

BNZ Insights: E-commerce a vaccine for the economy

18 November 2021

As an aid to policymakers and businesses, BNZ is publishing economic insights from high-frequency data. In this note we use BNZ credit, debit, and EFT-POS card spending data to explore the dynamics of online spending over recent years and through lockdowns.

HIGHLIGHTS

- Total BNZ card spending was ‘lower for longer’ during the nationwide lockdown of 2020 compared to the Delta lockdown of 2021. But the recovery from the 2020 lockdown was stronger than what we have seen so far in the Delta lockdown.
- The share of online spending in total card spending increased steadily following the nationwide lockdown in 2020 until the beginning of the Delta lockdown. Over recent weeks, the online spending share has surged, partly because in-person spending is still restricted in parts of the country.
- Increased online spending is one of the key reasons why total card spending was more resilient over the early stages of the Delta lockdown compared to the nationwide lockdown of 2020.
- With some exceptions, merchant categories in which online spending is high have tended to also have strong growth in online spending over the last three years. By region, online spending is highest in Auckland (37% of total spending) and lowest in Gisborne (4%).
- Merchant categories with relatively high levels of online spending were less negatively affected by the Delta lockdown. It follows that e-commerce is a vaccination for the economy that helps build resilience in uncertain times.

ANALYSIS

Total Card spending

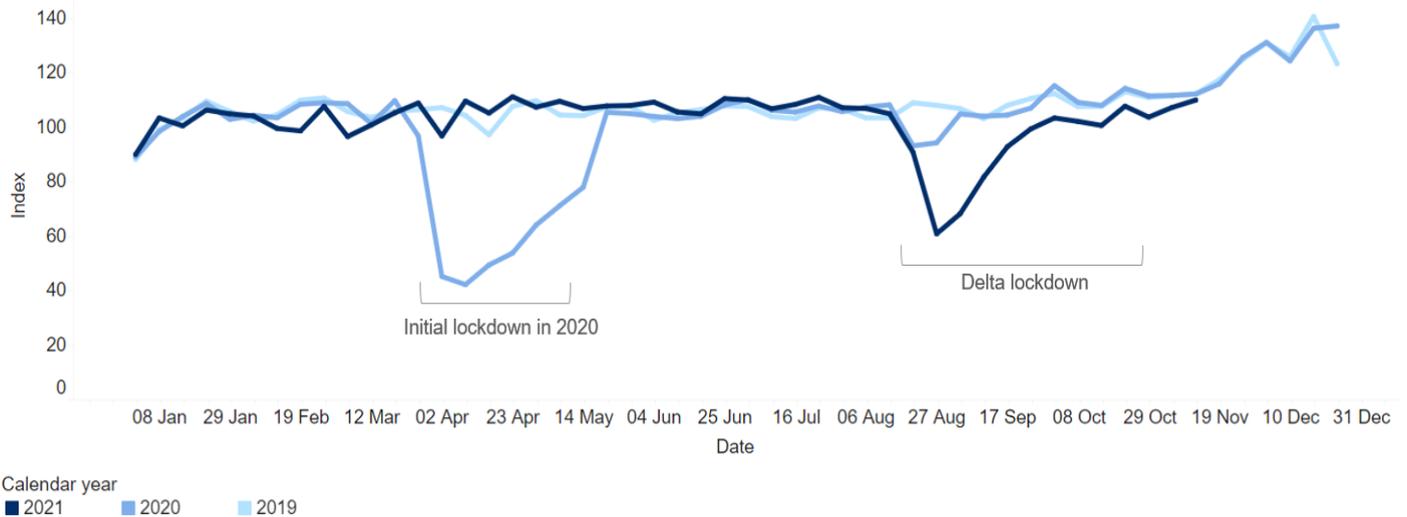
Figure 1 shows total spending on BNZ cards from January 2019 through to the week ending Friday the 12th of November 2021. The data is indexed to equal 100 over the first four weeks of each year.

The impacts of New Zealand’s nationwide lockdown in 2020 and the Delta lockdown in 2021 are clearly apparent. In terms of broad shape, card spending was ‘lower for longer’ during the nationwide lockdown in 2020 compared with the Delta lockdown.

However, the recovery in BNZ card spending from the Delta lockdown appears more protracted than with the 2020 lockdown. In addition, with higher Inflation over 2021, the recovery in (nominal) card spending from the Delta lockdown will be less beneficial for retailers than it appears in the graph.

In part, this protracted recovery reflects ongoing restrictions in the upper North Island as the Delta lockdown grinds on. It may also signal a reluctance amongst Kiwis to get out and shop as COVID-19 becomes endemic in the community.

Figure 1: Total Consumer Card Spend (Indexed)



Note: The data in this graph is weekly card spending by BNZ customers through New Zealand merchants. This includes all credit and debit card transactions plus EFTPOS card transactions. Transactions include spending less any refunds. Spending data has been indexed to 100 in the first four weeks of each year.

Online card spending

Figure 2 shows online and in-person card spending – plus the share of online spending in total spending – from May 2019 to November 2021. The graph is stacked so online and in-person spending sum to total (indexed) spending in each week.

From May 2019 until the nationwide lockdown in 2020, online spending was relatively constant at about 26% of total card spending. From the end of the 2020 lockdown, the share of online spending in total spending steadily increased to a little over 30% at the beginning of the Delta lockdown. Over recent weeks, online spending has continued to climb to about 37% of total spending. It will, however, likely drop back somewhat over coming weeks as restrictions on face-to-face retail are progressively eased.

The pronounced peaks in total card spending towards the end of each year in Figure 2 indicate strong spending during the Christmas shopping season. While both online and in-person spending increase over this period, the in-person spending pulse is stronger as Kiwi shoppers hit the high streets. As a result, the share of online spending in total spending falls over the Christmas shopping season.

Figure 2: Online vs in-person BNZ card spend (indexed)

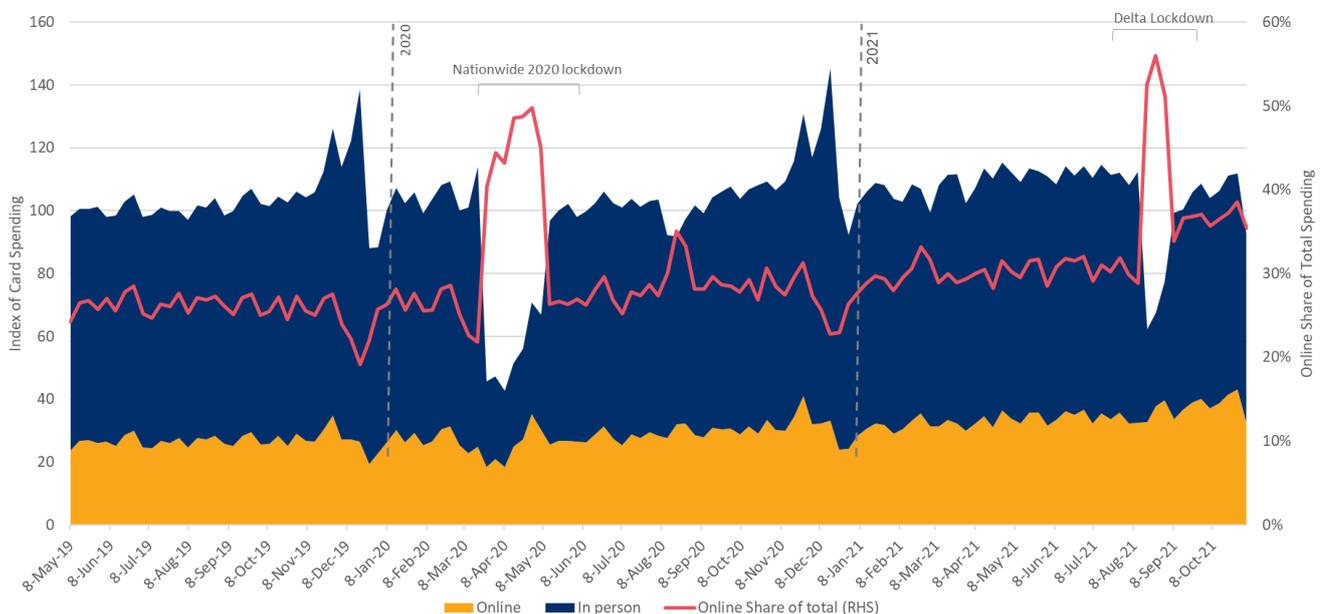


Figure 3 zooms in on spending dynamics during the nationwide lockdown in 2020 and the ongoing Delta lockdown. In both cases, online and in-person spending are indexed to equal 100 in the week before both lockdowns.

In the early stages of the nationwide 2020 lockdown, in-person spending fell about 70%. In the Delta lockdown, it fell about 60%. In the nationwide 2020 lockdown, online spending initially fell by about 30% before recovering ahead of in-person spending. In contrast, online spending didn't skip a beat during the Delta lockdown, increasing about 20% from its pre-lockdown level.

This indicates that increased online spending is a key reason why total card spending has been relatively more resilient over the Delta lockdown. Also, the fact our economy roared out of the nationwide 2020 lockdown gave New Zealanders more confidence to spend during the Delta lockdown.

Figure 3: Online and in-person spending dynamics over lockdowns

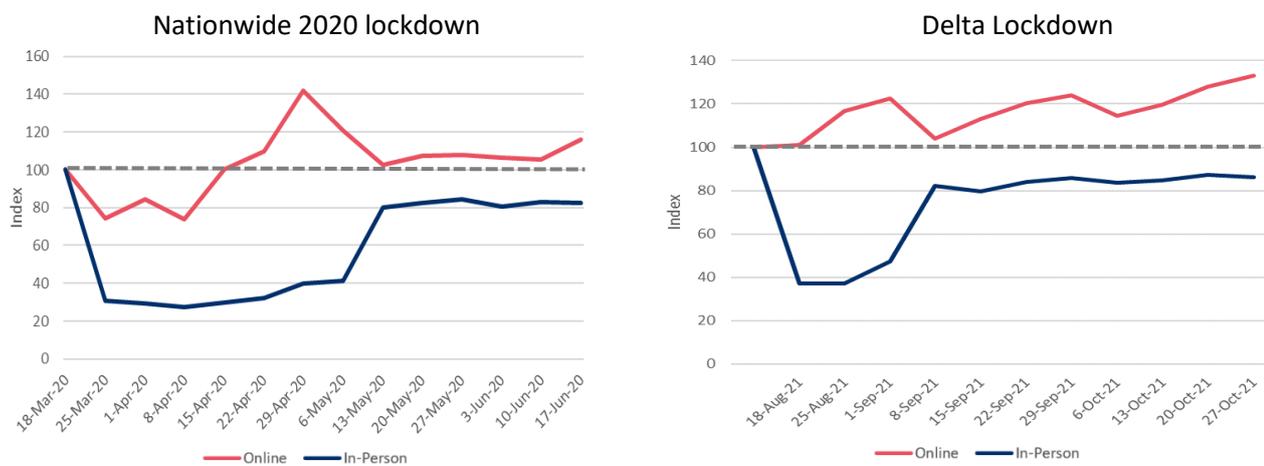


Figure 4 shows the share of online spending in 2019, 2020 and 2021 by merchant category. To mitigate lockdown impacts, online spending is measured as the average between May 16 and August 15 in each year.

Across the 33 merchant categories, all but two – *Freight/Couriers* and *Chemists* – saw increases in the share of online spending in total spending over the three years. In 11 merchant categories, the online spending share grew by ten percentage points or more.

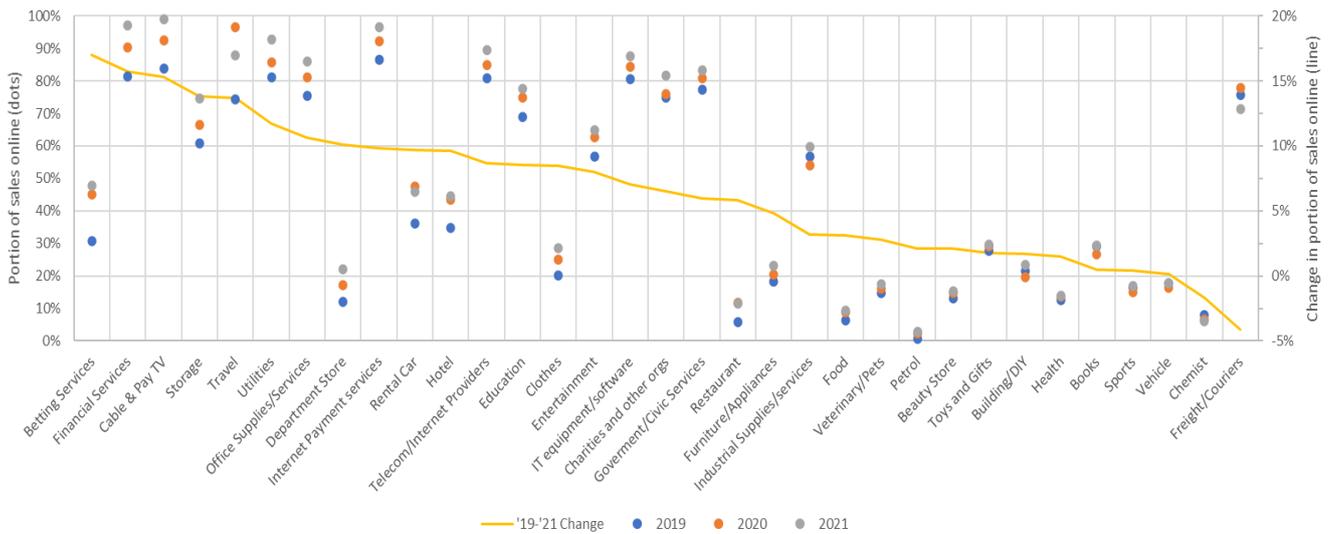
In general, merchant categories with high online spending have seen faster growth in their online spending share compared to merchant categories with low online spending. For example, *Financial Services*, *Cable & Pay TV*, and *Utilities* all had online spending above 80% of total spending in 2019 but still managed to grow their online spending share by another ten percentage points or more over the subsequent three years.

Exceptions to this observation – merchant categories that have seen large increases in online spending from a low base – include *Betting Services*, *Department Stores*, *Rental Cars*, *Hotels* and *Clothes*. Apart from *Freight/Couriers* – which has seen its online spending share decline from a relatively high base – all other merchant categories have had only small increases in the online share of spending from already low levels.

On the face of it, this suggests that getting up and running online is a difficult challenge for merchants selling some types of products. However, once the business model for selling online gets to a certain level of functionality, it can be rapidly scaled.

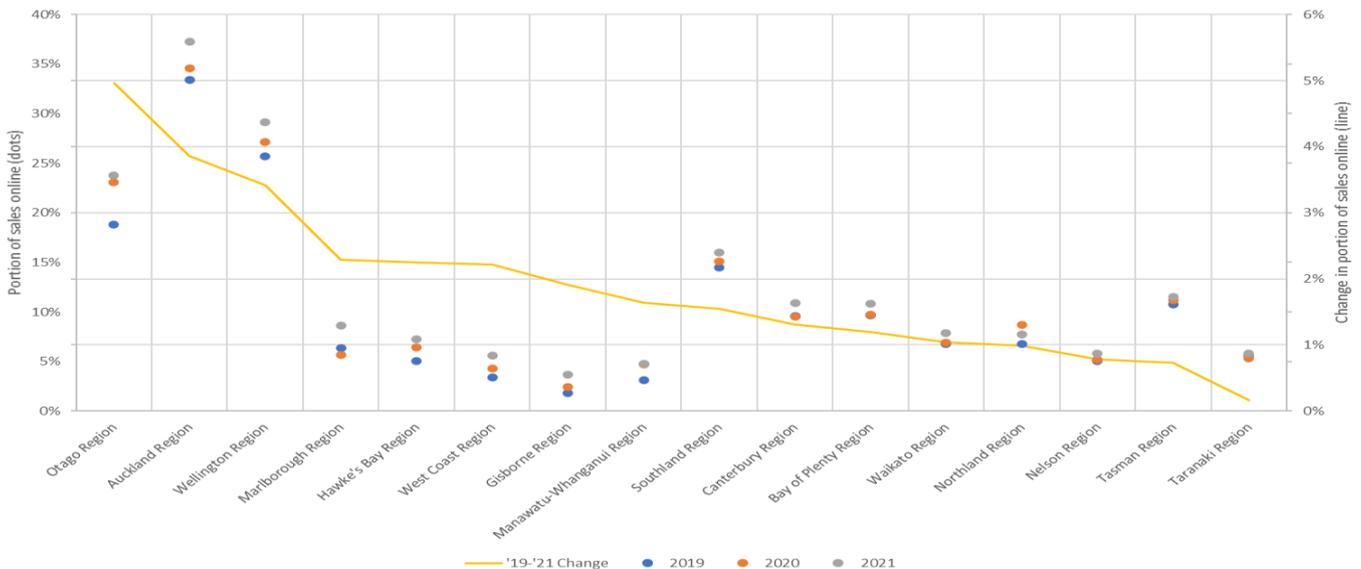
Figure 5 shows the share of online spending by region. Auckland and Wellington lead the country, with 37% and 29% of spending respectively occurring through online channels. At the other end of the spectrum, online spending in Gisborne and Manawatu-Whanganui is less than five percent of total spending. In the three years to 2021, the online spending share has grown most rapidly in Auckland, Wellington, and Otago.

Figure 4: Online card spending share by Merchant Category



Note: Each year's portion of online sales is measured over the May to August period.

Figure 5: Online card spending share by Region



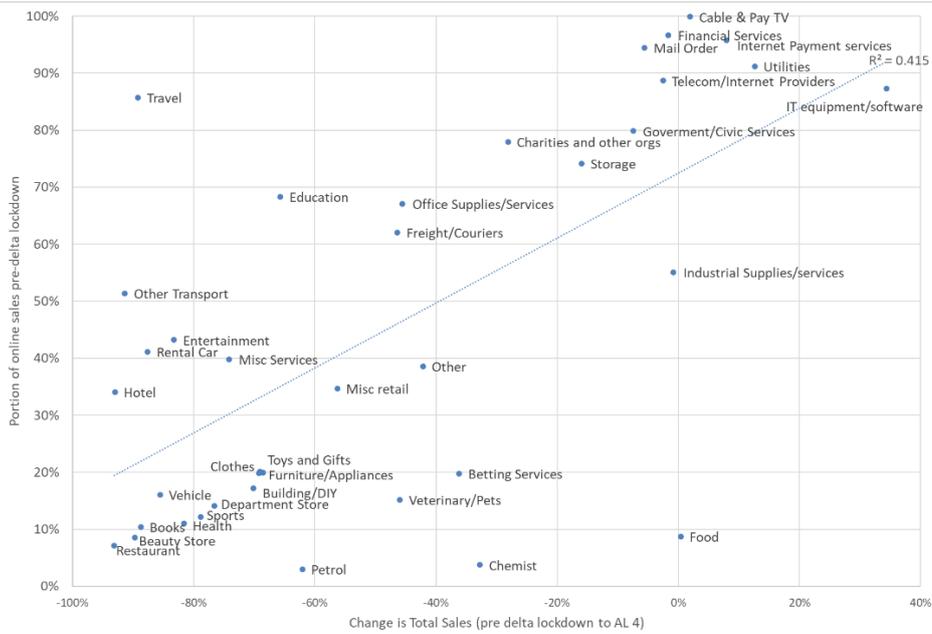
E-commerce a vaccine for the economy

Selling online has many benefits for businesses, including lower transaction costs and greater market reach. Online sales also insulate businesses from the negative impacts of lockdowns. Figure 6 shows the share of online spending versus the decline in total spending over the first two weeks of the Delta lockdown by merchant category. The clear negative relationship indicates that the Delta lockdown had a much less negative impact on spending for merchants with a higher share of online spending compared to merchants with a lower share of online spending.

The biggest outliers to this relationship are *Travel* and *Food*. The former has a high share of online spending, but people were unable to travel during lockdown. The latter has a relatively low share of online spending, but people still needed to eat during lockdown.

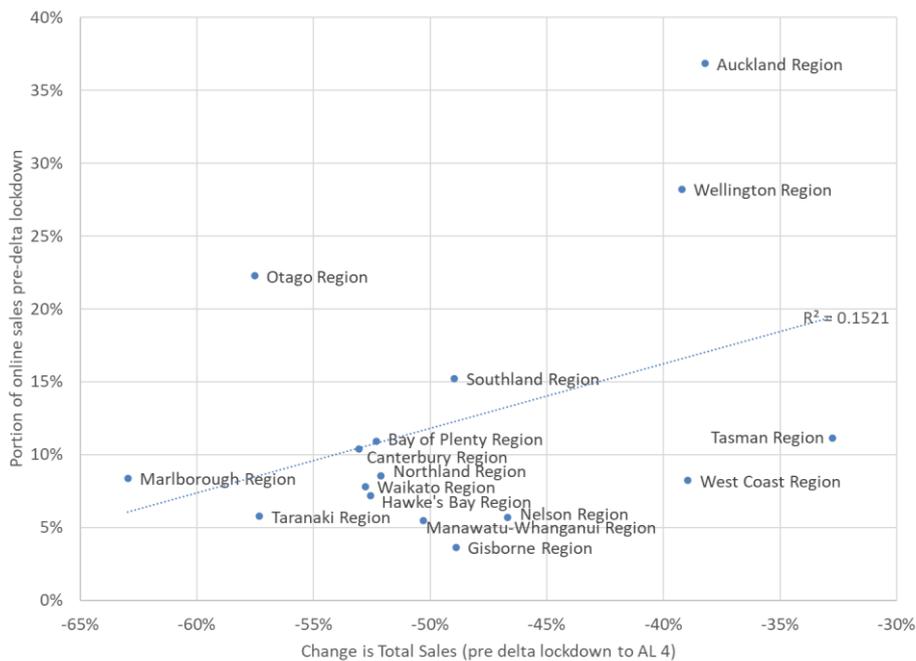
Figure 7 plots the share of online spending versus the decline in total spending over the first two weeks of the Delta lockdown by region. The relationship is still negative, but not as strong as across merchant categories. It is still the case, however, that Auckland and Wellington – with relatively high online spending shares – suffered lower spending falls than some of the regions where online spending is less well established.

Figure 6: Online sales and change in card spending in lockdown, merchant categories



Notes: The horizontal axis is the change in total card spending in the first two week of the Delta lockdown compared to pre-lockdown. The vertical axis is the online share of total spending.

Figure 7: Online sales and change in card spending in lockdown, regions



Conclusion

Since the nationwide lockdown in 2020, online spending has grown steadily as a share of total BNZ card spending. This is very much consistent with the idea that the COVID-19 pandemic has hastened the adoption of digital tools and technologies.

Selling online allows merchants to not only reduce transaction costs and to broaden their markets, but to also hedge against disruptions in face-to-face retail. Although New Zealand is moving away from using lockdowns in the fight against COVID-19, some settings within the traffic light system will also constrain foot traffic for many businesses. As COVID-19 goes endemic in the community, Kiwis may also feel less inclined to get out to the shops. By increasing their presence online, retailers can build in greater resilience in a COVID-19 world.

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