THE IMPACT OF COVID-19 ON SINGAPORE CONSUMERS’ DIGITAL BEHAVIOUR
A summary of Accenture’s data-driven analysis of COVID-19’s impact on digital behaviour of Singapore consumers, and the implications for businesses as the country exits from Circuit Breaker.

Five months after Singapore’s first COVID-19 case, the economy is starting to show signs of a slow recovery: businesses are re-opening and people are adjusting to the Next Normal\(^1\) as the Circuit Breaker restrictions ease.

While COVID-19 has caused dire economic consequences, it has also shone a spotlight on the digital economy, and how consumers and businesses have adapted to the pandemic.

Accenture Applied Intelligence analysed 20 million online transactions and 3 billion online browsing sessions from our data partners, news articles and social media data. We have used this data to identify industry trends and shifts in digital consumer behaviour in Singapore in order to help businesses prepare for a post-Circuit Breaker era.

The following is a summary of the findings based on our analysis of data from 13 industries, which compares the percentage change of online transaction and browsing metrics during COVID versus pre-COVID.

Overall, as brick-and-mortar business activities slowed, businesses in some industries such as Investing saw up to three times their normal growth in online transaction volumes and/or revenues.

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**PERCENTAGE CHANGE DURING COVID (LATE JAN – MID MAY 2020) vs. PRE-COVID (NORMAL WEEK, SEP – MID NOV 2019 & 2 WEEKS IN JAN 2020)**

<table>
<thead>
<tr>
<th>SELECTED INDUSTRIES</th>
<th>ONLINE REVENUE</th>
<th>ONLINE TRANSACTIONS</th>
<th>ONLINE REVENUE PER TRANSACTION</th>
<th>AVG. ONLINE SESSION DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groceries</td>
<td>45%</td>
<td>65%</td>
<td>-12%</td>
<td>198%</td>
</tr>
<tr>
<td>Restaurants &amp; Delivery</td>
<td>161%</td>
<td>74%</td>
<td>50%</td>
<td>64%</td>
</tr>
<tr>
<td>Investing</td>
<td>73%</td>
<td>212%</td>
<td>-45%</td>
<td>64%</td>
</tr>
<tr>
<td>Insurance</td>
<td>71%</td>
<td>32%</td>
<td>30%</td>
<td>194%</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>-7%</td>
<td>29%</td>
<td>-28%</td>
<td>2%</td>
</tr>
<tr>
<td>Consumer Electronics</td>
<td>-9%</td>
<td>-5%</td>
<td>-6%</td>
<td>-7%</td>
</tr>
<tr>
<td>Fashion &amp; Apparel</td>
<td>-25%</td>
<td>-4%</td>
<td>-22%</td>
<td>12%</td>
</tr>
<tr>
<td>Beauty &amp; Cosmetics</td>
<td>-44%</td>
<td>13%</td>
<td>27%</td>
<td>7%</td>
</tr>
<tr>
<td>Jewellery &amp; Luxury Products</td>
<td>94%</td>
<td>82%</td>
<td>7%</td>
<td>17%</td>
</tr>
<tr>
<td>Children’s Retail</td>
<td>0%</td>
<td>-7%</td>
<td>1%</td>
<td>20%</td>
</tr>
<tr>
<td>Games</td>
<td>-15%</td>
<td>29%</td>
<td>-34%</td>
<td>8%</td>
</tr>
<tr>
<td>Hobbies &amp; Leisure</td>
<td>9%</td>
<td>8%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Travel &amp; Tourism</td>
<td>-72%</td>
<td>-66%</td>
<td>-22%</td>
<td>-64%</td>
</tr>
</tbody>
</table>

\(^{*}\)“Normal week” accounts for holidays and major shopping seasons.

Source: Accenture research and analysis

SINGAPORE CONSUMERS' BEHAVIOUR BY INDUSTRY
GROCERIES
As online transactions and revenues grew, demand significantly outweighed supply with consumers spending approx. 198% more time online.

OBSERVATIONS
- Revenue increased by 40% during DORSCON Orange and 51% during Circuit Breaker, relative to normal week.
- Transactions increased by 53% during DORSCON Orange and 80% during Circuit Breaker, relative to normal week.
- Online session duration increased by 91% during DORSCON Orange and 335% during Circuit Breaker, relative to normal week.
- The increase in online session duration far surpasses the increase in revenues and transactions, which could imply that people are spending more time in finding products or delivery slots.
**REСТАУРАНТЫ И ДОСТАВКА** (Restaurants, cafés, fast-food delivery)

Revenues climbed more than twice as fast as transactions, with revenue per transaction approx. 50% higher as consumers opted for larger purchase baskets.

### OBSERVATIONS

- Revenue increased by 67% during DORSCON Orange and 281% during Circuit Breaker, relative to normal week.
- Transactions increased by 31% during DORSCON Orange and 129% during Circuit Breaker, relative to normal week.
- Online session duration increased by 12% during DORSCON Orange and 131% during Circuit Breaker, relative to normal week.
- Revenues have outgrown transactions, with higher revenue per transaction as consumers opt for larger purchase basket.

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All revenue and transaction numbers refer to online revenue and transactions only.
CONSUMER INVESTING (Personal investments in stocks, bonds, funds)
Investing transactions increased by approx. 212%, but approx. 45% lower revenue per transaction indicates consumers are making smaller bets.

OBSERVATIONS
- Revenue increased by 57% during DORSCON Orange and 94% during Circuit Breaker, relative to normal week.
- Transactions increased by 140% during DORSCON Orange and 305% during Circuit Breaker, relative to normal week.
- Online session duration increased by 123% during DORSCON Orange and 285% during Circuit Breaker, relative to normal week.
- Swings in revenues and transactions tended to be near key announcements, which could reflect the market sentiment.
- The increase in transactions outweighs the increase in revenues, suggesting that although investors are buying and selling more often, they are making smaller investment.
**INSURANCE** (Life, health, commercial insurance)

We observed a significant spike in online transactions and revenues for the four weeks following DORSCON Orange, with transactions reaching a peak of 196% above normal in the first week of March.

### Observations

- Revenue increased by 85% during DORSCON Orange and 52% during Circuit Breaker, relative to normal week.
- Transactions increased by 48% during DORSCON Orange and 11% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 6% during DORSCON Orange and 12% during Circuit Breaker, relative to normal week.
- Transactions and revenues saw a 4-week spike after the DORSCON Orange announcement, probably in response to promotions that extended hospitalisation coverage and death benefits related to COVID.
**TELECOMMUNICATIONS** (Telecom mobile services, broadband internet, home entertainment services)

Transactions grew up to 29% – even as revenues fell – as organisations battled for wallet-share across mobile data, internet and home entertainment.

<table>
<thead>
<tr>
<th>Week Starting From</th>
<th>Revenue and # Transactions vs. Normal Week avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DORSCON Orange</td>
</tr>
<tr>
<td></td>
<td>Circuit Breaker</td>
</tr>
<tr>
<td>19/1</td>
<td></td>
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<tr>
<td>26/1</td>
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<td>2/2</td>
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<td>8/2</td>
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<td>16/2</td>
<td></td>
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<tr>
<td>23/2</td>
<td></td>
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<tr>
<td>1/3</td>
<td></td>
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<tr>
<td>8/3</td>
<td></td>
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<tr>
<td>15/3</td>
<td></td>
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<td>22/3</td>
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<td>29/3</td>
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<td>5/4</td>
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<td>12/4</td>
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<td>19/4</td>
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<td>26/4</td>
<td></td>
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<tr>
<td>3/5</td>
<td></td>
</tr>
<tr>
<td>10/5</td>
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</tr>
</tbody>
</table>

**OBSERVATIONS**

- Revenue decreased by 3% during DORSCON Orange and 12% during Circuit Breaker, relative to normal week.
- Transactions increased by 13% during DORSCON Orange and 48% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 8% during DORSCON Orange and increased by 14% during Circuit Breaker, relative to normal week.
- While transactions have increased, revenues have dropped. This could be due to price competition from promotional internet and home entertainment services and upgraded mobile data plans that have attracted consumers but with reduced revenues.

*Source: Accenture research and analysis*
CONSUMER ELECTRONICS
(Communication devices, home electronics and electrical appliances)
Overall revenues shrunk by up to 9% as consumers cut back on discretionary spending; that came despite an increased need for equipment and devices required to work from home.

OBSERVATIONS
- Revenue decreased by 19% during DORSCON Orange and increased by 3% during Circuit Breaker, relative to normal week.
- Transactions decreased by 3% during DORSCON Orange and 7% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 14% during DORSCON Orange and increased by 1% during Circuit Breaker, relative to normal week.

All revenue and transaction numbers refer to online revenue and transactions only.
FASHION & APPAREL
Revenues dropped up to 25% during COVID-19 as cautious consumers reduced discretionary spending.

OBSERVATIONS
- Revenue decreased by 21% during DORSCON Orange and 30% during Circuit Breaker, relative to normal week.
- Transactions decreased by 4% during DORSCON Orange and 4% during Circuit Breaker, relative to normal week.
- Online session duration increased by 18% during DORSCON Orange and 3% during Circuit Breaker, relative to normal week.

All revenue and transaction numbers refer to online revenue and transactions only.
BEAUTY & COSMETICS

A shift in consumer purchasing behaviour from offline to online resulted in an approx. 44% increase in revenues and an approx. 13% jump in transactions.

### OBSERVATIONS

- Revenue increased by 27% during DORSCON Orange and 64% during Circuit Breaker, relative to normal week.
- Transactions increased by 1% during DORSCON Orange and 28% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 1% during DORSCON Orange and increased by 17% during Circuit Breaker, relative to normal week.

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All revenue and transaction numbers refer to online revenue and transactions only.
JEWELLERY & LUXURY

Online revenues and transactions were largely up, catalysed by festivals and gifting seasons during this period.

**OBSERVATIONS**

- Revenue increased by 85% during DORSCON Orange and 106% during Circuit Breaker, relative to normal week.
- Transactions increased by 86% during DORSCON Orange and 76% during Circuit Breaker, relative to normal week.
- Online session duration increased by 20% during DORSCON Orange and 14% during Circuit Breaker, relative to normal week.
- Sharp spike in revenues around the weeks of Valentine’s Day, International Women’s Day, Akshaya Tritiya* and Mother’s Day. During the overall COVID period, revenues and transactions have increased relative to normal week, suggesting that Jewellery & Luxury may still be relevant among loyal buyers.

* Akshaya Tritiya (26 April 2020) is an auspicious occasion celebrated by Hindus and people often buy gold and gold jewelry on this day.

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**Source:** Accenture research and analysis
**CHILDREN’S RETAIL** (Child apparel, toys, baby care)

Revenues and transactions were down since the start of COVID-19 as consumers cut discretionary spending but returned to growth one week before and three weeks into the Circuit Breaker.

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**OBSERVATIONS**

- Revenue decreased by 19% during DORSCON Orange and increased by 25% during Circuit Breaker, relative to normal week.
- Transactions decreased by 20% during DORSCON Orange and increased by 9% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 33% during DORSCON Orange and 9% during Circuit Breaker, relative to normal week.
- Revenues and transactions increased during Circuit Breaker when schools were closed.

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All revenue and transaction numbers refer to online revenue and transactions only.

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**Revenue and # Transactions vs. Normal Week avg.**

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Source: Accenture research and analysis.
GAMES (Live-streaming and online gaming platforms, board and card games)

A surge in revenues observed before the Circuit Breaker was unable to offset the overall decline in revenues compared to the pre-COVID-19 period.

OBSERVATIONS

- Revenue decreased by 43% during DORSCON Orange and increased by 22% during Circuit Breaker, relative to normal week.
- Transactions remained same during DORSCON Orange and increased by 66% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 1% during DORSCON Orange and increased by 47% during Circuit Breaker, relative to normal week.

All revenue and transaction numbers refer to online revenue and transactions only.
**HOBBIES & LEISURE** (Collectibles, crafts, outdoors)

We observed a one-off spike in revenues and transactions at the start of the Circuit Breaker as consumers sought out home-based activities.

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**OBSERVATIONS**

- Revenue decreased by 19% during DORSCON Orange and increased by 45% during Circuit Breaker, relative to normal week.
- Transactions decreased by 14% during DORSCON Orange and increased by 35% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 3% during DORSCON Orange and increased by 4% during Circuit Breaker, relative to normal week.
- Revenues and transactions spiked at the start of Circuit Breaker in anticipation of more time spent at home. However, they dropped subsequently possibly because hobby-related products have already been bought.

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All revenue and transaction numbers refer to online revenue and transactions only.

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Source: Accenture research and analysis
**TRAVEL & TOURISM** (Airlines, online travel agencies, hotels, car rentals, attractions)

Revenues and transactions were down over 90% during the Circuit Breaker.

**OBSERVATIONS**
- Revenue decreased by 55% during DORSCON Orange and 95% during Circuit Breaker, relative to normal week.
- Transactions decreased by 43% during DORSCON Orange and 92% during Circuit Breaker, relative to normal week.
- Online session duration decreased by 46% during DORSCON Orange and 86% during Circuit Breaker, relative to normal week.
- All metrics decreased throughout the COVID-19 period, with a sharp drop in mid-March when Singapore imposed travel restrictions for inbound and outbound travellers.
SEIZING OPPORTUNITIES IN A TIME OF UNCERTAINTY
Although countries like China, South Korea, Germany, Italy, Spain, US and India have begun to ease their lockdowns, fear and caution linger.

As Singapore embarks on a gradual three-phase approach to exit the Circuit Breaker, the effects on consumer behaviour in various industries remain to be seen. Different scenarios could emerge depending on the industry, evolution of the virus and the social response.²

The scale of the changes identified in our data suggests a clear shift in Singapore consumers’ behaviour impacted by COVID-19. There is a strong likelihood that the shift may persist into Phase One of the post-Circuit Breaker period and beyond, as movement restrictions and consumer cautiousness remain.

In the long run, this shift represents significant opportunities. Our analysis based on data collated in this report shows that the opportunity is worth at least half a billion US dollars per annum in Singapore’s digital economy. Companies that accelerate their capabilities to stay relevant to digital consumers will be able to seize opportunities and emerge victorious as we move into a post COVID-19 world.

The re-opening of our economy marks a new beginning for both consumers and businesses alike while we navigate and outmanoeuvre uncertainty.³ As organisations reinvent themselves for the Next Normal, here are three “No-Regret” actions they should consider.

**ACTION 1: Accelerate digital transformation and adoption of AI, automation and cloud for better customer engagement**

The technological infrastructure of many companies has suffered under the weight of the online surge. Organisations must be prepared to redesign their technical infrastructure, processes and systems to withstand future pressures.

Faster adoption of cloud platforms may provide resilience, reliability and the scalability needed to cope with traffic surges and volatility from the increased demand in digital services.

Automation and AI should be implemented at scale, guided by a clear business purpose and moved quickly from proof of concept to industrialisation to reap tangible business value.

One area which requires significant and immediate attention is the area of customer care and engagement. During COVID-19, customer inquiries have increased significantly, as evident in industries such as finance, travel and tourism sectors. Additionally, increasing remote work due to containment measures make it difficult to provide adequate staff to meet contact centre needs.

To optimise costs, companies should accelerate deployment and enhancement of virtual agent capabilities to handle greater volumes of routine customer enquiries and empower human agents to take on more complex situations.

In one large telecommunication company, AI is used to predict callers’ intent such that proactive customer care treatments can be implemented without involving humans, hence reducing live agent calls significantly. Another example is a European tax revenue agency which receives more than 3 million calls annually. By leveraging an innovative AI-powered voicebot, 50-60% of calls could be handled from start to finish, covering 18 different call cases.4

In the longer-term, firms need to make customer engagement more intelligent – and deliver hyper-personalisation and differentiated experiences with the use of digital, cloud, AI and automation.

**ACTION 2: Gain deeper customer insights and trends digitally**

As more consumers go online during COVID-19, they leave behind larger-than-ever digital footprints – such as purchase patterns, online interactions and digital content consumption that may be collected and analysed to gain a deeper understanding of their behaviour. Digital commerce in Asia-Pacific (APAC) is poised to take a “Quantum Commerce” leap. By 2020, the region is expected to account for approximately 70% of global digital commerce sales.5 It is therefore more important than ever that organisations harness AI, data and analytics to capture consumer digital footprints – to understand their behaviour, sentiments and predict their needs – ideally in real-time or near real-time.

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in order to seize opportunities promptly.

One large bank for example leveraged data sourced from multiple digital channels and external data partners to create a “Prospect 360” – a prospect analytics database that includes unique behavioural insights distilled from petabytes of location, browsing and interaction data. Machine learning models were built to identify “digital signals” which indicate a prospect’s propensity to buy, such that a sales message can be positioned in a timely and targeted manner. The result was a 33% uplift in clickthrough rate and 40% reduction in cost per acquisition.

In another example, a global skincare products manufacturer identified a new opportunity segment worth millions of dollars and developed hyper-personalised targeting messages. This was achieved by combining internal data with external online browsing, industry trends and social media usage data.

By capturing consumer digital footprints, analysing and predicting their needs using AI, companies can identify the “Zero Moments of Truth”\(^6\) – at the point when the customer is at the very beginning of the decision journey – in order to influence their choice and brand decisions.

**ACTION 3: Be a responsible business**

Since the COVID-19 outbreak, many companies in Singapore have stepped forward to help communities cope. Accenture has collaborated with clients, partners and communities to Respond, Recover and Rebuild themselves, such as by offering funding to provide 1.9 million UK households with internet access and devices, and matching employers to help laid off or furloughed people return to work faster.\(^7\) Grocery retailers set up mobile stores to bring essential items closer to selected neighbourhoods, and supermarkets and banks launched priority hours for the elderly and disabled.

Banks provided liquidity relief support and loan moratoriums to small and medium-sized enterprises, while telco companies distributed laptops to lower-income students for home-based learning. More than 280 organisations\(^8\) onboarded onto the SGUnited Traineeships Programme to equip graduates with relevant work experience as the market recovers.

In facing the social, economic and environmental challenges of the new decade, Accenture believes in practising Responsible Leadership to put sustainability and equitability at the heart of the business.\(^9\) Organisations that take a leadership role in positively contributing to society may become trusted and respected brands in the longer-term. They may ultimately emerge as winners in the eyes of the consumer.

\(^7\) https://www.accenture.com/cr-en/about/corporate-citizenship/coronavirus-societal-response
\(^9\) https://www.accenture.com/sg-en/insights/consulting/responsible-leadership
Accenture Applied Intelligence collaborated with our data partners to analyse data from news, social media, online and e-commerce transactions in Singapore. Our e-commerce transactions data covered 20 million transactions and 3 billion web browsing sessions for over 9 months from 1 Sep 2019 to 16 May 2020. The online consumer behaviours data with metrics such as transactions, sessions and session duration were used to identify patterns during COVID as compared to pre-COVID across 13 selected industries.

**Consumer Data:**
20.1M online transactions and 3.38 billion browsing sessions over 38 weeks

**Natural Language Processing & Text Analytics:**
News articles

**Sentiment Analysis:**
Social media data

**Analysed over different time periods**

**Pre-COVID (Normal Week)**
Sep 2019 – mid Nov 2019, and 2 weeks in Jan 2020

**During COVID**

<table>
<thead>
<tr>
<th>Dorsetkon Orange</th>
<th>Circuit Breaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Jan 2020 – Early Apr 2020</td>
<td>Early Apr 2020 – Mid May 2020</td>
</tr>
<tr>
<td>(Dorsetkon Orange announcement on 7 Feb 2020)</td>
<td>(Circuit Breaker announcement on 3 April, Circuit Breaker extension announcement on 21 April)</td>
</tr>
</tbody>
</table>
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