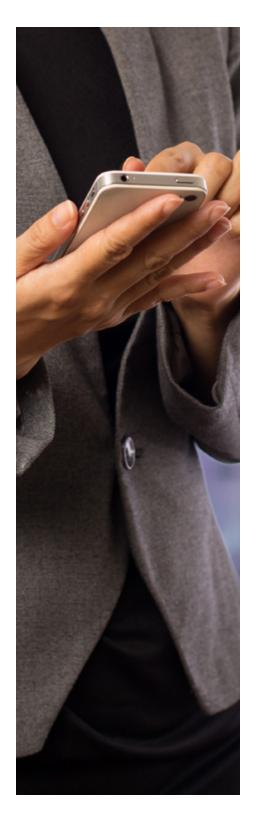


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Executive Summary



The secondary mobile device market is a major success story. What began as a way to keep old devices out of landfill sites has grown into a global industry set to be worth more than \$50 billion by 2022, according to IDC. Operators who are eager to find new revenue streams to fund required investments in new technology like 5G and original equipment manufacturers (OEMs) who want to incentivize consumers to regularly upgrade to new devices are investing in extensive used device buyback programs. With the help of third-party logistics providers (3PLs), both types of organizations hope to recover as much latent financial value as possible from these old devices.

If the secondary mobile device market is to deliver the value that operators, OEMs and 3PLs need, two things must happen:

- 1. Consumers must be made aware of the value of trading in an old device and be willing to engage in the process:
 - 58 percent of global consumers surveyed have yet to trade in a new device
 - 42 percent of consumers haven't been offered the service
- 2. Consumers must have high trust that their old device data will not fall into the wrong hands:
 - 26 percent of consumers have serious concerns about data stored on their old devices being accessed or compromised
 - 64 percent have never traded in a device but would do so if greater assurances were made around more responsible data management and erasure

To fully understand the importance of consumer trust in the future success of the secondary mobile device market as well as customer awareness of trade-in opportunities, Blancco surveyed 5,000 consumers from five different countries. By gauging consumer attitudes in the UK, United States, Germany, India and the Philippines (1,000 consumers per country), Blancco looked to create a representative global view.

The results provide clear evidence that consumers are willing to engage with the secondary market in return for greater assurances and tighter controls around data privacy. There is also a growing belief that regulation is needed to create consistent high standards across the mobile ecosystem.

The secondary mobile device market is set for an aggressive period of growth, delivering attractive benefits to the entire ecosystem. For this to happen, stakeholders must be able to demonstrate that they are maintaining responsible and ethical approaches to data management and erasure. Only then will consumer confidence and trust form the glue that binds the ecosystem together. Moreover, as the levels of technological sophistication improve to adequately process a rapidly growing number of collected devices, so too must the safeguards that protect against the misuse of consumer data. Consumers simply won't tolerate data breaches of any kind. Complacency is not an option if the secondary mobile device market is to deliver its potential.



Research Methodology

- 5,000 consumer respondents
- Survey base equally representing consumers from five countries (1,000 per country): UK, United States, India, Philippines and Germany
- Interviews conducted between December 2018 and January 2019

Survey Results & Discussion



The Secondary Mobile Device Market: A Major Revenue Stream For Operators, OEMs & 3PLs

Mobile operators and OEMs around the world face challenging times. Operators are investing heavily in 5G technology despite <u>core voice and data service revenues</u> <u>stagnating or falling</u>. Fierce competition from web giants continues to squeeze operator margins. While most operators are transforming business operations to cut costs and improve customer engagement, there remains a fundamental need for new revenue streams from new services.

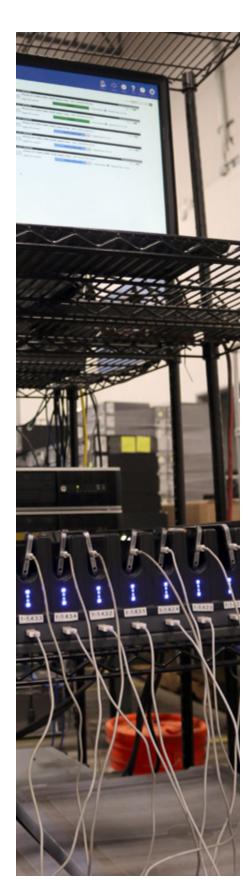
OEMs continue to try and innovate to stimulate sales of new smartphones and sustain premium pricing for high-end models. These device manufacturers are trying hard to continue 12-month upgrade cycles for all devices and are investing in new features and functionalities to do so. Unfortunately, achieving significant advancements in relatively small timeframes is challenging, so today's reality is that consumers often choose to keep their existing devices for longer.

Thankfully, for operators, there are a few remaining growing revenue streams. The secondary device market is a good example. The ability for operators to buy back used devices from consumers at the point of upgrade so the devices can be refurbished, reused or resold is becoming a big business. In fact, according to Counterpoint Research, the market for selling used devices is growing faster than the market for new devices.

OEMs are running their own buyback programs as well. Apple, Samsung and Google, for example, offer credit for consumers' old devices as a way to subsidize the cost of new models. In fact, <u>Apple</u> very recently announced that its commitment to its own buyback program was central to its future device sales strategy. Apple CEO Tim Cook said that unlocking the latent value in old devices would enable the company to sustain its premium pricing for new iPhones and maintain regular global upgrade cycles.

This is all good news for mobile device owners. Our study revealed that global consumers, on average, receive \$157 (£122) for every used device traded in. Industry analysts at IDC expect this average value to increase to \$180 (£136) per device by 2022. IDC also expects the total market for used devices to be worth an estimated \$52.7 billion in the same timeframe. This suggests that more than 290 million devices will be collected in 2022, more than double the 140 million collected in 2017 (Counterpoint Research).





The secondary device market is currently in its infancy. It has only been in operation for a few years. As this and other market studies prove, there is plenty more value to be extracted from it, but only if its major stakeholders, namely operators, OEMs and the 3PLs that serve them in processing used devices, work hard to preserve consumer trust in data integrity. The results underline consumer awareness and sentiment towards the secondary device market and outline what must happen if it is to achieve its full global potential.

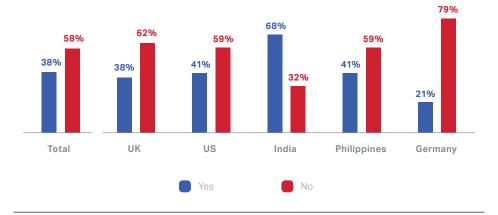
Global Secondary Mobile Device Revenue: Still A Lot of Room to Grow

Despite the incredible success for the secondary device market to date, it still has potential for further growth. When this happens, it will offer more than just economic reward to consumers, operators, OEMs and 3PLs, with additional environmental benefits. As more devices are collected and reused, the greater the reduction in used phones ending up in a landfill. This will have a large impact, as approximately 150 million mobile phones are discarded each year in the United States alone.

Consumer awareness of the secondary device market varies from country to country. Surprisingly, more than half of global consumers surveyed (58 percent) have yet to trade in a used device at the point of upgrade. As seen in Figure 1, consumers in India are way ahead – with 68 percent having traded a device. That's a staggering 27 percent higher than in other countries. The UK, United States and the Philippines have comparable levels of consumer engagement in device buyback programs, while Germany appears much more apathetic.

Figure 1.

Have you previously traded in an old device at the point of an upgrade?





When consumers were asked why they had not yet traded in a used device, the most common response (42 percent overall) was that they had never been offered the service. This includes almost half of all Germans (49 percent) and only 41 percent of Indians, a remarkable statistic given high levels of secondary market penetration achieved in India to date. A similarly high number (37 percent) of consumers admitted to passing down devices to family and friends, rather than looking to resell them (see Figure 2).

Figure 2.

Why have you not previously traded in your smartphone?

	TOTAL	UK	US	INDIA	PHILIPPINES	GERMANY
I have never been offered the service	42%	36%	35%	41%	47%	49%
I opted to keep the device to pass to family/friends	37%	33%	28%	38%	45%	39%
I don't trust companies involved to responsibly manage/delete my data from my device	12%	10%	14%	16%	11%	10%
The credit offered undervalued the device	11%	16%	13%	15%	6%	9%
There are so many different service providers, that you don't know which to trust	8%	6%	8%	22%	9%	4%
Other	7%	9%	13%	1%	1%	7%

What is undeniable is that there remains a huge latent market opportunity for the secondary device market. We're set to see a huge shift over the next three years as awareness of the benefits of second-hand devices improve, especially with public commitments from major operators and OEMs. Device buyback programs will continue to form a central part of their new device upgrade cycle. As awareness builds, so too will the number of used devices collected, refurbished and resold. Our study shows that only 32 percent of consumers globally would not consider buying a used device (only 22 percent in India and 25 percent in the Philippines). These findings provide plenty of potential demand for the re-sale of all used devices collected.

Consumer Trust Must Be Preserved

Today's consumers are extremely sensitive about their data privacy. The recent scandal involving <u>Facebook and Cambridge Analytica</u> and the misuse of customer data has created mistrust between consumers and digital service providers in general. As a result, consumers and regulatory bodies are demanding answers to questions about how customer data is collected, shared or even sold. While much of this scrutiny has focused on Facebook and other web giants, the fact is that all

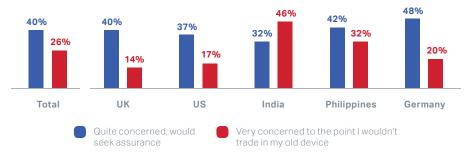


consumer-facing organizations must appear completely transparent and ethically responsible when it comes to the collection and management of consumer data.

Our research revealed that sensitivities around potential data misuse prevents many consumers from engaging with the secondary device market. As seen in Figure 3, 66 percent of global consumers would show some level of concern that their data stored on their old devices might be accessed or compromised after trade-in. More than a quarter of consumers (26 percent) choose not to trade in their devices because of these concerns. Two-thirds (66 percent) are concerned with how their data might be managed after trade-in, with 40 percent expecting collecting organizations to follow stringent processes and guidelines around data security.

Figure 3.

How concerned are you that data on your old device might be compromised/accessed after trade-in?*

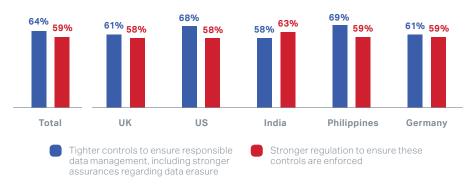


*Percentage of overall respondents

However, most consumers appear willing to remain open to the idea of future trade-ins. Almost two thirds (64 percent) of consumers surveyed admitted that they have never traded in a device but would do so if greater assurances were made around more responsible data management and erasure. Consumers in the United States (68 percent) and the Philippines (69 percent) are the most amenable (see Figure 4).

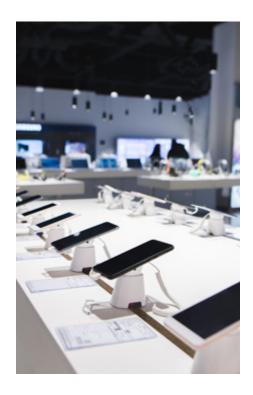
Figure 4.

If you have never traded-in your device due to data security concerns, what would convince you to change your mind in the future?



*Percentage of overall respondents; more than one option may be selected





Consumers that do engage with the secondary device market and choose to trade in their used phones remain extremely vigilant in ensuring data security best practices are observed. The majority (70 percent) check the data wiping policies of all device collecting companies before deciding to surrender their phones. Almost all respondents (94 percent) erase data before handing them over. The majority (80 percent) reset their phones, while a further 14 percent only delete as many messages and applications as they can access.

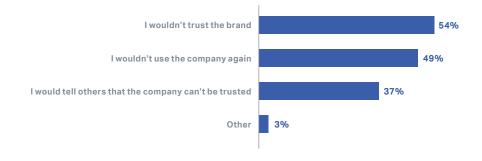
No Second Chances

Consumer confidence in the secondary device market must never be taken for granted. All stakeholders must commit to employing secure practices to ensure the maximum number of devices are collected. The impact of breaches resulting from consumer data being left on re-distributed used devices cannot be underestimated. Nearly half (48 percent) of consumers surveyed would take legal advice after falling victim to a breach, and 40 percent would switch providers (operator or OEM). This figure is even higher in the Philippines, as 63 percent of consumers would seek legal advice. Overall, 24 percent of consumers (41 percent in India) would choose to complain via social media channels.

The potential for much wider reputational damage beyond those consumers that are directly affected should also be concerning. When asked how perceptions towards organizations at the center of a breach would change, 54 percent of survey respondents stated they would not trust the guilty brand, with 49 percent saying they would no longer buy products or services from the company again (see Figure 5).

Figure 5.

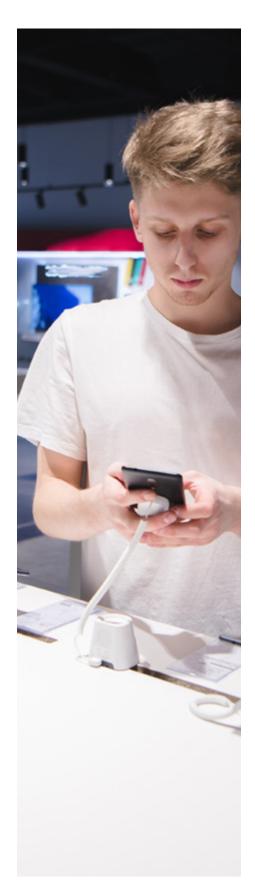
How would your view of operators / OEMs / logistics providers change following a breach?



The Need for Better Education, Better Control & More Regulation

With data breaches potentially bringing serious consequences for the organizations responsible, organizations must take a fresh look at the controls in place to protect consumer data integrity throughout the secondary device lifecycle. A key issue is the need to get consensus around what current processes should be deemed sufficient





when it comes to adequate used device data erasure. As found in this survey, most consumers believe performing a factory reset on a device before trading it in is doing enough to keep their data secure. In some cases, it is not. Performing a factory reset, especially on older devices, does not actually overwrite or delete data – it simply restores the device to its original state. This means that often the information can still be recovered by those with access to specialized software.

Operators, OEMs and 3PLs have fine-tuned the processing of used devices. While the process from device collection to re-distribution is very involved, it is not unusual for a single company to be able to process several hundred devices each day. Typically, the process includes automated device testing, identifying key locks and determining device value. The process then quickly and securely erases data stored on each device using properly scoped hardware and configuration, all in line with the necessary certification guidelines. Ideally, each device will then be given a certified tamper-proof audit trail backed by a certificate of erasure.

With so much focus on operational efficiency, there will always be a temptation to dispense with some of these key steps. At present, the secondary device market is light on regulation. Six out of ten (59 percent) of consumers surveyed called for this to be addressed, as seen in Figure 6.

Figure 6.

If you have never traded in your device due to data security concerns, what would convince you to change your mind in the future?



In North America, the leading global market for used smartphone collection, the exception is the Responsible Recycling (R2) Standard. R2 is the electronics recycling industry's leading certification, designed to help ensure the quality, transparency, and environmental and social responsibility of electronics recycling facilities. The R2 Standard is intended to unite the leading operators, OEMs and 3PLs behind some common rules; however, they are not a mandate, merely guidelines. In truth, pretty much every player in the secondary device ecosystem is R2 compliant. They must be in order to do business with each other. However, R2 guidelines were not created with the collection and processing of used smartphones in mind, leaving many to consider their relevance and applicability to the ecosystem that exists today – or the ecosystem it is expected to become.

The CTIA, with participants from major OEMS, processors and service providers, also has recently published new grading scales to streamline grading processes around the condition of used devices, though these too are best practice recommendations and not requirements.



Another key consideration that supports the need for tighter regulation for the secondary device market is the sheer quantity of illegitimate mobile retail organizations looking to buy and sell used devices. Small kiosks and convenience stores exist in most global towns and cities. These operations regularly buy and sell used devices from consumers without needing to comply with any data security guidelines. The devices are often resold via large global commerce or auction sites. Interestingly, when consumers were asked where they would consider selling their used devices, most (36 percent) admitted they would prefer to sell them directly on eBay or Amazon rather than via mobile operators (31 percent) or specialist online trading sites like Mazuma (27 percent). Illegitimate, ungoverned practice will serve to undermine the positive intentions of the secondary device market and must be properly policed to preserve and maintain consumer trust.



Conclusion: No Time For Complacency

Without a common, mandated and regulated rule book for smartphone processing, the ecosystem will be subject to abuse and malicious attack. Let's be clear, the secondary device market has functioned perfectly well up until now. R2 and other standards have done their job with consumer data, in the main, being preserved. The current ecosystem is made up of multiple stakeholders that collect devices from various touchpoints and redistribute them to many other parties. Since the speed of device processing is the only critical success factor, and as more and more devices flood the market, the chances of data breaches or issues related to data misuse will become more and more likely.

Operators and OEMs have built a strong sense of trust with their customers. The secondary device market remains an amazingly lucrative and exciting opportunity for everyone, but only if it retains full consumer confidence built on trust and data integrity.



About Blancco

Blancco is the industry standard in data erasure and mobile device diagnostics. Blancco data erasure solutions provide thousands of organizations with the tools they need to add an additional layer of security to their endpoint security policies through secure erasure of IT assets. All erasures are verified and certified through a tamper-proof audit trail.

Blancco data erasure solutions have been tested, certified, approved and recommended by 15+ governing bodies and leading organizations around the world. No other data erasure software can boast this level of compliance with the rigorous requirements set by government agencies, legal authorities and independent testing laboratories.

Blancco Mobile Diagnostics solutions enable mobile network operators, retailers and call centers to easily, quickly and accurately identify and resolve performance issues on their customers' mobile devices. As a result, mobile retailers can spend less time dealing with technical issues and, in turn, reduce the quantity of NTF returns, save on operational costs and increase customer satisfaction.

Additionally, Blancco Mobile Diagnostics solutions empower mobile processors, 3PLs, Recyclers and Repair & Refurbishment Operations to easily, quickly and accurately process used mobile devices to identify any issues and determine overall value. By incorporating Blancco Mobile Diagnostics, mobile processors automate processes, deliver intelligent routing based on device attributes and increase overall efficiency, while driving incremental revenue and profitability.

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