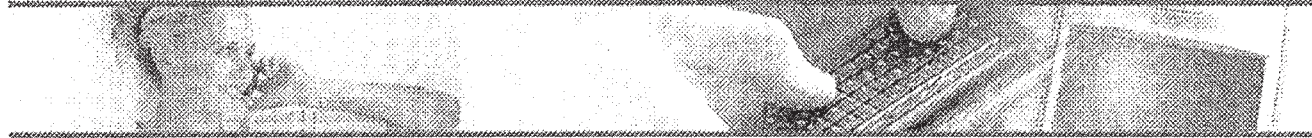




Customer Satisfaction

Smartphone Index Results By Factor



Smartphone Index Results By Factor

Ease of Operation Factor

In Ease of Operation, Apple (826) performs significantly better than the industry average (786) and above average in all Ease of Operation attributes. Motorola (780) smartphones are rated 6 points below the industry average. The remaining manufacturers perform significantly below the industry average in 2011 Vol. 1: HTC (777), RIM BlackBerry (762), Palm (757), Samsung (756), and Nokia (752). Despite HTC's significantly below average score, the smartphone manufacturer ranks highest in *Quality of sound when on a call* with a rating of 7.86.

Operating System Factor

In the Operating System factor, Apple and Motorola perform significantly above average (727) with scores of 769 and 749, respectively. HTC (731) performs above the industry average but not by a significant margin. In 2011 Vol. 1, Palm's falls slightly below the industry average with a score of 714. The remaining three smartphone manufacturers have significantly below average rankings: Nokia (691), Samsung (688), and RIM BlackBerry (685).

Physical Design Factor

Apple outperforms all other manufacturers in the Physical Design factor as well, scoring a significant 36 index points higher than the industry average (831 vs. 795). Apple sets the bar for the competition with regard to styling and screen quality. HTC also performs significantly above the industry average with a score of 808. Palm smartphones garner lower-than-average satisfaction ratings within this particular factor (782 vs. 795). Samsung (780), Motorola (777), RIM BlackBerry (763), and Nokia (761) have Physical Design factor rankings that are significantly below the industry average. Despite Motorola's significantly low rankings, the smartphone manufacturer garners a particularly high score in the *Size of display screen* attribute (8.24 vs. 7.93 for the industry average).



Smartphone Index Results By Factor

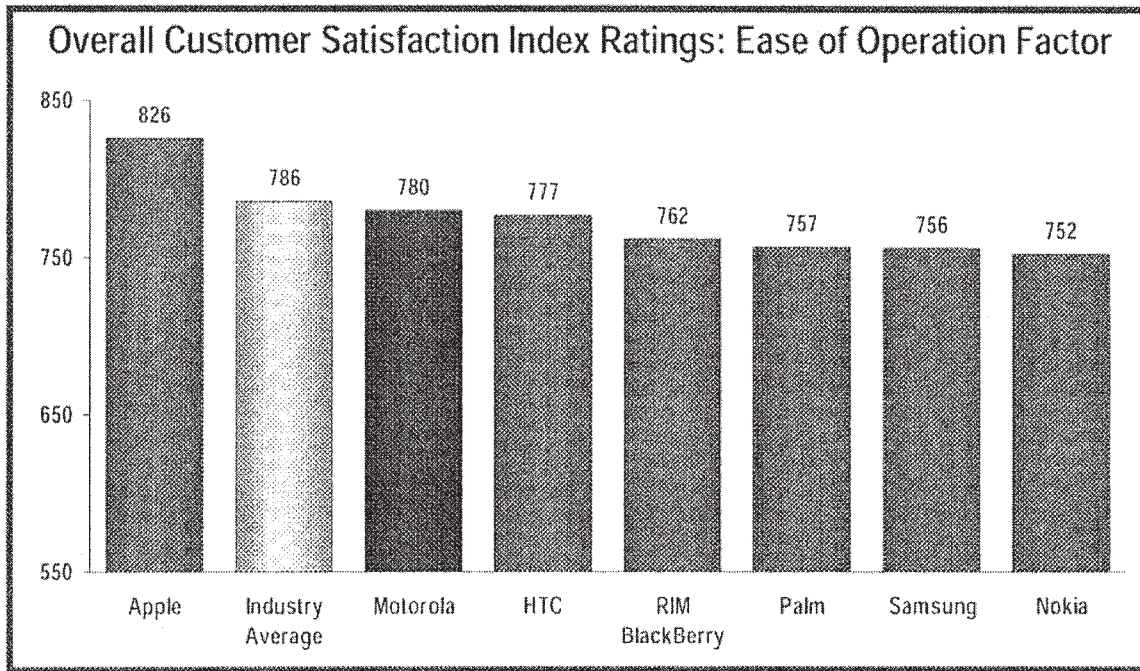
Features Factor

Once again, Apple, Motorola, and HTC each rank significantly above the industry average within the Features factor, while Samsung, Nokia, Palm and RIM BlackBerry have significantly below average rankings. Apple ranks highest in three of five attributes: *Usefulness of applications available on phone*, *Ability to download additional applications*, and *Availability of multimedia functions*. HTC ranks highest in *Quality of camera pictures and videos*, while Motorola ranks highest in *Variety of ring tones supported*.

Battery Function Factor

The Battery Function factor shows variation among manufacturers. Nokia and RIM BlackBerry each significantly outperform the industry average of 651 with scores of 737 and 702, respectively, while Apple (619) and HTC (615) fall significantly below average. RIM BlackBerry and Nokia perform above the industry average in all three attributes. Although Apple struggles in the factor due to difficulties with replacing batteries (4.71), it performs particularly well in *Length of time needed to recharge battery*.

Ease of Operation Factor Index Ratings by Manufacturer



Ease of Operation Attribute Ratings Compared to Average

	Industry Average	Apple	Motorola	HTC	RIM BlackBerry	Palm	Samsung	Nokia
Ease of Operation Index	786	826	780	777	762	757	756	752
Quality of sound when on a call	7.78	7.84	7.75	7.86	7.68	7.64	7.76	7.76
Ease of pressing/activating keypad/keyboard buttons	7.69	8.12	7.58	7.53	7.49	7.19	7.36	7.56
Ease of navigating phone using touch screen, toggle/navigation wheel	7.88	8.51	7.87	7.87	7.41	7.72	7.33	7.22
Ability to adjust volume to suit needs	7.87	8.18	7.82	7.88	7.62	7.48	7.78	7.55
Ease of navigating around phone menu system	7.91	8.49	7.89	7.71	7.56	7.66	7.48	7.32
Ease of using basic calling features	8.00	8.42	7.85	7.77	7.89	7.71	7.54	7.78
Ease of using text messaging	7.94	8.33	7.90	7.80	7.74	7.57	7.67	7.47

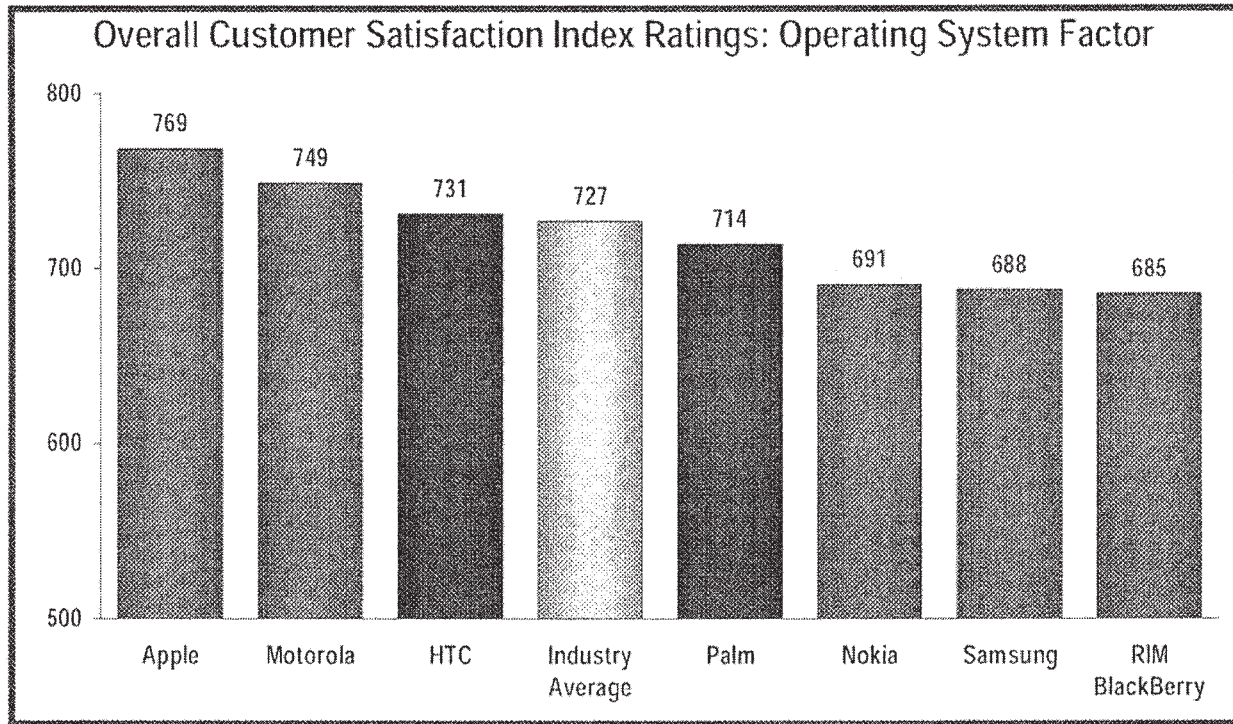
For handsets used for less than 2 years.

= Significantly ABOVE Industry Average at 95% Confidence Level (excluding manufacturer).

= Significantly BELOW Industry Average at 95% Confidence Level (excluding manufacturer).



Operating System Factor Index Ratings by Manufacturer



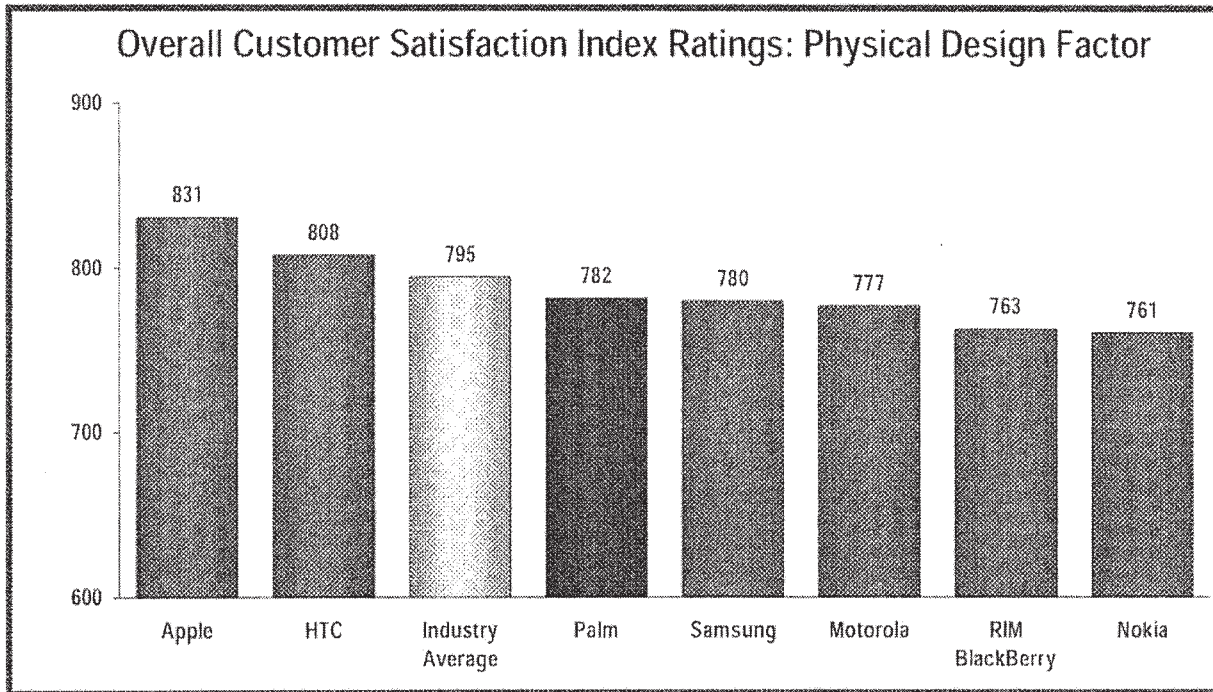
Operating System Attribute Ratings Compared to Average

	Industry Average	Apple	Motorola	HTC	Palm	Nokia	Samsung	RIM BlackBerry
Operating System Index	727	769	749	731	714	691	688	685
Reliability/stability of smartphone operating system	7.35	7.81	7.57	7.28	7.19	7.09	6.96	6.91
Speed of mobile Internet	7.11	7.58	7.49	7.28	7.00	6.73	6.75	6.47
Amount of time it takes to move between applications	7.44	7.89	7.57	7.38	7.30	7.03	7.03	7.07
Timeliness of syncing	7.29	7.57	7.37	7.40	7.13	6.82	6.82	7.06
Amount of time it takes to attach/transfer files	7.08	7.40	7.27	7.21	6.95	6.66	6.71	6.73

For handsets used for less than 2 years.

- = Significantly ABOVE Industry Average at 95% Confidence Level (excluding manufacturer).
- = Significantly BELOW Industry Average at 95% Confidence Level (excluding manufacturer).


Physical Design Factor Index Ratings by Manufacturer




Physical Design Attribute Ratings Compared to Average

	Industry Average	Apple	HTC	Palm	Samsung	Motorola	RIM BlackBerry	Nokia
Physical Design Index	795	831	808	782	780	777	763	761
Visual appeal of wireless phone	8.16	8.63	8.28	7.87	7.95	7.89	7.79	7.67
Size of display screen	7.93	8.37	8.16	7.32	7.90	8.24	7.34	7.34
Brightness of background display screen lighting	8.14	8.45	8.27	8.15	7.93	8.09	7.82	7.80
Weight of phone (including battery)	7.73	8.00	7.77	7.95	7.71	7.11	7.62	7.68
Size of wireless phone	7.75	8.01	7.88	7.80	7.47	7.43	7.57	7.55

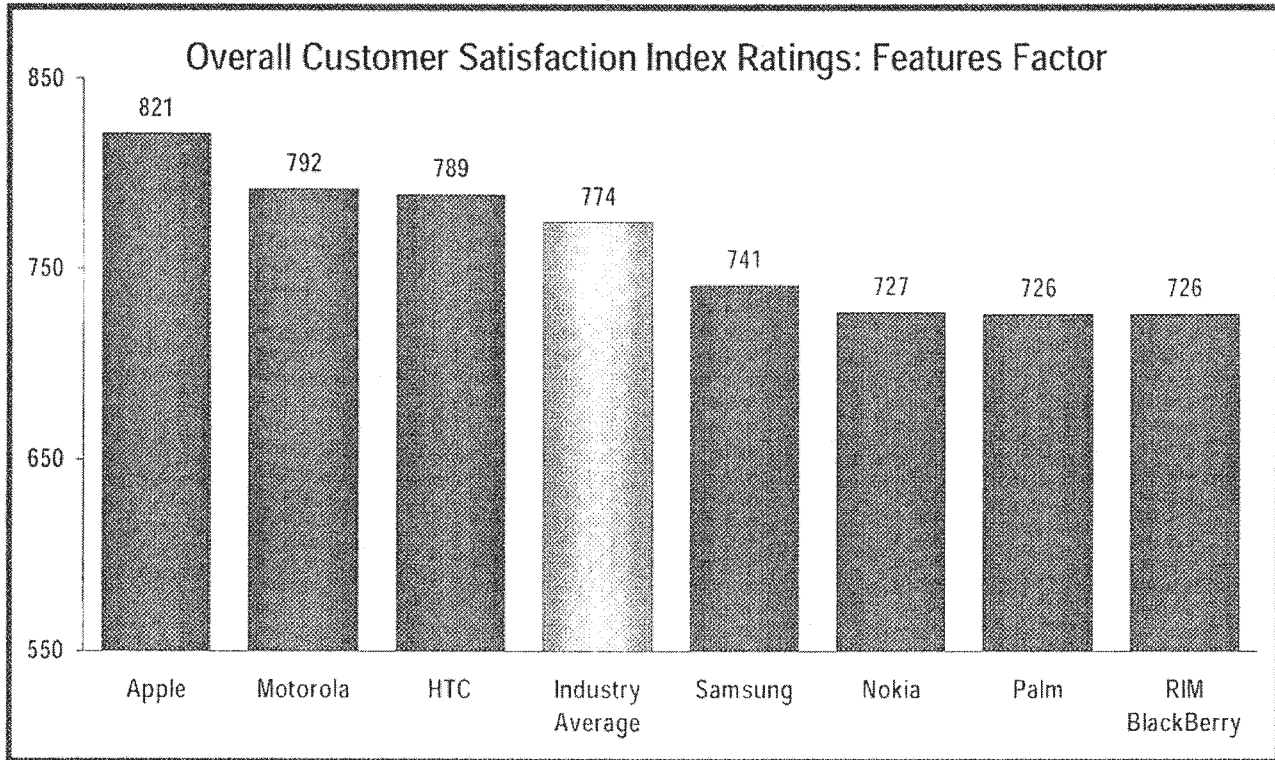
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Features Factor Index Ratings by Manufacturer



Features Attribute Ratings Compared to Average

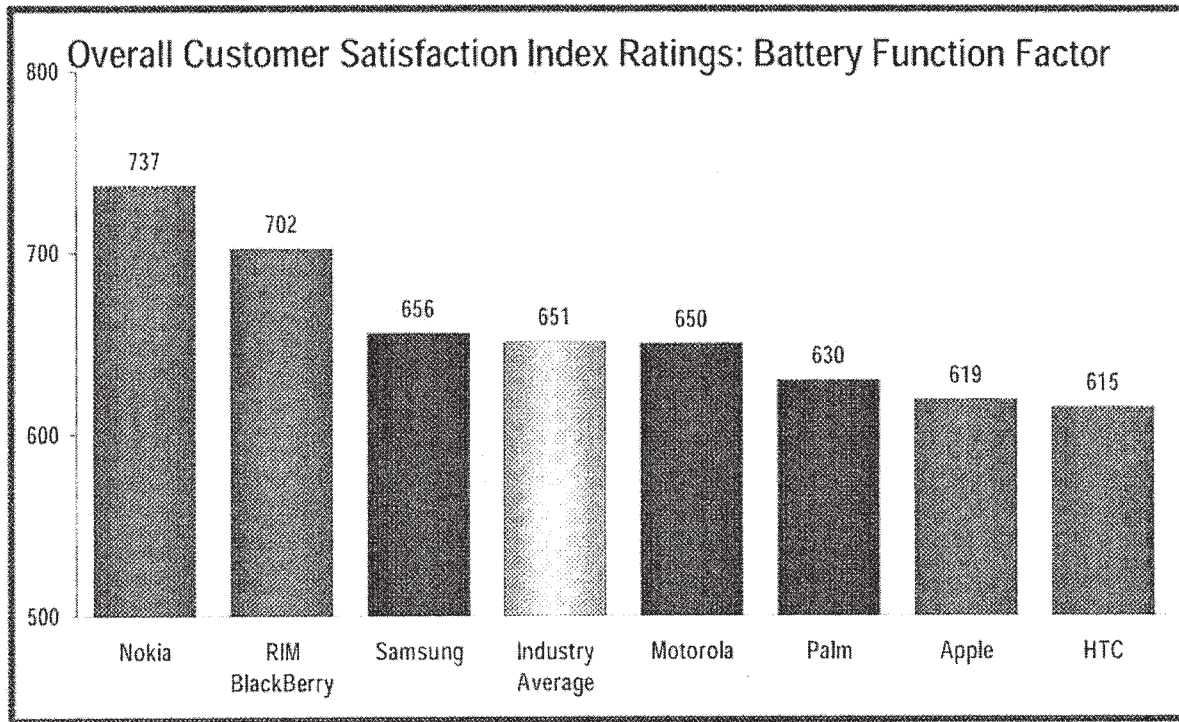
	Industry Average	Apple	Motorola	HTC	Samsung	Nokia	Palm	RIM BlackBerry
Features Index	774	821	792	789	741	727	726	726
Usefulness of applications available on phone	8.01	8.59	8.09	8.11	7.63	7.33	7.48	7.50
Ability to download additional applications	7.84	8.57	8.12	7.93	7.23	7.07	7.07	7.20
Availability of multimedia functions	7.74	8.33	7.79	7.82	7.31	7.33	7.34	7.19
Quality of camera pictures and videos	7.50	7.73	7.72	7.78	7.52	7.25	7.18	7.07
Variety of ring tones supported	7.45	7.48	7.79	7.70	7.33	7.37	7.16	7.25

For handsets used for less than 2 years.

- = Significantly ABOVE Industry Average at 95% Confidence Level (excluding manufacturer).
- = Significantly BELOW Industry Average at 95% Confidence Level (excluding manufacturer).



Battery Function Index Ratings by Manufacturer



Battery Function Attribute Ratings Compared to Average

	Industry Average	Nokia	RIM BlackBerry	Samsung	Motorola	Palm	Apple	HTC
Battery Function Index	651	737	702	656	650	630	619	615
Amount of battery life before needs recharging	6.19	7.19	6.70	6.19	5.91	5.80	6.13	5.50
Length of time needed to recharge battery	7.16	7.55	7.34	6.91	7.11	6.99	7.27	6.75
Ease of replacing batteries	6.42	7.59	7.45	7.06	7.27	6.65	4.71	7.06

For handsets used for less than 2 years.

= Significantly ABOVE Industry Average at 95% Confidence Level (excluding manufacturer).

= Significantly BELOW Industry Average at 95% Confidence Level (excluding manufacturer).

Ease of Operation Attribute Ratings—2011 V1 *minus* 2010 V2 ¹

	Industry Average	Nokia	RIM BlackBerry	Samsung	Apple	Palm	HTC	Motorola
Ease of Operation Index	-6	30	0	-1	-9	-14	-27	-32
Quality of sound when on a call	-0.04	0.31	-0.05	0.07	-0.05	0.07	-0.20	-0.49
Ease of pressing/activating keypad/keyboard buttons	-0.06	0.27	0.04	0.02	-0.08	-0.30	-0.33	-0.33
Ease of navigating phone using touch screen, toggle/navigation wheel	-0.03	0.31	0.03	-0.01	-0.15	-0.07	-0.27	-0.13
Ability to adjust volume to suit needs	-0.02	0.55	-0.03	0.04	-0.03	-0.22	-0.19	-0.42
Ease of navigating around phone menu system	-0.06	0.10	0.00	-0.01	-0.10	-0.09	-0.40	-0.22
Ease of using basic calling features	-0.10	0.32	-0.01	-0.29	-0.10	-0.15	-0.28	-0.21
Ease of using text messaging	-0.07	0.29	-0.01	0.04	-0.12	-0.27	-0.21	-0.38

Operating System Attribute Ratings—2011 V1 *minus* 2010 V2 ¹

	Industry	Palm	Nokia	Samsung	Apple	RIM BlackBerry	HTC	Motorola
Operating System Index	1	40	23	1	-2	-7	-15	-23
Reliability/stability of smartphone operating system	-0.07	0.41	0.20	-0.01	-0.12	-0.18	-0.21	-0.20
Speed of mobile Internet	0.08	0.41	0.18	-0.03	0.09	-0.09	-0.07	-0.22
Amount of time it takes to move between applications	0.10	0.34	0.36	0.15	0.09	0.04	-0.11	-0.18
Timeliness of syncing	-0.01	0.35	0.37	-0.16	-0.05	0.02	-0.28	-0.39
Amount of time it takes to attach/transfer files	0.08	0.51	0.07	0.16	-0.01	0.05	0.00	-0.23

For handsets used for less than 2 years

¹2011 Vol. 1 and 2010 Vol. 2 data incorporates index weight changes



Physical Design Attribute Ratings—2011 V1 *minus* 2010 V2 ¹

	Industry Average	Nokia	Palm	Samsung	HTC	RIM BlackBerry	Apple	Motorola
Physical Design Index	-4	19	14	-3	-4	-5	-9	-27
Visual appeal of wireless phone	0.02	0.31	0.06	0.01	0.04	0.02	-0.04	-0.36
Size of display screen	-0.07	0.06	-0.02	0.05	-0.15	-0.15	-0.20	-0.18
Brightness of background display screen lighting	-0.03	0.27	0.19	0.07	-0.09	-0.04	-0.13	-0.23
Weight of phone (including battery)	-0.08	0.15	0.33	-0.04	-0.06	-0.03	-0.12	-0.26
Size of wireless phone	-0.03	0.15	0.14	-0.27	0.06	-0.05	-0.01	-0.32

Features Attribute Ratings—2011 V1 *minus* 2010 V2 ¹

	Industry Average	Nokia	Palm	Samsung	RIM BlackBerry	Apple	Motorola	HTC
Features Index	1	25	18	15	-5	-6	-17	-18
Usefulness of applications available on phone	-0.06	0.17	-0.20	0.09	-0.08	-0.17	-0.21	-0.20
Ability to download additional applications	0.03	0.29	0.23	0.41	-0.05	-0.14	0.01	-0.29
Availability of multimedia functions	-0.02	0.36	0.38	-0.01	-0.02	-0.13	-0.34	-0.37
Quality of camera pictures and videos	0.18	0.13	0.17	0.19	-0.14	0.32	-0.09	0.35
Variety of ring tones supported	-0.01	0.33	0.49	0.08	0.03	-0.17	-0.23	-0.35

Battery Function Attribute Ratings—2011 V1 *minus* 2010 V2 ¹

	Industry Average	Apple	Nokia	RIM BlackBerry	Palm	Samsung	HTC	Motorola
Battery Function Index	-16	19	6	-14	-23	-34	-46	-58
Amount of battery life before needs recharging	-0.22	0.25	0.00	-0.21	-0.28	-0.38	-0.50	-0.80
Length of time needed to recharge battery	-0.19	-0.08	0.09	-0.10	-0.23	-0.24	-0.44	-0.31
Ease of replacing batteries	0.04	0.44	0.13	-0.01	-0.11	-0.40	-0.42	-0.30

For handsets used for less than 2 years.

¹2010 Vol. 1 and Vol. 2 trended data incorporates index weight changes



Purchasing Selection Process



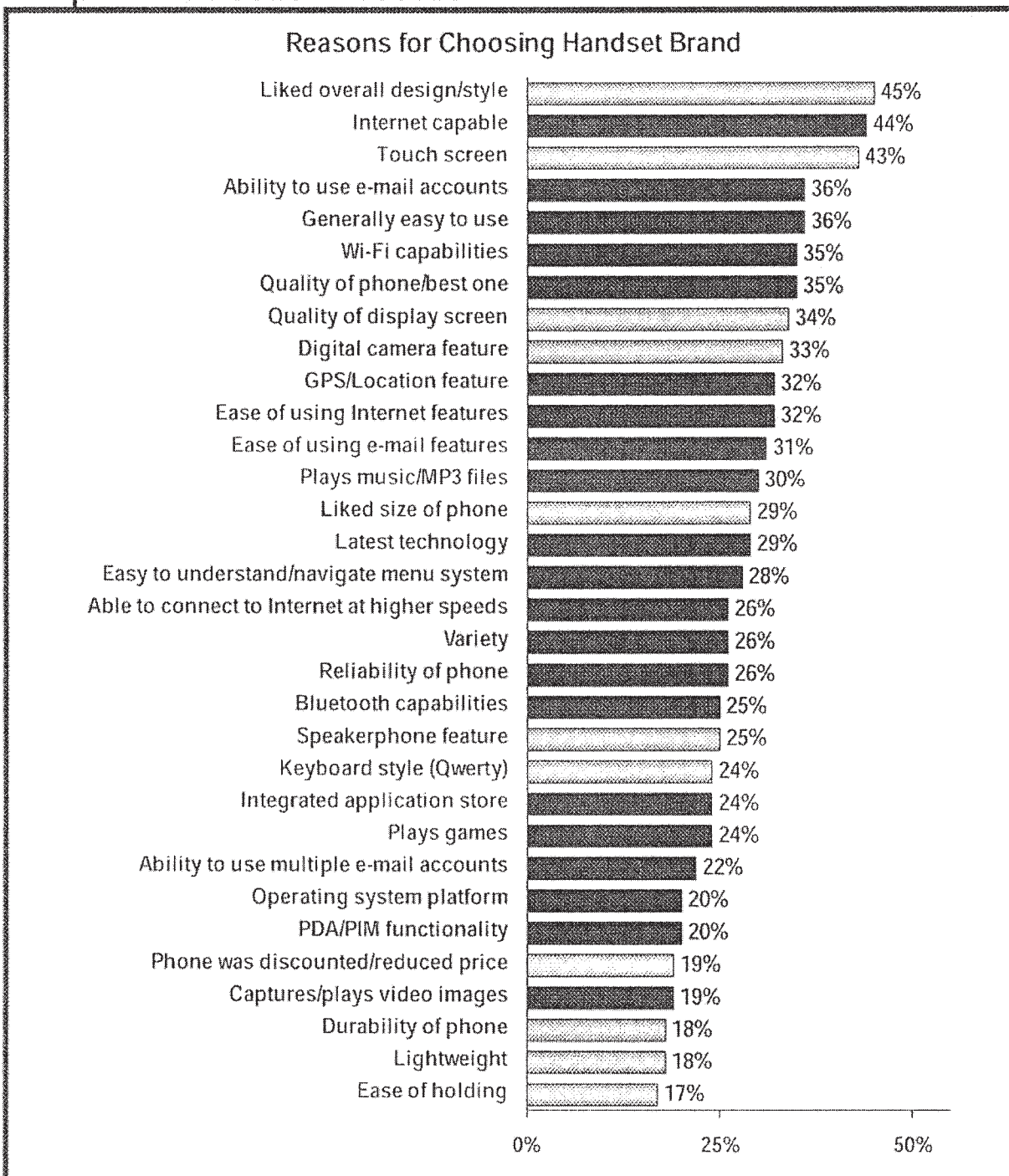
Purchasing Selection Process

Main reasons for choosing the smartphone manufacturer include *Liked overall design or style* (45%), *Internet capability* (44%), and *Touch screen* (43%). The reasons for selecting a particular smartphone brand differ from the reasons for selecting a traditional handset, as smartphone users are less likely to select their handset for price-related reasons. The reasons for selecting a smartphone manufacturer frequently pertain to an available communication feature or technology. For example, 36% selected their manufacturer because of its ability to use e-mail accounts. Another common trend among smartphone users is selecting their phones based on the ease of operating said features and technologies. An additional 36% of smartphone users select their phones because the smartphone is *Generally easy to use*, 35% select their phones for *Wi-Fi capabilities*, and 35% reported that their selection was based on the *Quality of the phone*.

Satisfaction with the handset is highest when it is chosen for reasons pertaining to quality. Those having chosen their smartphone for these reasons rate their model a score of 804, while those that indicate their model was selected as a result of the price rate their device a score of 749.

The correlation between satisfaction and repurchase rates still remains the same evidenced by Apple owners indicating they "Definitely will" repurchase their current brand at a rate of 37% compared with 18% for the industry average. Just 2% of Apple users indicate they "Definitely will not" repurchase their current brand of smartphone. HTC owners indicate that they "Probably will" repurchase at a rate of 53%; however, these users are not as likely to fully commit and say they "Definitely will" repurchase. This implies there is a certain level of loyalty, although HTC owners will consider their options when it is time for them to purchase a new handset.

Smartphone Selection Process



Responses less than 17% not shown.

☐ = Service plan promotion/price related. ☐ = Physical quality related.



Selection Process Among Smartphone Manufacturers^{1,2}

Reasons for Selecting Handset	Industry Avg.	Apple	HTC	Motorola	Nokia	Palm	RIM BlackBerry	Samsung
Liked overall design/style	45%	51%	49%	50%	34%	42%	38%	43%
Internet capable	44%	48%	51%	57%	18%	37%	37%	39%
Touch screen	43%	58%	61%	58%	16%	56%	11%	52%
Ability to use e-mail accounts	36%	40%	39%	50%	14%	28%	33%	28%
Generally easy to use	36%	45%	32%	35%	26%	33%	31%	30%
Wi-Fi capabilities	35%	50%	42%	43%	13%	27%	18%	25%
Quality of phone/best one	35%	49%	36%	33%	23%	18%	25%	23%
Quality of display screen	34%	41%	40%	45%	17%	29%	22%	32%
Digital camera feature	33%	34%	37%	44%	27%	32%	25%	34%
GPS/Location feature	32%	40%	40%	50%	16%	25%	19%	27%
Ease of using Internet features	32%	44%	33%	40%	11%	26%	21%	21%
Ease of using e-mail features	31%	40%	27%	38%	10%	24%	28%	20%

¹ Reasons less than 31% not shown.

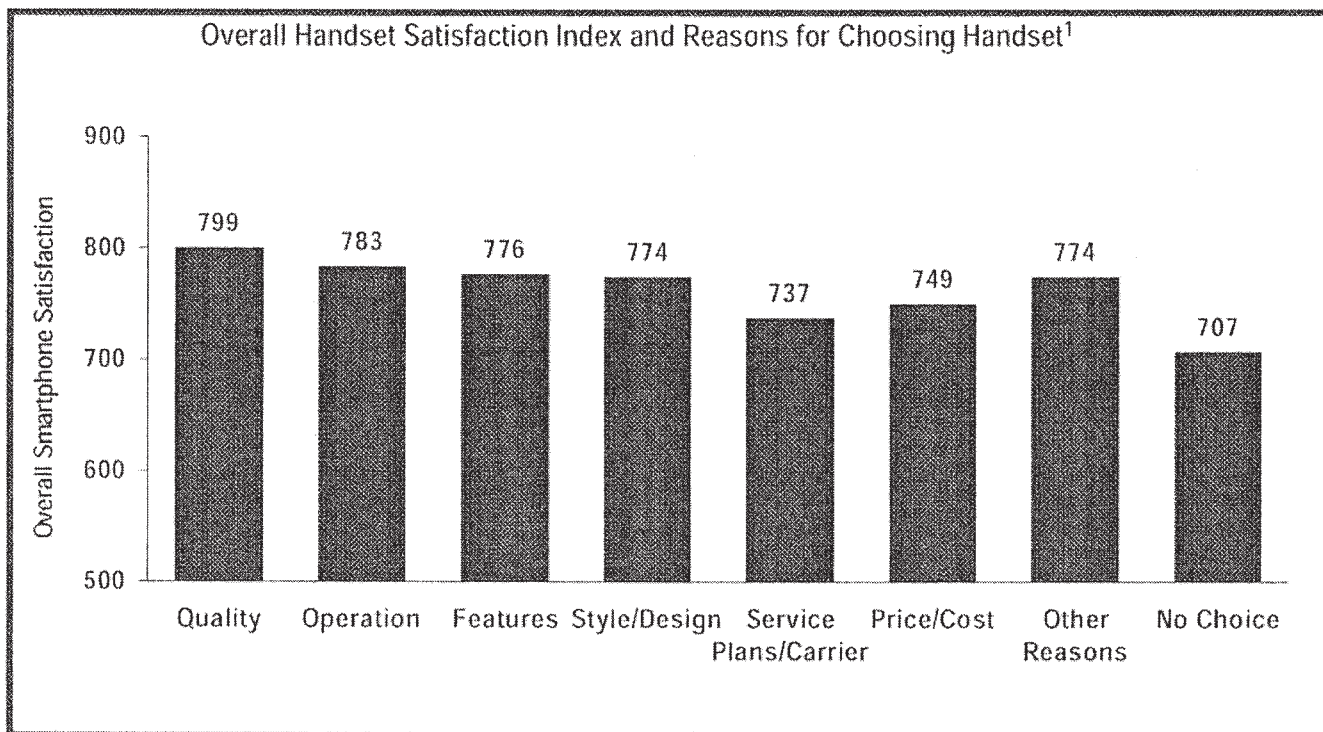
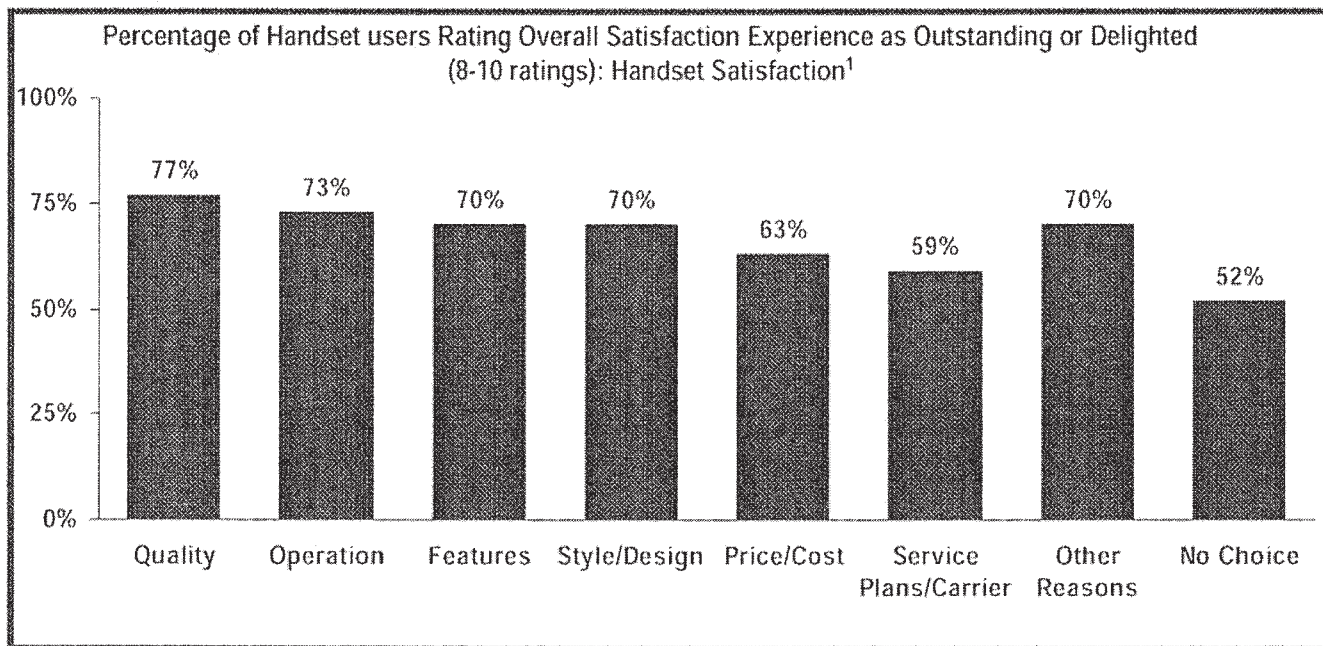
² Based to all lengths of handset ownership.

Selection Process Among Tenured < 12 Months¹

	Industry Avg.	Apple	HTC	Motorola	Nokia	Palm	RIM BlackBerry	Samsung
Liked overall design/style	47%	51%	50%	50%	36%	49%	38%	43%
Touch screen	46%	55%	62%	59%	26%	54%	8%	54%
Internet capable	44%	44%	52%	56%	23%	44%	34%	43%
Wi-Fi capabilities	38%	48%	44%	44%	13%	38%	24%	32%
Quality of display screen	37%	43%	43%	46%	18%	35%	22%	38%
Ability to use e-mail accounts	36%	36%	39%	50%	16%	37%	31%	32%
Generally easy to use	36%	44%	32%	35%	29%	33%	31%	34%
Quality of phone/best one	35%	49%	39%	32%	15%	17%	26%	30%
Digital camera feature	35%	35%	40%	44%	26%	39%	26%	38%
GPS/Location feature	35%	38%	43%	50%	21%	32%	19%	31%
Ease of using Internet features	32%	40%	34%	40%	13%	34%	23%	26%
Latest technology	31%	39%	38%	40%	10%	27%	14%	28%
Ease of using e-mail features	31%	37%	30%	39%	7%	29%	26%	25%
Plays music/MP3 files	31%	39%	31%	34%	19%	28%	19%	32%

¹ Reasons less than 36% not shown.

Overall Satisfaction and the Selection Process



¹ For handsets used for less than 2 years.