

Case No. 4:20-cv-05640-YGR
Case Title Epic Games, Inc. v. Apple, Inc.
Exhibit No. DX-3084
Date Entered _____
By: Susan Y. Soong, Clerk, Deputy Clerk



Kantar ComTech USA Report CQ3'20

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The views of this analysis do not necessarily represent that of the management team of Apple Inc.

Apple Market Research and Analysis
CQ3'20

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Survey Information

Methodology	Online
Coverage	Population target: +16 years Population covered: 224,427,800
Monthly Interviews	20,000
Yearly Interviews	260,000
Weighting	Age, Gender, Region, Ethnicity

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Understanding the Mobile Phone Market

Collect

Consumer interviews amongst the same people every month over time

Measure

- Mobile ownership
- Carrier connections
- Mobile sales
- Device and bill spend
- Usage
- Trends

Profile

- Mobile phone owners
- Smart phone owners
- Carriers
- High value groups
- Devices
- Usage groups

Examine

- Market make-up
- Performance
- Consumer behavior
- Threats
- Opportunities

Method: Kantar Worldpanel ComTech is an independent market research service conducting longitudinal consumer surveys, measuring ownership and purchasing of device, carrier connections, billing and usage in the consumer technology market. Respondents are recruited to represent each country's population by demographic and region and screened to exclude those who complete other related surveys. Respondents are incentivized through a redeemable points system which, combined with a simple interview, leads to high panel retention rates (on average circa 80% per year) and improved data quality.

The Enterprise market is not covered within this study. Surveys are conducted at least once per month amongst all consumers belonging to the survey – enabling short recall, accurate trending and brand loyalty/switching analysis.

Charts with sample sizes that fall below 50 (where % share and data become less significant) are clearly indicated. Consumer survey panel data should be used to inform on ranking/trend movements and (as with all research) is liable to some statistical error, depending on sample size and consumer response.

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Time Periods

Time Period	Purchasing	Ownership
CQ3'19	July to September 2019	September 2019
CQ4'19	October to December 2019	December 2019
CQ1'20	January to March 2020	March 2020
CQ2'20	April to June 2020	June 2020
CQ3'20	July to September 2020	September 2020

Purchase data is run on a quarterly basis in order to provide the most significant base size for robust analysis and represents the majority of the data contained in this report.

Ownership data is used for measurement of market size (installed base) during a monthly snapshot in time, and a few select additional analyses.

- As Kantar's panelists complete the questionnaire repeatedly every month, if the ownership data were run on a quarterly basis it would count each panelists ownership multiple times and therefore over-read the market.
- Using ownership (rather than purchasing for additional analysis (e.g. demographic profiling) provides a larger base size which allows deeper granularity, but is also not restricted to recent purchasers providing a more holistic understanding of the brand or OS being analyzed.

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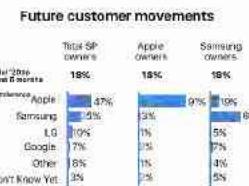
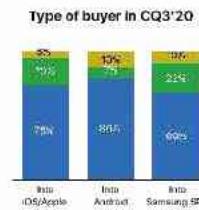
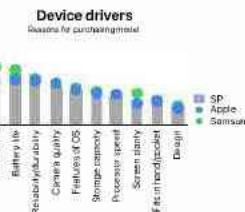
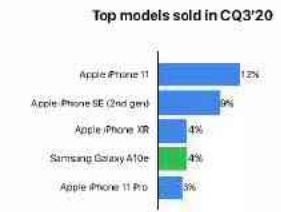
Kantar CQ3'20 Report

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Share highlights from the Kantar CQ3'20 report



Source: Kantar ComRes data, Q3'20 in India, 100k+ users

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Share highlights from the Kantar CQ3'20 report

95% of phones purchased in CQ3'20 are smartphones. Smartphone penetration is 91% in the USA

Apple is the top brand sold in CQ3'20 with 42% sales share, up 6% pts. YoY and down 1% pt. vs. last quarter. Samsung is the second-top selling brand with 33% share, down 2% pts. YoY and up 5% pts. vs. last quarter.

- Four out of the top five selling smartphones in CQ3'20 are iPhones, with iPhone 11 at 12% share followed by iPhone SE (2nd generation) at 9% share. In fourth place is iPhone 11 Pro with 3% share.
- Android captures 58% of smartphone sales in CQ3'20.

A previous good brand experience is the top purchase influencer (33% overall) for smartphone buyers, followed by having had "availability/in-stock" (32%).

77% of smartphones sold in CQ3'20 are 5.5" and larger.

- 51% of smartphones sold are in the 6.0"+ category, up 9% pts. from CQ3'19 and 4% pts. from CQ2'20.
- Apple and Samsung are tied in the 5.5-5.9" category with 33% sales share apiece.
- Samsung leads in the 6.0"+ category with 44% sales share compared with 35% for Apple.

iOS loyalty among smartphone replacers is at 88% for CQ3'20, up 7% pts. YoY and up 14% QoQ.

- Android loyalty is at 87% for CQ3'20, up 8% pts. YoY.

39% of smartphone replacers purchased an iPhone while another 36% of the same group acquired a Samsung device.

- 18% of new to smartphone buyers (from featurephone) purchased an iPhone while 33% acquired a Samsung device.

Source: Kantar Connected Data, Q3'20 in Market Share

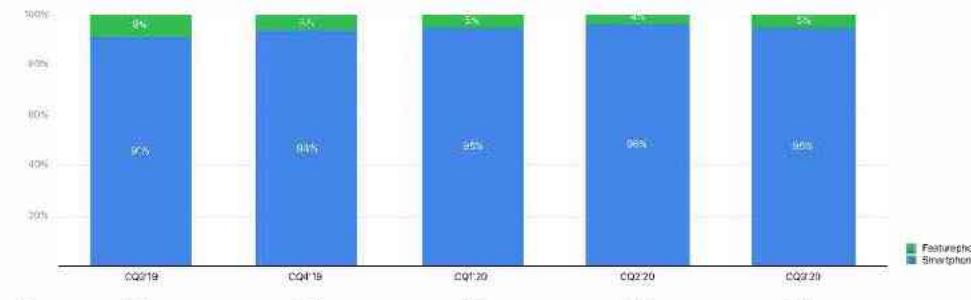
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Sales Overview

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Mobile phone purchasing

Smartphone vs. featurephone

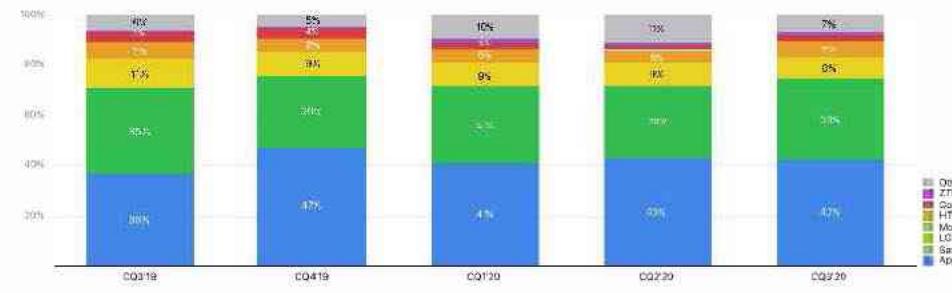


Data is based on smartphone and featurephone purchases only and is subject to Purchasing source reporting. May not include purchases made through resellers or direct sales channels that are passed on to Apple. © 2020 Apple Inc. All rights reserved. Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. Patent and Trademark Office.

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Smartphone brand purchasing

Brand shares over time



Data based on smartphone sales in the United States and are a gift. Purchasing data includes Apple's own devices and devices that are passed on to customers. Data may not be the best of iPhone, iPod touch®, iPad® or iPod nano® models.

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Top selling smartphone models

By model with share and average price paid

	CQ3'19	CQ4'19	CQ1'20	CQ2'20	CQ3'20
#1	Apple iPhone XR 9.5% \$795	Apple iPhone 11 13.3% \$593	Apple iPhone 11 12.0% \$597	Apple iPhone 11 10.0% \$698	Apple iPhone 11 11.7% \$614
#2	Samsung Galaxy S10 8.4% \$822	Apple iPhone XR 8.4% \$690	Apple iPhone 8 4.6% \$399	Apple iPhone SE (2nd gen) 8.5% \$401	Apple iPhone SE (2nd gen) 8.0% \$431
#3	Apple iPhone 8 3.2% \$558	Apple iPhone 11 Pro 5.7% \$785	Apple iPhone 11 Pro 6.3% \$988	Samsung Galaxy A10e (2019) 4.1% \$183	Apple iPhone XR 4.1% \$344
#4	Samsung Galaxy S10+ 3.1% \$838	Apple iPhone 11 Pro Max 5.3% \$911	Samsung Galaxy A10e (2019) 4.2% \$201	Apple iPhone XR 3.7% \$494	Samsung Galaxy A10e (2019) 4.0% \$210
#5	Apple iPhone XS Max 3.0% \$817	Apple iPhone 8 4.2% \$407	Apple iPhone XR 3.6% \$612	AT&T Instant Connect 3.4% \$165	Apple iPhone 11 Pro 3.0%
Total	2747	1698	1956	1729	1671

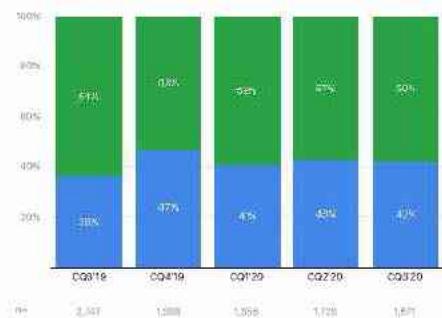
Data based on smartphone substitution for personal use and as of Sept. Purchasing data includes: bought used, never previously owned devices that are passed on. Question: Can you tell us the type of phone you own? Select brand and model. How much did you pay for the phone?

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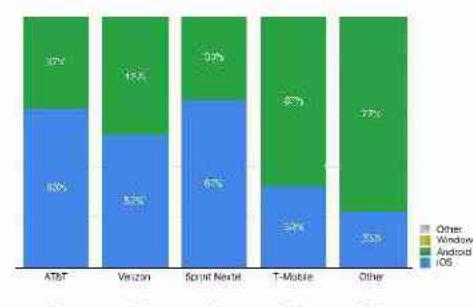
Operating system purchasing

OS shares over time and by carrier

OS share of smartphone sales



OS share of smartphone sales by carrier connection in CQ3'20



Data based on smartphone purchases made via AT&T, Verizon, Sprint, T-Mobile, and other carriers. Excludes smartphone purchases that are passed on to another. Alternatives are not counted in. Can you tell us what type of phone did your customer purchase? Model?

Source: Nielsen Connected USA, CQ3'20 Mobile Study

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Purchase triggers

Among smartphones purchased for personal use in CQ3'20

	Smartphone	iOS	Android	Samsung SP
My contract had come to an end	9%	8%	9%	10%
Had the option to upgrade early	9%	12%	8%	9%
I wanted the latest model/upgrade	12%	15%	10%	13%
My last device was lost/stolen	4%	3%	4%	2%
Previous phone completely stopped working	15%	15%	16%	15%
There was a special offer	15%	15%	14%	16%
Wanted newer device than one I have	33%	34%	33%	27%
Previous phone had poor battery life	25%	30%	23%	26%
Previous phone became too slow	22%	26%	20%	22%
Previous phone storage full	10%	9%	11%	12%
Previous phone stopped updating	8%	7%	9%	8%
Previous phone had minor faults	12%	8%	14%	10%
Other	9%	9%	10%	10%
n=	1002	106	665	406

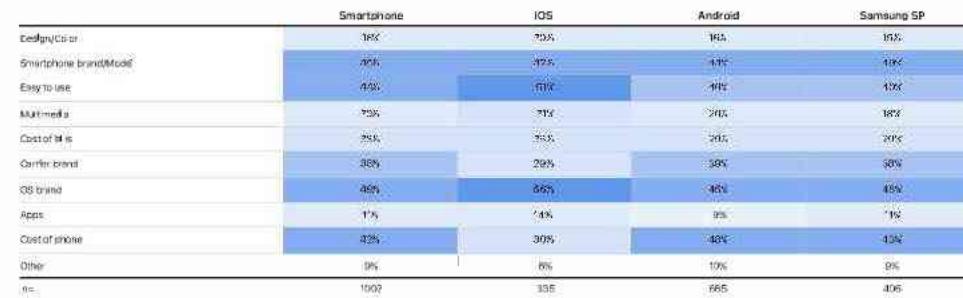
0 10 20 30 40 50 60 70 80 90 100

Purchase triggers among smartphones purchased for personal use (excluding gifts)
 Question: Why did you get a device at this time? (Multi Answer)
 Source: Kantar ComTech/USA (CQ3'20, March 2020)

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Overall reasons for purchasing smartphone

Among smartphones purchased for personal use in CQ3'20



% | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

Reason for choice (data based on multi-answer) among smartphones purchased for personal use (excluding 5G)
 Question: What was the main reason by choosing your mobile phone? (Brand/model, carrier, etc.) (Multi-answer)
 Source: Kantar Center/Verizon CQ3'20 Mobile Study

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Reason for purchasing model: Feature specific

Among smartphones purchased for personal use in CQ3'20

	Smartphone	iOS	Android	Samsung SP
Quality of the camera	34%	36%	32%	35%
Color/resolution of the screen	21%	19%	23%	27%
The size of the screen	16%	8%	19%	10%
Ability to customize/personalize	9%	9%	10%	13%
Portability of the phone	13%	10%	13%	17%
Reliability and durability	8%	9%	9%	4%
The quality of the materials	13%	11%	16%	14%
The attractiveness of design	16%	14%	17%	16%
Quality of the processor	24%	26%	24%	26%
Storage capacity on the phone	7%	7%	7%	7%
Ability to use SIM	4%	3%	4%	8%
Fingerprint recognition	17%	19%	17%	9%
Waterproof/water resistant	12%	11%	10%	15%
Expandable memory	12%	16%	18%	10%
Secure/data protection	6%	5%	7%	6%
How it fits in my hand/pocket	10%	20%	16%	21%
Features of OS (e.g., iOS, Android)	30%	30%	30%	32%
Face recognition	8%	18%	4%	6%
5G capability	12%	10%	13%	19%
Other	6%	3%	0%	6%
n=	1002	395	665	406

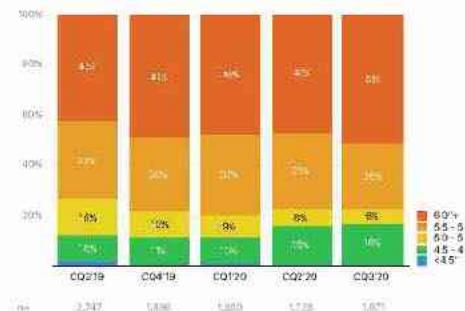
Reason for choice (data based on multi-answer among smartphone purchases for personal use (excluding gift))
 Question: What was the main reason for choosing this particular brand and model? (Multi-answer)
 Source: Kantar Confidential - CQ3'20 Market Study

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Screen size overview

Smartphone purchases by screen size

Screen size share of smartphone sales



Top 3 smartphone brands purchased by screen size in CQ3'20

Screen Size Range	Samsung	Apple	LG
6.0 +"	44%	35%	8%
5.5 - 5.9"	33%	33%	9%
5.0 - 5.4"	34%	6%	41%
4.5 - 4.9"	1%	9%	0%

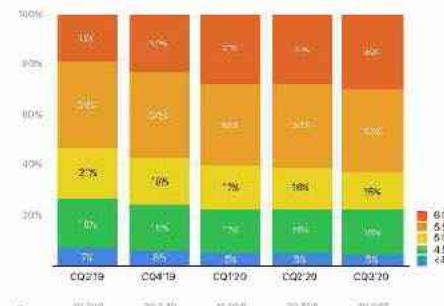
Data taken from smartphone purchases made for personal use and as a gift. Purchasing source includes: Magg's search, Dennis.com, and devices that are listed on Goodwill.com as of the date of release you own. © 2020 Goodwill Industries International, Inc.

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Screen size overview

Smartphone installed base by screen size

Screen size share of smartphone installed base



Top 3 smartphone brands owned by screen size in CQ3'20

Screen Size Range	Apple (%)	Samsung (%)	LG (%)	Other (%)
6.0"+	42%	38%	10%	40%
5.5"-5.9"	30%	30%	7%	33%
5.0"-5.4"	26%	47%	2%	15%
4.5"-4.9"	18%	4%	2%	78%

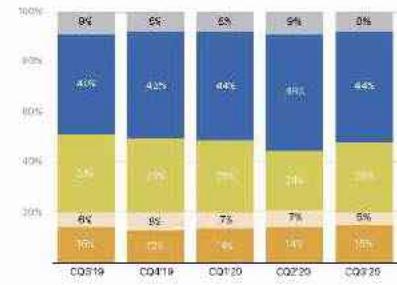
Mobile phone ownership-installed base is measured by the last report of ownership and includes multi-smartphone owned users.
Quarterly: Can you tell us the type of phone you own? (Select brand and model)
Source: Kantar Connected DNA, Q3 2020, Miles Way

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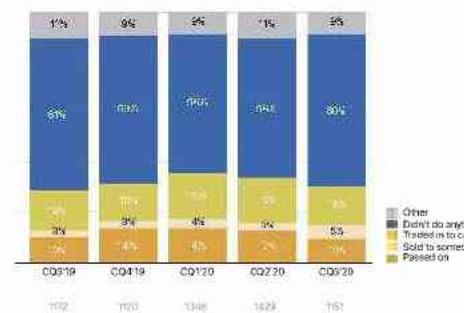
Disposition of old device

Among smartphones purchased for personal use

Previous iPhone owner purchasing any smartphone in the last 3 months



Previous Android owner purchasing any smartphone in the last 3 months



*Not listed keeping the device as a backup/extra device.

Data based on smartphone purchases for personal use and as a gift. Purchasing data includes: Google Play, Venmo, and other digital platforms that are passed on. Question: "What did you do with your old device?"

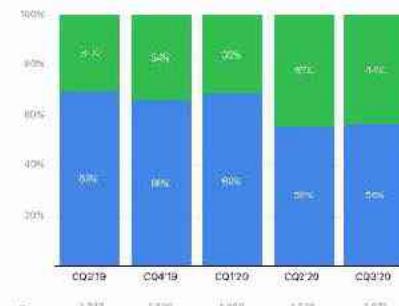
Source: Kantar TNS/UM, Q3 2020, Adults 16+ days

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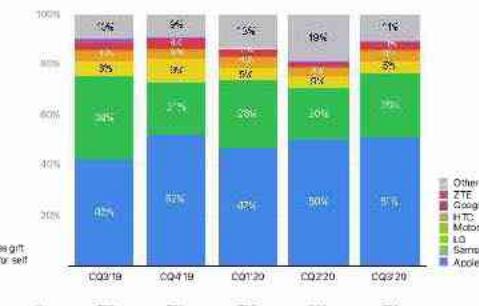
Smartphone gifting overview

Purchased for self vs. gifted devices

Gifted smartphone device share



Gifted smartphone manufacturer sales



Data is based on smartphone purchased for personal use and as a gift. Purchasing source includes: bought as gift, received as gift, or purchased that are classified as Gifting. Dell and Sony phones are not included. Dell was left on the top of the list of Other vs. bought/Received/Dell and Sony.

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New vs. used. vs. refurbished

Among smartphones purchased for personal use

Results reflect consumers' perceptions of the type of phone purchased, and consumers may not know if they are purchasing a used or refurbished device. These results should be reviewed along with other sources that capture unit volumes.



Data based on smartphone purchases for personal use (excluding RTR).
Question: "Is the mobile phone new, or does it have some kind of refurbishment?"
Source: Kantar/Centro/USA 2017 Bi-Weekly Study.

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Loyalty and Customer Movements

APL-EG_06596383

OS loyalty

Among smartphone owners who changed to another smartphone each quarter



Reporting in CQ3'20, newly purchased smartphone are counted as a launch example. Trends between time and historical data has not been updated.

% of iOS owners who switched to another OS during each quarter.

Question: Can you tell us the type of phone you own? What brand and model was your previous phone? (Open) Brand and model. Back-and-forth ratio of loyalty based on historical data of previous brand switch among long-term owners, and selected previous largest owned among new purchases) informed within the report.

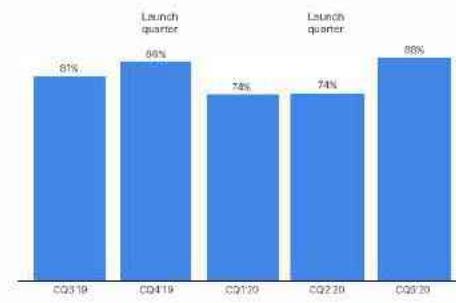
Source: Kantar Connect/USA CQ3'20 March-May

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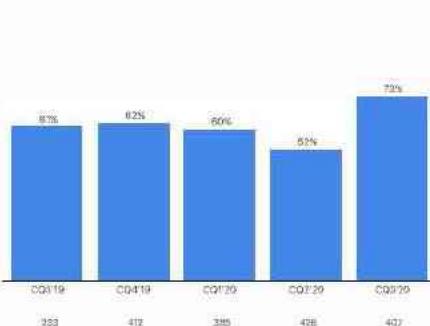
Brand loyalty

Among smartphone owners who changed to another smartphone each quarter

Apple loyalty



Samsung loyalty



Reporting in Q3'20, loyalty and customer movement are calculated with a lagged sample. Totals sum to 100% and historical data has not been updated.

No device owners who remained loyal to the brand when they changed their smartphone, switching to another.

Question: Can you tell us the type of phone you own? What brand and model was your previous phone? (Select Brand and model) Back-and-forth share of loyalty based on historical data of at least one brand switch among

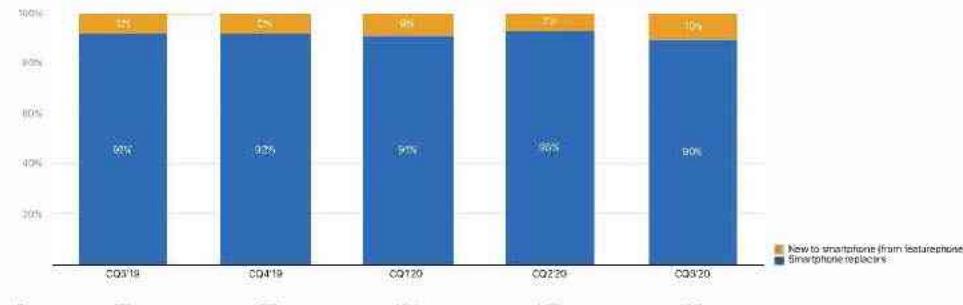
long-term owners, and selected previous loyalty (among all past owners) referenced within this report.

Source: Kantar Connect/USA CQ3'20 Media Study

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Source of new smartphone customers

Type of smartphone buyer based on device they came from:



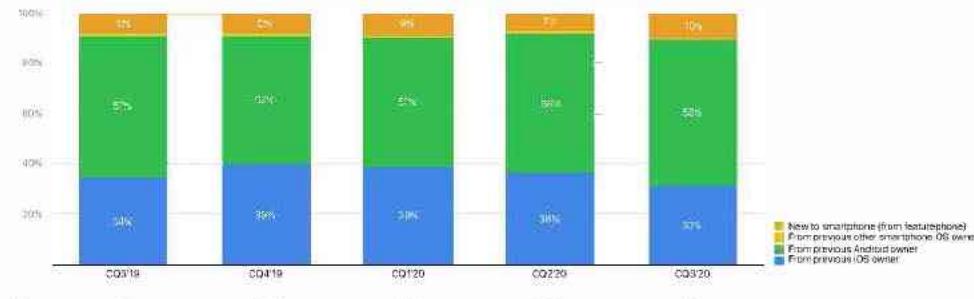
*Beginning in CQ3'20, monthly and quarterly movements are calculated with a cumulative sample. This includes units sold in Q3, and historical data has not been updated.

*The 'new to smartphone' movement only counts those based on a customer's previous ownership experience. A purchase is deemed to qualify if the phone replaces a feature phone or a smartphone that the user has not had before. Since phones replace a feature phone, it is not included in the new to smartphone category. If a user has owned a smartphone and replaced it with another smartphone, the first time the replacement happens yes those who previously owned a smartphone will be included in the new to smartphone category.

Apple.com/US/CA/DE/FR/ES/IT/PT/GB

Source of new smartphone customers

Type of smartphone buyer based on device they came from:



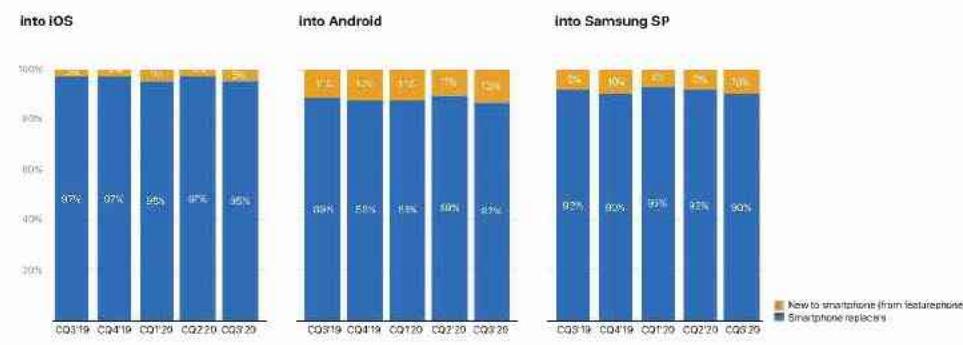
*Beginning in CQ3'20, newly and suddenly movements are counted starting from the last quarter. Previous data is not been updated.

¹The analysis shows customers moving from one device brand or ownership type to another. It may show that the user has two devices. Since Apple reports a significant number who previously owned a smartphone and replaced it with another smartphone, first time smartphone buyers who previously owned a smartphone and purchased it in a previous edition.

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Source of new smartphone customers

Type of smartphone buyer based on device they came from:

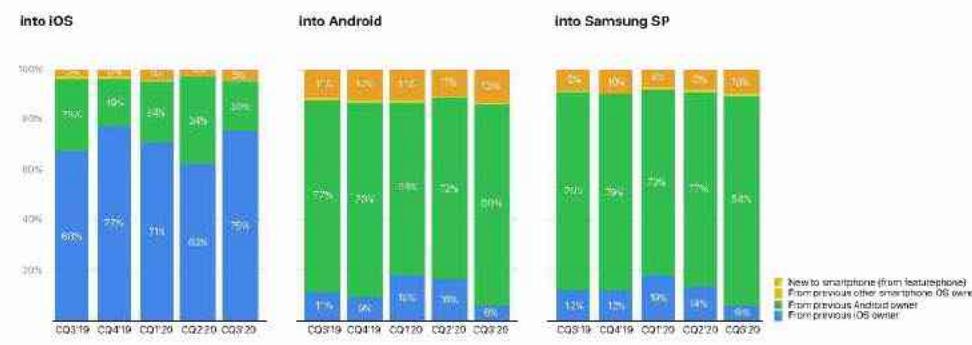


*Beginning in Q3 2019, monthly smartphone movements are calculated with a cumulative metric. This includes units of new and historical data that have not been updated.
**The analysis shows customers moving from one device brand to another over a six-month period. It may show that the user device has a higher "Smartphone replacee" segment than the "New to smartphone" segment, even though the user device has a lower percentage of "Smartphone replacee" and higher percentage of "New to smartphone".
Source: Nielsen Connected Data, Q3 2020 Mobile Wrap.

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Source of new smartphone customers

Type of smartphone buyer based on device they came from:



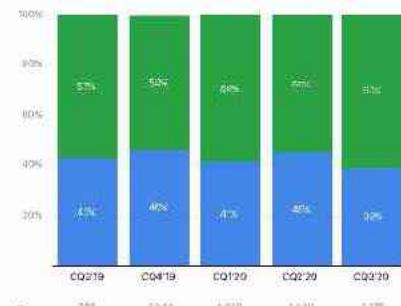
*Beginning in CQ 2'20, newly registered customers are counted starting at a consumer perspective. This includes new iOS and Android data has not been updated.
**The analysis shows customers moving from one platform to another based on quarterly device activation counts only. Apple's platform strategy shows that the same device can be counted under multiple platforms. Some iPhone models are reported across multiple platforms when previously owned by one customer and replaced with another smartphone. At first time completion to keep yeild those who previously owned a iPhone and purchased a non-iPhone smartphone.

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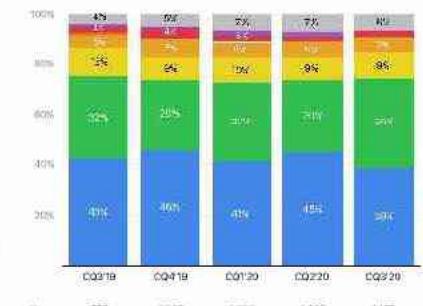
Smartphone replacers

New OS and Brand acquired

OS acquired



Brand acquired



*Beginning in Q3'20, Apple and Samsung movements are calculated on a lagged basis using the latest available data from the US and International markets.

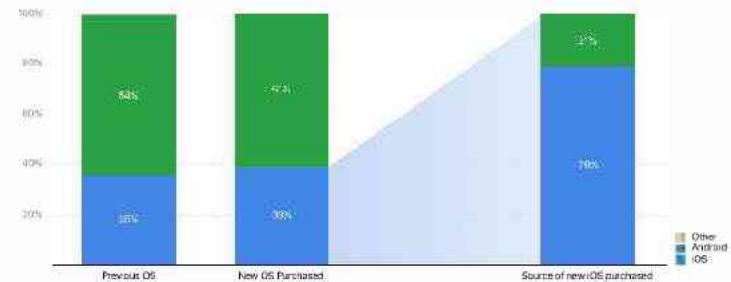
The charts above contain movements from acquisitions among other smartphone manufacturers. Smartphone Replacer handset movements were previously listed in monthly reports ending with P with asterisks.

Sources: Kantar Worldpanel USA, Q3'20 Month 54 (4Q)

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Previous OS owned vs. New OS acquired

Among smartphone replacers in CQ3'20

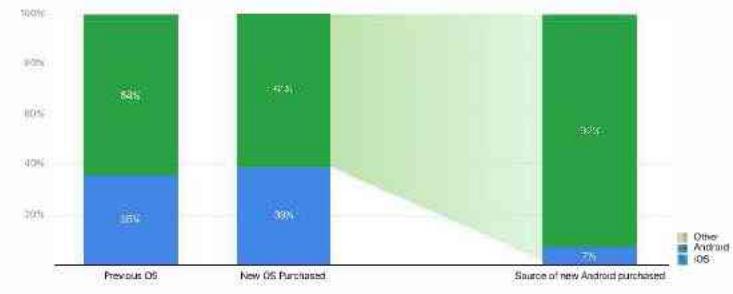


This analysis shows customer replacements into smartphone based on the new OS acquired among those who changed devices during quarter. Some totals do not sum up to 100% due to rounding.
Source: Kantar/CongressMedia, CQ3 '20, results of day.

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Previous OS owned vs. New OS acquired

Among smartphone replacers in CQ3'20

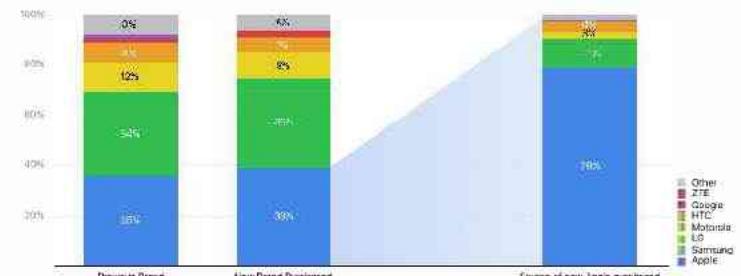


This analysis shows customer replacements into smartphone based on the new OS acquired among those who changed devices during the time period. Replacements represent consumers who previously owned a smartphone and replaced it with another smartphone.
Source: Kantar Connect/IDC, Q320 26 weeks to day*

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Previous Brand owned vs. New Brand acquired

Among smartphone replacers in CQ3'20

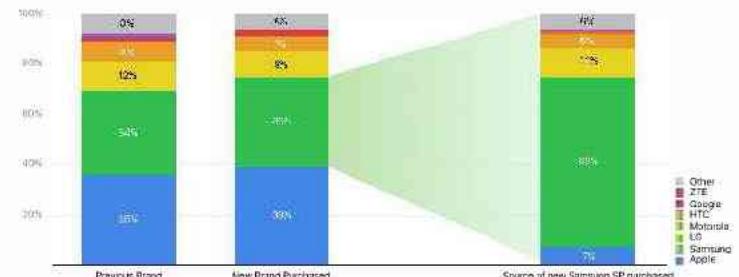


This analysis shows customer replacements and repurchases based on the most recent update in which they have a new device. Some brands acquired through repurchases represent consumers who previously owned a smartphone and replaced it with a different smartphone.
Source: Kantar/CongressMedia, CQ3'20, Adults 18+ Day

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Previous Brand owned vs. New Brand acquired

Among smartphone replacers in CQ3'20



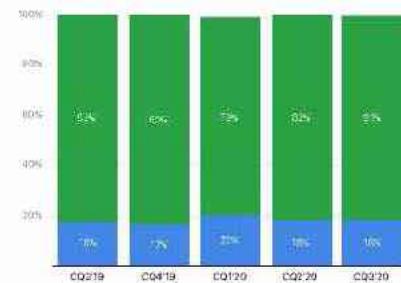
This analysis shows customer replacements and repurchases based on the most recent update in which there was a change in smartphone brand. Some brands represent consumers who previously never purchased and others are newly switch smartphone users. Data: Kantar/ComScore, Q320 26 weeks of day.

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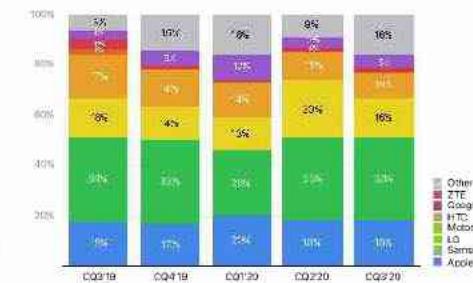
New to smartphone buyers (from featurephone)

New OS and Brand acquired

OS acquired



Brand acquired



*Beginning in Q3 2019, results and comment movements are calculated with a broadening scope. Results for quarters Q1, Q2, and historical data have not been updated.

The studies track consumer movements via smartphone among those who changed their mobile equipment. New smartphone buyer is defined as someone who previously owned no phone or has owned it with one other.

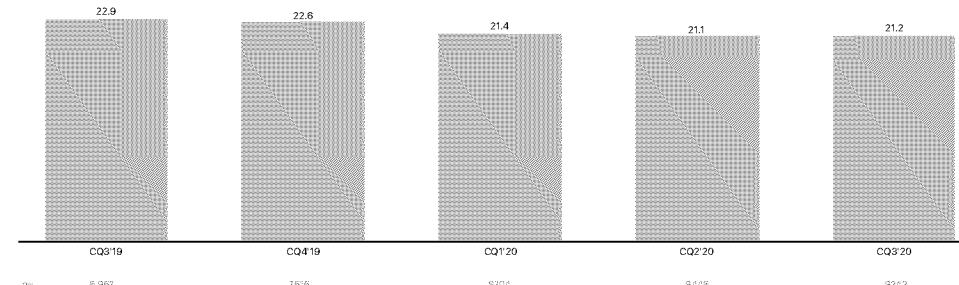
Source: Kantar Worldpanel USA, Q3 2019 through Q3 2020

Upgrade Cycle of Smartphone Replacers

AUTHOR: [REDACTED]

Average length of ownership of previous smartphone

Among smartphone owners who changed to another smartphone each 12 m/e quarter

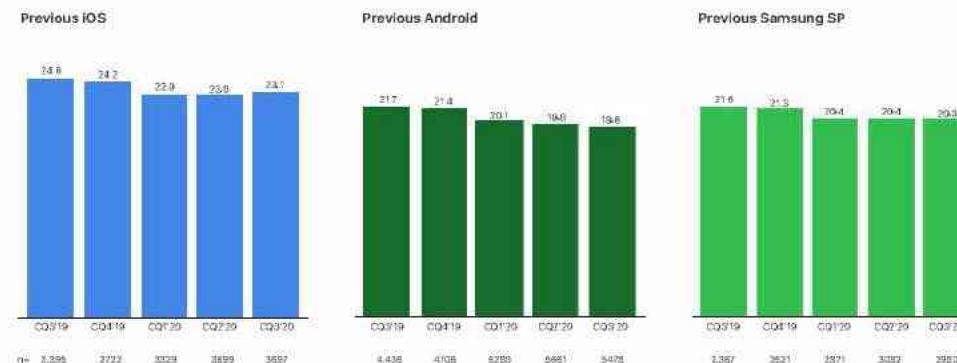


Length of ownership is calculated among those who change smartphone in each 12-month period and is the number of months of ownership of the previous device.
Question: 'When approximately did you acquire the mobile phone?' (Select year and month)
Source: Kantar CommsUSA, CQ3'20 Mobile Study

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Average length of ownership of previous smartphone

Among smartphone owners who changed to any other brand of smartphone each 12 m/e quarter



Length of ownership is calculated among those who change smartphone in each 12-months period and is the number of months of ownership of the previous device.
Question: When approximately do you acquire the mobile phone? (Select year and month)
Source: Kantar Connect/AXA CCI 2D Mobile Study

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Channel and Retailer

APL_EG_OCRNEDNIAU

Pre-purchase research

Among smartphones purchased for personal use in CQ3'20

	Smartphone	iOS	Android	Samsung SP
Visited a network/channel store	76%	15%	17%	17%
Visited manufacturer store	35%	35%	7%	25%
Visited other type of store	3%	3%	0%	2%
Read reviews in magazines	6%	6%	5%	8%
Visited a computer store website	1%	1%	0%	4%
Visited manufacturer website	10%	20%	1%	17%
Visited network/channel website	36%	34%	30%	31%
Visited websites with reviews	12%	12%	7%	10%
Asked friends for advice	4%	9%	0%	5%
Spoke with person for advice	6%	6%	0%	7%
Watched a TV advertisement	0%	2%	0%	0%
Watched a 3rd party advertisement	0%	0%	0%	0%
Watched product launch event	1%	0%	2%	2%
Saw an influencer using product	1%	3%	1%	3%
Watched video review online	1%	10%	8%	6%
Recommendation on social media	1%	1%	1%	3%
None of these	33%	33%	34.5	35.6
n=	1002	356	666	406



Pre-purchase research is on multi-answer among smartphone purchased for personal use (excluding gift/g)

Question: Leading up to your decision to buy your phone, did you do any of the following?

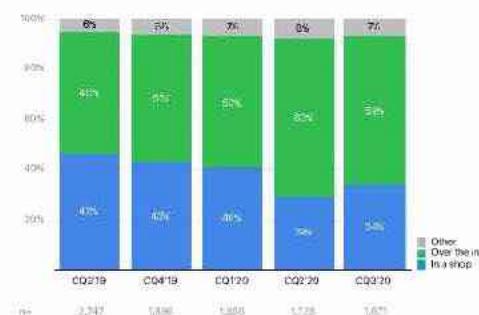
Source: Kantar Connect USA, Q3'20 Media Study

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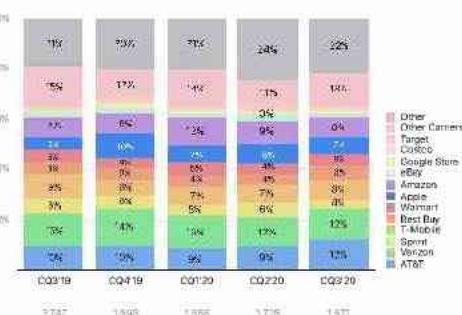
Channel and retailer

Among smartphone purchasers

Smartphone sales channel



Smartphone sales retailer



Data based on smartphone purchases (n=1,000) in the United States and Canada. Purchasing source includes: Mail order, telephone, direct sales, convenience store, gas station, supermarket, and other retail outlets. Question: "Where do you get these cell phones?"
Source: Kantar Worldpanel Q3'20. Unaudited. © 2020

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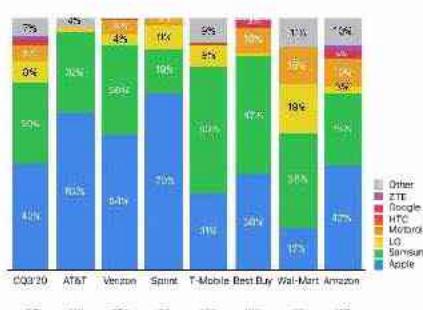
Retailer and brand purchasing

Among smartphone purchasers in CQ3'20

Retailer of purchase among smartphone buyers



Smartphone brand bought by retailer



Data based on smartphone purchases in the United States that were made as a gift. Purchasing data includes: Mobile and non-cell products purchased that are listed on Question 1a: Can you tell us the type of phone you own? (Select phone and mobile devices) where all items purchased will be phones.
Source: Kantar Connect USA, CQ3'20 Miles Study.

APPLE CONFIDENTIAL - 10

Influencers during purchase experience

Among smartphones purchased for personal use in CQ3'20

	Smartphone	iOS	Android	Samsung SP
In-store sales assistant recommended	15%	10%	7%	10%
Able to use a live demo phone	4%	6%	3%	4%
Exclusive promotion or offer	9%	0%	8%	11%
Good deal on price of the phone	36%	23%	38%	20%
Good deal on plan/contract	2%	4%	7%	6%
Recommended by someone else	12%	10%	8%	9%
Read/didn't know things about it	17%	10%	10%	9%
Saw an advertisement for phone/brand	4%	4%	4%	6%
Trade-in scheme	0%	10%	6%	10%
Previous good in-store experience	28%	2%	24%	37%
Wanted after sales support	2%	2%	1%	2%
Good future re-sale value	35%	8%	2%	2%
Free/second product/accessory	3%	7%	4%	6%
Availability in stock	52%	32%	32%	29%
Other	7%	8%	7%	7%
n=	1002	325	665	406



Purchase influencers below apply to smartphones purchased for personal use (excluding gifts).
Question: Thinking about the purchase experience, which of the following influenced your decision to buy/schedule your phone at the purchase stage?
Source: Kantar ComTechUSA CQ3'20 Mobile Study

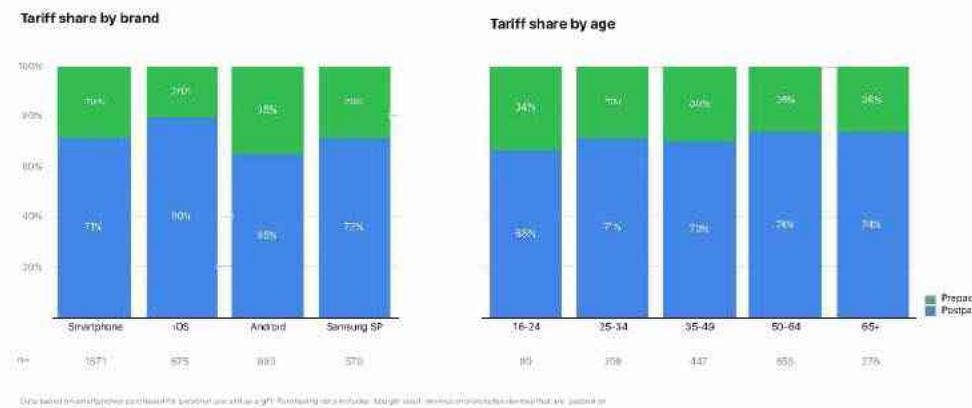
APPLE CONFIDENTIAL 41

Pricing Focus

APPL-E 06596404

Smartphone tariff type

By OS/brand and age among smartphone buyers in CQ3'20¹

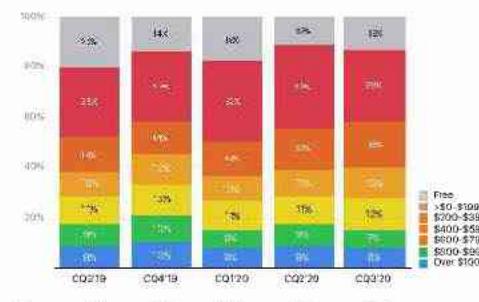


Apple Confidential - 12

Smartphone pricing overview

Priceband trends and average spend

Priceband share of smartphone sales



Average spend on smartphone by plan type

	Q2'19	Q4'19	Q1'20	Q2'20	Q3'20
Total SP	\$396	\$456	\$379	\$414	\$409
Postpaid	\$687	\$628	\$651	\$775	\$723
Prepaid	\$268	\$284	\$229	\$288	\$266

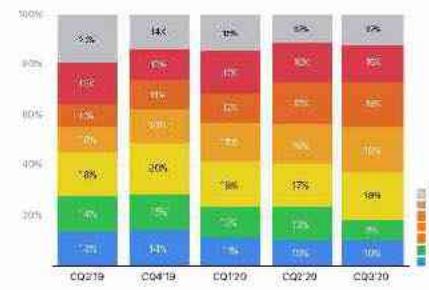
Smartphone average monthly spend based upon the average actual usage per month after monthly initial payment due at time of acquisition. In the case where no actual usage data exists, monthly average spend would not represent the recommended retail price. Only basic smartphone features (e.g. phone call, text message, email, web browsing) included. Monthly data includes longer usage, revenue and subsidies for devices that are passed on. Customer information is subject to privacy laws.^a
Source: Nielsen Global Connect Q3, Q3 2020, United States.

Apple Confidential - 14

iOS pricing overview

Priceband trends and average spend

Priceband share of iOS sales



Average spend on iOS by plan type

	Q3'19	Q4'19	Q1'20	Q2'20	Q3'20
Total iOS	\$525	\$596	\$530	\$525	\$497
Postpaid	\$565	\$602	\$581	\$544	\$523
Prepaid	\$415	\$499	\$441	\$450	\$395

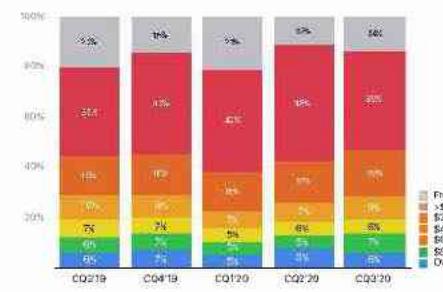
These figures are based upon the average selling price per month of monthly retained payment due to it is difficult to determine after subsidies and discounts whether or not it impacts the recommended total price. Only base retail price applies to devices for general use and as a gift. Monthly data volumes, longer usage, several contracts and other factors can affect the actual total price.
Gartner Information Devices, Inc. for the iPhone.
Source: Retailer Confidential, Q3'20, Market Share.

Apple Confidential - 10

Android pricing overview

Priceband trends and average spend

Priceband share of Android sales



Average spend on Android by plan type

	Q2'19	Q4'19	Q1'20	Q2'20	Q3'20
Total Android	\$320	\$340	\$278	\$330	\$346
Postpaid	\$400	\$438	\$557	\$410	\$426
Prepaid	\$165	\$172	\$180	\$190	\$199

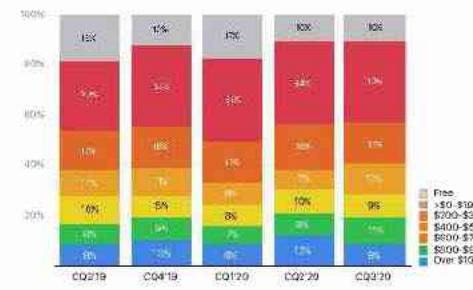
Smartphone average monthly spend based upon the average actual usage per month after initial payment due to it is described. In the case of postpaid, after subsidies and discounts, smartphone average monthly spend is based upon the recommended retail price. Only based on smartphone purchases for personal use and as light. Purchasing data includes longer term devices and contracts for which we passed on. Customer information is subject to privacy laws.^a
Source: Nielsen Global Connect Q3, Q3'20. Market Share.

APL-CONFIDENTIAL-10

Samsung smartphone pricing overview

Priceband trends and average spend

Priceband share of Samsung SP sales



Average spend on Samsung SP by plan type

	Q2'19	Q4'19	Q1'20	Q2'20	Q3'20
Total Samsung SP	\$397	\$434	\$377	\$456	\$433
Postpaid	\$575	\$519	\$551	\$527	\$518
Prepaid	\$227	\$224	\$211	\$265	\$224

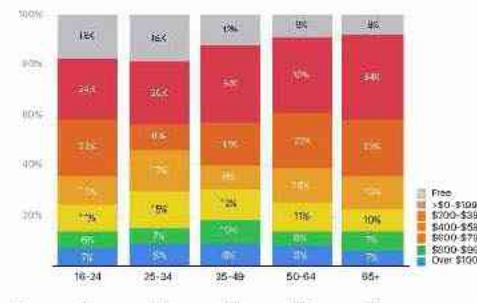
Note: Average spent on spend based upon the average selling price per plan type multiplied by monthly retained payment due to it is described. In the case where after subsidies and discounts, wireless operators appear to exceed the recommended retail price, Only base contract price is used for the postpaid use and as a gift. Prepaid data includes longer term renewal contracts or contracts that are passed on. Customer Information is always kept for the mobile.^a
Source: Nielsen ComScore, Q3'20, Mobile 18+ days.

APL-CONFIDENTIAL-A

Smartphone pricing overview by age in CQ3'20

Priceband trends and average spend

Priceband share of sales by age



Average spend on smartphone by age and plan type

	16-24	25-34	35-49	50-64	65+
Total SP	\$373	\$426	\$419	\$417	\$397
Postpaid	-	\$497	\$490	\$492	\$487
Prepaid	\$362	\$286	\$256	\$204	\$197

Smartphone average price spent based upon the average selling price per month after monthly initial payment due to it is described. In the case where no plan was offered after initiation and duration, monthly cost represents the recommended retail price. Only based on smartphone purchases for personal use and no gift. Purchasing data includes longer term devices and contracts for which we passed on. Customer information is subject to privacy laws.^a
Source: Nielsen Connected Device, Q3'20. All data is US.

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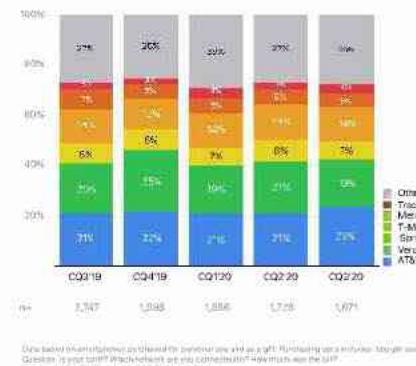
Carrier Focus

APPL-E_06596411

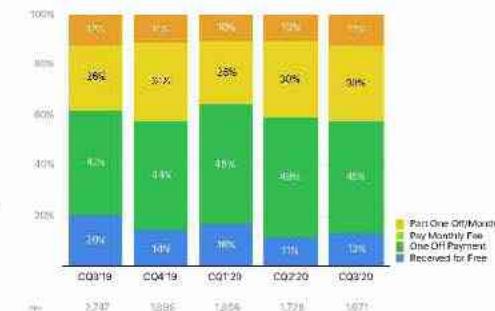
Carrier overview

Smartphone shares by carrier

Carrier share of smartphone sales



Smartphone payment plan bought



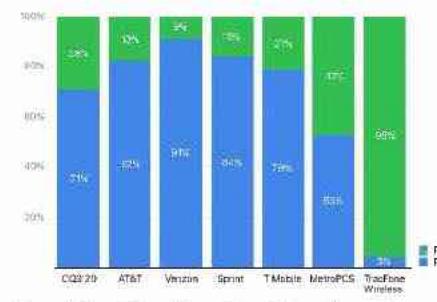
Data based on smartphone purchases for personal use and as a gift. Purchasing price includes: Any gift card, service contract, or device that are passed on.
GSM/GPS in your smartphone are very common! How much does the GPS?
Source: Apple Carrier Data, Q3'20 Analysis by Day.

APPLE CONFIDENTIAL / 10

Carrier overview

Tariff shares and ARPU by carrier in CQ3'20

Tariff share by carrier connection



ARPU (USD \$) by Tariff and Carrier

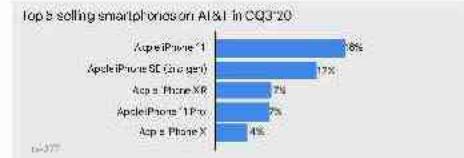
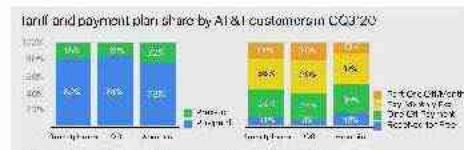
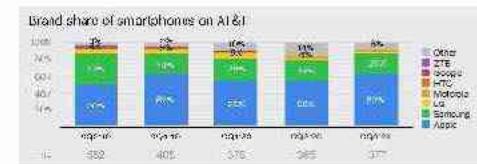
	CQ3'20	AT&T	Verizon	Sprint	T-Mobile	MetroPCS	TracFone Wireless
Billed ARPU	\$64	\$61	\$61	\$63	\$49	\$44	\$30
Postpaid ARPU	\$56	\$53	\$52	\$53	\$50	\$44	-
Prepaid ARPU	\$30	\$37	\$43	\$42	\$39	\$45	\$29

Estimated ARPU is total revenue on calls, texts and data plans - averaged over 12 months to the last 3 months.
Data based on monthly average purchased for personal use over a year. Purchasing data included. Avg. plan usage - revenue per user per month that are passed on.
Growth in your tariff dependence are very different! 4G users pass the 5G!
Source: Kantar Comms USA, Q3'20 Analysis by APL

APLUSORH/2020/11

AT&T purchasing snapshot

Shares by brand, pricing and top models



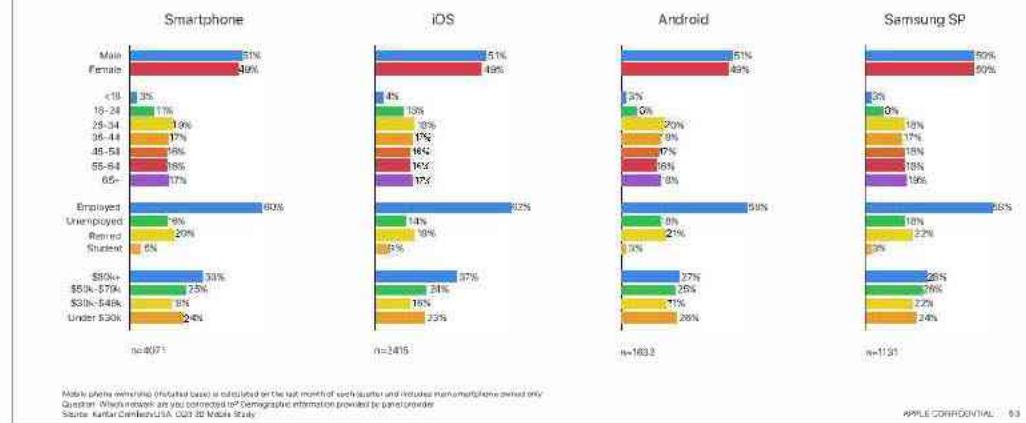
Smartphone market share based upon the average cellular price paid and any monthly included payment due (if # of months) by the consumer after subsidies and discounts, and does not represent the recommended retail price. Data reflect smartphone purchased for personal use and are a gift. Purchasing data reflects bought used, leased and exclusive devices that are passed on. Question: Which devices are you connected to? Can you tell us what type of phone (i.e. over 5 Select Brand and Model) from multiple/tri play to other phone?

Source: Kantar Center/AT&T CQ3'20 Market Study

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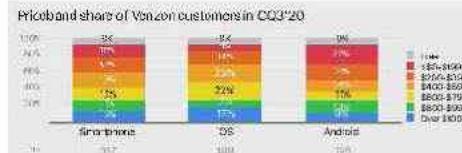
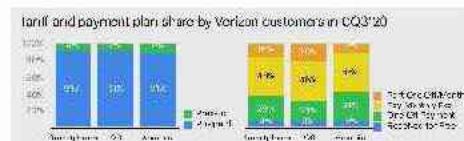
AT&T installed base profile

Gender, Age, Work Status, and Personal Annual Income of smartphone owners in CQ3'20



Verizon purchasing snapshot

Shares by brand, pricing and top models

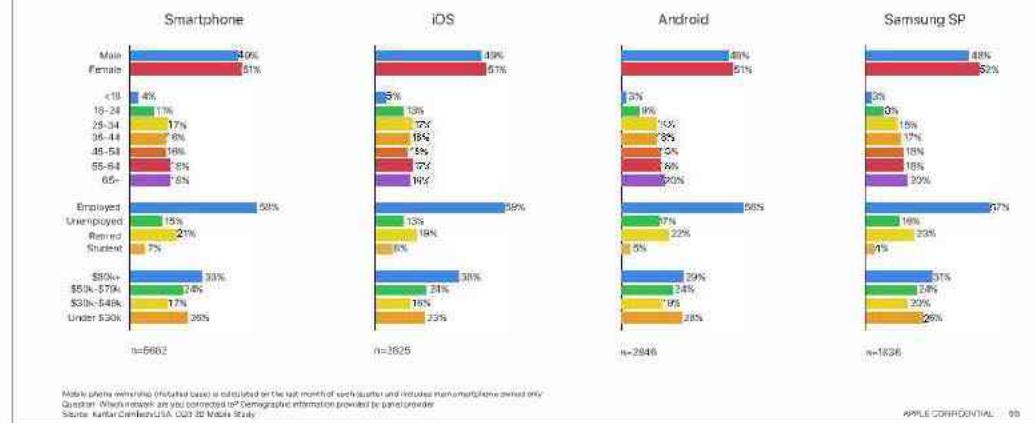


Schwarzs' adjusted spending based upon the average different price paid and why initially indicated payment date is 1/4 of mental by the customers after actual purchase and does not represent the recommended retail price. Data based on purchases for personal use or gift. Source: data extracted from our cash register sales database which includes all sales made by us since January 1, 1997. When asked if you do you consider the total cost to tell us who made up their list? Survey: Model 1997. Model 1998 includes day for store closing.

APPENDIX B

Verizon installed base profile

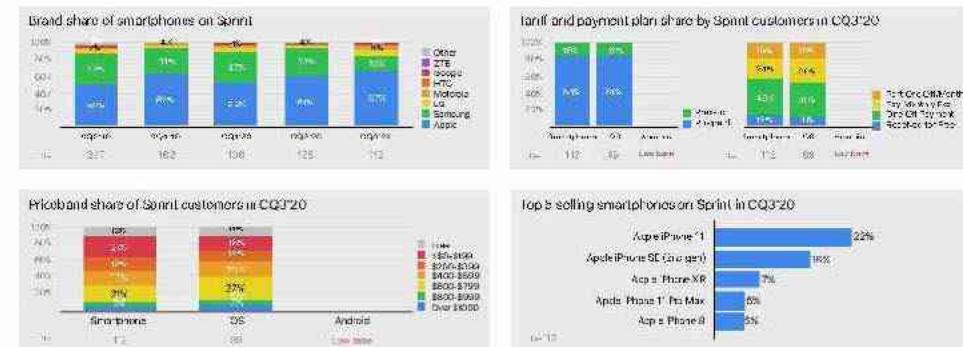
Gender, Age, Work Status, and Personal Annual Income of smartphone owners in CQ3'20



APPLE CONFIDENTIAL / 88

Sprint purchasing snapshot

Shares by brand, pricing and top models



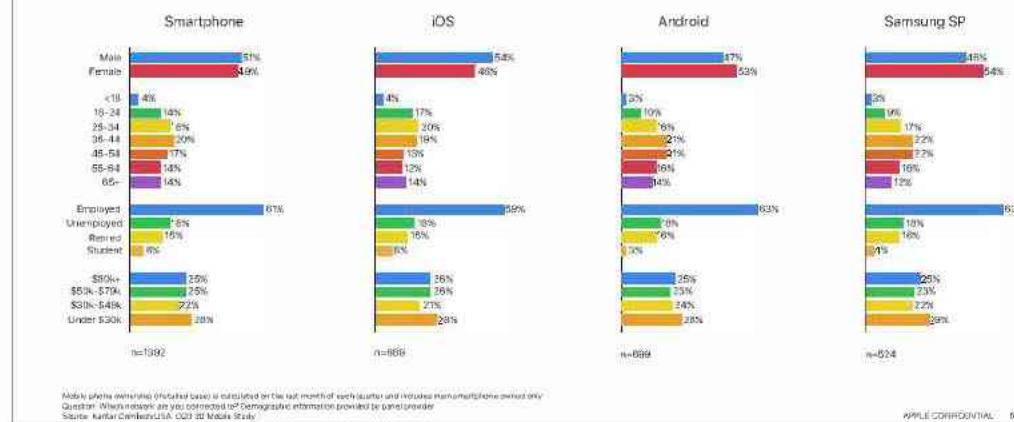
Sprint phone spend is based upon the average selling price paid and any monthly monthly payment due (if applicable) by the consumer after subsidies and discounts, and does not represent the recommended retail price. Data is based on smartphone purchased for personal use and is a gift. Purchasing data includes bought used, leased and exclusive devices that are passed on. Question: Which network are you connected to? Can you tell us what type of phone (i.e. over 5G) Select brand and Model from multiple (true/false) for other phones?

SOURCE: Kantar Connect USA CQ3'20 Mobile Study

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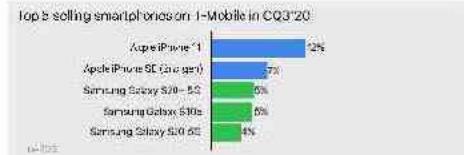
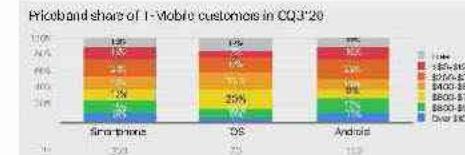
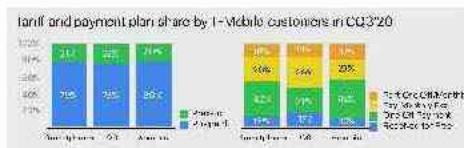
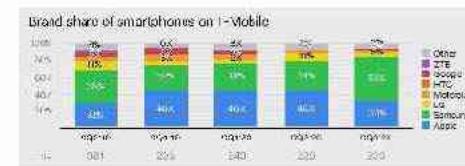
Sprint installed base profile

Gender, Age, Work Status, and Personal Annual Income of smartphone owners in CQ3'20



T-Mobile purchasing snapshot

Shares by brand, pricing and top models



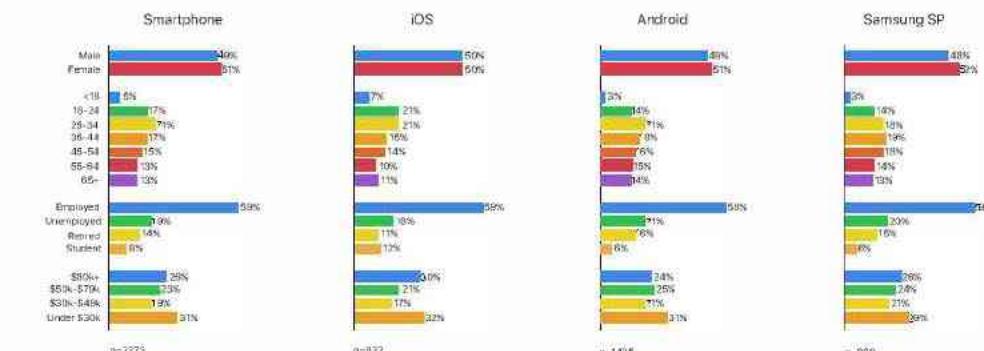
Smartphone market share based upon the average claimed price paid and any monthly included payment due (if # of months) by the consumer after subsidies and discounts, and does not represent the recommended retail price. Data based on smartphone purchased for personal use and is a gift. Purchasing data includes: bought used, never used, or exclusively devices that are passed on. Question: Which network are you connected to? Can you tell us what type of phone (i.e. iPhone 11 Pro Max) brand and model? How much did you pay for your phone?

SOURCE: Kantar Connect USA CQ3'20 Mobile Study

APPLE COMMUNICATIONS INC.

T-Mobile installed base profile

Gender, Age, Work Status, and Personal Annual Income of smartphone owners in CQ3'20

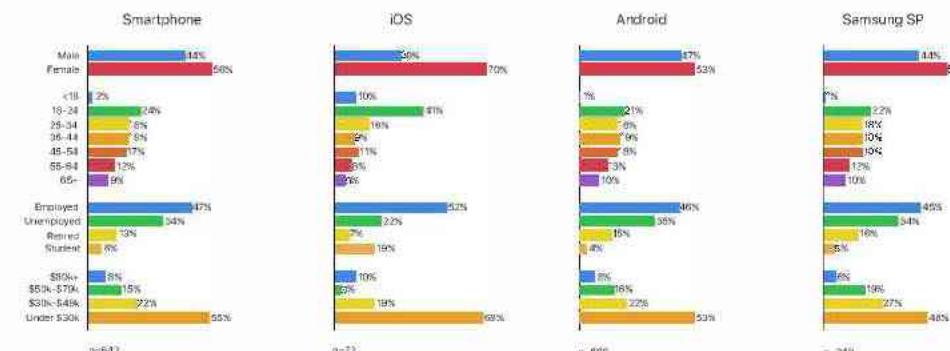


Mobile phone ownership (installed base) is calculated on the last month of each quarter and includes non-smartphone users only.
Question: Who are you connected to? Demographic information provided by T-Mobile users
Source: Kantar Center/USA CQ3'20 Mobile Study

APPLE CONFIDENTIAL 88

MetroPCS installed base profile

Gender, Age, Work Status, and Personal Annual Income of smartphone owners in CQ3'20



Mobile phone ownership (installed base) is calculated on the last month of each quarter and includes maximum phone owned only.
Question: When research are you connected to? Demographic information provided by Canal Research
Source: Kantar/Canal Research CQ3'20 Metro Study

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Usage

APPL-E_06596423

Usage frequency by top 15 functions

Among smartphone owners in CQ3'20

Total smartphone owners

	Monthly usage (net)	Daily	Every few days	Weekly	Less than once a week	Not in the last month
Taking pictures	98%	13%	74%	10%	3%	1%
Browsing the internet/web	87%	47%	16%	13%	13%	12%
Email	87%	55%	14%	9%	9%	10%
Using maps/GPS	79%	7%	17%	17%	37%	7%
Social networking	74%	32%	19%	7%	17%	24%
Watching video clips	68%	17%	12%	11%	23%	32%
Instant messenger service	67%	24%	14%	7%	14%	24%
Moving video	64%	8%	9%	0%	22%	40%
Play games	63%	25%	12%	9%	18%	4%
Wi-Fi calling	62%	18%	19%	8%	15%	43%
My trip video call	50%	7%	10%	9%	24%	50%
Mobile shopping purchase	49%	2%	7%	1%	20%	7%
Listening to on-device music	43%	24%	18%	9%	18%	15%
Streaming music service	33%	2%	12%	8%	13%	5%
Waking assistant	42%	5%	10%	8%	17%	52%

n=1553



Total usage over the last month is equal to the sum of: daily, every few days, weekly, and less than once a week. Usage is tracked only for the last month of the quarter.

Question: During the last 3 months, how did you use your device (Daily/Every Few Days/Weekly/Less than once a week/Not in the last month)?

Source: Kantar Q3 2020 Global Mobile Study

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Usage frequency by top 15 functions

Among smartphone owners in CQ3'20

iOS owners

	Monthly usage (%)	Daily	Every few days	Weekly	Less than once a week	Not in the last month
Taking pictures	80%	17%	26%	20%	30%	8%
Browsing the Internet/webs	52%	25%	10%	12%	35%	8%
Email	38%	20%	15%	30%	25%	7%
Using maps/GPS	68%	10%	2%	75%	2%	4%
Social networking	31%	47%	10%	6%	35%	35%
Watching video clips	75%	10%	10%	24%	24%	1%
Instant messenger service	15%	20%	35%	15%	35%	35%
Recording videos	80%	7%	1%	16%	34%	39%
Play games	50%	20%	15%	7%	48%	4%
Video calling	60%	10%	15%	10%	25%	4%
Making video call	85%	9%	4%	15%	25%	35%
Mobile shopping purchase	30%	3%	1%	25%	30%	44%
Listening to on-device music	50%	2%	15%	10%	48%	3%
Streaming music service	50%	10%	3%	8%	15%	35%
Virtual assistant	55%	9%	1%	10%	22%	49%

n=1648

Android owners

	Monthly usage (%)	Daily	Every few days	Weekly	Less than once a week	Not in the last month
Taking pictures	57%	10%	22%	10%	20%	15%
Browsing the Internet/webs	35%	45%	15%	15%	4%	15%
Email	30%	20%	14%	15%	10%	15%
Using maps/GPS	78%	8%	15%	18%	3%	25%
Social networking	37%	20%	14%	7%	11%	33%
Watching video clips	82%	8%	16%	14%	3%	35%
Instant messenger service	57%	7%	18%	11%	15%	43%
Recording videos	40%	4%	7%	7%	3%	43%
Play games	51%	20%	10%	9%	13%	4%
Video calling	40%	14%	1%	8%	14%	35%
Making video call	45%	5%	0%	6%	11%	49%
Mobile shopping purchase	40%	3%	0%	11%	15%	54%
Listening to on-device music	45%	9%	17%	9%	15%	37%
Streaming music service	41%	10%	10%	8%	11%	38%
Virtual assistant	35%	7%	9%	8%	14%	6%

n=2799



Total usage over the past month is equal to the sum of: daily, every few days, weekly, and less than once a week. Usage is tracked only for the last month of the survey. Question: During the last 3 months, how did you use your device (Daily, Every Few Days, Weekly, Less than once a week, Not in the last month)?
Source: Kantar Q3 2020 Mobile Study

APPLE CORP/OCN/ME 63

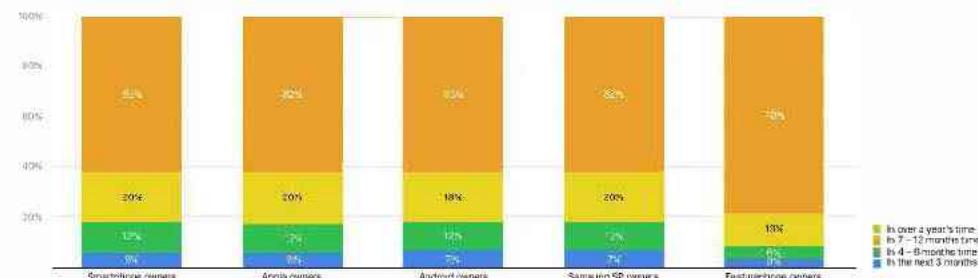
Future Customer Movements

APL-E 06596426

Intentions to buy a smartphone

Among smartphone and featurephone owners in CQ3'20

Intention to buy a smartphone in the next 12 months



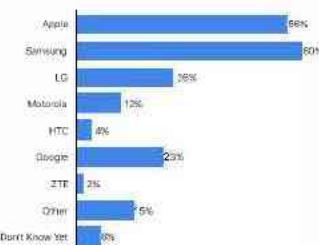
Intention shares is based on smartphone and featurephone owners point of view
Question: Do you plan to buy a smartphone in the next 12 months?
Source: Kantar Connected DNA, CQ3'20, India, May

APPLESOLUTIONS / 66

Brand consideration (top 3 brands)

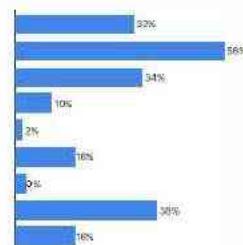
Among those planning in CQ3'20 to buy a smartphone within 6 months

Future smartphone replace's consideration



n= 2122

Future first-time smartphone buyer's consideration



n=171

Consideration based on top 3 brands mentioned among brands purchased at least one of: 1) Which mobile brands are you aware of?

Intention analysis is based on purchase planning device at any point in time

Question: Do you plan to buy a smartphone in the next 12 months? (excluding 6 months or less). Which brands are you considering for your next mobile phone? Please list the 3 brands in order of preference (Top 3).

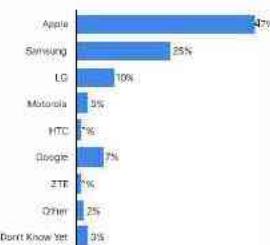
Source: Kantar ComTech/Unilever CQ3'20 Mobile Study

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Brand preference (top brand)

Among those planning in CQ3'20 to buy a smartphone within 6 months

Future smartphone replacee's preference



n=2122

Future first-time smartphone buyer's preference



n=171

Preference based on top brand considered only among those participants aware of it. Q: Which mobile brands are you aware of?

Intention analysis is based on participants answering device at any point in time.

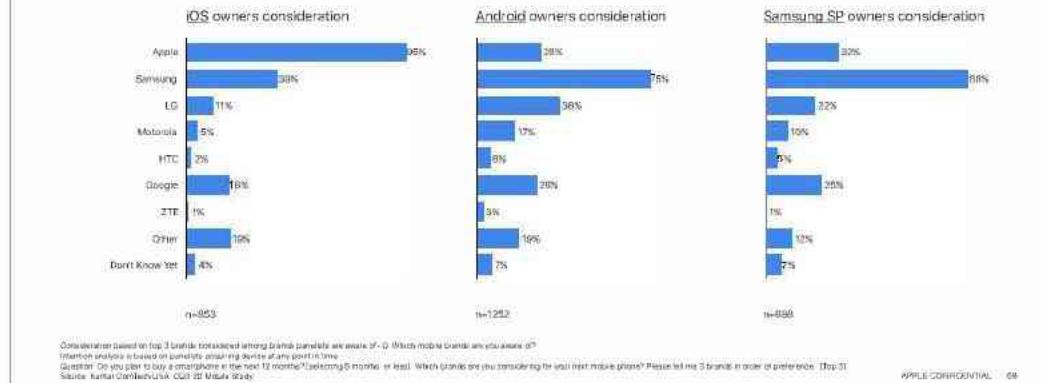
Question: Do you plan to buy a smartphone in the next 12 months? (excluding 6 months or less). Which brands are you considering for your next mobile phone? Please list the 3 brands in order of preference. (Top choice first)

Source: Kantar ComRes UK CQ3'20 Mobile Study

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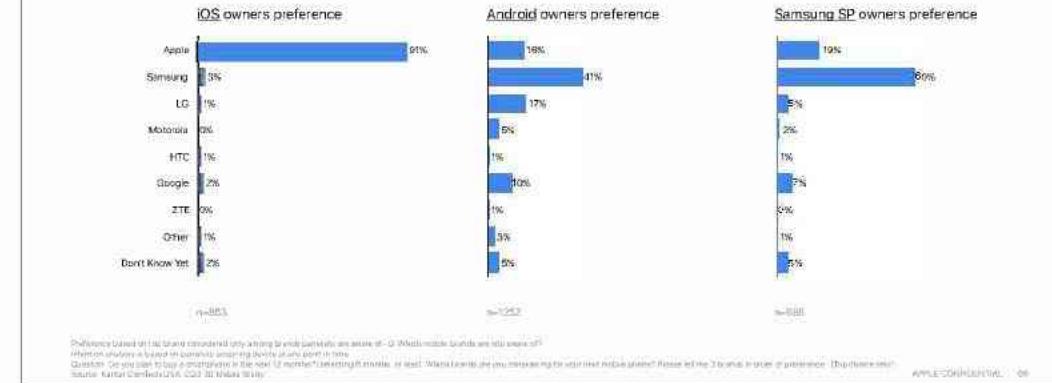
Brand consideration (top 3 brands)

Among those planning in CQ3'20 to buy a smartphone within 6 months



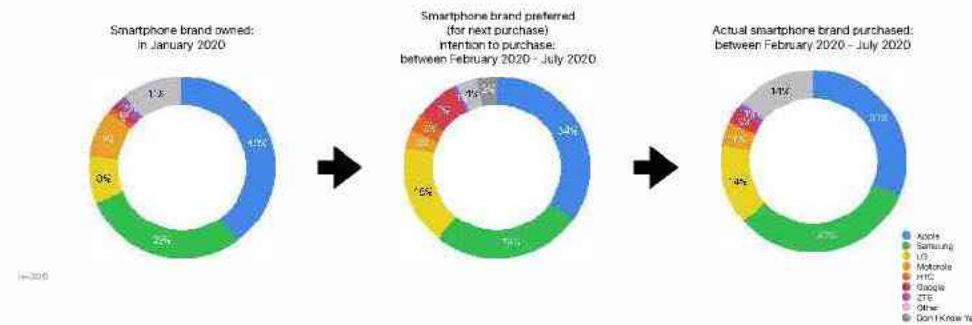
Brand preference (top brand)

Among those planning in CQ3'20 to buy a smartphone within 6 months



Brand Preference vs. Actual Purchase

Among smartphone buyers who identified, in January 2020, their intent and preferred smartphone brand to purchase within the next 6 months



Preference based on 1st choice measured with: among all respondents, any person of: "Q: Which mobile phones are you aware of? I think about a total of 2 brands including devices I am not aware of".
Question: Do you plan to buy a smartphone in the next 6 months? If so, giving preference to those purchasing in the next 3 months. At the end of 2-3 months, which brands are you considering for your next purchase?
Please select 5 brands in order of preference. (Brand preference < 1% means none)
Source: Kantar/ComScore USA, Q220 20 Mobile Survey

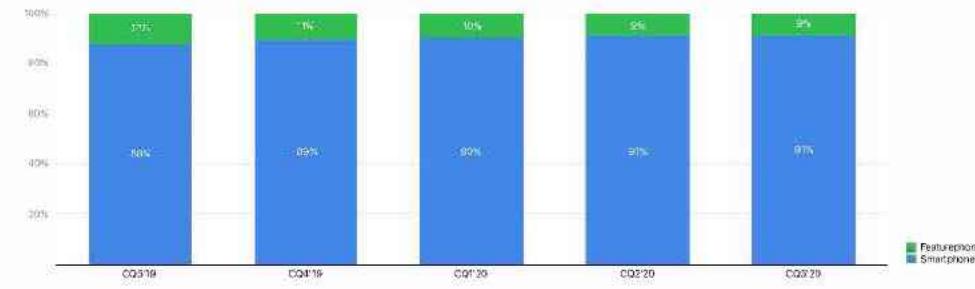
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Installed Base Overview

APPL-E_06596433

Mobile phone installed base

Smartphone vs. featurephone

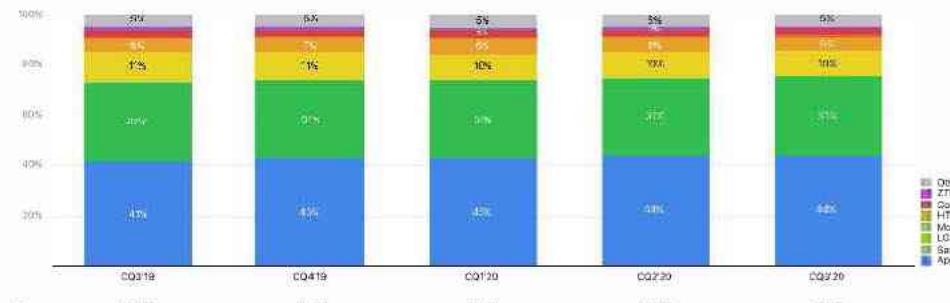


Mobile phone installed-base is calculated on the last month of each quarter, and includes multi-sim devices.
Question: Do you own a mobile phone?
Source: Kantar Worldpanel Q3 2020 Mobile Report

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Smartphone installed base

Brand shares over time



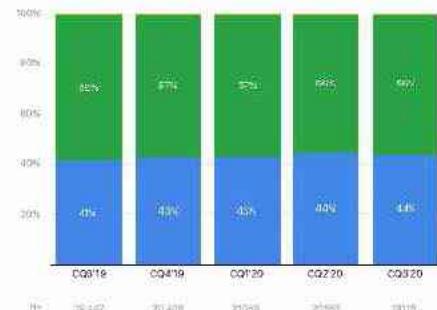
Mobile phone installed-base is calculated on the last reported measurement, and includes main smartphone, premium cell, feature phones, and tablets. Data is based on the type of phone sold (not sold directly to end user).
Source: Kantar Worldpanel Q3'20 Mobile Study.

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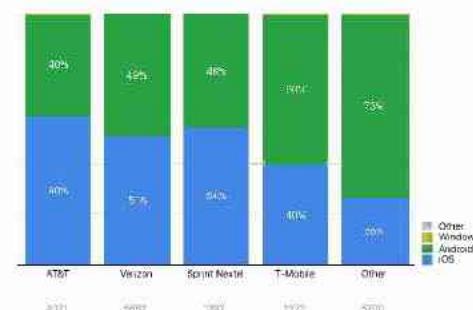
Operating system installed base

OS shares over time and by carrier

OS share of installed base



OS share of installed base carrier connection in CQ3'20



Multiple devices connected to cellular base stations (with the last report of each device) and includes non-Apple devices connected to cellular networks. Question: What mobile OS are you connected to? Can not tell us what type of phone or tablet user? Device type and model information not available.

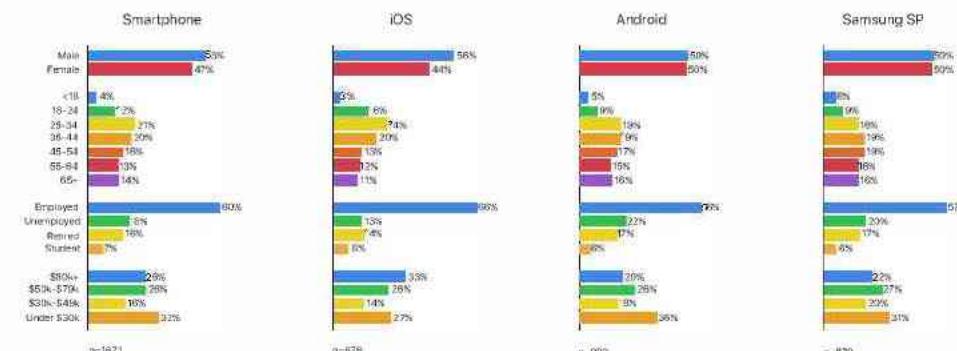
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Demographic Profile

APPL-E DEMOGRAPHIC

Smartphone buyers profile

Gender, Age, Work Status, and Personal Annual Income of smartphone buyers in CQ3'20

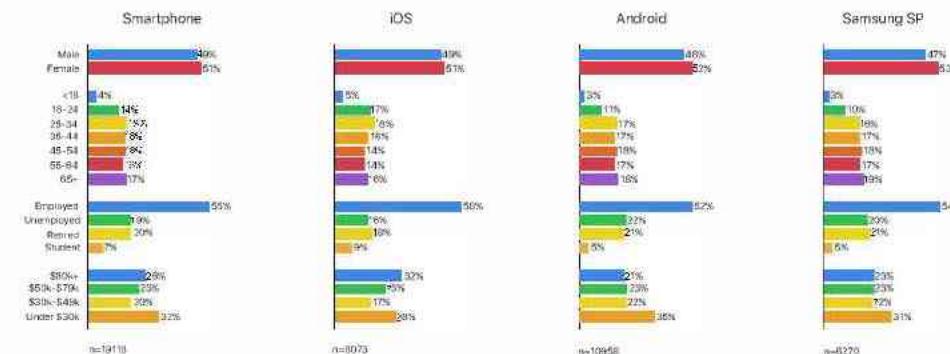


Data based on smartphones purchased for personal use and as a gift. Purchasing data include: bought used, never projected or devices that are passed on.
Demographic information provided by panel provider.
Source: Kantar Connected USA CQ3'20 Multi Study.

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Smartphone installed base profile

Gender, Age, Work Status, and Personal Annual Income of smartphone owners in CQ3'20



Mobile phone ownership installed base is established on the last month of each quarter and includes multi-phone period only.
Demographic information provided by panel provider
Source: Kantar Connected USA CQ3'20 Multi Study

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Tablet Market Trends

APPL-E_06596440

Tablet ownership by smartphone brand

Among Smartphone owners in CQ3'20

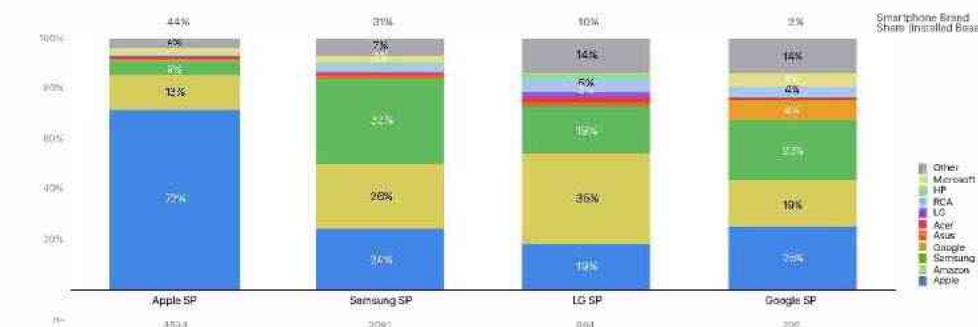


Based on smartphone owners that also own a tablet (based on the last profile of each quarter)
Q: Do you have a tablet? Can you tell us the type of tablet you have (Select from scroll menu)
Source: Kantar GfK Global Life Style Index (CQ3'20)

APPLE SP: 10.7% / 10.7%

Tablet brand ownership by smartphone brand

Among Smartphone owners in CQ3'20



Stacked ownership shows ownership total by phone is based on actual density of each owner.
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Kantar ComTech USA Report CQ3'20

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Apple Market Research and Analysis

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Analysis definition

Data	Time period	Explanation
Ownership	Latest month	Provides the market size in terms of installed base. This represents the device owned in the last month of the quarter.
Purchasing	Latest quarter	Provides the latest snapshot of consumer purchasing. Each month our panelists are asked to whether they bought a phone, either for themselves or another person. This covers replacement, additional phones and gift purchases summed up to represent purchasing for the latest quarter.
Churn & loyalty	Latest 3 months	Churn & loyalty analysis is run on a continuous panel and identifies the proportion of brands owners that have left/stayed the brand/OS over the course of the last 3 months.
Switching (slides 22 to 33)	Latest 3 months	When a panelist purchases a replacement phone, we are able to identify the previously owned phone in order to calculate brand switching.
ARPU	Latest quarter	Every month panelists provide us the value of the last bill paid or prepay spend - the ARPU figure is representative of all those spending on airtime. As panelists spending can be monthly, the ARPU figure presented is an average of all the bills paid during that quarter.
Usage	Latest month	A subset of the panel is asked how often they have used features on their phone in the last month - the data shown in this report represents what proportion of the population has used each feature and how often. As panelists tell us all the functions they have used, the list is not mutually exclusive.
Future intentions	Latest month	Provides an overview of consumers' intentions regarding their next mobile purchase. Intention analysis is based on panelists acquiring device at any point in time.

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Switching analysis explanation

How is it calculated?

- When our panelists take each monthly ComTech survey, they are asked whether they have bought a new phone, and if so what brand and model they now own (plus other questions).
- We already have the information on their previous brand and model of phone from the previous surveys they took, and thereby identify those people as having switched brands.
- To perform the analysis, continuous panel members over the last 3 months are selected for the analysis (i.e. those who have been completing our survey each month for a year).
- The proportion of a brands owners who have switched as well as the brand they have switched from and to is profiled by brand and other variables.
- Using a continuous panel over the course of 3 months provides consistency in our sample and ensures highest possible base sizes for robust data.

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