri-food products for e-commerce. The cost of freight and packaging especially when at low volumes is a key barrier to e-commerce, e-export and its future growth.

Table 6 Supply chain barriers

Barrier	Observations	Relevance
Logistics/freight costs	<ul style="list-style-type: none"> Depending on the method (air/sea-freight) and product specific requirements (cold chain – temperature sensitive) shipping/ freight costs can impact viability and profitability of e-commerce, particularly the current cost of airfreight Consultations highlighted that insufficient scale or volume may limit logistics options and suitability for product or e-commerce model SME guidance: 5 – 10% of product value should be the limit for freight costs to ensure profitability in e-commerce B2B – lesser issue, still relevant for small quantities and smaller entities B2C – highly relevant due to “one-off” complexity 	<ul style="list-style-type: none"> Cold chain Ambient
Suitable, sustainable product packaging	<ul style="list-style-type: none"> Depending on product requirements suitable packaging can be expensive or even outweigh the cost of delivery There is growing demand for sustainable, plastic alternative packaging from consumers^{19, 20} Weight of packaging can significantly impact associated transport and logistics costs, particularly for B2C B2B – lesser issue given size and packaging likely to B2C – Awareness of packaging innovation refer back to product suitability 	<ul style="list-style-type: none"> Cold chain Ambient
Domestic connectivity	<ul style="list-style-type: none"> For interstate and Queensland transport, consultations agree it can be more complex than export/international destinations Time to delivery can be long (ambient product took 18 days from Queensland to WA) and causes diminished consumer experience Regional and remote producers don’t have frequent access to all logistics and transport options such as cold chain logistics Roadworks, heavy vehicle permits and approvals were also cited as a key challenge by some consultees 	<ul style="list-style-type: none"> Cold chain Ambient
Time sensitivity/product shelf life	<ul style="list-style-type: none"> Fresh or chilled products have a high time sensitivity given their short product life which can impact the flexibility and margin for error of all supply chain elements. All elements of the supply chain must align without delays, which carries increased risk Product time sensitivity increases the risk of waste, product safety/loss Specific temperature sensitivity (where minor changes impact product quality) further limit how certain products can be transported B2B aligns heavily to traditional export model options B2C – domestic examples e-grocery, click and collect to mitigate associated risks 	<ul style="list-style-type: none"> Cold chain
Deliveries requiring customer to be “at home”	<ul style="list-style-type: none"> Fresh e-commerce such as Youfoodz, HelloFresh and Marley Spoon all work back from the delivery date, as ensuring the consumer is available to accept/receive the product at home is key Given temperature requirements, products cannot be safely left unattended or outside This requirement is severely limiting when compared with ambient agri-food products 	<ul style="list-style-type: none"> Cold chain
Low cost, low margin products	<ul style="list-style-type: none"> Strength of existing channels plays to the low-cost low margin products (especially fresh fruit and vegetables) 	<ul style="list-style-type: none"> Cold chain

¹⁹ <https://www.trade.gov/knowledge-product/argentina-ecommerce>

²⁰ <https://medium.com/@sanasoftware/food-and-beverage-industry-4-e-commerce-trends-to-watch-846f258bb2ae>

Barrier	Observations	Relevance
	<ul style="list-style-type: none"> The bulk quantities used by these channels (means what?) Products require significant value, industry guidance – cold chain should not be selected for value of under \$50²¹ 	<ul style="list-style-type: none"> Ambient

4.5 Supply chain challenges for future growth

Successful e-commerce will require additional investments in resources, processes and infrastructure (including digital) beyond traditional channels.

Table 7 Supply chain challenges

Challenge	Observations
Customer expectation and experience ²²	<ul style="list-style-type: none"> Primary e-commerce supply chain focus should always be on ensuring customers' expectations are met and they have a successful e-commerce experience Key characteristics for meeting customers' expectations are around the speed and accuracy of delivery and quality of product delivered Establishing and maintaining an appropriate customer service and support offering with returns Logistics provider consulted¹⁶ has 50% of its workforce dedicated to customer support
Variable demand capacity	<ul style="list-style-type: none"> The volatility of demand and the appropriate fulfillment of high volumes of orders remains a significant challenge to overcome especially given the 24hr nature of e-commerce trading Data and advanced analytics are being used to improve predictability and combat the highly variable demand of online orders Flexibility to accommodate both variable demand and shifting stock levels is desirable, this may be challenging for products that have a short shelf life
Cost of picking and packing	<ul style="list-style-type: none"> The time and effort required to pick, and pack is easily undervalued with labour being the single biggest cost Given the above-mentioned challenges of demand volatility, this also means you cannot plan/assign resources to this as you would consistent tasks Part of the associated financial challenge comes from underutilised resources when demand is low and insufficient resources when demand is high
Communication	<ul style="list-style-type: none"> Ensure there is a fail-safe communication method between entity and customers Open communication will support growing demand for transparent supply chain, food integrity and safety Real time order tracking and visibility will continue to grow in demand (Logistics provider consulted fields 80% of customer queries on "where is my parcel")
Optimising Inventory	<ul style="list-style-type: none"> Digital inventory management may be required when several sales channels (e-commerce and traditional) are being supported Exact monitoring of status for fulfillment is required for e-commerce websites/own store which can be process/labour intensive at scale Replenishment and online availability monitoring for seasonal (fresh) products is a constant maintenance challenge that requires attention and updating

²¹ <https://transportgeography.org/contents/applications/cold-chain-logistics/>

¹⁶ Consulted industry logistics providers | <https://www.sccgltd.com/archive/e-commerce-supply-chain-challenges-who-pulling-strings/>
<https://www.inboundlogistics.com/cms/article/solving-the-three-toughest-challenges-in-e-commerce-fulfillment/> <https://www.dhl.com/global-en/home/press/press-archive/2019/businesses-must-urgently-solve-their-e-commerce-supply-chain-challenges-to-unlock-the-full-value-of-this-powerful-channel.html>

5. What are the key markets where e-commerce capability is important?

Section overview

This section identifies six (6) key markets for Queensland e-commerce which broadly provide a wide range of lessons to aid understanding of the opportunities, challenges and barriers to e-commerce success. The section includes exploration of the importance and growth of e-commerce and the consumer behaviours and preferences driving e-commerce uptake. This section also identifies the key products from these markets which are relevant for Queensland agri-food businesses.

5.1 Selection of the key markets

Appendix 1 details the methodology and results of the market selection process.

The markets were carefully considered, and the top 6 markets classified as either ‘Retain’ or ‘Grow’ markets. A **retain** market is one which is materially important to Queensland’s export performance in value and quantity terms. A **grow** market is one where Queensland has existing exports but shows strong potential for future growth, especially considering e-commerce as a channel.

The key export markets focussed upon in this study are **Japan, China, South Korea, USA, Indonesia and Malaysia**. Queensland holds strong existing export market share in the majority of these markets. Given the acceleration of e-commerce for food products, as shown by the e-grocery growth rates and uptake of e-commerce in general development, e-commerce capability has been identified as potentially key to maintaining or increasing market share in the future.

Table 8 below lists the key markets prioritised for analysis.

While other markets could be included, these markets were selected because of: their adoption of e-commerce, future growth potential driven by demographic factors, status as existing export markets, and because they are accessible for Australian agri-food products. These markets are valuable in their own right to target but also provide lessons that may be transferrable to other markets.

Table 8: Priority markets

Prioritised Markets	Retain or growth market	Existing export market for Queensland	E-commerce utilisation / maturity in market	Low barriers to entry and market access	Export potential of Queensland agri-food products	Overall Potential Rating
Japan	Retain	Favourable	Favourable	Favourable	Favourable	High
China	Retain	Favourable	Favourable	Favourable	Favourable	High

South Korea	Retain	Favourable	Favourable	Favourable	Moderate	High
USA	Growth	Favourable	Favourable	Moderate	Favourable	High
Indonesia	Growth	Favourable	Favourable	Favourable	Favourable	Moderate
Malaysia	Growth	Moderate	Moderate	Moderate	Moderate	Moderate

A 'Favourable' rating indicates an established agri-food export market, very high e-commerce growth potential, with significant ease of trade and export potential for QLD agri-food products

A 'Moderate' rating indicates a growing agri-food export market, emerging e-commerce growth potential, with moderate ease of trade and export potential for QLD agri-food products

A 'Unfavourable' rating indicates a potential market for agri-food export, low e-commerce growth potential, with relatively low ease of trade and some export potential for QLD agri-food products

5.2 Japan (Retain)

5.2.1 What is the importance of this market and e-commerce capability?

Japan is Queensland's second largest agri-food market, importing 19.5% of Queensland's agri-food exports. It is an established trading partner and is worth US\$1.4 billion to Queensland in 2019-20. Japan's e-commerce market is the 4th largest globally and is valued at \$150.1 billion (\$USD).²³ In Japan, there is relatively high individual wealth and a large addressable consumer base with 126 million total addressable consumers.

Queensland is heavily reliant on continued successful trade with Japan, with a current robust trade relationship. As a net importer with high purchasing power, Japan is an attractive retain market that demands a range of products. Since 2015, e-commerce has grown at a single-digit rate, however growth has slowed in part by an ageing population. In the total e-commerce market, the food, health and beauty segment represents 4.4% of the total market.²³ The e-commerce market is expected to grow at 6.2% (CAGR to 2021)²⁴

Why is e-commerce capability critical in this market?

E-commerce capability is important, both directly and indirectly, as e-grocery is a growth channel for the entire food and beverage consumer spend segment. Key factors include:

E-commerce grocery segment buoyed by COVID-19	<ul style="list-style-type: none"> Consumer behaviour changes have led to rapid increase in online grocery shopping. This is driven by the convenience of online shopping. It is expected that consumers who used to hesitate to purchase groceries online before COVID-19 will shift their shopping preferences to now also include online purchases to supplement store-based shopping.²⁵ Residents also want to strengthen their immune system and as such there is increasing demand for health and wellness food.²⁵
Ability to leverage Australian products	<ul style="list-style-type: none"> Queensland can tap into the advantage of "Brand Australia" for safe, clean, fresh and trusted produce High demand for imported food due to highly urbanised population. Ability to leverage demand for fresh produce that can be supplied counter seasonally to strong northern hemisphere competitors (such as the US, China and the EU)
Japanese consumers have a propensity to	<ul style="list-style-type: none"> Consumers with high wealth that have a propensity to spend on high quality foods

²³ <https://www.jpmorgan.com/merchant-services/insights/reports/japan>

²⁴ <https://www.jpmorgan.com/merchant-services/insights/reports/japan>

²⁵ <https://blog.euromonitor.com/the-consumer-impact-of-coronavirus-in-japan/>

spend and demand high quality food	<ul style="list-style-type: none"> Japanese consumers are highly concerned about safety, place great importance on quality and are increasingly health and brand conscious²⁶. COVID-19 has driven demand for food that offers preventative health benefits for consumers.²⁵
Growth has been moderated by an ageing population	<ul style="list-style-type: none"> E-commerce growth has been moderated due to ageing population with 29% of the population aged 65 or older and an average age of 48.4 years²³. By 2040, it is expected that 35% of the population will be aged 65 or older.²⁶
Single language nation	<ul style="list-style-type: none"> 99% of the population only speaks Japanese, making it difficult for foreign entrants into the market²³ Negotiating and decision-making process can take time due to language and cultural barriers²⁶
Australia is a top market for Japanese consumers	<ul style="list-style-type: none"> Australia is one of the top three overseas shopping markets for the Japanese Ability to leverage Australian product attributes of safe, high quality and reliable products

5.2.2 What are the competitor nations and their performance relative to Australia?

Japan's mature e-commerce market, and high rates of e-grocery adaption, have made it a targeted market for agri-food exporters.

The USA is the biggest consumer-orientated exporter to Japan, followed by China, Thailand and Australia, who are the next biggest exporters of consumer-orientated goods. Figure 1 below summarises the key competitors for consumer-oriented exports to Japan. Table 9 shows the top 2 products exported from Queensland to Japan.

Figure 1 Consumer-oriented imports (2019)

- 19% United States
- 15% China
- 9% Thailand
- 9% Australia
- 5% Canada
- 4% France
- 4% New Zealand
- 3% Mexico
- 32% All Others

Table 9: Top exports from Queensland to Japan

Commodity	Value (\$AUD)
Meat and meat preparations	\$1,744,872,339
Crude animal and vegetable materials, nes	\$24,398,516
Cereals and cereal preparations	\$23,630,383
Vegetables and fruit	\$23,570,095
Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof	\$22,057,594

²⁶https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Exporter%20Guide%20Annual_Osaka%20ATO_Japan_12-31-2020

Live animals other than fish, crustaceans, molluscs and aquatic invertebrates	\$12,103,595
Animal oils and fats	\$3,633,118
Feeding stuff for animals (excl. unmilled cereals)	\$2,215,232
Sugars, sugar preparations and honey	\$1,427,751
Fertilisers (excl. those of group 272)	\$1,391,435
Total	??

5.2.3 Priority products for Japan

A demand-led, logical method to identify Queensland's priority products was undertaken to find the high priority products or product categories where e-commerce capability is required to remain competitive in the market. Key products include:

Product categories based on forecast demand and opportunities through to 2024	<p>Analysis of consumer-orientated product categories, utilising the ITC Export Potential Map identified the following key opportunities in the Japanese market for export e-commerce.</p> <p>The top opportunities where the export potential versus actual exports gaps greater than \$10 million, based on market demand projections for Australian exports are included in the table below – ranging from red meat, to seafood and grapes.²⁷</p>
Priority products & opportunities based on desktop analysis of the market and consumer preferences	<ul style="list-style-type: none"> Consumer-orientated imports accounted for \$34 billion of total food imports 2019 Japanese consumers are seeking more convenient and easy-to-prepare meals due partly to increase in working women and single-person households. Going forward, ready-to-eat meals or take-home food items represent an area of growth²⁶ Processed vegetables, wheat and wheat products, fresh and processed fruit, tree nuts and peanuts, distilled spirits, wine and beer, cheeses and condiments and sauces have all been noted by the USDA as top growth prospects²⁶ Processed vegetables - demand for processed vegetables is being driven by rising demand for convenient foods. Imports are currently increasing at 3% per year.²⁶ Processed fruit - opportunities for both US. fresh and processed fruit exports to Japan are expected to increase in the near- to medium-term due to a decrease in Japan's domestic production resulting from aging fruit farmers and diversified needs in fruits use.²⁶ Tree nuts & peanuts – rising demand for convenient health snacks driving demand.²⁶

Table 10: Agriculture products in which demand exceeds supply (Japan)

Product categories	Forecast untapped export potential (\$USD)
Wheat (excl durum) & meslin	\$791,300,000
Wood in chips / Particles*	\$260,000,000m
Low erucic acid rape or colza seeds	\$200,800,000
Wine of fresh grapes	\$106,200,000

²⁷ <https://exportpotential.intracen.org/en/products/gap-chart?toMarker=j&market=392&fromMarker=i&exporter=36&whatMarker=k>

Bovine cuts boneless, fresh	\$49,200,000
Southern Bluefin Tuna, Frozen	\$43,900,000m
Barley*	\$21,200,000
Bovine cuts boneless, frozen	\$13,500,000

*These products are not suitable for e-commerce but indicate demand and the opportunity to market Australian products.

5.2.4 What are the key barriers and challenges unique to this market?

There are a number of challenges that are unique to this market, such as Japan's ageing population and cultural barriers, that make experienced in-market partnerships important. Moreover, cultural shopping norms and single language barrier prove to be challenges for new entrants into the market.

Cultural shopping norms	<ul style="list-style-type: none"> Many Japanese consumers prefer to buy food products in-person rather than online to ensure the products are fresh²⁶
Ageing population	<ul style="list-style-type: none"> Ageing population is slowing e-commerce growth. This can be explained by ageing consumers preferences for desktops, and a broader reluctance to adopt smartphones.
Single language barrier	<ul style="list-style-type: none"> 99% of the population only speaks Japanese, making it difficult for e-commerce exporters to enter the market.²³
Cultural barriers	<ul style="list-style-type: none"> Negotiating and decision-making process can take time due to cultural barriers²⁶. Japanese people tend to prefer formal business approach and decision-making takes time in Japan. Exporters should be prepared for negotiations which move slowly and require multiple meetings.²⁶ Konbini (convenient store) culture is continuing to drive Japan's ongoing cash payment trend, which is used more frequently than in other nations, accounting for 13% of transactions.²³

5.2.5 Assessment of e-commerce strategies, models and channels for e-commerce participation in the Japanese market

B2B and B2B2C models via platform or third-party channels are important for e-commerce agri-food participation in Japan

In Japan, the major B2B and B2B2C e-commerce platforms are domestic player Rakuten, and international conglomerates Yahoo! Shopping and Amazon Japan. Amazon Japan has had a major disruptive effect on the domestic e-commerce market, with the US giant investing heavily in infrastructure in the country. Delivery in Japan is aided by the nation's relatively small size, and well-developed logistics infrastructure.

However, despite Japan's typically rapid adoption of new technologies, mobile commerce uptake remains relatively low, accounting for just under a quarter of completed e-commerce sales due to a large ageing population. However, of the consumers who do use mobiles, apps are used to complete 45% of e-commerce transactions.²³ As 99% of the population speaks only one language, in-country partners are crucial in order to manage the single language preference and associated marketing nuances.²³ As such, it is necessary for e-commerce exporters to partner with in-market buyers or agents who can clearly communicate the safe, and quality aspects of Queensland products.

B2C within Japan requires significant market presence, a strong brand and specialist market knowledge. However, there is opportunity for this channel through existing platforms, mature delivery networks and services.

B2C as an e-commerce channel in Japan suits premium brands in the speciality food and liquor segment – effectively artesian shelf or long-life ambient products. This is due to the price-sensitivity of Japanese consumers, a preference for local commodity products and the high-level of service expected of brands (such as fast deliveries, and competitive shipping costs).

Maintaining in-country stocks means an in-country fulfilment partner is likely to be required.

5.2.6 Who are the key partners to develop relationships?

Given the identified importance and priority that should be given to B2B and B2B2C channels, which suit the majority of products Queensland produces the following key partners will be important.

Table 11 Key in-country grocery retailers

Entity	Key opportunities	Key stats
Rakuten Online marketplace	<ul style="list-style-type: none"> Partnered with Walmart in 2018²⁸ and expanded relationship in 2020. This will create further distribution opportunities 	<ul style="list-style-type: none"> 11.2% of online grocery market²⁹
Aeon Traditional retailer with online presence	<ul style="list-style-type: none"> Partnered with Ocado in 2019. Aims to open its first customer fulfilment centre using Ocado's Smart Platform by 2023 in Japan's Kanto region. Companies plans to expand across the country in the following years creating an effective distribution network³⁰ 	<ul style="list-style-type: none"> 10.5% of online grocery market²⁹
Ito-Yokado Traditional retailer with online presence	<ul style="list-style-type: none"> Will start a nationwide mobile supermarket business as early as 2022³¹ Company will base delivery trucks at around 100 stores across the country intending to alleviate a weakness of online stores which cannot offer consumers the opportunity to inspect products before purchasing them 	<ul style="list-style-type: none"> 9% of online grocery market²⁹
Precce Traditional upmarket supermarket	<ul style="list-style-type: none"> Upmarket supermarket selling more expensive quality products through their brand 'Precce Premium'³² 	<ul style="list-style-type: none"> 6.1% of online grocery market²⁹
Amazon Fresh Online marketplace	<ul style="list-style-type: none"> Amazon Fresh partnered with Life Corp to begin selling foods in late 2019. Allowed by networks to increase distribution networks in Tokyo³³ 	<ul style="list-style-type: none"> 4.4% of online grocery market²⁹

²⁸ <https://corporate.walmart.com/newsroom/2020/11/15/kkr-and-rakuten-to-acquire-stakes-in-seiyu-from-walmart-focus-on-accelerating-digital-transformation-of-japanese-retail>

²⁹ <https://www.statista.com/statistics/941706/japan-leading-online-supermarkets/>

³⁰ <https://www.eurofresh-distribution.com/news/japanese-supermarket-giant-aeon-online-grocery-push>

³¹ <https://asia.nikkei.com/Business/Retail/Ito-Yokado-expands-grocery-truck-business-across-Japan>

³² <https://id.japantravel.com/tokyo/precce-foodmarket/21703>

³³ <https://www.japantimes.co.jp/news/2019/05/30/business/corporate-business/amazon-japan-life-supermarket-tie-sell-fresh-foods-online-starting-tokyo/>

5.3 China (Retain)

5.3.1 What is the importance of this market and e-commerce capability?

China is the largest importer of Queensland agri-food exports importing 21.8% of Queensland agri-food exports a year. It is an established market and is worth US\$1.6 billion to Queensland in 2019-20. China is Australia's top agricultural market by a significant margin, worth over a quarter of Australia's total trade and approximately a third of total exports. China's e-commerce market is the second largest in the world, valued at US\$1.2 trillion.³⁴ The market is also very large, with 1.4 billion total addressable consumers, growing wealth and plenty of untapped potential customers.

China is an attractive and important retain market that demands a range of products across all categories. The Chinese market represents a large-scale opportunity for Queensland agri-food producers to position themselves to export high value products direct to market. A large population with expanding access to digital technology means that online sales have risen at an extraordinary rate, with the business to e-commerce market growing by almost a third in 2017 alone.²³ In 2019, the size of the food and grocery segment in total e-commerce equalled 3.4%.²³ E-commerce growth is expected to continue growing at 9.2% to 2021 (CAGR to 2021).²³

Why is e-commerce capability critical in this market?

E-commerce capability is important, both directly and indirectly, as e-grocery is a growth channel for the entire food and beverage consumer spend segment. Key factors include:

World's largest e-commerce market	<ul style="list-style-type: none">• Large untapped population with e-commerce accounting for 23% of overall retail spend and internet penetration accounting for 55%³⁴• China is Australia's top agricultural market by a wide margin, and there is an opportunity to leverage strong existing trade routes to grow agri-food exports
E-commerce grocery segment buoyed by COVID-19	<ul style="list-style-type: none">• During COVID-19 e-commerce sales of food products skyrocketed since many consumers avoided going out, preferring instead to shop online from home. This 'stay at home' trend is expected to continue in the long run• Increased e-grocery sales are supported by increasingly integrated and interdependent online and offline shopping channels, that have grown significantly due to the pandemic.³⁵• A recent Oliver Wyman survey found eight out of 10 respondents changed their food choices as a result of the pandemic, with Chinese e-commerce players the biggest winners. This survey also found 62% of respondents said they have shopped more online for food and 56% had expanded their reach to other online grocers for their food purchases.³⁶
Rising consumer wealth	<ul style="list-style-type: none">• Rising disposable income among middle-to-upper income shoppers is driving cross-border sales due to increasing demand for high-quality, foreign products by consumers. In particular, consumers value key international niche brands and are willing to pay a premium for them. This is seen throughout many upscale stores across major Chinese cities that offer high quality imported food products.³⁵• Cross border sales represent 58% of the Chinese e-commerce market suggesting growth opportunities for Queensland agri-food exporters
Continued investments in improved logistics	<ul style="list-style-type: none">• Consumers value and expect fast fulfilment and delivery of online orders. Major e-commerce players are investing in logistics capabilities and infrastructure to increase delivery speeds and gain a competitive edge
Importance of mobile commerce	<ul style="list-style-type: none">• Integral to success in this market is understanding the diverse online mobile shopping experiences demanded from China's highly sophisticated shoppers

³⁴ <https://www.jpmorgan.com/merchant-services/insights/reports/china>

³⁵ https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Retail%20Foods_Beijing%20ATO_China%20-%20Peoples%20Republic%20of_06-30-2020

³⁶ <https://www.oliverwyman.com/media-center/2020/mar/survey-amid-covid-19-outbreak-reveals-drastic-shift-in-chinese-consumers-diet.html>

	<ul style="list-style-type: none"> • Mobile commerce is a key growth area, where in-app purchases account for 67% of transactions. • With mobile penetration, increasing household income and a developing rural infrastructure in many developing cities, rural region consumers are rapidly shopping online through mobile devices. This represents a growing opportunity across regional China.³⁷
Growing e-commerce trends	<ul style="list-style-type: none"> • Several ongoing trends that are redefining China's retail food industry³⁵ <ul style="list-style-type: none"> ○ Wide range of product options – e-commerce companies are carrying a wider range of food products ○ Specialisation – increasingly more specialised retail outlets focused on one category of food products ○ Convenience – more specialty, community and convenience stores are opening in response to consumers' demand for convenience ○ Big data – big data is increasingly used for product and store placement and enables quick delivery ○ Speedy delivery – e-commerce platforms are promising quick and free home delivery services
Chinese consumer behaviour	<ul style="list-style-type: none"> • Chinese consumers have five basic requirements; easy navigation, wide range of payment options, wide range of product options, detailed product information and value for money³⁷. Chinese consumers value online ratings, reviews and recommendations from other shoppers when making purchase decisions online³⁷

5.3.2 What are the competitor nations and their performance relative to Australia?

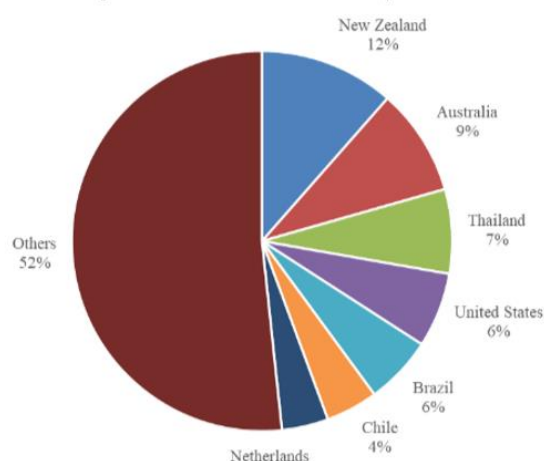
China is a widely targeted market for agri-food exports due to its large addressable consumer base, high rates of digital penetration and e-grocery adoption.

Figure 2 and Table 12 below summarises the key competitors for consumer-oriented exports to Japan.

Figure 2 Consumer-orientated imports for China³⁵

The graph shows that China imports 12% of consumer-oriented food from New Zealand, 9% from Australia, 7% from Thailand, 6% from the United States and Brazil, 4% from Chile and the Netherlands and 52% from other countries.

China's Imports Consumer-Oriented Food by Market Share



³⁷ <https://www.agr.gc.ca/resources/prod/Internet-Internet/MISB-DGSIM/ATS-SEA/PDF/e-grocery-market-china-marche-des-epiceries-en-ligne-en-chine-aug17-eng.pdf>

Table 12: Top Queensland traditional exports to China

Commodity	Value (\$AUD)
Meat and meat preparations	\$1,502,997,075
Vegetables and fruit	\$158,194,959
Hides, skins and furskins, raw	\$83,572,740
Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof	\$62,337,688
Feeding stuff for animals (excl. unmilled cereals)	\$28,911,654
Cereals and cereal preparations	\$28,711,586
Animal oils and fats	\$22,093,047
Dairy products and birds' eggs	\$9,067,510
Live animals other than fish, crustaceans, molluscs and aquatic invertebrates	\$8,584,659
Beverages	\$7,585,339

Table 13 Top Chinese imports (US\$) of Consumer-Oriented Products and Competition³⁵

Table 13 below shows the top Chinese import products; Pork, Beef, Fresh Fruits, Poultry, Fish & Seafood and Dairy Products and the supplier market share for each, including top import Pork at \$6.4B from which 19% is imported from Spain.

Import Competition by Product in 2019 & Latest Market Situation			
Product	Supplier Market Share	Product	Supplier Market Share
Pork Imports \$6.4 billion	1. Spain: 19% 2. Germany: 15% 3. United States: 12% 4. Denmark: 10% 5. Brazil: 9%	Poultry Imports \$2.0 billion	1. Brazil: 66% 2. Thailand: 11% 3. Argentina: 10% 4. Chile: 5% ... United States: 0.01%
Beef Imports \$8.4 billion	1. Brazil: 25% 2. Australia: 21% 3. Argentina: 21% 4. Uruguay: 13% ... 6. United states: 1%	Fish and Seafood Imports \$15.4 billion	1. Russia: 14% 2. Ecuador: 12% 3. India: 8% 4. Canada: 7% ... United States: 6%
Fresh Fruits Imports \$8.6 billion	1. Thailand: 32% 2. Chile: 22% 3. Philippines: 9% 4. Vietnam: 7% ... 10. United States: 1%	Dairy Products Imports \$12 billion	1. New Zealand: 40% 2. Netherlands: 15% 3. Germany: 7% 4. Ireland: 7% ... United States: 3%

5.3.3 Priority products for China

A demand-led, logical method to identify Queensland's priority products was undertaken to find the high priority products or product categories where e-commerce capability is required to remain competitive in the market. Key products include:

Product categories based on forecast demand and opportunities through to 2024	<p>Analysis of consumer-orientated product categories, utilising the ITC Export Potential Map identified the following key opportunities in the Chinese market for export e-commerce.</p> <p>The top opportunities where the export potential versus actual exports gaps greater than \$10 million, based on market demand projections for Australian exports are³⁸:</p>
Table 14: Agriculture products in which demand exceeds supply (China)	
<i>Product categories</i>	<i>Forecast untapped export potential (\$USD)</i>
Bovine cuts boneless, frozen	\$2,100,000,000
Shorn wool, not carded/combed	\$1,800,000,000
Wheat (excl durum) & meslin	\$584,400,000
Sheep cuts bone in, frozen	\$575,400,000
Rock lobster & sea crawfish	\$550,200,000
Low erucic acid rape or colza seeds	\$549,600,000
Priority products & opportunities based on desktop analysis of the market and consumer preferences	<ul style="list-style-type: none"> Consumer-orientated imports accounted for US\$73 billion of total food imports 2019 Fish products, tree nuts, fresh fruit, dairy products, processed vegetables, dried fruit and different beverages all have been noted by the USDA as top growth prospects³⁵ A recent Oliver Wyman survey found that rice, pasta, noodles, eggs, dairy and frozen and chilled product sales all increased throughout the pandemic.³⁶

5.3.4 What are the key barriers and challenges unique to this market?

There are a number of challenges unique to this market, including ongoing trade issues and strong domestic competition. Likewise, the country also has supply challenges and regulations that may make it difficult for agri-food exporters to grow.

Ongoing trade issues between Australia and China	<ul style="list-style-type: none"> Ongoing trade issues between Australia and China will continue to be a key barrier for e-commerce success in China for Queensland agri-food exporters In 2020, major disruptions occurred in Australia's trading relationship with China due to global trade policies and the global pandemic. This led to the implementation of tariffs and other restrictions on Australian exports, including key Queensland agri-food exports such as beef, barley, seafood and more recently wine. Ongoing trade issues between the two countries is likely to continue into the near future, presenting further challenges for Queensland agri-food exporters wishing to enter the Chinese market going forward
Domestic competition	<ul style="list-style-type: none"> China's e-commerce market is extremely competitive. Successful market entry via e-commerce requires a well-planned business model and an on-going commitment of resources to ensure

³⁸ <https://exportpotential.intracen.org/en/products/gap-chart?toMarker=j&market=156&fromMarker=i&exporter=36&whatMarker=k>

	<p>products are branded and marketed effectively for a Chinese audience and sold at a price that can be profitable.³⁷</p> <ul style="list-style-type: none"> • Agri-food exporters need to ensure they partner with the right e-commerce platforms in China³⁵
Supply challenges	<ul style="list-style-type: none"> • Shipping fees and timing pose a major hurdle for Queensland companies shipping from overseas as consumers in China are used to receiving online purchases within days of placing an order.³⁷ • High logistics costs and breakage during delivery of drinks, as well as the spoilage of frozen and fresh food.³⁷ • Working with Chinese partners/distributors can be risky as there is potential to lose control of the brand. Intellectual property must be managed appropriately to avoid third party infringement.³⁷
Regulations	<ul style="list-style-type: none"> • Government policies regulating the marketplace are dense, complicated and are prone to change without notice.³⁷ • Access to overseas websites from China is limited due to the Chinese government's "Great Firewall" which blocks Chinese consumers access from some western sites which can hinder internet traffic.³⁷ • While cross-border e-commerce remains an attractive channel to promote, market and sell products to Chinese buyers, Australian exporters are advised to register their products with Chinese authorities where possible, to mitigate the impacts of regulatory changes.³⁹

5.3.5 Assessment of e-commerce strategies, models and channels for e-commerce participation in the Chinese market

Partnerships leveraging a B2B and B2B2C model via platform or third-party channels are key for e-commerce agri-food success in the Chinese market

In China, major e-commerce platforms such as Alibaba, JD.com, and Pinduoduo are the largest B2B and B2B2C e-commerce players in the market. Through this model, Australian exporters sell to these e-commerce platforms, who in-turn sell throughout China on online hypermarkets and malls. Recently, these platforms have significantly invested in their infrastructure, as well as upstream, food product sourcing and cold chain logistics to gain a competitive advantage in a large market. For example, JD.com is testing drone delivery for rural areas, a key area of underexploited e-commerce opportunity in the country.³⁴ China is a world leader in mobile commerce, and this method of shopping dominates e-commerce in the country, with almost three out of every four of China's e-commerce transactions carried out on a mobile device.³⁴

On mobile phones, in-app shopping accounts for the majority of completed mobile commerce transactions, accounting for 67% of transactions.³⁴ In-app shopping has revolutionised the industry, with the rise of 'super-apps' fundamentally changing the ways consumers spend in the market. These apps, such as WeChat with over 980 million users, have expanded beyond messaging to offer a full suite of shopping, lifestyle, entertainment, and payment services.³⁴ This has led to significant e-commerce growth, with transaction volume on the app increasing by 134% per quarter in 2018 alone.³⁴

B2C requires significant market presence, a strong brand and specialist market knowledge. However, existing platforms, mature delivery networks and services means there is opportunity for this channel in China.

There are a number of B2C platforms within China, with the largest B2C marketplace Tmall Global, run by Alibaba. This platform offers different types of storefronts including flagship, specialty and boutique stores, providing overseas exporters the opportunity to sell direct to local consumers. For all online mall approaches, Australian companies would be responsible for shipping their products to China, ensuring orders meet regulatory and customer requirements, and establishing a relationship with third party logistic companies for warehousing, fulfilment and delivery.³⁷ These platforms suit premium brands in the speciality food and liquor segments. Independent websites are

³⁹ <https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/China/Doing-business/e-commerce-in-china>

another entry point for Australian companies to enter China's e-commerce market, however they are a difficult platform to succeed on and independent sites currently account for little in the way of transaction volume in China.³⁷

Overall, online marketplaces are the most established and advantageous platform in China's e-commerce market for Australian businesses as they reduce the cost and time needed to develop and run independent retail sites.³⁷

5.3.6 Who are the key partners to develop relationships?

Table 15 Key in-country grocery retailers

Entity	Key opportunities	Key statistics
Alibaba Sold through Tmall.com and Taobao Tmall is an online mall (B2C) Tmall Global is a cross-border marketplace	<ul style="list-style-type: none"> Shifted strategy to focus on online grocery shopping, mobile shopping and logistics development 	<ul style="list-style-type: none"> Largest online marketplace in China⁴⁰ Largest e-grocery platform³⁵ 38.7% growth between 2014-16 (CAGR)³⁷
JD.com Sold through JD.com and Yihaodian JD.com is an online hypermarket (B2B2C) Yhd.com is an online grocery mall (B2B2C)	<ul style="list-style-type: none"> JD.com is planning to further expand its fulfilment logistics infrastructure, technology platforms and product range³⁷ Yhd.com aims to provide more imported goods and expand its market share in areas outside of first-tier cities Yhd.com offers rapid and overnight delivery services and consumers can choose their ideal date and time to receive a package 	<ul style="list-style-type: none"> Second largest online marketplace and is expanding rapidly³⁷ Second largest e-grocery platform³⁵ 69.6% growth between 2014-16 (CAGR)³⁷ Error! Bookmark not defined.
Vipshop Sold through VIP.com Online discount retailer (B2C)	<ul style="list-style-type: none"> Leading discount retailer across China⁴¹ 	<ul style="list-style-type: none"> Third largest e-grocery platform³⁵ 65.1% growth between 2014-16 (CAGR)³⁷
Pinduoduo Pinduoduo is an online mall (B2C)	<ul style="list-style-type: none"> Plans to expand its business operations and invest in new warehouse service providers, and delivery fleets for cabbages, apples and other produce⁴² Targets rural regions more effectively than other major e-grocery platforms⁴³ 	<ul style="list-style-type: none"> Fourth largest e-grocery platform³⁵
Suning Suning is an online mall (B2C)	<ul style="list-style-type: none"> Suning has been pushing its offline expansion in stores to compliment and support online e-grocery platform⁴⁴ 	<ul style="list-style-type: none"> Fifth largest e-grocery platform³⁵ 84.8% growth between 2014-16 (CAGR)³⁷

⁴⁰ https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Retail%20Foods_Beijing%20ATO_China%20-%20Peoples%20Republic%20of_06-30-2020

⁴¹ <https://ir.vip.com/investor-overview>

⁴² <https://www.reuters.com/article/us-pinduoduo-results-breakingviews/breakingviews-pinduoduo-rises-to-chinas-grocery-challenge-idUSKBN28A07K>

⁴³ <https://chinapotion.medium.com/breakdown-of-pinduoduos-business-model-to-overtake-alibaba-bd2b9a8df931>

⁴⁴ <https://technode.com/2019/09/17/suning-com-to-open-more-than-200-stores-within-carrefour-locations/>

5.4 South Korea (Retain)

5.4.1 What is the importance of this market and e-commerce capability?

South Korea represents a significant Queensland agri-food market importing 12.5% of Queensland agri-food exports. It is an established trading partner, worth US\$920 million to Queensland annually. Korea's e-commerce market is the third largest in Asia, behind China and Japan, valued at US\$115.4 billion and is in the top 5 fastest growing globally⁴⁵. With the establishment of the Korea-Australia FTA, Australia enjoys continued elimination of tariffs on food products and will lock in continued access to the market for Australian exports.

South Korea therefore is a priority retain market with demand driven by a reliance on overseas sourced goods and strong economic conditions to support future demand for high quality, safe agri-food products. The country is a mature e-commerce market with comparatively higher level of adoption of e-grocery compared to other global markets. In 2017, total online grocery purchases equalled US\$6.9 billion and growth in the channel grew at 16.9% from 2013 to 2017.⁴⁸ E-commerce is expected to grow at 6.4% (CAGR to 2024).

Why is e-commerce capability critical in this market?

E-commerce capability is important as e-grocery is a growth channel for the entire food and beverage consumer spend segment. Key factors include:

Significant growth in the e-grocery space	<ul style="list-style-type: none">• Before COVID-19, South Koreans already had a high propensity for online grocery shopping, sourcing on average 9.6% and 12.0% of their total food and drink spending from online grocers in 2018 and 2019 respectively⁴⁶.• Analysts⁴⁶ see COVID-19 as the catalyst for the embedding of online grocery as a channel in Korea. With the trend driven by:<ul style="list-style-type: none">• Household budgets prioritising food and drinks during the peak of the pandemic.• E-groceries combines convenience with consumers wanting to avoid crowded supermarkets and stores.• Online grocery players have made promotional deals easily visible and accessible online, appealing to the price sensitive consumer.
Fresh is the dominant e-grocery category	<ul style="list-style-type: none">• Of the US\$6.9 billion spent on e-grocery (per 2017 statistics), packaged goods represented US\$2.3 billion of these sales (or 33%). This means there is significant online demand⁴⁷ expenditure in fresh or frozen food and beverage products.⁴⁸• A reason for this strength of the fresh agri-food product sector is the efforts of the Korean government in the late 1990's to informatise agriculture by developing farmer e-commerce participation. Policies were adopted which allowed the supply chain to be shortened, eliminating middlemen and providing consumers with lower price products and farmers with higher profits. This is credited with continually expanding the market for agricultural products and diversification of channels for food purchasing behaviours⁴⁹.
Consumers are highly sensitive to food safety and quality issues	<ul style="list-style-type: none">• Consumers are noted to be hyper-sensitive to product safety issues with high disposable incomes to procure trustworthy foods.• This demand for trustworthy food plays to Queensland's strengths
Young mobile savvy population	<ul style="list-style-type: none">• The total addressable market size is 52 million consumers with 92% mobile/internet connected⁴⁵

⁴⁵ <https://www.trade.gov/knowledge-product/korea-ecommerce#%3A%7E%3Atext%3DDomestic%20e%2Dcommerce%20sales%20have%2Cbiggest%20retail%20channel%20in%20Korea>

⁴⁶ [Innovative Platforms And Greater Convenience Boosting E-Commerce In South Korea](#), Fitch Solutions Group Ltd

⁴⁷ [S. Korea's online platforms come up with new ideas in selling fresh food](#), October 2020

⁴⁸ <https://www.agr.gc.ca/eng/international-trade/market-intelligence/reports/an-overview-of-e-commerce-trends-in-south-korea/?id=1531159188349>

⁴⁹ [Grocery Shopping via T-Commerce in Korea](#): New Shopping Channel Adoption Behaviour Based on Prior E-Commerce Experience

	<ul style="list-style-type: none"> Online shopping on mobile devices is the main driver behind the impressive growth of e-commerce in Korea South Korea is an 'influencer market' through cultural projection of Korean-Culture. Other Asian markets are influenced by the trends set in the Korean popular culture scene. Popstars and celebrities garner significant influence on consumer purchasing decisions⁵⁰.
Population largely in metro areas	<ul style="list-style-type: none"> 81.4% of the population living in cities⁴⁶. Access to target consumer markets is easier than other markets, allowing for easy and quick deliveries. This is a critical expectation of the Korean consumer for e-commerce purchases.
Growth in the convenience space for food	<ul style="list-style-type: none"> High demand for pre-packaged meals, ready-made and processed food products⁵¹. This is based on analyst's view that Korea, is a more time-poor population comparative to other nations, which embeds the trend of e-grocery growth⁴⁶. All of South Korea's major Mass Grocery Retailers (MGRs) already had online infrastructure in place, pre-COVID-19. Customers are now familiar with the convenience of online shopping and mature retailers are targeting price-sensitive shoppers in innovative way⁴⁶.

5.4.2 What are the competitor nations and their performance relative to Australia?

South Korea, because of its mature e-commerce sector and the high rates of e-grocery adoption, is a widely targeted market by many of the competitor nations to Australia.

The US is the most significant competitor for agri-food exports, exporting meat, fruit and other products to Korea. The US is the leading supplier of imported consumer-oriented agricultural products to the Korean retail industry, shipping a record US\$5.4 billion in 2019. Table 17 below summaries the top exporters, by product type, into the Korean market. Many of these exporting nations compete with Australia.

Table 16: Top exports from Queensland to South Korea in 2019-20⁵²

Commodity	Value (\$AUD)
Meat and meat preparations	\$1,130,981,714
Crude animal and vegetable materials, nes	\$16,960,628
Cereals and cereal preparations	\$14,773,669
Vegetables and fruit	\$6,994,544
Animal oils and fats	\$5,881,733
Beverages	\$3,346,981
Sugars, sugar preparations and honey	\$1,488,066
Feeding stuff for animals (excl. unmilled cereals)	\$1,456,798
Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof	\$724,937
Coffee, tea, cocoa, spices, and manufactures thereof	\$562,568

Table 17: Top Korean Imports of Consumer-Oriented Products (US\$) and Competition⁵³

⁵⁰ [E-COMMERCE IN KOREA](#), Austrade 2017, A guide for Australian Business

⁵¹ Based on interviews with TIQ Trade Commissioners, November 2020.

⁵² <https://www.qgso.qld.gov.au/statistics/theme/economy/international-trade/overview>

⁵³ Reproduced from [Retail Foods – Korea](#), USDA, June 2020 based upon Korean government import data (KOTIS) released by Korea Int'l Trade Association (www.kita.net). (CIF values quoted)

Table 17 shows the gross imports in 2019 of top Korean imports and outlines the major suppliers as well as the U.S ranking, including Beef, Frozen having gross imports of \$2,055 million in 2019 with the U.S. being the 1st supplier and Australia the second, with the U.S. supplying 59% of Beef to Korea.

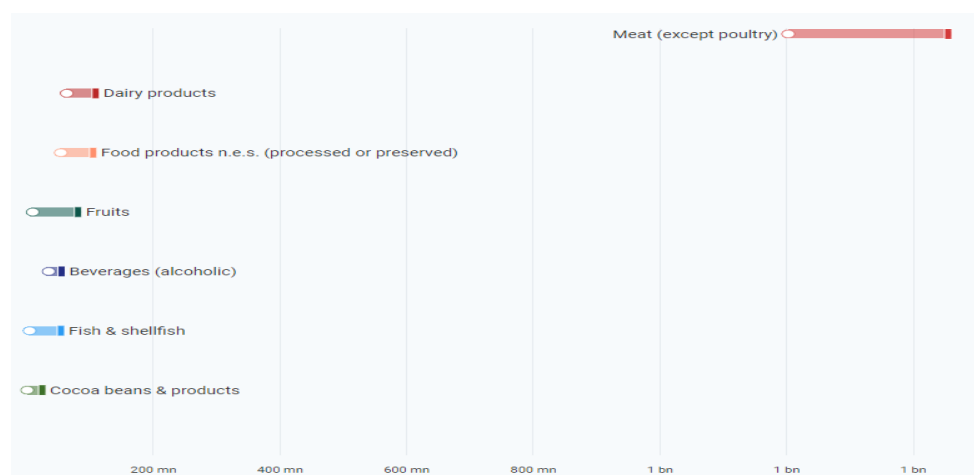
Product Category/ HS Code	Gross Imports 2019 (\$ million)	1 st Supplier (M/S)	2 nd Supplier	U.S. Ranking
Beef, Frozen/HS0202	2,055	U.S. (59%)	Australia (35%)	1 (59%)
Food Preparations NESOI ¹⁰ /HS2106	1,758	U.S. (58%)	N.Z. (6%)	1 (58%)
Pork, Chilled or Frozen/HS0203	1,600	U.S. (31%)	Germany (21%)	1 (31%)
Fish, Frozen (Not Fillets)/HS0303	1,294	Russia (28%)	China (23%)	3 (8%)
Crustaceans/HS0306	1,200	Russia (34%)	Vietnam (19%)	9 (2%)
Mollusks/HS0307	951	China (45%)	Vietnam (24%)	15 (0.5%)
Beef, Chilled/HS0201	868	U.S. (62%)	Australia (37%)	1 (62%)
Coffee/HS090	662	U.S. (15%)	Colombia (14%)	1 (15%)
Fish Fillets/HS0304	582	Vietnam (18%)	U.S. (16%)	2 (16%)
Cheese & Curd/HS0406	555	U.S. (46%)	N.Z. (14%)	1 (46%)
Crustaceans, Prepared/Preserved/HS1605	534	Vietnam (26%)	China (23%)	20 (0.4%)
Other Preserved Fruits & Nuts/HS2008	362	China (29%)	Vietnam (18%)	3 (15%)
Bread, Pastry, Cakes, Biscuits/HS1905	340	Malaysia (16%)	U.S. (16%)	2 (16%)
Chocolate Food Preparations/HS1806	328	U.S. (28%)	China (9%)	1 (28%)
Other Nuts/HS0802	304	U.S. (91%)	Australia (4%)	1 (91%)
Bananas/HS0803	302	Philippines(79%)	Ecuador (8%)	NA (0%)
Poultry Meat & Offal/HS2203	293	Brazil (90%)	Thailand (9%)	4 (1%)
Other Vegetables, Prepared, Not Frozen/HS2005	286	China (76%)	Thailand (10%)	3 (6%)
Beer made from Malt/HS2203	281	China (15%)	Japan (14%)	4 (12%)
Citrus Fruit/HS0805	274	U.S. (88%)	S. Africa (3%)	1 (88%)
Live Fish/HS0301	261	China (51%)	Japan (20%)	4 (3%)
Wine/HS2204	259	France (32%)	Chile (19%)	3 (13%)
Fish, Fresh/Chilled (Not Fillets)/HS0710	255	Norway (88%)	Japan (7%)	15 (0.02%)
Vegetables, Frozen/HS0710	249	China (90%)	Vietnam (4%)	3 (2%)
Sauces & Preparations/HS2103	244	China (37%)	Japan (21%)	5 (15%)

5.4.3 Priority products for South Korea

A demand-led, method to identify Queensland's priority products was used to identify the high priority products or product categories. Key products include:

Product categories based on forecast demand and opportunities through to 2024

Analysis of consumer-orientated product categories, utilising the ITC Export Potential Map⁵⁴ identified the following key opportunities in the Korean market for export e-commerce.



The ITC Export Potential Map shows that Meat (except poultry) presents the greatest future opportunity for the Korean market due to higher demand than other product categories including Dairy, Fruits and Beverages.

The top opportunities where the export potential versus actual exports gaps greater than \$10 million, based on market demand projections for Australian exports are:

Table 18: Agriculture products in which demand exceeds supply (South Korea)

Product categories	Forecast untapped export potential (\$USD)
Bovine meat, boneless and bone-in	\$289,400,000
Dairy products – cheese (fresh) in particular being a key category	\$46,400,000
Food preparations encompassing packaged goods, condiments and health foods/supplements	\$42,600,000
Fruits, oranges and table grapes especially	\$57,900,000
Beverages (Alcoholic) – wine is a key category	\$23,600,000
Fish and shellfish – molluscs and crustaceans in prepared formats	\$36,30,000
Cocoa beans & products – chocolates and speciality items	\$10,000,000

Priority products & opportunities based on desktop analysis of the market and consumer preferences

- Consumer-orientated products make up 41% of agri-food imports, but there are also significant intermediate product category opportunities⁵¹.
- Non-alcoholic beverages (mineral water), food preparations, butter, grapes, poultry, beef and melon varieties all have been noted by the USDA as top growth prospects⁵¹.

⁵⁴ [ITC Export Potential Map](#): The tool provides supply and demand indicators projected into the future based on GDP and population forecasts, demand elasticities and forward-looking tariffs. The tool does not operate at a Queensland level but provides a guide as to the key sectors and product categories based on Australian level data.

	<ul style="list-style-type: none"> • 2017 survey of online shoppers revealed in the packaged goods space the top products are rice & pasta, dairy products, baby food, snacks, and sauces & condiments⁵⁵. Korea enjoys 14% of the market share of imports for packaged goods. • South Korea represents a strong opportunity for fresh and frozen, or temperature sensitive and shorter life agri-food products compared to other markets. • Health and functional foods – COVID-19 has seen an increase in sales growth of this food category⁵⁶. The USA and New Zealand have enjoyed success in this category and are noted suppliers.
Noted low priority options for the market	<ul style="list-style-type: none"> • Fresh Seafood - According to a 2019 survey, around 58.8% of respondents stated that they were hesitant to purchase seafood items online⁵⁷. Frozen seafood is a key category. • Eggs – Significant ‘same day’ focus where promotions drive freshness of product⁵⁸.

Cross-border categories

Notable cross-border sales, via global e-commerce platforms such as Amazon (US), Taobao (China) or Rakuten (Japan), have been observed in the packaged goods or health and wellness space. Supplements and functional foods were common categories purchased directly from global providers⁵⁹. Australia–Korea Cross Border trade numbers are miniscule in scale to what occurs in EU–Korea and US–Korea, this is a significant opportunity for Australia and exporters with products that will struggle to get full market access or have lengthy registration processes. This pathway is seen as critical to building brand awareness and especially amidst COVID-19 impacts it is considered to be the market entry method of choice.

5.4.4 What are the key barriers and challenges unique to this market?

There are a number of challenges that are unique to this market, such as Korea’s complex single market that ensures specialist knowledge and skill is critical. Likewise, there is a heavy reliance on third-party merchants selling through online marketplace platforms.

Necessity of a partner in market to support / lead online presence	The complexities of the Korean culture and language, including correctly positioning products, means businesses seeking to enter the market directly, or, via indirect e-commerce opportunities should partner with a Korean company to navigate the Korean context. Global retailers have notably not had success in the market previously when launching full or partially owned channels ⁶⁰ . Products popular in other global markets are not guaranteed to be accepted in Korea.
Reliance on intermediaries for sourcing international products / produce	The supply chain for imported food products heavily utilises intermediary wholesales/distributors and agents increase complexity and costs. Targeting platforms or e-retailers who prioritise shorter supply chains and direct relationships with their international suppliers will be a key consideration.
Food regulations are subject to frequent change	While Australia enjoys reduced trade barriers through the Korean-Australian FTA, imports are subject to strict food safety regulations which change quickly and frequently.
Brand recognition and premium positioning is important for imported food goods	<ul style="list-style-type: none"> • The US export trade guidance⁶⁰ notes that in general, high-end consumer goods are more marketable than low- to mid-range consumer goods so high-quality goods meeting Korean tastes will find greater success in Korea.

⁵⁵ Export Canada, 2017

⁵⁶ [Korean Food and Agricultural Market Conditions Report](#), USDA, March 2020.

⁵⁷ [Least popular grocery products for online shopping in South Korea as of January 2019](#), Statista, 2019

⁵⁸ https://www.koreatimes.co.kr/www/tech/2020/08/694_292159.html

⁵⁹ [South Korea: A Frontrunner in e-commerce](#), Business Finland, June 2020

⁶⁰ [Korea: Retail Industry Summary](#), Export.Gov, 2016

	<ul style="list-style-type: none"> US products have a competitive advantage through joint recognition programs for certified organic, through which products can be sent with a USFDA organic mark without any resubmission or conversion to Korean equivalent. Korean consumers like to be well informed of product information and significant effort should be invested in ensuring this is available to build trust and familiarity with imported products.
Bias towards local products	<ul style="list-style-type: none"> Many Koreans prefer local produce driven by the belief they are safer than imported products.
Competition on the basis of freshness of product	<ul style="list-style-type: none"> Offline stores and Online retailers are heavily focussed on freshness of product as a point of differentiation. Queensland products will compete against same day produced, same day delivered local products. Expiry dates are being replaced by Produced on dates on packing⁵⁸. Korea is the most advanced food delivery market in the world, with development of large players, and its rapid market growth⁶¹.
Elevated competition from export-orientated nations	<ul style="list-style-type: none"> Korea's noted maturity in food e-commerce has resulted in its targeting by a large number of Australia's competitors⁶². The market will result in higher competition with other countries and Queensland products will need to create a strong market presence.

5.4.5 Assessment of e-commerce strategies, models and channels for e-commerce participation in the South Korea market

Partnerships leveraging a B2B and B2B2C model via platform or thirds-party channels are key for e-commerce agri-food participation in South Korea

In South Korea, retailers and direct partnerships are critical. Cross border B2B relationships and participation in e-commerce via B2B2C are the key. TIQ market insights revealed that the barrier of single language, and associated marketing nuances, means a relationship with an in-country partner is critical. As such, it is necessary for e-commerce exporters to partner with in-market buyers or agents who can clearly communicate the safe, and quality nature of Queensland products in a manner that suits the local market.

Korea's top online retailers include G Market, 11th Street, Tmon and Coupang. These retailers benefit from high mobile usage for e-commerce sales, established distribution networks and e-commerce infrastructure, and growing consumer demand for convenient and quality foods. Retailers have found ambient food and drinks such as Home Meal Replacements to be a major driving force for the growth of online grocery shopping, alongside growing fresh food product sales. To respond to this trend, many retailers have launched their own fresh food brands such as 'G Table' by G Market and 'Tmon Fresh' by Tmon. The leaders in the food space are Coupang – Rocket Fresh, SSG.com and Market Kurly. Naver is also entering the space.

The established and mature e-grocery and home delivery models mean that the key opportunity is to partner with Mass Grocery Retailers and distributors to feed into existing channels for high quality, safe produce.

B2C requires significant market presence, a strong brand and specialist market knowledge. However, the mature delivery networks and services means there is opportunity for this channel

B2C as an e-commerce channel suits premium brands in the speciality food and liquor segment – effectively artisan shelf or long-life ambient products. This is due to the price-sensitivity of Korean consumers, a preference for local commodity products and the high-level of service expected of brands (such as fast deliveries, and competitive shipping costs).

Maintaining in-country stocks means an in-country fulfilment partner is likely to be required.

⁶¹ [Korea's ecommerce market is still dominated by local players](#), April 2020

⁶² <https://www.cnn.com/2020/06/16/coupang-crushed-amazon-to-become-south-koreas-biggest-online-retailer.html>

5.4.6 Who are the key partners to develop relationships?

Given the identified importance and priority that should be given to B2B and B2B2C channels, which suit the majority of products Queensland produces, the following key partners will be important.

Table 19 Key in-country grocery retailers

Entity	Key opportunities	Key statistics
11th Street⁶³ Online mall	<ul style="list-style-type: none"> Amazon has recently taken a 30% equity stake in the retailer Retailer now carries amazon products Ability to leverage amazon expertise to grow 	<ul style="list-style-type: none"> Fourth largest ecommerce platform in South Korea by transactions, servicing AUD \$11.3 billion in 2019. Engaged with 8.65 million users in 2019
Coupang Marketplace and social shopping channel	<ul style="list-style-type: none"> National exposure and distribution⁶⁶ Heavy investment into fresh produce and extensive fresh food delivery networks. 2021 \$4B IPO and new market capitalisation at around \$50B 	<ul style="list-style-type: none"> 22% of online grocery market with 50% of Korean population a customer 70% of Koreans live within 10 minutes of a Coupang logistics centre⁶⁴
LotteOn Korean department store and distributor	<ul style="list-style-type: none"> LotteSuper offers opportunity for fresh fruit and vegetable products for purchase online, famous for snacks 	<ul style="list-style-type: none"> Generated around \$88.6M in revenue (2019)
Wemakeprice Online to offline specialist drawing customers to bricks and mortars stores	<ul style="list-style-type: none"> Dedicated fresh food and staples departments 	<ul style="list-style-type: none"> 10% of online grocery market
Gmarket – G-table Marketplace, similar to eBay.	<ul style="list-style-type: none"> Dedicated wholesalers often will sell via this platform. An example of Chorocmaeul, a leading organic wholesaler. Gmarket does not handle goods. 	<ul style="list-style-type: none"> 8% of online grocery market
Market Kurly Specialist goods reseller considered Korea's version of Amazon Fresh	<ul style="list-style-type: none"> Heavily curated and managed service for products and sellers. Suitable for artisan and craft goods⁶⁵. Noted for its importation of overseas products and development of in house-brands known as "Kurly-only" products⁶⁵. Convenience and ready-made solutions are important product qualities⁶⁵. Potentially suitable for smaller niche volumes of product where scale is an issue to meet demand⁶⁶ 	<ul style="list-style-type: none"> Niche player primarily focussed on Seoul. Seen as a market leader in the fresh space⁶⁶. Potentially limited market size relative to other channels. Strong cold chain focus⁶⁷. Kurly controls a vertically integrated cold chain network and dedicated warehouses focussed on the customer experience. Grove Juice, a Brisbane based company has already experienced success through the retailer⁶⁸.

⁶³ <https://pulsenews.co.kr/view.php?year=2020&no=1180130>

⁶⁴ <https://www.cnn.com/2020/06/16/coupang-crushed-amazon-to-become-south-koreas-biggest-online-retailer.html>

⁶⁵ <https://asiatimes.com/2020/11/koreas-market-kurly-gallops-towards-unicorn-status/>

⁶⁶ <https://koreajoongangdaily.joins.com/2020/08/24/business/industry/Naver-ecommerce-grocery/20200824200400260.html>

⁶⁷ <https://insideretail.asia/2020/04/09/south-korean-online-grocery-delivery-startup-kurly-wins-us150m-funding/>

⁶⁸ <https://www.tiq.qld.gov.au/grove-juice-joins-koreas-market-kurly/>

5.5 United States of America (Growth)

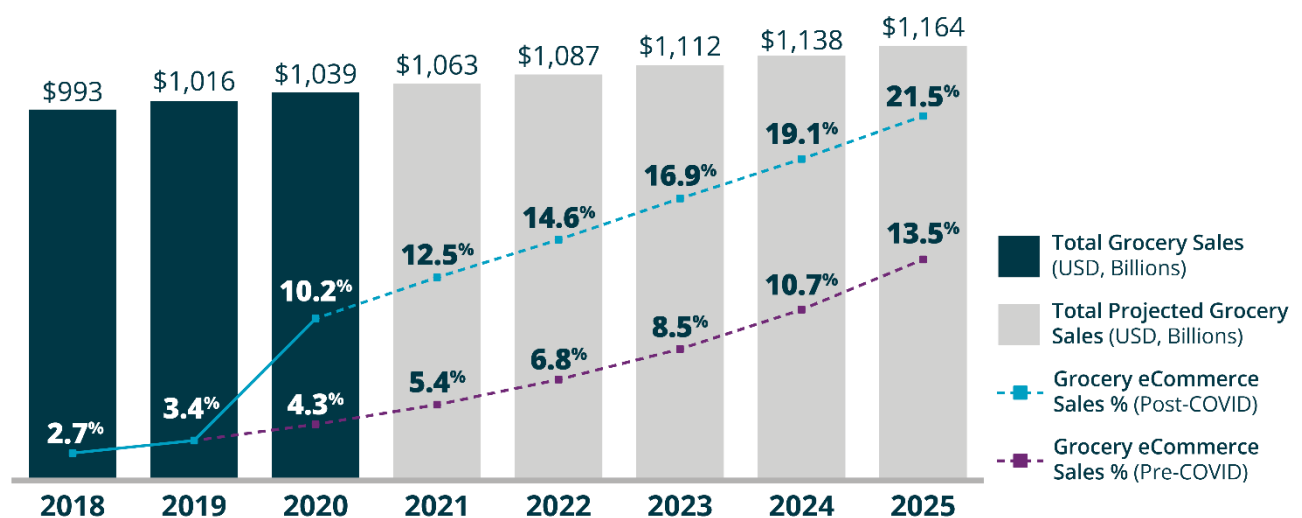
5.5.1 What is the importance of this market and e-commerce capability?

The USA accounts for 13.5% of Queensland agri-food exports. It is an established trading partner and is worth US\$1.0 billion to Queensland in 2019-20. USA's e-commerce market is the second biggest in the world, valued at US\$744.1 billion, with high individual wealth and a large addressable consumer base.

The USA is a favourable growth market for Queensland agri-food products as consumers have the propensity to spend on high quality products, are interested in the product origins stories and are demanding more natural, healthy foods. Additionally, as the second largest e-commerce market is considered to be underserved by Australia in the e-commerce agri-food space.

Figure 3: USA e-grocery market growth - reproduced from Mercatus⁶⁹

This graph demonstrates that Total Grocery Sales in the US have been steadily increasing, projected to reach \$1,164 billion (USD) by 2025. Post COVID eCommerce Sales are increasing at a higher rate than Pre-Covid eCommerce Sales, forecasted to reach 21.5% by 2025.



The rapid adoption of e-grocery is another key reason this is a future growth market for agri-food e-commerce. The USA is a significant e-grocery market focussed on packaged goods.

Why is e-commerce capability critical in this market?

E-commerce capability is important, both directly and indirectly, as e-grocery is a growth channel for the entire food and beverage consumer spend segment. Key factors include:

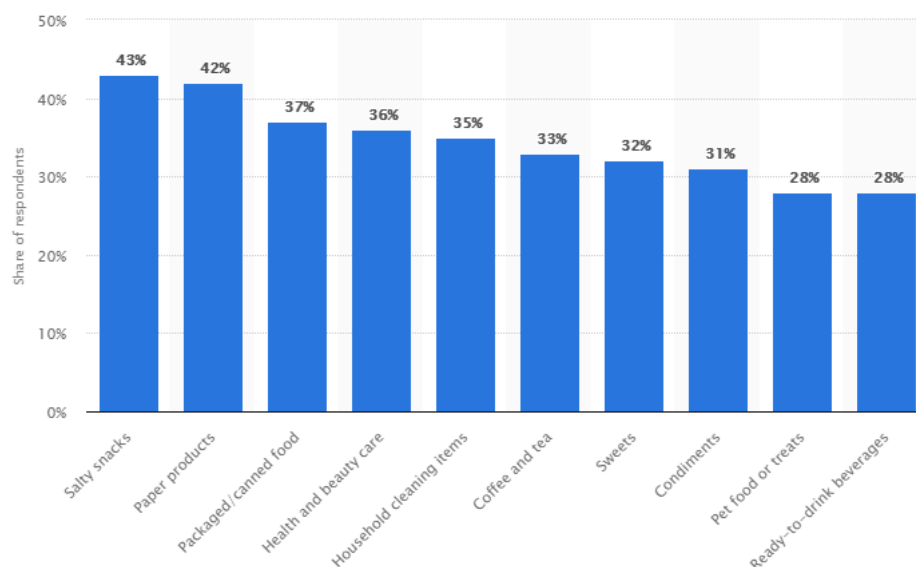
High wealth and large consumer base

- Large consumer base which has the propensity to spend on high quality products
- Interested in product origin stories and demand healthier, more natural foods

⁶⁹ <https://www.mercatus.com/newsroom/announcements/online-grocery-sales-projected-to-reach-250b-by-2025-according-to-new-research-from-mercatus-and-incisiv/>

Figure 4: Most popular grocery products US. consumers purchased online in the United States in 2019, by product category

This graph illustrates that the most popular grocery products in the US are Salty Snacks with 43% share of online purchases. Other food and beverage items shown are Packaged/canned Products with 37% share, Coffee and Tea with 33%, Sweets with 32%, Condiments with 31% and Ready-to-drink beverages with 28%.



Food and beverage e-commerce is forecast to be the key e-commerce drivers	<ul style="list-style-type: none"> Challenges, including tight margins and difficult delivery procedures, have historically impacted the sector. Major grocery and e-commerce players, including Koger, Walmart and Amazon, have made significant investments and acquisitions in order to boost their e-grocery services reducing the challenge last mile fulfilment has previously represented. COVID-19 has intensified growth which is expected to continue after the initial COVID-19 boom. Online grocery is predicted to account for 21.5% of total grocery sales by 2025 – worth an estimated \$250 billion- which is a more than 60% increase over pre-pandemic estimates⁷⁰. Food and beverage online sales have historically not been strong pillars of e-commerce. However, the expectation is that post COVID these sectors hold the greatest growth potential⁷¹.
E-commerce is still a relatively small shopping channel	<ul style="list-style-type: none"> Online shopping only accounts for 8.9% of total retail sales in the US leaving sufficient room for the market to grow. 78% of US citizens already shop online highlighting e-commerce capability.
Low levels of cross-border competition in the e-commerce market	<ul style="list-style-type: none"> Cross-border sales represent only 12% of the US e-commerce market highlighting opportunities for other countries to gain market share. Further, with online shopping only accounting for 8.9% of total retail sales in the US, there is sufficient room for the market to grow¹⁹. In particular, cross-border sales represents an area for countries to gain a foothold in the US e-commerce market, with only one third of online users having shopped abroad, and cross-border sales representing only 12% of the US e-commerce market¹⁹. These opportunities, combined with the size of the US market, present an opportunity for exporters to leverage logistics to deliver suitable products, whilst promoting differentiating Australian brand attributes.
Investment in vertical integration by major e-commerce players	<ul style="list-style-type: none"> E-commerce giants are investing in their own delivery and logistics operations to facilitate and improve rapid delivery across the states, such as Amazon's dedicated air delivery network, Prime Air

⁷⁰ [The Evolution of the Grocery Customer](#), Mercatus, September 2020

⁷¹ [E-Country Report: Electronic Commerce in the United States 2020](#), Accessed on 27 Jan 2021

Highly competitive market	<ul style="list-style-type: none"> Significant size of US market presents opportunities; however, the market is highly competitive and dominated by major domestic brands – Amazon captures ~50% of US e-commerce sales.
---------------------------	---

5.5.2 What are the competitor nations and their performance relative to Australia?

The EU, Canada and Mexico are significant exporters to the USA, exporting vegetables, fruits and other products:

The European Union	Total exports to USA	<ul style="list-style-type: none"> US\$36.8 billion in 2019
	Leading domestic export categories	<ul style="list-style-type: none"> Data not available
	Considerations	<ul style="list-style-type: none"> Strict national and regional regulations may add complexity and costs to import/export arrangements
Canada	Total exports to USA	<ul style="list-style-type: none"> US\$23.6 billion in 2019
	Leading domestic export categories	<ul style="list-style-type: none"> Fresh vegetables worth US\$1.6 billion and fresh/frozen fruits worth US\$399.8 million from Canada, a rise of 7 percent and 2 percent from 2018, respectively
	Considerations	<ul style="list-style-type: none"> Temporary suspension of certain labelling requirements for Canadian made foodservice products due to COVID-19
Mexico	Total exports to USA	<ul style="list-style-type: none"> US\$26 billion in 2018
	Leading domestic export categories	<ul style="list-style-type: none"> Fresh vegetables worth US\$6.3 billion and fresh/frozen fruits worth US\$7.3 billion, a rise of 8 percent and 18 percent from 2018, respectively
	Considerations	<ul style="list-style-type: none"> US imports from Mexico have been some of the hardest hit due to COVID-19, decreasing by over 20%

Table 20: Top exports from Queensland to USA 2019-20

Commodity	Value (AU\$)
Meat and meat preparations	1,116,469,510
Vegetables and fruit	41,115,116
Crude animal and vegetable materials, nes	23,917,139
Beverages	19,680,077
Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof	17,320,323
Sugars, sugar preparations and honey	15,770,808
Animal oils and fats	8,918,095
Dairy products and birds' eggs	5,491,457
Cereals and cereal preparations	3,351,497
Coffee, tea, cocoa, spices, and manufactures thereof	2,857,684

5.5.3 Priority products for the USA

A demand-led, logical method to identify Queensland's priority products was undertaken to find the high priority products or product categories where e-commerce capability is required to remain competitive in the market. Key products include:

Product categories based on forecast demand and opportunities through to 2024

There are 15 consumer-orientated product categories that show export growth potential by 2024 in excess of \$10 million for the industry. The top 5 opportunities where the export potential versus actual exports gaps greater than \$10 million, based on market demand projections for Australian exports are:

Table 21: Agriculture products in which demand exceeds supply in the USA

<i>Product categories ⁷²</i>	<i>Forecast untapped export potential by 2024 (\$USD)</i>	<i>Top 5 potential competitors with export potential >US\$200 million by 2024⁷³</i>
Meat (except poultry) Currently ranked 2nd in terms of actual exports	\$174,100,000	Canada, Mexico, Brazil, India, Argentina, New Zealand
Beverages (alcoholic) Currently ranked 11 th in terms of actual exports	\$452,400,000	Mexico, France, United Kingdom, Chile, Ireland, Germany
Food products (processes or preserved) Currently ranked 25th in terms of actual exports	\$289,700,000	Canada, Mexico, China, Germany, Italy
Fruits Currently ranked 24th in terms of actual exports	\$139,400,000	Mexico, Costa Rica, Peru, Ecuador, China
Nuts Currently ranked 9th in terms of actual exports	\$82,400,000	Vietnam, Mexico, India, Indonesia, China

The remaining categories are listed in Appendix 3.2.

Priority products & opportunities based on desktop analysis of the market and consumer preferences

- The EU, Canada and Mexico remain the US's largest suppliers of agricultural products mostly through consumer-oriented goods such as horticultural products, red meats, and snack foods⁷⁴.
- Product categories for coffee, cocoa, fresh fruits, fruit juices, wine, fresh and processes vegetables all represent categories with over 25% of consumption in these categories being of imported product⁷⁵.

5.5.4 What are the key barriers and challenges unique to this market?

The e-commerce market is highly competitive and dominated by a small number of large players. These retailers have large supply and distribution networks which make it very difficult for new entrants to enter the market. For example, Amazon is building their own dedicated air delivery network, Prime Air, that aims to run a fleet of 100 aircraft and deliver anywhere in the country within two days.

⁷² Dairy products were ranked 5th per the Australian opportunity but considered not be represent a high-value market for Queensland given the size of the industry in the State.

⁷³ The countries listed represent those with the largest absolute differences between actual exports and potential export opportunity

⁷⁴ <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=58394>

⁷⁵ <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=58398>

The key barriers that Queensland businesses should be aware of when exploring USA agri-food e-export are:

Wholesaler relationship are key

What stands out is the increase in direct sales from wholesalers compared to sales through branches and offices, due to the existence of increasingly direct supply chains thanks to existing marketplace.

This results in significant B2B e-commerce activity – such that 30% of whole trade was, in 2018, online.

5.5.5 Assessment of e-commerce strategies, models and channels for e-commerce participation in the US market

In the USA, major e-commerce brands such as Amazon, Koger and Walmart dominate the e-commerce market through their online marketplaces. Amazon alone takes just under 50% of all the US e-commerce sales, while Koger remains the second largest. Likewise, in recent years Walmart has also grown to become a significant seller, with e-commerce sales jumping 43% year-on-year in the last three months of 2018. To improve market positions, many retailers have also begun investing in their own delivery and logistics operations to facilitate and improve rapid delivery across the states. This vertical integration gives them control over their entire supply chain, securing their dominant positions.

These retailers have found strong demand among customers who value convenient, healthy, high quality ambient foods. Despite this, many retailers have also struggled due to complicated delivery logistics and competitive pricing. In particular, the dominance of a small number of large players in the market makes it difficult for new entrants to succeed in the e-commerce market. As such, e-commerce exporters should look to partner with large, trusted platforms, who benefit from innovation and having economies of scale, especially for last mile logistics in a large geographic market.

5.5.6 Who are the key partners to develop relationships?

Table 22 Key in-country grocery retailers

Entity	Key opportunities	Key statistics
Amazon Online marketplace	<ul style="list-style-type: none"> A strategic partnership offers exceptional access to the US market Own wholefoods, a highly reputable produce distributor 	<ul style="list-style-type: none"> Largest online store in the food and personal care segment in the United States in 2018⁷⁶
Walmart Traditional retailer with online e-commerce presence	<ul style="list-style-type: none"> National footprint Strong name recognition and a trusted supplier of high-quality produce Groceries delivered by ‘<i>instacart</i>’ 	<ul style="list-style-type: none"> Second largest online store in the food and personal care segment in the United States in 2018⁷⁶
7 Eleven⁷⁷ Traditional retailer with online e-commerce presence	<ul style="list-style-type: none"> National footprint and expansive network 	
ALDI⁷⁷ Traditional supermarket with online e-commerce presence	<ul style="list-style-type: none"> Reputable produce supplier Groceries delivered in as little as one hour by ‘<i>instacart</i>’ 	<ul style="list-style-type: none"> Third largest grocery retailer (bricks and mortar) in 2019 with US\$30 billion in sales

⁷⁶ <https://www.statista.com/forecasts/646154/top-online-food-personal-care-stores-united-states-revenues>

⁷⁷ <https://www.fnfresearch.com/e-grocery-market-by-end-users-individuals-organization-1313>

Fresh Direct⁷⁷ Online grocery delivery service	<ul style="list-style-type: none"> • Extensive range of fresh produce delivered with minimum US\$5.99 delivery fee. • Same day delivery available 	<ul style="list-style-type: none"> • Market leader in online grocery delivery with 35% market share⁷⁸
Target⁷⁶ Traditional retailer with e-grocery presence	<ul style="list-style-type: none"> • Large US retailer with extensive national footprint 	<ul style="list-style-type: none"> • Hold a 2.7% market share (7th largest) equivalent to \$35M⁷⁹
Kroger⁷⁶ Traditional supermarket with e-grocery presence	<ul style="list-style-type: none"> • In recent years the company has significantly invested into digital and is expected to continue growing off the back of increasing sales due to COVID-19 	<ul style="list-style-type: none"> • Largest grocery chain (consisting of online and offline channels) in the US⁸⁰

5.6 Indonesia (Growth)

5.6.1 What is the importance of this market and e-commerce capability?

Indonesia is Queensland's sixth-largest export market and is worth US\$274 million to Queensland in 2019-20. Indonesia's e-commerce market is currently small, worth only US\$13.6 billion and holds less than a 1% share of the retail market.⁸¹ Despite this, the addressable market is large with 271 million total addressable consumers.

Indonesia has been recognised as a key growth market for Queensland exporters of agri-food, as the market is growing at a tremendous rate driven by increasing internet penetration and ongoing steady GDP growth. Currently, the country is an important e-commerce market, however, adoption rate in fresh food sector is still improving, which will have a significant potential for Queensland. Internet penetration is only 32.3%, but despite this as many as 90% of internet users have engaged in e-commerce transactions.^{81 82} E-commerce has seen significant growth between 2013-

⁷⁸ <https://www.rakutenintelligence.com/blog/2016/instacart-is-the-fastest-growing-online-grocery-delivery-service#:~:text=With%2035%20percent%20of%20the,Instacart%20by%20just%20three%20percent.>

⁷⁹ <https://www.businessinsider.com.au/walmart-kroger-dominate-us-grocery-amazon-gains-share-2020-1?r=US&IR=T>

⁸⁰ <https://www.supermarketnews.com/online-retail/kroger-breaks-top-10-us-e-commerce-companies>

⁸¹ <https://www.jpmorgan.com/merchant-services/insights/reports/indonesia>

⁸² <https://www.trade.gov/knowledge-product/indonesia-ecommerce>

2018, with total e-commerce growth of 196.7% in that period.⁸³ The food, health and beauty segment represents 6.8% of the total e-commerce market. This market is expected to grow at 34.6% (CAGR to 2021).⁸¹

Why is e-commerce capability critical in this market?

E-commerce capability is important, both directly and indirectly, as e-grocery is a growth channel for the entire food and beverage consumer spend segment. Key factors include:

Food security is low in Indonesia	<ul style="list-style-type: none"> Food security is high on Indonesian Government's agenda and local production cannot meet demand Imports of food will continue to grow opening doors for Queensland exporters
Large addressable base with growing wealth	<ul style="list-style-type: none"> Wealthy middle-class consumers are demanding high quality foods, as well as ready-to-eat food products. Consumers are also demanding more healthier foods, in particular due to the onset of the COVID-19 pandemic.⁸⁴ The health and wellness food sector is expected to increase by a growth rate of 6.3% to 2023⁸⁵ Over 270 million addressable consumers, with a young population with an average age of 29.7 years
Close proximity and improved trade relationship with Australia	<ul style="list-style-type: none"> Market access is expected to continue to improve with the signing of the Comprehensive Economic Partnership Agreement with Australia, reducing tariffs and easing trade Emerging Indonesian middle-class consumers have a growing interest in imported foods, particularly processed foods, as individual purchasing power increases and lifestyles evolve.⁸⁵ Queensland's close proximity to the market creates opportunities in this area.
E-commerce market has very high growth projections	<ul style="list-style-type: none"> Strong growth potential with many untapped customers and strong e-commerce adoption among existing internet users Mobile commerce is expected to grow at 45.2% (CAGR to 2021)⁸¹
E-commerce sales are dominated by local businesses	<ul style="list-style-type: none"> Cross-border sales account for only 20% of the e-commerce market with just 7% of consumers having purchased from abroad⁸¹
Diverse challenges compared to more mature markets	<ul style="list-style-type: none"> Lack of modern infrastructure, unreliable supply chains and large distances between towns and the many islands throughout the country

5.6.2 What are the competitor nations and their performance relative to Australia?

Indonesia is a targeted market for agri-food exports due to its large addressable consumer base and growing wealthy middle class.

China is the largest exporter of consumer-orientated products to China, followed by Australia, the US and the New Zealand. Figure 5 and table 23 below summarises the key competitors for consumer-orientated exports to Indonesia.

Figure 5 Consumer-orientated imports for Indonesia (US\$)

<ul style="list-style-type: none"> 1715, 27% China 723, 11% Australia 641, 10% United States 490, 8% New Zealand 478, 7% India 357, 6% Malaysia 373, 6% Thailand 1634, 25% Others 	<p>ce-asean-guide.pdf.aspx</p> <p>ortByFileName?fileName=Retail%20Foods_Jakarta_Indonesia_06-30-2020</p> <p>ce/reports/market-overview-indonesia/?id=1591616225283</p> <p>KPMG 65</p>
---	---

Table 23: Top exports from Queensland to Indonesia 2019-20

Commodity	Value (AU\$)
Meat and meat preparations	209,956,275
Live animals other than fish, crustaceans, molluscs and aquatic invertebrates	120,034,552
Vegetables and fruit	13,566,436
Feeding stuff for animals (excl. unmilled cereals)	1,049,697
Hides, skins and furskins, raw	1,024,973
Sugars, sugar preparations and honey	166,457
Beverages	133,298
Cereals and cereal preparations	123,825
Crude animal and vegetable materials, nes	93,263

Table 24 Top Indonesian imports of consumer-oriented products and competition⁸⁶

Product Group	Indonesia World Imports (US\$ million)			Indonesia Imports from U.S. (US\$ million)			Main Exporter
	2019	2015-2019		2019	2015-2019		
		Absolute	Annual Growth		Absolute	Annual Growth	
Total Consumer Oriented Products	6,411	2,472	13.0%	641	166	6.7%	China (26%), Australia (11%), The U.S. (10%), New Zealand (7%), India (7%)
Fresh Fruit	1,368	757	22.6%	100	8	-1.6%	China (59%), Thailand (10%), Australia (9%), The U.S (7%), Pakistan (3%)

⁸⁶ Reproduced from [Retail Foods – Indonesia](#), USDA, June 2020 based on Indonesian government import data

Diary Products	1,323	275	7.1%	223	55	7.7%	New Zealand (28%), The U.S. (16%), Australia (8%), France (7%)
Food Preps. & Misc. Bev	868	187	7.3%	122	2	2.2%	Malaysia (16%), The U.S. (14%), Singapore (13%), China (10%), Thailand (9%)
Beef & Beef Products	851	600	30.8%	86	75	57.4%	Australia (45%), India (36%), The U.S. (10%), New Zealand (4%), Brazil (1%)
Fresh Vegetables	626	166	6.7%	0	-3	-50.1%	China (89%), India (3%), New Zealand (3%), Netherlands (1%), Germany (1%)
Chocolate & Cocoa Products	191	67	9.8%	2	1	24.4%	Malaysia (30%), Singapore (22%), India (17%), Australia (4%), China (4%)

5.6.3 Priority products for Indonesia

A demand-led, logical method to identify Queensland's priority products was undertaken to find the high priority products or product categories where e-commerce capability is required to remain competitive in the market. Key products include:

Product categories based on forecast demand and opportunities through to 2024

Analysis of consumer-orientated product categories, utilising the ITC Export Potential Map identified the following key opportunities in the Indonesian market for export e-commerce.

The top opportunities where the export potential versus actual exports gaps greater than \$10 million, based on market demand projections for Australian exports are:

Table 25: Agriculture products in which demand exceeds supply (Indonesia)

<i>Product categories</i>	<i>Forecast untapped export potential (\$USD)</i>
Bovine cuts boneless, Frozen	\$461,300,000
Wheat (excl durum) & meslin	\$284,700,000
Cotton, not carded/combed	\$158,800,000
Live bovine animals	\$128,700,000
Grapes, Fresh	\$80,200,000
Bovine offal nes, frozen	\$44,000,000
Flours of meat or offal	\$34,200,000

Priority products & opportunities based on desktop analysis of the market and consumer preferences

- Dairy products, baked goods, baby food, confectionery, processed meat and seafood, savoury snacks, sauces, dressing and condiments, sweet biscuits, snack bars and fruit snacks are top growth products as noted by the USDA as key opportunities.⁸⁴
- The USDA also noted that retail dairy products are gaining in popularity as part of a growing awareness of the benefits of healthy lifestyle. Likewise, the demand of beef, dairy, tree nuts and high-quality fruits and vegetables are increasing, while local production remains low.⁸⁴

5.6.4 What are the key barriers and challenges unique to this market?

There are a number of challenges in this market, including the country's lack of modern infrastructure. This, combined with the size of scale of Indonesia's market, make it difficult for any new entrants to build strong networks within the country.

Lack of modern infrastructure	<ul style="list-style-type: none">• Inadequate infrastructure, including ports and cold storage facilities outside of the main island of Java
Size of Indonesia	<ul style="list-style-type: none">• Large mountainous regions, thousands of islands and large distances of water separate the many towns situated throughout the country• Significant logistical problems for retailers. This is compounded by an ineffective national postal service that is battling a lack of modern infrastructure
Agricultural self-sufficiency	<ul style="list-style-type: none">• Agricultural self-sufficiency is a stated goal of the Indonesian government and is often used to justify trade barriers and restrictions

5.6.5 Assessment of e-commerce strategies, models and channels for e-commerce participation in the Indonesian market

Partnerships leveraging a B2B and B2B2C model via platform or thirds-party channels are key for e-commerce agri-food participation in Indonesia

In Indonesia, the major e-grocery retailers are Shopee, Lazada, Tokopedia, Gojek and Bukalapak. Shopee, Lazada and Tokopedia represent the largest e-commerce players in the market, where food and groceries account for 15% of all items purchased.⁸⁸ These platforms have all been able to leverage Indonesia's young, mobile savvy population. Shopping on mobile devices is already Indonesia's primary e-commerce model accounting for 52% of all completed transactions.⁸¹ Of the US\$7.1 billion completed on mobile devices, apps are the primary sales channel taking a 74.8% share of the mobile commerce market, compared to 25.2% completed on a browser.⁸¹

Likewise, social media represents a highly effective way to reach consumers. As a result of micro-enterprises selling via social media, social commerce is now estimated to account for 40% of all e-commerce sales in Indonesia, with YouTube, Facebook and WhatsApp becoming the most popular social media channels.⁸¹ Due to the strength of mobile shopping channels, e-commerce exporters should look to partner with platforms that have a strong digital and brand presence in Indonesia.

B2C requires in-market presence built around a strong relationship with the importer and understanding of Indonesia's warehousing and distribution channels. The Indonesian E-commerce market is the largest in the ASEAN region and one of the fastest growing in the world. While the fresh category is relatively small, it is growing and there may be potential opportunities for Australian exporters in the future.

Due to Indonesia's relatively low e-grocery adoption rate, there remains significant barriers for Queensland agri-food exporters wishing to promote their products through B2C channels. As such, any entrants wishing to export through B2C channels must ensure a strong brand and specialist market knowledge.

5.6.6 Who are the key partners to develop relationships?

Table 26 Key in-country grocery retailers

Entity	Key opportunities	Key statistics
--------	-------------------	----------------

Shopee Online marketplace	<ul style="list-style-type: none"> • Benefited from chained restaurants expanding its offerings on the platform due to COVID-19⁸⁷ • Strong brand popularity and ability to reach a wide range of consumers 	<ul style="list-style-type: none"> • Most popular and frequently used e-commerce platform⁸⁸ • Highest e-commerce shopping frequency in 2018 as per Snapcart's research⁸⁸
Lazada Online marketplace	<ul style="list-style-type: none"> • Online e-commerce provider who sells a range of products, including groceries. These can be delivered. 	<ul style="list-style-type: none"> • Second highest e-commerce shopping frequency in 2018⁸⁸
Tokopedia	<ul style="list-style-type: none"> • Benefited from chained restaurants expanding its offerings on the platform due to COVID-19⁸⁷ • Strong brand popularity and ability to reach a wide range of consumers 	<ul style="list-style-type: none"> • Third highest e-commerce shopping frequency in 2018⁸⁸
Gojek Sold through Goshop and Grab	<ul style="list-style-type: none"> • Recently partnered with HappyFresh, expanding its reach of the e-grocery industry⁸⁷ 	<ul style="list-style-type: none"> • Has the highest rate of member usage in Indonesia with over 29 million users in Nov 2019⁸⁹

Note, all of the major Indonesian fresh retailers also offer online purchase platforms.

⁸⁷ <https://www.companynewshq.com/company-news/media-entertainment-company-news/indonesian-consumers-presented-with-growing-food-e-commerce-options-market-research-blog/>

⁸⁸ <https://snapcart.global/indonesian-e-commerce-shopping-behavior/>

⁸⁹ <https://www.statista.com/statistics/1168407/sea-number-of-gojek-monthly-active-users/>

5.7 Malaysia (Growth)

5.7.1 What is the importance of this market and e-commerce capability?

Malaysia is an established market for Queensland exporters, spending A\$80 million on all agricultural imports from Australia in 2019-20. Malaysia's total e-commerce market is small and valued at only US\$4 billion.⁹⁰ Despite this, Malaysia is an ideal market to trade with due to its relatively open nature, with minimal requirements such as import protocols or phytosanitary certificates. Malaysia also has a large potential consumer base, with 32 million total addressable consumers.⁹⁰

Malaysia has been identified as a growth market with the potential to increase food and beverage trade due to a strengthening economy, increasing reliance on imported food and a large untapped population. In particular, e-commerce represents a growth opportunity for Queensland exporters, with e-commerce sales expanding significantly since 2015, jumping 47.8% in 2017 alone.⁹⁰ In the total e-commerce market, the food, health and beauty segment represents 8.3% of the total market.⁹⁰ E-commerce growth is expected to continue growing at 24% to 2021 (CAGR to 2021).⁹⁰

Why is e-commerce capability critical in this market?

E-commerce capability is important, both directly and indirectly, as e-grocery is a growth channel for the entire food and beverage consumer spend segment. Key factors include:

Increasing appetite for high quality, healthy, pre-prepared food products	<ul style="list-style-type: none">• Growing middle and upper class with a propensity to spend driving demand for high quality, healthy, pre-prepared food products• Growing demand for 'clean' production creates opportunity for Queensland agri-food exporters
E-commerce grocery segment buoyed by COVID-19	<ul style="list-style-type: none">• Online groceries recorded the highest growth (2.2x) in online retail penetration in 2020 since 2018• Consumer behaviour changes have led to a rapid increase in online grocery shopping. Many major domestic supermarkets are now offering online services as a convenience to their customers⁹¹
Emerging market with constrained agriculture capabilities	<ul style="list-style-type: none">• Malaysia relies heavily on imports due to a small agricultural industry and growing population• Malaysia is one of the top three emerging markets in Asia with excellent infrastructure and transport connectivity and a low burden of customers procedures⁹²
Large untapped population	<ul style="list-style-type: none">• Just under half of the population is yet to shop online with almost 16 million as-yet untapped e-shoppers⁹⁰• Average age of 29.2 years offers a generation of tech-savvy potential customers⁹⁰ 47% of all online purchases are made on mobile devices with future growth expected in mobile shopping⁹⁰
Global e-commerce platforms expanding reach	<ul style="list-style-type: none">• Global platforms such as Alibaba, IKEA and Lazada have recently invested in local distribution hubs. International couriers, like DHL, are also investing in domestic last-mile delivery operations• Expansion of e-commerce delivery networks has driven growth in demand for imported food and beverage products⁹¹
Opportunities exist for cross-border sales	<ul style="list-style-type: none">• 48% of consumers have purchased from international e-commerce sites⁹⁰• China, Singapore and Japan are the top three countries for cross-border sales representing an opportunity for Queensland agri-food exporters to increase market share

⁹⁰ <https://www.jpmorgan.com/merchant-services/insights/reports/malaysia>

⁹¹ https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Retail%20Foods_Kuala%20Lumpur_Malaysia_06-30-2020

⁹² <https://www.agr.gc.ca/eng/international-trade/market-intelligence/reports/foodservice-profile-malaysia/?id=1591617688992#e>

5.7.2 What are the competitor nations?

Malaysia is a targeted market for exporters because of its growth potential and large untapped population.

China is the largest exporter to the country, followed by Thailand, India and New Zealand.⁹¹ Figure 6 and table 27 below summarises the key competitors for consumer-oriented exports to Malaysia.

Table 27: Top exports from Queensland to Malaysia 2019-29

Commodity	Value (AU\$)
Meat and meat preparations	\$26,458,138
Feeding stuff for animals (excl. unmilled cereals)	\$17,245,386
Vegetables and fruit	\$12,248,221
Crude animal and vegetable materials, nes	\$4,447,368
Fish (not marine mammals), crustaceans, molluscs and aquatic invertebrates, and preparations thereof	\$2,254,662
Sugars, sugar preparations and honey	\$1,735,541
Beverages	\$1,457,285
Dairy products and birds' eggs	\$907,684
Cereals and cereal preparations	\$720,936
Coffee, tea, cocoa, spices, and manufactures thereof	\$337,537

Table 28 top Malaysian imports of consumer-oriented products and competition

Product Category (2019)	Major Supply Sources (2019)	Foreign Supplier Situation	Local Supplier Situation
Beef and Beef Products Net Imports: USD \$485 million	India: 73% Australia: 16% New Zealand: 5% Brazil: 4%	Major foreign suppliers have a significant portion of their beef industry halal certifies for export to Malaysia. Beef from India is very cheap and serves the low-end outlets. Australia dominates the higher-end market.	Inadequate supply of local beef.
Pork and Pork Products Net Imports: USD \$61 million	Germany: 46% Spain: 21% China: 8% Netherlands: 6%	Currently E.U. prices are very competitive, and several E.U. plants are approved for export to Malaysia. Demand for U.S. pork products has increased significantly in 2020.	Domestic demand for pork has grown significantly over the past several years and local industry has struggled to keep-up.
Potatoes – Fresh or Chilled Net Imports: USD \$78 million	China: 51% Pakistan: 13% U.S.A. 10% Bangladesh: 9%	Chinese potatoes are very price competitive. High-quality potatoes from other sources are for high-end retail and HRI markets.	Little domestic production.
Vegetables – Frozen Net Imports:	U.S.A.: 25% China: 22% Netherlands: 18%	U.S. frozen potatoes are ion strong demand for the retail and HRI sectors.	There is a large market for chilled and frozen processed vegetables, particularly potatoes.

USD \$29 million	Denmark: 15%		
Fresh Fruits	China: 25%	Highly competitive market	Malaysia does not grow non-tropical fruits.
Net Imports:	South Africa: 23%		
USD \$553 million	U.S.A: 9%		
	Australia: 8%		
Dried Fruits	U.S.A.: 29%	U.S. dried fruits are in strong demand for the retail and bakery industries.	Malaysia does not grow non-tropical fruits.
Net Imports:	Thailand: 17%		
USD \$36 million	China: 13%		
	Indonesia: 13%		
Tree Nuts	Indonesia: 30%	Imported nuts are in strong demand for use in the retail and bakery industries.	Limited local production.
Net Imports:	U.S.A.: 26%		
USD \$176 million	China: 12%		
	India: 9%		

5.7.3 Priority products for Malaysia

A demand-led, logical method to identify Queensland's priority products was undertaken to find the high priority products or product categories where e-commerce capability is required to remain competitive in the market. Key products include:

Product categories based on forecast demand and opportunities through to 2024	Analysis of consumer-orientated product categories, utilising the ITC Export Potential Map identified the following key opportunities in the Malaysia market for export e-commerce.													
	The top opportunities where the export potential versus actual exports gaps greater than \$10 million, based on market demand projections for Australian exports are ⁹³ :													
Priority products & opportunities based on desktop analysis of the market and consumer preferences	Table 29: Agriculture products in which demand exceeds supply (Malaysia)													
	<table> <tr> <th><i>Product categories</i></th><th><i>Forecast untapped export potential (\$USD)</i></th></tr> <tr> <td>Bovine cuts boneless</td><td>\$343,600,000</td></tr> <tr> <td>Sheep cuts bone in, frozen</td><td>\$46,300,000</td></tr> <tr> <td>Grapes, fresh</td><td>\$23,200,000</td></tr> <tr> <td>Cotton, not carded/combed</td><td>\$16,100,000</td></tr> <tr> <td>Wine of fresh grapes</td><td>\$14,800,000</td></tr> <tr> <td>Bovine cuts bone in, frozen</td><td>\$12,400,000</td></tr> </table>	<i>Product categories</i>	<i>Forecast untapped export potential (\$USD)</i>	Bovine cuts boneless	\$343,600,000	Sheep cuts bone in, frozen	\$46,300,000	Grapes, fresh	\$23,200,000	Cotton, not carded/combed	\$16,100,000	Wine of fresh grapes	\$14,800,000	Bovine cuts bone in, frozen
<i>Product categories</i>	<i>Forecast untapped export potential (\$USD)</i>													
Bovine cuts boneless	\$343,600,000													
Sheep cuts bone in, frozen	\$46,300,000													
Grapes, fresh	\$23,200,000													
Cotton, not carded/combed	\$16,100,000													
Wine of fresh grapes	\$14,800,000													
Bovine cuts bone in, frozen	\$12,400,000													
	<ul style="list-style-type: none"> Dairy products, processed fruit, fresh fruit, seafood and wine and beer are recognised as key growth products by the USDA⁹¹ 													

⁹³ <https://exportpotential.intracen.org/en/products/gap-chart?toMarker=j&market=458&fromMarker=i&exporter=36&whatMarker=k>

5.7.4 What are the key barriers and challenges unique to this market?

There are a number of barriers in this market, including customer concerns and income inequality in Malaysia. In particular, ensuring compliance with halal restrictions is a unique challenge in this market.

Halal restrictions	<ul style="list-style-type: none">Many products need to be halal certified in the Malaysian market⁹¹. As one of the Muslim-majority countries in the ASEAN region, Malaysia seeks to lead the global halal industry and to become the international halal centre.⁹²No globally standardised halal certification system. Each Muslim country has its own halal requirements for imported food products. The ASEAN region has inadequate investments and skills to build its halal ecosystem.⁹²
Low smartphone penetration	<ul style="list-style-type: none">Relatively low smartphone penetration among consumers with only 63.9% of the population owning a device⁸³
Consumer concerns	<ul style="list-style-type: none">For consumers who undertake mobile commerce some concerns persist around the level of security and customer satisfaction when shopping via mobile devices
Income inequality	<ul style="list-style-type: none">Income inequality persists in Malaysia. Imported food products are still not affordable for most rural residents and some middle-class families.⁹²

5.7.5 What cross border e-commerce models for agri-food products may be successful in the market (by Queensland and by competitor nations)?

Partnerships leveraging a B2B and B2B2C model via platform or third-party channels are key for e-commerce agri-food participation in Indonesia.

In Malaysia, the major e-grocery B2B and B2B2C platforms are Lazada, Shopee and a number of domestic supermarkets who have expanded into e-commerce. Recently, these platforms have all significantly invested in local distribution hubs in an effort to expand their e-commerce footprints in the country. Likewise, several international brands have also signalled their intention to grow in the market, with companies such as Alibaba announcing plans to create regional distribution hubs in Malaysia. These platforms continue to benefit from strong cross-border sales, which account for four out of every ten e-commerce transactions in Malaysia.⁹⁰

In Malaysia, internet penetration is at 80.1% while smartphone penetration is only at 63.9%.⁹⁰ However, just under half the population has yet to shop online.⁹⁰ Despite this, among those who do engage in e-commerce, mobile commerce has become the fastest growing platform accounting for 47% of all e-commerce transactions.⁹⁰ Of these transactions, apps are the primary mobile commerce sales channel, used for 64% of transactions, or US\$1.2 billion in sales in 2017.⁹⁰ Social media is another key way to reach would-be customers in Malaysia. Facebook is the most trusted platform, while WhatsApp, WeChat, Instagram and Twitter are also all popular. Mobile commerce is expected to continue driving e-commerce growth in Malaysia, growing at 31.4% to 2021 (CAGR to 2021).⁹⁰ As such, for e-commerce exporters it is important to partner with in-market platforms that have mobile brand presence and regional distribution networks.

5.7.6 Who are the key partners to develop relationships?

Table 30 Key in-country grocery retailers

Entity	Key opportunities	Key statistics
Lazada Online marketplace	<ul style="list-style-type: none">COVID-19 has led to a 1.5x increase in the number of active sellers to date. This trend is expected to continue.⁹⁴	<ul style="list-style-type: none">Most used mobile shopping app in Malaysia during 2019⁹⁶

⁹⁴ <https://www.malaymail.com/news/money/2020/08/19/lazada-malaysia-records-three-fold-increase-in-smes-that-have-digitised-bus/1895282>

⁹⁶ <https://datareportal.com/reports/digital-2019-e-commerce-in-malaysia>

Shopee Online marketplace	<ul style="list-style-type: none"> Fresh groceries now account for one of the top three categories on Lazada Malaysia⁹⁵ 	
	<ul style="list-style-type: none"> Benefited from chained restaurants expanding its offerings on the platform due to COVID-19⁸⁷ Strong brand popularity and ability to reach a wide range of consumers 	<ul style="list-style-type: none"> Second most used mobile shopping app in Malaysia during 2019⁹⁶
Tesco Supermarket chain	<ul style="list-style-type: none"> Online retailer with both groceries and household items. Allows for daily delivery 	<ul style="list-style-type: none"> Attracts the greatest number of monthly visits to its website compared to other dedicated grocery players in the country
Jaya Grocer Supermarket chain	<ul style="list-style-type: none"> Online retailer with both groceries and household items. Allows for daily delivery and store pickup 	<ul style="list-style-type: none"> Attracts more than 100,000 visits each month⁹⁶
Mydin Supermarket chain	<ul style="list-style-type: none"> Provides online goods via Shopee Mall. Offers free shipping 	<ul style="list-style-type: none"> Attracts more than 100,000 visits each month⁹⁶
HappyFresh Online marketplace	<ul style="list-style-type: none"> A trainer personal shopper selects food and can deliver within one hour 	<ul style="list-style-type: none"> Number of the country's largest bricks-and-mortar chains choose to partner with HappyFresh to provide home delivery of items from their physical stores⁹⁶

⁹⁵ <https://www.straitstimes.com/business/companies-markets/how-alibabas-lazada-turned-produce-dumped-in-coronavirus-crisis-into-a>

6. Capability and support requirements of Queensland agri-food businesses

Section overview

This section outlines the e-commerce capability requirements and current capability assessment of consulted Queensland agri-food entities. A combination of e-commerce literature insights and advice from KPMG subject matter experts has been drawn on to define the assessed criteria.

The findings and observations of this section are based on a combination of desktop literature review and direct consultations with Queensland agri-food entities, supply and logistics industry participants, and subject matter specialists from KPMG. Where relevant, insights from the market and product analysis sections of the report have been drawn upon.

6.1 Assessment framework

An e-commerce capability framework was used with consulted entities to analyse and define current Queensland agri-food e-commerce capability.

The assessment was completed by:

- Undertaking broad agri-food industry consultations with entities, focussed on exporters however the response rates were very low, hence final consult list (in consultation with DAF) reflects a broader entity offering
- Detailed criteria questions and further information were covered in each consultation along with the standardised capability assessment (found in Appendix 4)
- Maturity scores were given after assessment of consolidated responses was aggregated to six key themes
- Additional DAF e-commerce survey insights were used to inform discussion with entities on barriers, challenges and supply chain complexities
- Queensland e-commerce agri-food maturity outcome was identified noting the limitation of the consulted sample size

6.2 Capability themes

Six overarching themes with eighteen core e-commerce capabilities were defined to assess the current Queensland e-commerce maturity. An iterative approach was taken to build from trusted materials, literature and thought leadership to develop a list of key criteria which were then further refined through KPMG subject matter expertise consultation and aligned to a suitable capability framework with which to assess e-commerce maturity.

The key aspects of this approach

- Broad industry consultations were conducted
- Detailed criteria questions and further information
- Maturity score given
- Additional DAF survey insights
- Queensland e-commerce agri-food maturity outcome

Below outlines the six capability themes the e-commerce framework defined. Each consulted Queensland entity was assessed against the 18 key capabilities under these themes to arrive at the capability assessment, shown in the Appendix. As entities vary in size and operational sophistication, consideration has been made for skills and capabilities that are outsourced, not in-house yet are addressed by an entity, as well as if they exist for non-e-commerce purposes.

E-commerce capability assessment themes

1. Planning & strategy
2. Markets & customers
3. Digital
4. Operations
5. Supply chain
6. Finance and risk

6.3 Assessment

Consulted entities considered themselves mature across many of the capabilities required for e-commerce. The capability maturity overview below is entirely based on information from consultation respondents who self-assessed their own level of maturity:

- Entity average was 81% of the 18 capability elements present [or 14.6 elements]
- While capability is present this does not necessarily translate into appetite for e-commerce operations or growth
- There is a disconnect between e-commerce capability and a willingness to undertake or expand e-commerce or e-export
- To note: for logistics and supply chain rankings several entities have not tested their existing processes with e-commerce impacting assessed maturity

Table 31 Assessment matrix

Capability Theme	Capability – Self Assessed	Consultations											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Appropriate e-commerce platform												
1	E-commerce model												
2	Target market/s												
2	Competitor awareness												
3	Online presence/ website												
3	Payments gateway												

Capability Theme	Capability – Self Assessed	Consultations											
		1	2	3	4	5	6	7	8	9	10	11	12
3	Cybersecurity				■				□				
3	Transaction insights/analytics					■						■	■
4	After sales support/ returns		□									■	■
4	Order capacity and demand forecast												
4	Stock management and warehousing					■						■	
4	Fulfillment process and lead time requirements												
5	Distribution channels and logistics	□											
5	Supply chain requirements											■	
6	Export regulatory, tax, legal and IP	■			■								
6	Brand and reputation					□							■
6	Cost to serve									■			
6	Financial risk management		■										

Legend: □ MATURE CAPABILITY | □ VERY LIMITED CAPABILITY | ■ NO CAPABILITY

6.4 Participation and appetite for adoption

As part of the project methodology, the industry consultations were used to understand the current state of e-commerce and e-export in Queensland agri-food sectors. The consolidated and analysed outcomes of these consultations were then used to determine the current appetite, adoption and preparedness of Queensland industry for e-commerce.

- The current appetite for e-commerce is low to medium only.
- The adoption of e-commerce to date is also low to moderate.
- Maturity of e-commerce capability is varied; however, some key strengths exist broadly across the consulted entity group.

Preparedness

Given the low appetite and adoption for e-commerce the level of preparedness is greatly varied. Specifically, sufficient knowledge, planning and preparation for suitable markets, e-commerce models and platforms. Furthermore, some skills and capabilities are well represented despite the low e-commerce adoption and appetite

Consultees had key preparedness concerns around:

- Mindset for e-commerce, new venture effort
- Varying information from current range of sources
- Support accessibility for entity specific questions
- Brand, marketing and social media
- Market, channel and platform selection and considerations
- Capacity from both internal resource as well as product/production

Key observations based upon Queensland agri-food consultations

Please note the following are not cumulative, rather standalone insights from consultation data⁹⁷:

- 1 respondent undertakes e-commerce strategically
- 2 respondents participate in some e-export for ambient products
- Four respondents could be considered as having micro e-commerce participation (it should be noted that none of the micro-participating entities have appetite to grow, and current levels are between 3-8% of sales)
- Four respondents participate in moderate domestic e-commerce [less than 1/3 of sales]
- Four respondents could conduct e-export if a consumer purchased from certain markets overseas
- Only two respondents have an appetite to expand e-commerce, and there is NO appetite to adopt if not already undertaking

When consulted the Food and Agriculture Network (FAN) on the Sunshine Coast estimates: of its 340 agri-food members 3% currently export via traditional channels, and less than 1% undertake e-export. Many consulted entities expressed a variety of issues that hold them back from e-commerce and e-export participation.

Table 32 Market consultations

Type of Entity	Comments
Queensland Consulted Entity	"In-house e-commerce capability, and sufficient knowledge of specific details such as labelling requirements for certain target markets, if I had someone who could guide me to the right information and support greatly improve outcome and my confidence in our decisions around e-commerce"
Queensland Consulted Entity	"I don't have the scale to undertake marketing and attract customers just for my product however if I had the ability to consolidate resources somehow, I would have sufficient scale to make e-commerce a viable option"
Queensland Consulted Entity	"We do a tiny amount of e-commerce via our own website, and while our products are ambient, pre-packaged and shelf-stable they don't have sufficient value for us to expand this channel profitably"
Queensland Consulted Entity	"We utilised e-commerce to launch our business, being "online first" rather than adapting to e-commerce has meant our business model and strategy have been aligned from day one. What it boils down to, you just need to have the right mindset for e-commerce"
Industry Consultation	"Busy Korean working mums aren't going on Queensland brand sites to purchase food or grocery items, products need to go where the market consumers are – correct selection of which platform products are sold on is key to succeeding in e-commerce, for target markets including Korea"
Queensland Consulted Entity	"We have tried e-commerce about five years ago, we selected the wrong e-commerce model and would not consider actively engaging in e-commerce again"
Queensland Consulted Entity	"Our products are capacity limited – the only reason we would consider e-commerce is if we could increase the margin of our limited product and increase profits. We have no demand issue or requirements for growth to drive us to e-commerce"

Key insight

- The significant impact (actual and perceived) business/entity size and scale had for e-commerce. The majority of resistant and non-adopters cited size and internal resource capacity as key factors in their e-commerce decisions.

⁹⁷ Summary from industry consultation gathered data in 12 entity consults, supplemented with further 14 industry consultations to supplement

- Only one of the twelve consulted agri-food entities are strategically utilising e-commerce channels as its core business model
- Traditional retail and export remain as the key focus channels for Queensland agri-food entities
- Generally, entities were quick to find barriers, challenges and reasons against adoption or expanding e-commerce and e-export.

6.5 Current capability

The areas of e-commerce planning, strategy and digital have the lowest capability maturity:

Table 33 Current capability matrix

Skill/Capability	Maturity	Support
Planning and strategy	<ul style="list-style-type: none"> • E-commerce platform LOW • E-commerce model LOW 	<p>E.g. B2B or B2C Defining whether to use own website or online marketplace</p> <p>Selecting whether to use parcel/courier delivery or utilise an in-market logistics delivery system</p>
Markets and customers	<ul style="list-style-type: none"> • Targeted markets HIGH • Competitor & customer awareness MEDIUM 	E.g. Strategic selection of e-export markets with research into competitors, cost of delivery, and regulations. Continuous research into both competitors and consumers.
Digital	<ul style="list-style-type: none"> • E-commerce web presence LOW • Payments LOW • Cybersecurity HIGH • Insights & analytics MEDIUM 	E.g. payments gateway considerations and ability for consumers to purchase and pay in different currencies.
Operations	<ul style="list-style-type: none"> • Order capacity & demand HIGH • Fulfillment process & lead time HIGH • After sales support, returns MEDIUM 	E.g. inventory flexing to variable demand of e-commerce ordering, time to deliver and support services.
Supply Chain	<ul style="list-style-type: none"> • Distribution channels & logistics HIGH • Product specific requirements HIGH • Stock management & warehousing MEDIUM 	E.g. selection of logistics model/partners appropriate to product and market risks and complexities.
Finance and risk	<ul style="list-style-type: none"> • Cost to deliver/serve HIGH • Financial risk mgmt. HIGH • Regulatory, tax & legal HIGH • Brand and reputation MEDIUM 	E.g. Understanding all costs (tariffs, logistics, additional process costs, packaging) associated with an e-commerce product offering to ensure it is viable.

Scale: **LOW** = 59% or below of entities poses this capability, **MEDIUM** = 60% - 85% poses this capability and **HIGH** = above 85% poses this capability

Observations from the current capability matrix:

- A high maturity score does not denote this capability is currently used for e-commerce. It indicates the number of consulted entities who consider themselves as sufficiently having this capability
- **Participation observation:** Only four out of the twelve consulted entities actively utilise e-commerce and only half of these actively undertake e-export. This was further emphasised by the low response rate to both the DAF dedicated survey and the report- related industry consultations

- **Cultural/ Preparedness observation:** Consulted agri-food entities are very hesitant to undertake a move to e-commerce or significant investment to grow existing e-commerce operations. Possessing internal capability for e-commerce is not seen as sufficient to undertake e-commerce.
- **Drivers:** Individual perception of capability and maturity is high for operational, support and relational elements. E-commerce adoption and appetite indicators of planning and strategy, as well as the digital requirements, rank lowest for capability and maturity.

Legend: Lowest maturity

6.6 Current gaps

The capability assessment gaps should be addressed to aid e-commerce growth however will not be sufficient to solve current appetite to adopt. Appetite and e-commerce attractiveness are the overarching barriers to growth of e-commerce and e-commerce adoption based on industry consultations:

Table 34 Current gaps matrix

Skill/Capability	Requirement	Challenges	Gap
E-commerce model	Selection of appropriate model	Confidence to sufficiently research and understand the implications and commitments required to form an opinion and dedicated e-commerce plan (if suited) is a mindset challenge.	A point of reference or partner to support new e-commerce journeys and act as sounding board and instil confidence
E-commerce platform	Selection of appropriate platform	Complexity and number of potential options each with unique benefits and drawbacks is complex and challenging to select, risk of error and failure due to unsuitable platforms is perceived as high.	In-market research and shortlisted examples with suitable products/scale to reduce uncertainty
Digital presence	Online store or platform	Developing an existing e-commerce online store or platform offering is a current issue, however it should be noted that it is a strategy decision by some entities.	For those wishing to dedicate the appropriate effort/investment to an online store compared to marketing and customer attraction is at times misunderstood
Multi-channel strategy	Customer/relationship cannibalisation	Challenge of taking on expansion beyond traditional retail or B2B customers into a multi-channel approach was deemed as a niche gap by consultees. Current sentiment is an unwillingness to compete with their own customers through e-commerce offering.	Maturity to form multi-channel strategy
Resource capacity	Available time and staff resources	Time investment required to upskill staff in all required capability and knowledge for e-commerce effectively is perceived as a key issue/gap.	Decision support and single source of truth for e-commerce and e-export
Brand and marketing	Development and maintenance	While brand and reputation had medium maturity, the cost to develop and maintain it (outsourced) was seen as largely unattainable. Provider selection suited to market/customers in question was seen as considerable risk.	Financial viability for smaller entities to build and maintain brand
Data and analytics	Capture and consolidation to insights	Considered low priority for wholesale/B2B suited entities with regular customers	Technical capability for reporting and the value of insights is not fully understood - this extends through the value chain in part by commercial customers not having appropriate digital processes in place

Skill/Capability	Requirement	Challenges	Gap
Managing e-export risk	Operating in export market volatility	Current market volatility and exposure to external impacts, pricing and changing regulations creates a high-risk environment limiting participation from an e-commerce perspective.	Appropriate risk management, tolerance and mitigation maturity to operate despite external challenges and risk factors

The complexities of supply chain were represented as a continuing challenge. While respondents indicated selection of suitable partners and 3PL providers (even if not suited to e-commerce) the limitations and pain points domestically and for smaller scale cold chain were consistent.

6.7 Outcomes of consultations

In addition to the capability gaps, resource capacity, entity scale and financial investments are impacting appetite to grow e-commerce

Key outcomes from Queensland agri-food consultations

An issue common among consulted entities was that multi-channel approaches are considered to represent a high risk. Particularly e-commerce when it places an entity in direct competition with an existing retail customer or wholesale partner. The skills and experience to navigate a multi-channel approach that does not jeopardise any existing channels or relationships is seen as limited and requiring expert support and further knowledge specific to each business model.

Current capability and maturity outcomes/trends summary

- Capability of Queensland agri-food is highly variable by entity, while overall four of the six capability themes have good capability and maturity required for e-commerce. This is noting some/many of the respondents may not currently utilise these capabilities or skills for an e-commerce channel but consider themselves to have the proficiency required for e-commerce.
- Digital and e-commerce planning and strategy had low maturity – where less than half of the consulted entities deemed internal/existing capability.
- Highest performing was supply chain which is surprising given the consistent feedback of particularly challenging conditions domestically. Supply Chain maturity as part of this assessment should be considered as the consulted entities have selected trusted partners and providers and are able to cater to product specific supply chain requirements such as cold chain logistics. For entities not currently undertaking e-commerce or e-export (or either to scale) the capability and maturity of supply chain and requirements is subject to change when tested through e-commerce channels.
- For the entities currently actively undertaking e-commerce the majority only required ambient logistics that greatly simplify complexities associated with food supply chain. For the two-undertaking cold chain e-commerce; one is solely south east Queensland focused and owns all of its own distribution right to delivery while the other is a fresh product with a 75+ day shelf life not comparable with fresh products that only have 1-2 week shelf life.
- The underlying sentiment with regards to actively pursuing and growing e-commerce was a limit to resource capacity and insufficient business scale to make the required time and financial investments viable.

Current capability issues and gaps summary

While the required maturity will not be consistent for all agri-food entities the summation of consultation findings resulted in eight overarching issues and gaps for e-commerce capability:

- 1 E-commerce model
- 2 E-commerce platform
- 3 Digital presence
- 4 Multi-channel strategy

- 5 Resource capacity
- 6 Brand and marketing
- 7 Data and analytics
- 8 Managing e-export risk

Not all of the identified gaps can be addressed by government, DAF or industry, some would benefit for collaboration and the sharing of information, experiences and sources within the Queensland agri-food sector. The appetite for collaboration is incredibly high and would aid in the addressing and overcoming of key constraints around resource capacity and scale.

6.8 Key takeaways for e-commerce capability

The key takeaways for e-commerce participation and capability were:

Table 35 Key takeaways

Key insights	
Capability	<ul style="list-style-type: none"> Self-assessed e-commerce capability maturity is not sufficient in driving e-commerce participation and appetite for adoption
Participation	<ul style="list-style-type: none"> Current active e-commerce participation and appetite for future participation is low - medium. This is attributed to multiple factors, beyond capability, supply chain several key drivers were; <ul style="list-style-type: none"> No risk appetite in current environment Limited internal entity capacity to manage Production limitations (several) that do not leave entities with current surplus to sell or additional growth capacity to service additional commerce channel Scale perception exists for some that smaller entities cannot viably compete
DAF e-commerce survey insight	<ul style="list-style-type: none"> 52% of respondents said that their products are currently involved in a form of e-commerce retail⁹⁸ In consultations the knowledge that some products are sold via e-commerce channels [not directly by Queensland entities themselves] is well known and not of concern regarding control A common example of this may be via Woolworths or Coles online e-grocery

6.9 Summary of Government Assistance, Support Tools and Grants

Current Government support programs were noted to have a low alignment to agri-food e-commerce exporting. This is based upon a scan of 15 government assistance; support tools and grants as reflected in in Table 27.

Further, there is a clear link between capability gaps identified, and limited suitable support available to enable grow or engagement. The assessed government support options highlighted traditional export is over-represented meanwhile support for e-commerce is still quite low with even less tailored to agri-food specific requirements. These findings align with the two gap areas found in the capability assessment – e-commerce planning and strategy as well as digital.

Findings from the scan of existing government support programs:

- Traditional export guidance, information and financial support is most notable
- Focus specifically on or inclusion of suitability for small businesses is also a high priority for support
- Unfortunately, the current offering is very limited in agri-food specific support

⁹⁸ DAF e-commerce web survey conducted 2020

- There is also presently insufficient e-commerce specific support

Consistent consultation feedback: Quantity of information available online for e-commerce is overwhelming. A single source of truth would support entities and give decisions more confidence.

Table 36: Gaps identified from industry

Challenge	Observations
Brand Development	The ability and cost to successfully develop and maintain a product brand is seen as unattainable by several smaller entities who do not believe they have sufficient scale to further brand their product/s
Marketing	Particularly online and in-market marketing is an unknown topic for which consulted entities did not believe they have enough information or support effective decision making to invest wisely and gauge efficacy
Understanding of E-Commerce Portal	The potential for e-commerce domestically and for export is not well known. The benefits of having the e-commerce sales channel are not understood
Website Development	The cost of developing a website varies hugely based on who you select/ whether you choose custom, consultee highlighted the importance grants to progress adoption of e-commerce without the upfront website costs
Finance	Access to finance affected one consulted entity, it was cited as being due to product nature that loans and finance options were not available hindering investment into future growth opportunities (including the potential for e-commerce)

6.10 Initiative Focus Definition

Table 37: Summary of key government assistance

Focus	Definitions
E-commerce	Government support that directly addresses online sales and e-commerce export development
Export	Support that seeks to grow international trade into specific markets
Suits Small - Medium entities	Government assistance initiatives ensure support is provided to small – medium entities that are a part of, or looking to enter, the export market
Accessibility	Government entities are looking to reduce barriers to entry into export markets, primarily through the providing of market and export strategy information
Agri-food industry specific focus	Government support in the form of tariff and trade information

Initiative Focus:

1. E-commerce 2. Export 3. Suits Small - Medium entities 4. Accessibility 5. Agri-food industry specific focus

Table 38 Key government assistance, support tools and grants

Entity	Government Assistance	Description	Initiative Focus				
			1	2	3	4	5
DFAT	Free Trade Agreement Portal	Provides tariff information on several key markets (China, Japan, South Korea and Malaysia)					
Austrade	Online exporting: Guide for AU business	Detailed step by step export guide for e-commerce, designed to support Australian business owners in understanding the online exporting opportunity					
	Country specific e-commerce guides	Guide to doing business online in export markets for selected countries					
	International readiness indicator	Tool for new exporters only to determine readiness for (traditional) export					
	Guide to exporting	Detailed step by step guide to prepare for export with considerations, steps, and risks to manage					
Grants	Export Finance Loans	Government finance loans options for export					
	Export Market Development Grant Program	Grants scheme that encourages small- and medium-sized Australian businesses to develop export markets.					
	International Freight Assistance Mechanism (IFAM)	COVID-19 response to support the ongoing supply chains					
	IFAM Export Grants	Airfreight capacity and lead time support for established exporters					
	Package Assisting Small Exporters (PASE) Grants Scheme	Grant to aid small businesses overcome the barriers of exporting					
TIQ/other Queensland Government agencies	Export Market Overviews for Queensland	Detail on selected Queensland target export markets (non e-commerce and agri) with current and future sought after product groups					
	Target trade commissioners and international representation	Target markets have in-market Australian representation through TIQ with detailed insights for new market considerations and planning					
	Grant: Go Global Export Program	Medium size enterprise support for export market development					
	Grant: Business Growth Fund	Support for small and medium size businesses					
	Grant Small Business Digital Grant	Small business support for the development of digital capability					

Legend: **Boxes shaded indicate the initiative focus

6.11 Key takeaways for e-commerce support

Key takeaways for e-commerce support:

- E-commerce specific advice is limited
- While traditional export is well supporting the nuance of e-export is underrepresented with available support options
- Agri-food specific support that tailors general advice or knowledge and provides insights unique to this sector are highly limited
- Trusted advisor was felt as an opportunity to support strategic decision making (suitability of e-commerce model, target markets) as well as the bridge between the overwhelming amount of general (non-government curated) knowledge available on e-commerce generally into a single source of truth

7. Key finding and recommendations

Section overview

This section outlines the key insights and recommendations for e-commerce growth for Queensland agri-food entities.

7.1 Summary of key insights

E-commerce should currently be considered as a niche opportunity for Queensland agri-food entities that is worth developing for medium to long term opportunities.

Key insights identified include:

- While e-commerce is a **\$27 trillion industry** it is predominantly made up of non-food products.⁹⁹
- Agri-food **represents a small percentage of total e-commerce** revenue globally, with limited individual markets having significantly higher penetration rates for e-commerce grocery.
- **Products in the ambient category** are the current leaders given ease and cost of logistics while fresh and chilled are significantly more complex and costly for e-commerce.
- While general e-export or cross border e-commerce is a growing portion there isn't sufficient data to suggest this also applies to agri-food products given e-grocery is a predominantly domestic offering.
- **COVID-19 has dramatically shifted consumers to e-commerce** including for food and grocery items from traditional in-store retail. It is not yet clear if these e-commerce trends are only temporary or will remain long term.
- The current adoption of e-commerce or e-export is still in **early stages** for Queensland agri-food entities, with industry consultations revealing there is also a **low appetite to actively undertake and pursue strategic e-commerce**.
- Industry cites resourcing constraints, impact of entity scale as well as a high assumed risk as some of their **key barriers to increasing adoption and participation in e-commerce**.
- Six target markets (**China, Japan, Korea, US, Malaysia and Indonesia**) and **Australian domestic** were identified as potential priority markets for Queensland agri-food e-commerce and e-export growth.
- From these markets five opportunity products/ have been identified that play to Queensland's strengths as well as e-commerce suitability (**meat (beef, sheep & goat), mango, nuts (macadamias), fruit juices and sugar products**).
- Despite the low appetite and adoption, an assessment for e-commerce capability found good capability in 4 of 6 key areas assessed. **Notable gaps were in e-commerce strategy, planning and digital**.
- At times the domestic market has more significant supply chain barriers and challenges comparable to the international markets. **Logistics and packaging costs** as well as the feasibility for low value products are notable barriers to overcome.
- The COVID-19 impact of **reduced transport supply for both air and sea- freight will impact feasibility** particularly of e-export for some time.

⁹⁹ UNCTAD, <https://unctad.org/press-material/global-e-commerce-hits-256-trillion-latest-unctad-estimates>

- To enable e-commerce industry growth, government support and investment will be required. **Collaboration and expert guidance/advice** are two of the key opportunities identified and these are reflected in the report's recommendations.
- Due to the high complexity of e-commerce and e-export for the agri-food sector it should be considered as a **niche strategy**. Undertaking sufficient research, planning and strategy will be required given the perishable nature of food products particularly for export markets and the associated complexities.

7.1.1 What does the data and trends mean for maintaining market share of exports?

- There is no evidence to support the hypothesis that the shift to e-commerce is putting existing Queensland exports values or volumes at risk.
- This is largely driven by the fact the vast majority of Queensland exports by value and volume are dominated by raw material exports such as beef, wheat, sugar and other products which will be further processed, packaged or transformed closer to the terminal market consumer.
- For the remaining consumer-orientated products the risk of loss of market is not driven by e-commerce factors but remains located in traditional supply chain issues, such as difficulty of ensuring product integrity and quality throughout the supply chain.
- The key risk to market share loss are any evolving trade relationships and market access.
- In existing markets, there has been a shift towards e-grocery and e-commerce for food and beverage retailers. This reflects the reduction in cost to serve / sell, a key benefit of e-commerce for traditionally bricks and mortar retailers or the digital challenger platforms. The opportunity in these markets where product is already exported is to target wholesalers and importers who have made shifts in their business model and are looking for alternative sources of product which can be packaged or processed in-market to suit local consumer preferences or be sold via established channels and consumer populations.
- The establishment of a 'Queensland' portal on the e-commerce marketplaces and platforms is not recommended due to the significant ongoing management that would need to be maintained by either the Government or dedicated resource.
- Greater knowledge of the changes in business buyer behaviours and establishing relationships with the buyers of businesses converting to e-commerce models are key to ensure Queensland products are participating in e-commerce channels, albeit indirectly.

7.1.2 What does the data and trends mean for growing market share and where can these gains be made via e-commerce?

- There is opportunity in the short-term for shelf stable and ambient products from Queensland to target market entry in a number of markets. The key to doing so is the marketing and connection with appropriate buyers and consumers.
- Marketing Queensland products was seen as an issue by TIQ Trade Commissioners. Queensland products need to be discovered and experienced by consumers to position them to take advantage of the emerging trends in consumer behaviours and appetites.
- Strategic product development and marketing suited to the growth markets is important to ensure consumer needs are met. This means developing brands and extensive effort in market research and consumer profiling.
- In growing markets, logistics of e-grocery or delivery infrastructure presents a challenge for fresh and frozen. The pathway to market in these markets will initially be to target relationships with in country retailers, wholesalers and distributors for fresh and frozen product. This reflects a B2B strategy / model.
- D2C models and subscription grocery services are noted to be growing in popularity in many markets. Targeted relationships and support for these businesses, especially where there are product characteristics favouring Queensland product, such as traceability, clean and green or health credentials, represents the next wave of B2B (and B2C or D2C?) opportunities. This is similar to the observation for established export markets where relationships with and knowledge of buyers for the major e-commerce players is key.

- While D2C or B2C is possible, this will favour only the ambient shelf stable artisan products unless sophisticated supply chains and partnerships with importing entities are developed.

7.2 Recommendations

The key insights and information gathered in this report have informed the following 6 recommendations for the growth of Queensland's agri-food sector through e-commerce and e-export. These recommendations will enable and support the transition from the current state as has been identified through this report and the desired future state.

The recommendations are built around the following themes:

Theme	Detail
Market and demand-side analysis	Ensuring there is detailed and relevant market data including a clear understanding of demand, consumer behaviours and e-commerce supply chains
Supply side-analysis of e-commerce participation & activity	<p>Collating and measuring e-commerce data – especially for agri-food products</p> <p>Current public data sources lack a detailed focus on cross-border e-commerce statics. The phenomenon is harder to grasp than traditional export of goods due to constraints in reporting about online shopping – whether that is direct or indirect e-commerce.</p> <p>Currently, most of the data is gathered by conducting surveys among companies and consumers (such as by Eurostat, Nielsen, Euromonitor) or aggregated trade data at country level (National statistics offices, Trade Data Monitor or the International Trade Centre) – but there is not one designated source available for governments or for industry to rely on.</p> <p>One possible solution would be to oblige companies selling online to report digital purchases made by customers.</p> <p>Examples of data:</p> <ul style="list-style-type: none"> • No. of international enquiries and where from
Developing export strategies	Leveraging product and market demand insights to develop an informed view of opportunities
Implementing support instruments	Developed an understanding on 'best practice' based on other country's government support operations
Raising awareness of programs	Developed an understanding of key program stakeholders and communication channels which subsequently informed recommendations pertaining to program awareness

Theme	Recommendation	Detail
-------	----------------	--------

Implement Support instruments	Establish an artisanal agri-food products e-commerce development program	<p>Queensland has had previous incubator or small format programs which aid in upskilling and coaching SMEs.</p> <p>A similar program could be established by the Queensland Government, in partnership with industry marketing and export bodies.</p> <p>The program could be a defined program over a set time period which seeks to aid SMEs with ambient, shelf stable agri-food product.</p>
	Develop Queensland agri-food opportunities information packs for sharing / utilisation	<p>TIQ is the primary agency charged with the promotion and facilitation of inbound and export trade opportunities for Queensland. To date, exposure or targeting of the agri-food space as a sector of interest for e-commerce is dependent on Trade Commission capability / familiarity and or market by market.</p> <p>DAF could, in partnership with Agri-food industry bodies or marketing organisations periodically provide agri-food industry data and information to government departments and industry to enhance overall knowledge and familiarity with Queensland originated opportunities.</p> <p>This could be executed through annual market opportunity reports for several key markets on a rolling cycle.</p>
	Develop targeted program to 'meet and greet' export market business buyers for wholesalers, retailers, distributors and D2C food and beverage companies participating in e-commerce in their local market	<p>Relationship building and being able to connect with the growing players in B2B and B2C e-commerce will be key to developing partnerships for Queensland companies seeking to export or to maintain exports.</p> <p>While traditional supply chains will persevere, there is benefit in targeting emerging companies / businesses with an e-commerce focus in key export markets.</p> <p>Virtual or in person targeted e-commerce trade missions would create in-market knowledge of Queensland agri-food offerings, showcase Queensland product development opportunities, create awareness of Free Trade agreement opportunities and also provide first-hand knowledge of export markets to Queensland Government, Agri-Food Industry bodies and Businesses.</p>
	Continue and enhance the export market participation surveys DAF commenced	<p>Queensland specific data which provides a benchmark and understanding of the participation and performance of Queensland agri-food businesses is fragmented or missing.</p> <p>Continuing gather data concerning export capabilities and e-commerce participation on a periodic basis (e.g. Annual) potential enables measurement and marketing to be completed.</p> <p>This would better inform Government and Industry programs in the e-commerce or export space.</p>
	Strategic product development and marketing	<p>Leverage data and market research to identify market gaps and develop products and marketing plans to fill these gaps.</p> <p>Customer and market data should be used to develop customer profiles / segmentation which will be used to create a strong marketing campaign. This will allow Queensland products to be discovered and experienced by consumers.</p>
Training programs for businesses		<p>Develop internal training programs and resources to enhance businesses' understanding of key issues – particularly customer needs and stakeholders in the market/s. Resources should be specific to e-commerce trade and focus on the priority markets identified.</p>
Connecting the willing with Queensland and Australian	Leverage the extensive services that are already offered, such as the	<p>Understand and engage with the target market for these services to ensure there is awareness of the offering. Understand how the target market prefers to receive communications and set up communication channels to ensure they are kept aware of service offerings.</p>

export support programs	Product innovation services of DAF Coopers Plains.	
-------------------------	--	--

Finally, it is critical to understand how to implement the information provided in this report. As such, we have provided the following list of practical implementation steps for exporters seeking to expand into e-commerce:

Implementation Step	Description
Undertake a market prioritisation assessment for your business	<p>The market prioritisation exercise involves:</p> <ol style="list-style-type: none"> 1. Identifying a long list of potential markets to enter 2. Developing a criteria on which to assess these markets 3. Collecting and analysing relevant data 4. Rank markets per assessment criteria 5. Form a detailed market entry strategy for the highest priority market
Connect into business and potential partners in the market	<p>Once the market/s have been identified, it is important to develop relationships and networks within the market</p> <ol style="list-style-type: none"> 1. Review channel opportunity (B2B, B2C, combination of the two) 2. Identify businesses and suppliers to engage with (government, importers, logistics businesses etc.) 3. Begin to develop relationships with market players and get a better understanding of demand, prices, costs associated with sale etc
Undertake feasibility assessment and detailed due diligence on the opportunity	<p>The benefits assessment is designed to identify the value, net of associated costs, an exporter can reasonably assume to attain if they begin supplying to the identified market. The detailed due diligence seeks to review the potential partners and channels identified, including from a regulatory and legal perspective.</p>
Building the supply chain	<p>Once the market/s have undergone detailed due diligence, been validated as attractive opportunities and the decision to enter them has been made, a robust supply chain must be built. This should leverage e-commerce capabilities and map out how the product moves from the supplier to the end consumer in the most efficient manner possible and considering factors such as traceability, speed to market and cost effectiveness. Different products will require different considerations.</p>

7.3 Examples of different approaches to e-commerce export development

Below are snapshots of practices from other countries developing e-commerce export strategies. The examples provide insights for government and industry on what industry development programmes could involve.

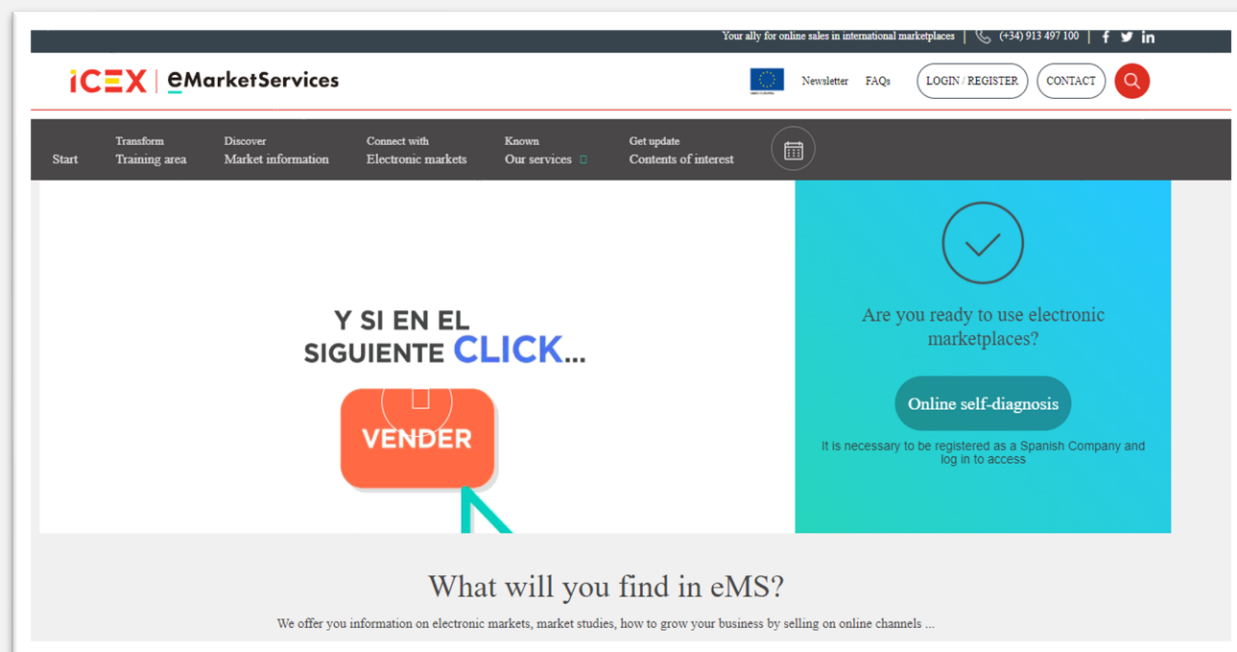
While diagnosing the needs of SMEs in the area of cross-border e-commerce is a core feature, it is noted by experts that public sector actors prioritise what type of instruments are in higher demand, such as complex education platforms on how to enter online selling channels or more of a marketplace portal to promote products internationally¹⁰⁰.

For Queensland – the takeaway is that different agri-food sectors may need both approaches in different measures.

¹⁰⁰ [Traditional exports are at risk. Is cross-border e-commerce a remedy?](#), Emerging Europe December 2020.

Spain - eMarketServices¹⁰¹

A broad horizontal digital portal for information and educational resources targeting specific sectors and markets



Spain has developed a digital export support programme which aims at facilitating Spanish companies, especially SMEs, to start and grow their international e-commerce activities and the sales of their products and services through internet channels.

The portal as a horizontal tool introduces users to an exploration of the e-commerce space through to connecting with markets and facilitation of business.

It is an informational and educational platform and a knowledge base on e-commerce markets of various industries and sectors around the world. The eMarketServices programme offers training courses and webinars in the field of digital export, export readiness test for companies, information and advisory services on foreign markets, access to database of companies offering support in the development of international export activities among others.

Chile

A deep vertical marketplace aimed at promoting Chilean products and services for export and how to do it

Chile B2B is a marketplace aimed at promoting Chilean products and services on the internet to be exported. It facilitates cooperation between Chilean sellers and foreign buyers, using tools such as products and services browsers across 15 categories. It enables users to add company profiles and products on sales, negotiate online, and contact through individual and group chat. This online portal has been appreciated by many businesses as an opportunity to invest or trade with Chilean companies and might be a guideline for governments on how to support digital trade.

¹⁰¹ [EMarketServices website](#), Accessed 27 January 2020

Canada

Market specific agri-food export factsheets

Display All

Collapse All

▶ COVID-19 specific programs

▶ [Business management](#)

▼ Innovation, research and development

Funding for innovation, advancements, technology transfer and licensing

- [Agricultural Clean Technology Program](#)
- [AgriAssurance Program: National Industry Association](#)
- [AgriInnovate Program](#)
- [AgriRisk Initiatives - Microgrants](#)
- [AgriScience Program - Clusters](#)
- [AgriScience Program - Projects](#)
- [Coordinated Agriculture Policy Research Initiative](#)
- [Saint-Hyacinthe Research and Development Centre's Industrial Program](#)
- [Technology Transfer and Licensing](#)

▶ Managing risk and finance

▶ Market development

▶ Sector specific programs

▼ Sustainable Farming

Protect the environment, land management, Drought Watch, weather, climate, pesticides

- [Agricultural Greenhouse Gases Program](#)
- [Canadian Soil Information Service](#)
- [Drought Watch](#)
- [Geospatial Products](#)
- [Minor Use Pesticide Program](#)
- [Pesticide Risk Reduction Program](#)

▶ Indigenous Peoples and agriculture

Source: USDA Agency Reports

The Canadian Government supports the agriculture industry through a combination of loans/grants, industry/sector performance and insights, scientific research and product overviews and information sheets. These resources are designed to provide comprehensive support to the agriculture industry.

USA

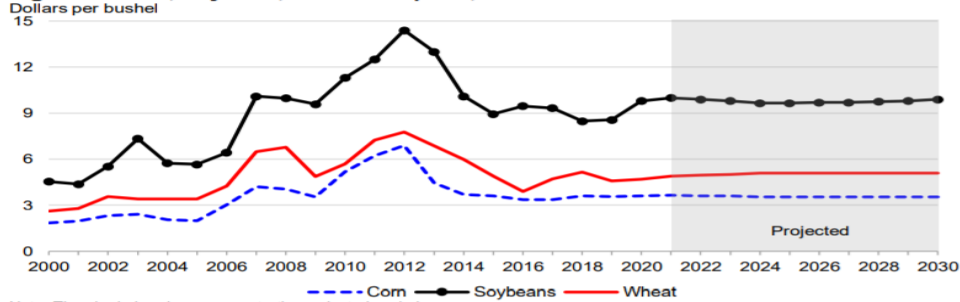
The FAS and USDA provides regular guidance and information

U.S. Crops, Livestock, and Farm Income Projections

U.S. Crops

Rising global demand for diversified diets and protein will continue to stimulate import demand for feed grains and soybeans. Increased demand for these crops—as well as for wheat, rice, and cotton—are accompanied by rising competition for market share from countries such as Brazil, Argentina, the EU, and the Black Sea region. The United States also faces challenges related to ongoing tensions with trade partners and a relatively strong U.S. dollar, which tends to keep U.S. commodity prices relatively high in foreign currency terms. Although strong trade competition continues, U.S. commodities remain generally competitive in global agricultural markets, with U.S. corn, soybean, and cotton exports projected at record highs by 2030/31. Nominal prices for wheat, cotton, and rice are expected to rise modestly between 2021/22 and 2030/31. Tables for each of the crops are provided at the end of this section.

Figure 8. Corn, soybean, and wheat price, 2000-30



Source: USDA Agency Reports

This table shows that Corn, Soybeans and Wheat prices in the U.S. grew steadily from 2000, peaking in 2012, with prices subsequently decreasing from 2012 to 2016. The prices of Corn, Soybeans and Wheat in the U.S. are projected to increase at a slow rate from 2021 to 2030.

The USDA produces industry and sector outlooks and projections as well as access to the underlying data used to create these projections. The agency also publishes data on industry production, prices and exports. The services provided can be categorised by *Economic Research Services*, *Foreign Agricultural Services*, *Agricultural Marketing Services*, *National Agricultural Statistics Service* and *World Agricultural Outlook*. Finally, the USDA publishes market news.

Appendices

Appendix 1 – Market assessment criteria

The process for identifying priority e-commerce export markets involved developing a market long-list, conducting market assessment and shortlisting and priority market profiling. First, the top 15 ranked market scored by value and volume of good exported from Queensland (based up 2018- 2019) trade figures were selected, in order to include a sufficient range of regions, sizes and diversity of markets, while ensuring the access to the markets was achievable.

Then, each market was then assessed against the factors driving e-commerce growth in the market and the importance to Queensland using the criteria per Table 1. The highest-ranking markets formed the shortlist of the top five potential export markets. Finally, six markets, three growth and three retain, were then profiled to explore the opportunity that they represent to Queensland as key to address through e-commerce capability.

Each market was then measured against the market assessment criteria, in which a number of factors within both market demand and market access were considered:

Market assessment criteria		
E-commerce factors	1	Growth rate of e-commerce (all sectors)
	2	Use of mobile as a media for e-commerce
	3	Cross-border e-commerce activity levels
Demographic factors	4	Growth of the middle class as a percentage of total population growth
	5	Market growth indicated through economic growth outlook
	6	Consumer purchasing power
Market factors	7	Market access
	8	Ease of distribution

Appendix 2 – Market Selection

A long list of high priority markets based on Queensland’s existing trade relationships, growth potential and demographic factors was created. The table below shows an initial, high-level assessment of global markets. The highlighted markets were selected for further analysis and refinement into a short-list:

The ratings used in the market assessment was developed as such:

Country	Queensland Exports	Untapped Export Potential	Total Addressable Consumers	Market Growth	Consumer Purchasing Power	Location	Market Access	Ease of Distribution/ Logistics	Overall Opportunity
Hong Kong	Favourable	Favourable	Unfavourable	Moderate	Favourable	Favourable	Favourable	Favourable	High
China	Favourable	Favourable	Favourable	Favourable	Favourable	Favourable	Moderate	Moderate	High
Japan	Favourable	Favourable	Favourable	Unfavourable	Favourable	Favourable	Favourable	Favourable	High
Singapore	Favourable	Favourable	Unfavourable	Moderate	Favourable	Favourable	Favourable	Favourable	High
Indonesia	Favourable	Favourable	Favourable	Favourable	Unfavourable	Favourable	Moderate	Moderate	High
South Korea	Moderate	Favourable	Moderate	Moderate	Favourable	Favourable	Favourable	Moderate	High
UAE	Moderate	Favourable	Favourable	Unfavourable	Favourable	Favourable	Unfavourable	Favourable	High
Malaysia	Moderate	Favourable	Moderate	Favourable	Favourable	Favourable	Favourable	Moderate	High
USA	Favourable	Favourable	Favourable	Favourable	Favourable	Unfavourable	Unfavourable	Moderate	High
New Zealand	Moderate	Unfavourable	Unfavourable	Moderate	Favourable	Favourable	Favourable	Favourable	Moderate
India	Unfavourable	Favourable	Favourable	Favourable	Unfavourable	Favourable	Unfavourable	Moderate	Moderate
Philippines	Unfavourable	Moderate	Favourable	Favourable	Unfavourable	Favourable	Favourable	Unfavourable	Moderate
Thailand	Unfavourable	Favourable	Favourable	Moderate	Moderate	Favourable	Favourable	Moderate	Moderate
USA	Favourable	Favourable	Favourable	Unfavourable	Favourable	Unfavourable	Unfavourable	Moderate	Moderate
Vietnam	Moderate	Favourable	Favourable	Favourable	Unfavourable	Favourable	Favourable	Moderate	Moderate
Bangladesh	Unfavourable	Moderate	Favourable	Favourable	Unfavourable	Favourable	Unfavourable	Unfavourable	Low
Canada	Unfavourable	Moderate	Moderate	Moderate	Favourable	Unfavourable	Favourable	Favourable	Low
Italy	Unfavourable	Favourable	Favourable	Unfavourable	Unfavourable	Unfavourable	Unfavourable	Favourable	Low
Netherlands	Unfavourable	Unfavourable	Unfavourable	Moderate	Favourable	Unfavourable	Unfavourable	Favourable	Low
Switzerland	Unfavourable	Unfavourable	Unfavourable	Unfavourable	Favourable	Unfavourable	Unfavourable	Favourable	Low
Taiwan	Moderate	Moderate	Unfavourable	Moderate	Favourable	Favourable	Unfavourable	Unfavourable	Low
UK	Moderate	Favourable	Favourable	Unfavourable	Favourable	Unfavourable	Unfavourable	Favourable	Low

Rating

Favourable	A 'Favourable' rating indicates an established agri-food export market, very high e-commerce growth potential, with significant ease of trade and export potential for Queensland agri-food products
Moderate	A 'Moderate' rating indicates a growing agri-food export market, emerging e-commerce growth potential, with moderate ease of trade and export potential for Queensland agri-food products
Unfavourable	A 'Unfavourable' rating indicates a potential market for agri-food export, low e-commerce growth potential, with relatively low ease of trade and some export potential for Queensland agri-food products

Then, a shortlist of critical export markets was then developed based on assessment of the criteria below:

Prioritised Markets	Retain or growth market	Existing export market for Queensland agri-food products	E-commerce utilisation / maturity in market	Low barriers to entry and market access	Export potential of the Queensland agri-food products in scope	Overall Potential Rating
Japan	Retain	Favourable	Favourable	Favourable	Favourable	High
China	Retain	Favourable	Favourable	Favourable	Favourable	High
South Korea	Retain	Favourable	Favourable	Favourable	Moderate	High
USA	Growth	Favourable	Favourable	Moderate	Favourable	High
Indonesia	Growth	Favourable	Favourable	Favourable	Favourable	Moderate
Malaysia	Growth	Moderate	Moderate	Moderate	Moderate	Moderate

Queensland holds strong existing export market share in the majority of these markets therefore development in e-commerce capability has been identified as critical to maintain or increase this presence. Moreover, as global trade continues to grow (despite COVID-19 setbacks), markets are becoming increasingly competitive. Online marketplaces have become an alternative channel to safely deliver products and, when supported by the right partners, to clearly communicate the value proposition of Queensland products to new customer groups

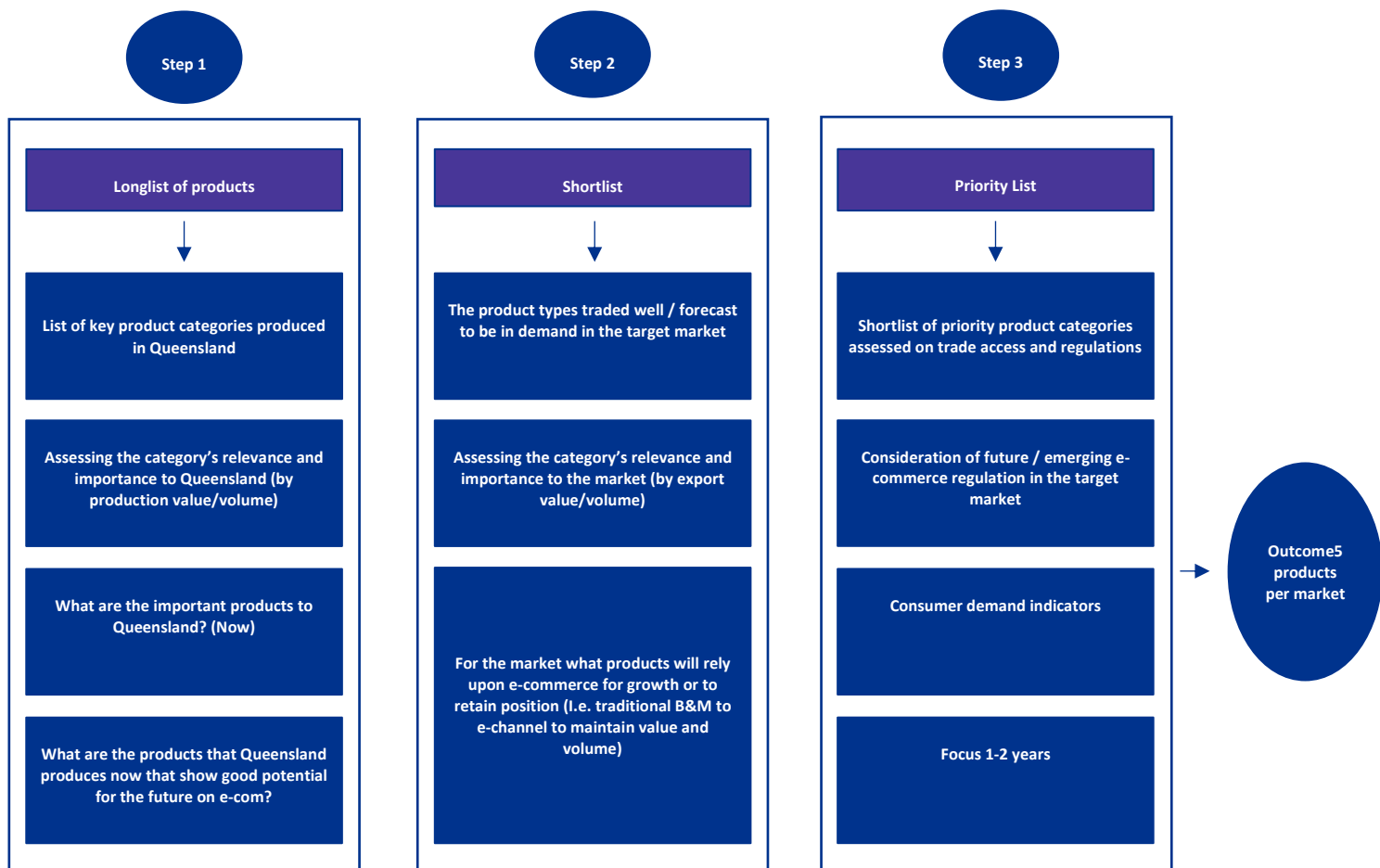
Queensland does risk loss of market share in many of these markets if it does not keep up with the pace of online market growth. Queensland has an opportunity to align its strong export logistics infrastructure with that in priority markets to adhere to consumers' increasing demand for rapid product turnover.

Appendix 4 – Determining priority products for market e-commerce opportunities

The below process was utilised to prioritise the products that are an opportunity in the e-commerce space in the target market, and that are particularly relevant for Queensland.

These are products those consider most attractive to the e-commerce opportunity, but where Queensland represents a significant proportion of exported goods and/or the industry is valuable to Queensland.

Step 1 was to develop a longlist of key product categories produced in Queensland, Step 2 was to establish a shortlist of these product categories based on demand, relevance to market and reliability on eCommerce, Step 3 was to create a priority list through assessing product categories across a range of factors, and the Outcome was the selection of 5 products per market in Queensland.



7.4 Export potential data by market for key sectors

7.4.1 USA

The following data is sourced from the International Trade Centre export potential maps. This is accessible at <https://exportpotential.intracen.org/>.

Overview of key product categories with Forecast untapped export potential by 2024

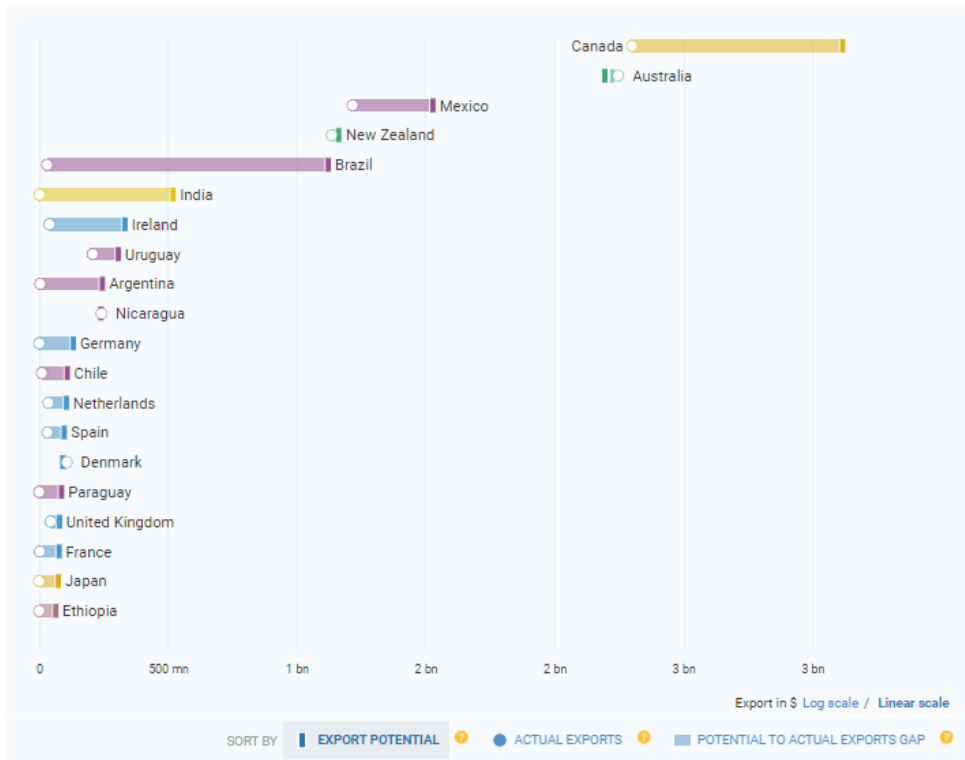
There are 13 consumer-orientated product categories that show export growth potential by 2024 in excess of \$10 million for the industry.

Meat (except poultry)	Cocoa beans	Honey
Beverages (alcoholic)	Eggs and edible animal products	Beverages (non-alcoholic)
Food products (processes or preserved)	Processed meats	Nuts
Fruits	Pulses	Vegetables
Fish and Shellfish	Vegetable oils and fats	Dairy

The bolded products have had additional data included below.

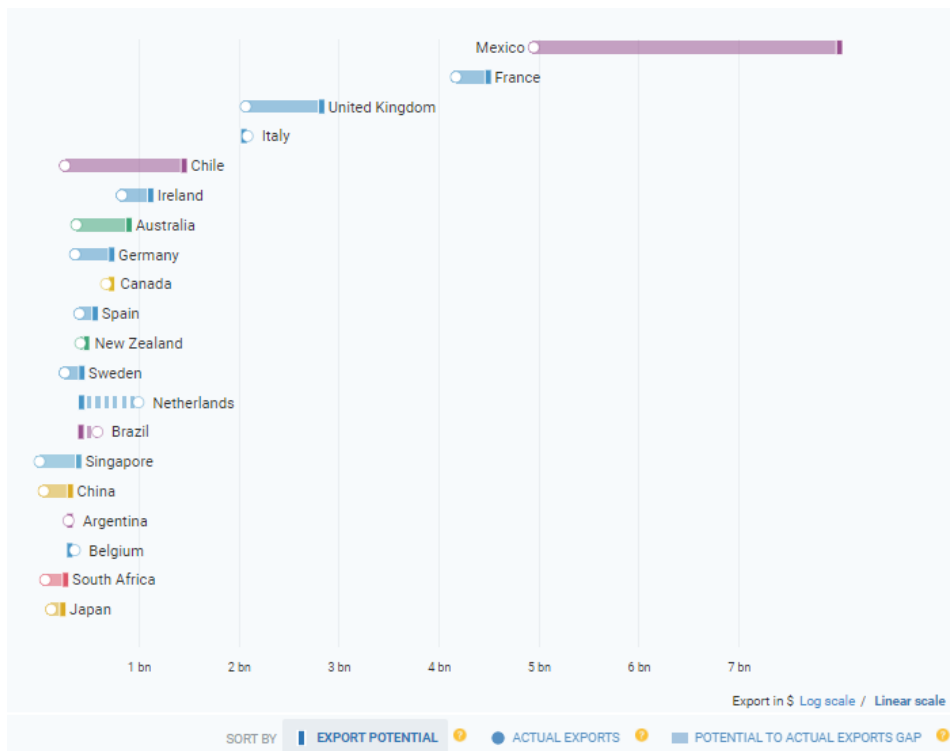
Meat (not poultry)

This diagram shows that the greatest export opportunity for meat (no poultry) is Canada with an export opportunity greater than USD \$3 billion, followed by Australia and Mexico.



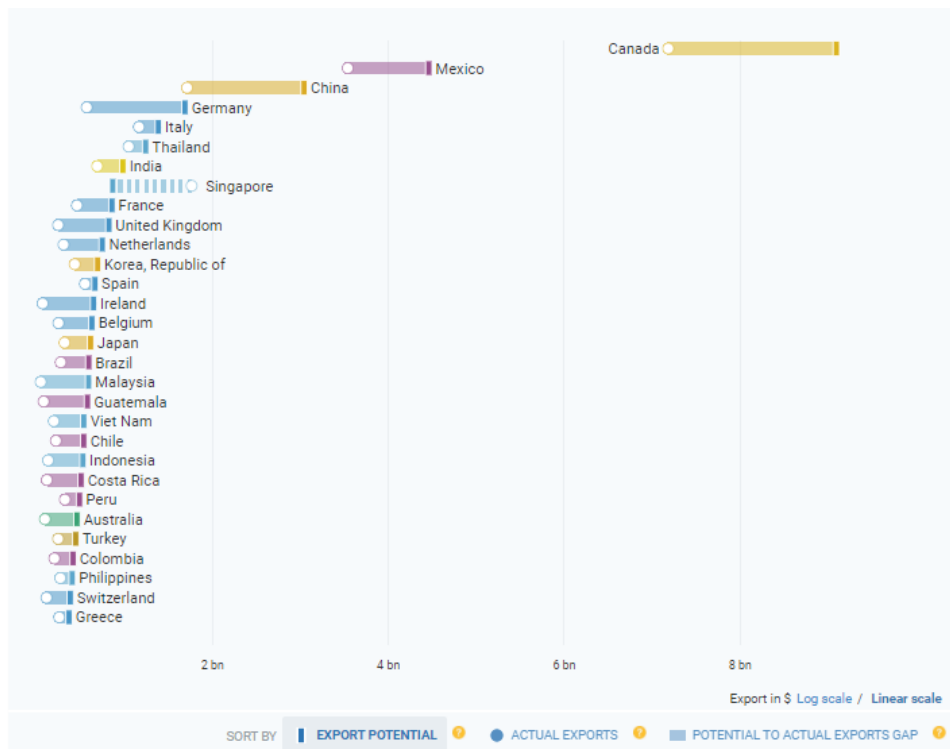
Beverages (Alcoholic)

This diagram shows that the greatest export opportunity for beverages (alcohol) is Mexico with an export opportunity greater than USD \$7 billion, followed by France and the United Kingdom.



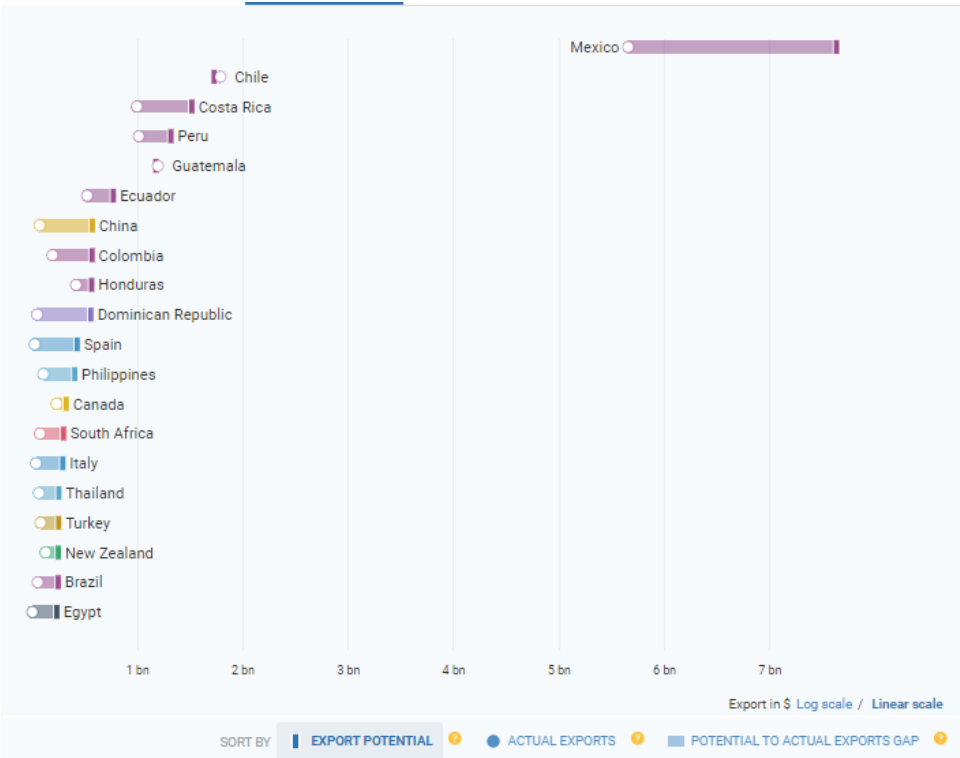
Food products

This diagram shows that the greatest export opportunity for food products is Canada with an export opportunity greater than USD \$8 billion, followed by Mexico and China.



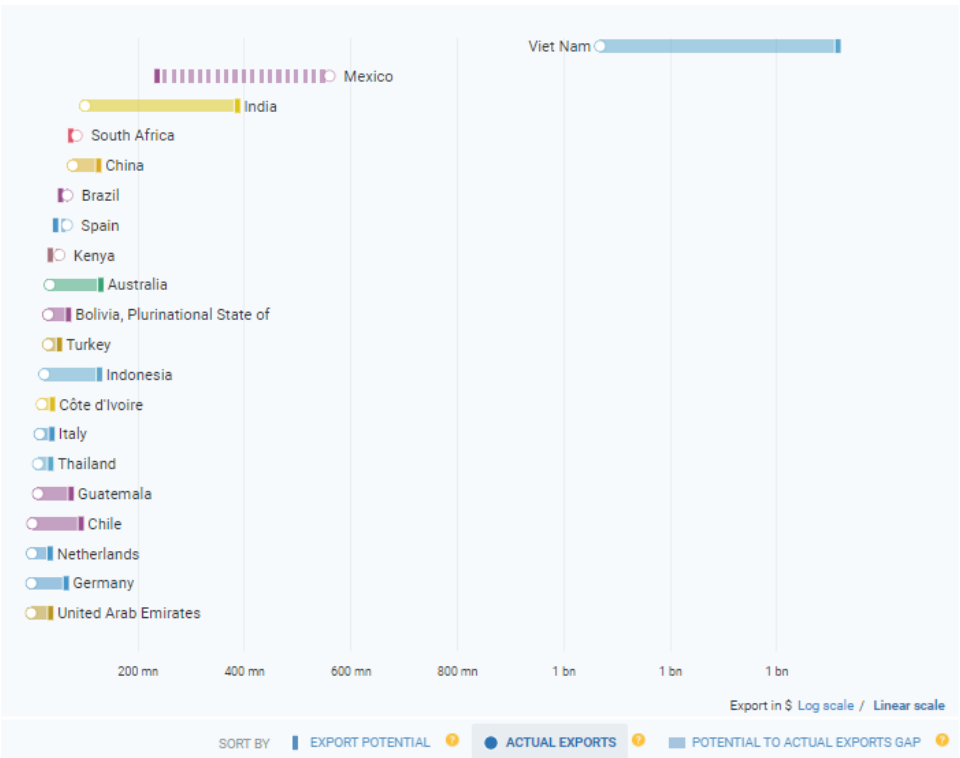
Fruit: Markets exporting fruit to the USA and their potential

This diagram shows that the greatest export opportunity for fruit is Mexico with an export opportunity greater than USD \$7 billion, followed by Chile and Costa Rica.



Nuts

This diagram shows that the greatest export opportunity for nuts is Vietnam with an export opportunity greater than USD \$1.4 billion, followed by Mexico and India.



Appendix 4 – Consulted entities

27 consultations were held with Queensland agri-food entities, government and industry bodies as well as supply chain and logistics entities and e-commerce experts:

Agri-food entities		Other entities	
1	Raptis & sons Seafood (wild catch)	1.	MLA domestic and SE Asia representatives
2	OBE Organic Beef	2.	TIQ Trade and Investment Commissioner Korea
3	Natural Evolution Foods specialty flours, health foods	3.	TIQ Trade Commissioner ASEAN
4	Buderim Ginger Sugar confectionary and beverages	4.	TIQ Trade and Investment Commissioner Japan
5	Suncoast Gold Macadamias Macadamias	5.	TIQ Trade and Investment Commissioner North America
6	Stahmann Farms Pecans, Macadamias	4.	FAN network CEO Sunshine Coast
7	Quality Foods Food wholesale and distribution	5.	Shopify and Shopify Plus Australia
8	Belladotti Fine foods	6.	Sendle E-commerce logistics partner
9	Grove Juice Fresh fruit juices	7.	HDS Cold chain logistics provider
10	Alchemy Cordial Ambient long-life product	8.	Industry SME Cold Chain Logistics
11	AB Honey Manuka Honey and private label	9.	Get Wines Direct
12	FreezeDry Industry food production and freeze-dried products	10.	KPMG SME Access Asia
		11.	KPMG SME Supply Chain
		12.	KPMG SME Retail
		13.	KPMG SME Legal
		14.	KPMG SME Customer, Brand and Marketing
		15.	Hort Innovation

This report bases its summary of Queensland agri-food capability and existing gaps on the entities who have responded to the broad industry request for engagement undertaken and were consulted.

Appendix 5 – What are the key capabilities required for successful e-commerce?

Capability	Current state	
Online presence/website	Do you have and maintain an online presence? (brand website)	Y/N
Appropriate e-commerce platform	Is your chosen e-commerce platform suitable for your operational scale?	Y/N
Payments gateway	Do you have a payments gateway?	Y/N
Cybersecurity	Do you actively manage your cybersecurity and privacy?	Y/N
Target market/s	Do you define target market/s?	Y/N
E-commerce model	Do you have a suitable e-commerce model (to your operations)?	Y/N
Transaction insights/analytics	Can you capture your transaction insights/analytics?	Y/N
Competitor awareness	Do you maintain competitor and customer awareness?	Y/N
After sales support/returns	Do you provide customers with after sales support and returns?	Y/N
Export regulatory, tax, legal and IP	Are you aware of all your export regulatory, tax, legal and IP requirements?	Y/N
Reputation and risk management	Do you manage your brand reputation and risk management?	Y/N
Cost to serve	Do you know your total cost to serve?	Y/N
Financial risk management	Do you manage your financial risk and have processes in place?	Y/N
Distribution channels and logistics	Do you have selected, trusted distribution and logistics partners/providers?	Y/N
Supply chain requirements	Do you cater to your ambient/cold chain supply requirements?	Y/N
Order capacity and demand forecast	Do you have visibility on order capacity and demand forecast?	Y/N
Stock management and warehousing	Do you have defined stock management and warehousing processes?	Y/N
Fulfilment process and lead time requirements	Do you have a fulfilment process and lead time requirements	Y/N

Appendix 6 – Government tools/support have moderate alignment to agri-food

Tools/support	Reference
Free Trade Agreement Portal	https://www.dfat.gov.au/trade/agreements/Pages/trade-agreements
Online exporting: Guide for AU business	https://www.austrade.gov.au/ecommerce-guide/guide/about-this-guide
Country specific e-commerce guides	https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/China/Doing-business/E-Commerce-in-China/ecommerce
International Readiness Indicator	https://www.austrade.gov.au/Australian/Export/Guide-to-exporting/International-Readiness-Indicator
Guide to exporting	https://www.austrade.gov.au/Australian/Export/guide-to-exporting
Export Finance - Loans	https://www.exportfinance.gov.au/what-we-do/loans/loans/how-it-works/
Export Market Development Grant Program (EMDG)	https://www.austrade.gov.au/Australian/Export/Export-Grants
International Freight Assistance Mechanism (IFAM)	https://www.agriculture.gov.au/coronavirus/export/air-freight
IFAM Export Grants	https://ifam.smartygrants.com.au/exportgrants
Package Assisting Small Exporters (PASE) Grants Scheme	https://www.agriculture.gov.au/export/from-australia/package-assisting-small-exporters
Export Market Overviews for Queensland	https://www.tiq.qld.gov.au/export/market-overviews/
Target trade commissioners and international representation	https://www.tiq.qld.gov.au/connect/about-us/international-representation/
Grant: Go Global Export Program	http://www.tiq.qld.gov.au/connect/current-opportunities/go-global-export-program-2019-20/
Grant: Business Growth Fund	https://www.business.qld.gov.au/starting-business/advice-support/grants/growth-fund



Contact us

Robert Poole
Partner, Head of Consumer and Retail
+ 61 (3) 9288 6209
robertpoole@kpmg.com.au

[KPMG.com.au](https://www.kpmg.com.au)

This report is solely for the purpose set out in the Scope Section and for the Queensland Department of Agriculture and Fisheries information and is not to be used for any other purpose or distributed to any other party without KPMG's prior written consent.

This report has been prepared at the request of Queensland Department of Agriculture and Fisheries in accordance with the terms of KPMG's engagement contract dated 2 October 2020. Other than our responsibility to Queensland Department of Agriculture and Fisheries, neither KPMG nor any member or employee of KPMG undertakes responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party's sole responsibility.

© 2021 KPMG, an Australian partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International. Liability limited by a scheme approved under Professional Standards Legislation.

July 2021