

Shop Safe, Pay Safe

A Break-down of Risk-free Payment Methods in a Pandemic

8 APRIL 2020

With the [global coronavirus pandemic](#) shifting the paradigm of what it means for how we live our daily lives, one thing remains constant - *payment*. As Paul Van Der Merwe's famous expression blatantly puts it, *money makes the world go round*. Be it grocery shopping, restocking household essentials or pumping gas, payment continues to be a universal essential in our day-to-day lives.

With increased public awareness surrounding personal hygiene, some are starting to switch on their '[Coronavirus Awareness Mode](#)'. Since it is impractical to avoid paying, what are the risks surrounding the different payment methods and which method prevails as the 'most hygienic'? We're here to break it down, in detail, for you.

1. Online Payment

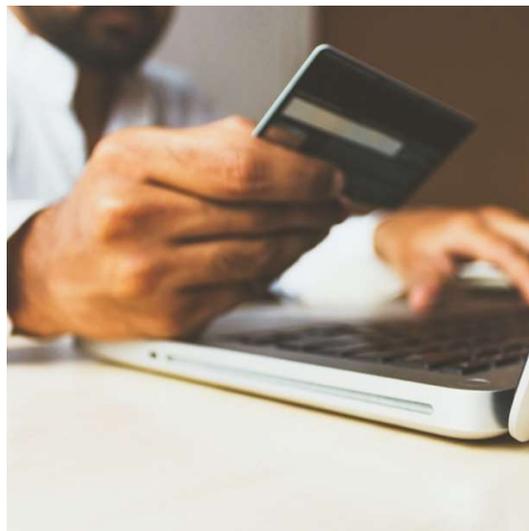


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One option takes precedent - online shopping. Fear of contagious environments, lack of inventory in brick-and-mortar stores and stringent lockdown measures have led to more people making a switch from [in-person to online shopping where possible](#). Order volume for [online grocery retailers surged by 210% from March 12 to 15](#), compared with the same period in 2019.

With e-commerce, one can make payments from the comfort of his or her own home and refrain from stepping out of their 'virus-free' safe zone, minimising the concern of placing individuals and workers at-risk. Food delivery companies have also launched [opt-in 'contact-free' delivery formats](#), minimizing physical human interaction.

That being said, online shopping is a safe bet when it comes to obtaining necessities. As we start making a gradual shift from in-store to online shopping, it is vital to be aware of online scams, such as [price-gouging items or fake goods by third-party sellers](#). We also suggest checking on potential logistics

issues for urgent orders, such as disruptions and delayed shipments. With consumer panic-buying, companies like Amazon are also said to be [prioritizing household staples and other high-demand items during the coronavirus pandemic](#), causing potential delays in ordered items that do not fall within said categories.

While e-commerce proves to be a holy-grail solution, [shopping at physical stores remains a preferred option for many](#). According to a survey done by Nielsen, [61% of global respondents reported that going to the grocery store is an enjoyable and engaging experience](#). It is human nature to walk into a store, experience a product, browse for ideas and purchase items immediately – a common routine that online shopping cannot fulfil.

With this in mind, let's look at the hygiene factors when it comes to in-store payment options.

2. Cash Payment

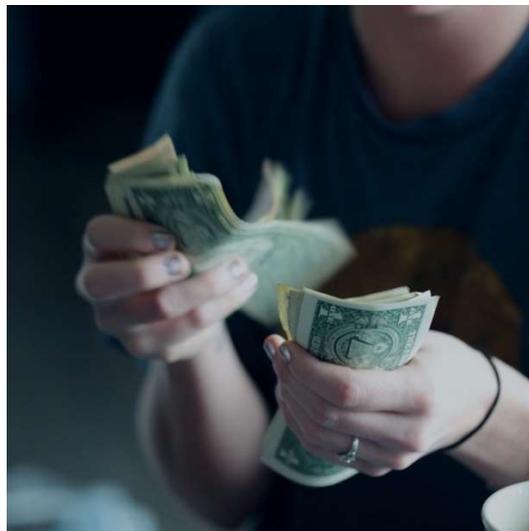


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There is an international consensus that cash is laced with bacteria. Cash has been dethroned from being the king of currency and [eschewed for fear of coronavirus spread](#). Alongside [China's mandatory cash disinfecting measures](#) and [South Korea's cash 'quarantine'](#), the [World Health Organisation has also advised hand washing after handling bank notes](#).

So, *can you get coronavirus from your wallet?* Well, yes and no. Studies have shown that the coronavirus is [spread through respiratory droplets](#), meaning that when an infected person coughs or sneezes, other parties are affected when these droplets are inhaled into their respiratory system. According to Harvard University, the [virus droplets can remain active on surfaces from a few hours up to several days](#). While the coronavirus can survive on paper currency, holding a virus-clad bank note will pose a [potential transmission threat only if your hand touches your nose, mouth, or eyes afterwards](#).

In cash's defence, the key difference between it and other physical surfaces is that cash changes hands frequently, making it a (potentially) notorious vessel of the virus. "Cash is just one of a number of frequently touched surfaces we encounter. The same is true for any other payment device whether it's a card, phone or watch," [says Reserve Bank of New Zealand assistant governor, Christian Hawkesby](#).

Though the debate surrounding cash remains, we strongly recommend practicing good personal hygiene when touching unfamiliar surfaces like banknotes and coins.

3. Chip and Pin



Photo by Nathan Dumlao on [Unsplash](#)

This brings us to another commonly-used, and often overlooked, payment method – Chip and Pin payments and ATM withdrawals.

[A study by Creditcard.com](#) and the University of Texas and Austin found that plastic cards, payment tablets and ATM keypads may be a more potent carrier of bacteria than cash. A study by the New England Journal of Medicine also stated that the [coronavirus could last longer on smooth surfaces like plastic and stainless steel than on porous surfaces like paper notes](#), placing chip and pin payment at a riskier level compared to paying with paper currency. Another downfall of such payments is the exposure to a higher number of different, possibly contaminated physical surfaces. If you're one to abstain from cash, contact card payments are no safer.

So, *should you pay using your card?* You can, but be sure to [disinfect your card](#). We'd also recommend for you to sanitize your hands before and after using payment tablets and ATM pin pads.

4. Contactless

With increased hesitation surrounding contact payment methods, global endorsement for contactless payment methods have been rife. Contactless payment systems are credit or debit cards, key fobs, mobile phones or other devices that use radio-frequency identification (RFID) or near-field communication (NFC) to make secure payments when in close proximity with a terminal. With contactless, transactions are made with a simple "tap-and-go", [eradicating the need for individuals to touch any surface as all](#). This automatically lowers one's risk of coming into physical contact with the virus, granting a smoother, safer transaction. Around the world, [countries are increasing their contactless payment transaction limits](#), with the UK recently expeditin an upgrade by [raising the contactless payment limit from £30 to £45](#). Supermarket giants Waitrose, Lidl, and Publix have also

encouraged contactless payment. Around the world, end-consumers are starting to [embrace digital wallets and contactless payment solutions](#).

Now, let's clarify the different contactless payment methods and their differences in (potential) contamination.

Bank Cards

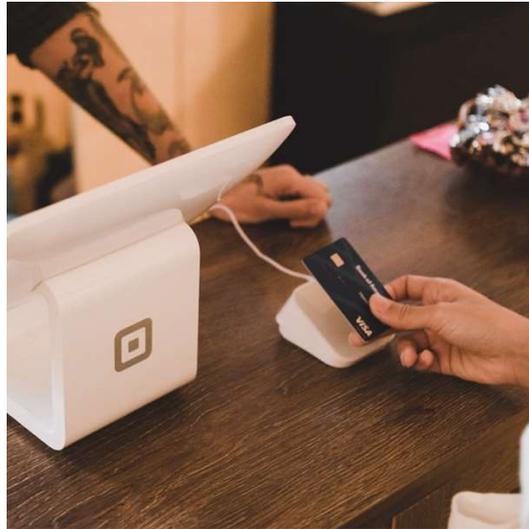


Photo by [Clay Banks](#) on [Unsplash](#)

Bank cards (credit and debit cards) are the most common form of contactless payment. As mentioned earlier, plastic cards and mobile phones have smooth, non-porous surfaces that can harbour the active virus, and [other types of nasty bacteria](#), for up to several days.

With that, contactless credit card payments encompass the same risk-level as card contact payment methods but can be considered a little safer as they eliminate one's need for touching payment terminals, touchscreens and pin-pads, lowering an individual's exposure to multiple surfaces.

Smartphones



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Apart from bank cards, the ubiquity of smartphones have made mobile payments, such as Apple Pay and Google Pay, the 'modern' go-to option for contactless. While this is a step in the right direction, promoting the increased reliance and usage of mobile phones may potentially be a double-edged sword. Humans' inseparable nature with their smartphones results in these devices being carried into different bacteria- and [potentially virus-clad environments like toilets, handrails, countertops and many other public surfaces](#). Our mobile phones are clad with bacteria and germs that they pick up when we bring them about throughout the day. To put things into perspective, a 2011 study done by the London School of Hygiene & Tropical Medicine found that [1 out of every 6 smartphones they studied contained traces of fecal matter](#). Yuck.

The susceptibility to virus exposure is exacerbated as mobile phones eventually come into [direct contact with key infection points](#) like an individual's face and hands, especially when it is being used for phone calls. "Think of mobile phones are an extension of your hands...You're washing your hands regularly and wearing these face masks, but then you use your mobile phone to make a phone call and it circumvents all the precautions you've taken," says Colin Tanner, payments expert and DIGISEQ co-founder. A lack of proper cleaning standards for mobile phones pose more risk than any form of contact payment, and, according to Singapore's Health Ministry, may even [be worse than not wearing a mask](#).

So, *are mobile contactless payments safe?* Subjective. While contactless mobile payments grant a seamless, contact-free and safe transaction process, frequently using your mobile phone can increase your exposure to the virus in general. If you are an avid smartphone user, be sure to [frequently disinfect and clean your smartphone \(and prevent damaging it](#) when doing so), and you're all good to go!

Wearables



Photo by Rosan Pay

There is one last contactless option one can consider, and that's [NFC-enabled payment wearables](#). While this may be a novel concept to many, "hover-to-pay" wearables are starting to become *the next big thing*, with [Mastercard reporting an eightfold increase in wearable payment transactions in 2019](#). Payment-enabled wearables exist in both active and passive devices, which means they can come in the form of a shiny Apple Watch or even discreetly camouflaged as your everyday accessories (i.e. rings, necklaces, wristbands). And, like credit and debit cards, they conduct contactless payment transactions with high standards of payment security.

Wearables, just as mobile phones and smartcards offer the same "contact-free", safe transaction journey, and similarly, we also suggest regular disinfection or washing and ensure general safety when in use. One thing, however, allows wearables to outshine the other contactless methods. While it may be impractical and potentially damaging to wash your smartphone or douse it in chemically potent soap, wearables are less fragile and mostly waterproof, allowing them to be easily washed and disinfected.

According to the Centers for Disease Control and Prevention, both [washing your hands and disinfecting personal belongings are vital in preventing the spread of the novel coronavirus](#). The 'wearable' aspect of a payment wearable means you can do this as you are washing your hands, fulfilling both criteria simultaneously. It also means that you will not need to leave them around and pick them up, and do not need to worry about it jeopardizing your personal hygiene precautions.

"Wearables are ideal in a situation like this where we need functional items that are easy to disinfect. The best part is you wear it on you at all times. You don't need to go fondling through your wallet or your pocket and then start worrying about the germs in your wallet and pocket," says Terrie Smith, Chief Executive Officer of DIGISEQ.

So, *should I pay with wearables?* If you're lucky enough to own a wearable, then we'll highly recommend using it (but of course, it can only complement your existing hygiene regime). If you do not own a wearable, [here](#) are some options for more affordable, passive wearable options.

Article by:



DIGISEQ | Wearable Payment Enabler

www.digiseq.co.uk

For relevant NFC wearable news and other industry content, please visit our LinkedIn Group [NFC Ready Wearables](#)

DIGISEQ provides an end-to-end service that securely delivers data into everyday wearables, enabling almost anything - from rings to bracelets - to have NFC payment, access control, digital identity and user engagement functionality. In essence, we help businesses elevate convenience standards for their consumers.

We offer businesses an all-in-one solution for entering the wearable technology market. We connect an entire ecosystem, serving as a central point of contact between banks, product creators, retailers, chip manufacturers and leading technology service providers.

Our award-winning digital platform empowers businesses by allowing them to tap on our existing infrastructure, ecosystem of partners, hardware and security systems to create wearable technology without disrupting their existing business processes.

As the pioneers and market leaders of passive wearable payment technology, we aim to be the world's largest issuing network.

About the Author: Fay Ng

Fay is a payments enthusiast based in Singapore with a broad perspective of the contactless trends worldwide. In her most recent role with DIGISEQ, she has focused on the uptake of NFC ready wearables amongst consumers.

If you have any comments or questions regarding this paper, or require additional information or images, please contact the author at info@digiseq.co.uk