Key Expenditures and Usage Findings by Manufacturer

	Apple	HTC	Motorola	Nokia	Palm	RIM BlackBerry	Samsung	Industry Avg.
Type of user:								
Personal	36%	41%	42%	49%	41%	35%	47%	39%
Both Business and Personal	64%	59%	58%	51%	59%	65%	53%	61%
Minutes used each month	583	707	602	568	564	656	620	622
Monthly $ expenditures (mean)	$107	$108	$115	$86	$95	$108	$107	$107
# Calls make/receive[1]	139	160	132	109	129	155	141	143

[1] Based to those making at least one or more calls per month.

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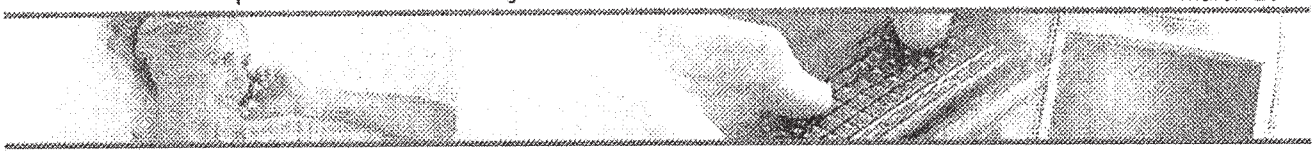
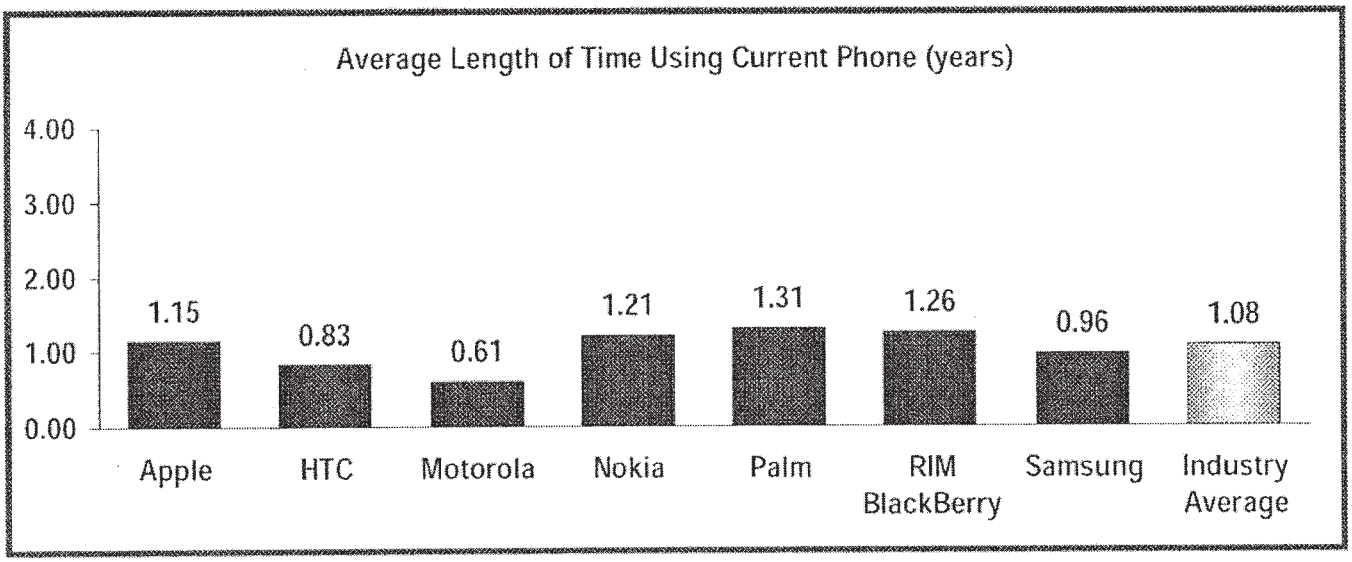
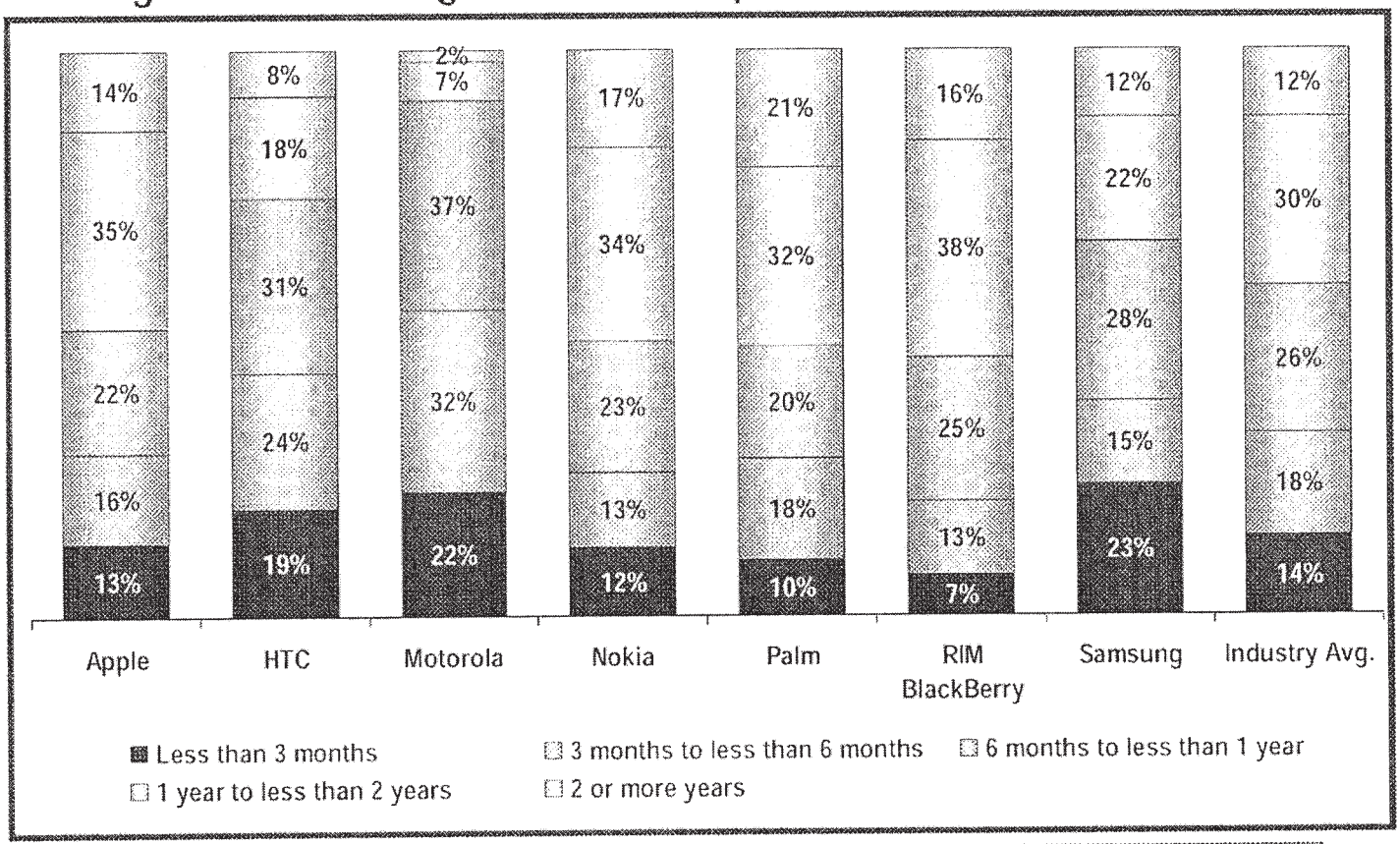


Length of Time Using Current Smartphone



Length of Time Using Current Smartphone



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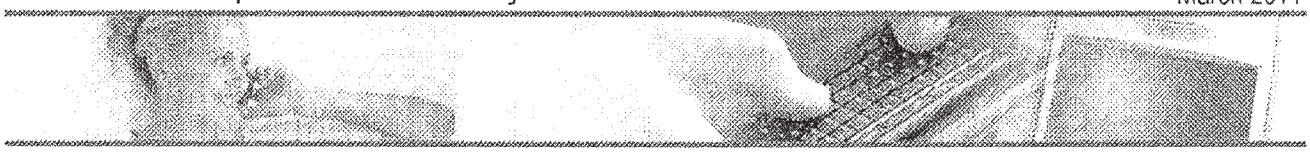

Features Used[1,2]

Features Used	2011 Vol. 1
Send and receive e-mail	88%
Access the Internet/Look at Web pages	86%
PDA/PIM capabilities	78%
Camera capabilities	76%
View/edit e-mail attachments	67%
Integrated social networking capabilities	64%
Touch screen	58%
Speakerphone	47%
Receive text alerts	47%
MMS/Picture messaging	47%
Bluetooth capabilities	44%
Wi-Fi capabilities	40%
QWERTY Keyboard	40%
Ability to send and receive e-mail on multiple accounts	38%
Instant messaging	36%
Global Positioning System (GPS)	34%
Listen to music/MP3 player	33%
Integrated application store	25%

[1] Based to those customers that indicate any of the above features are available to them.
[2] Responses less than 25% not shown.

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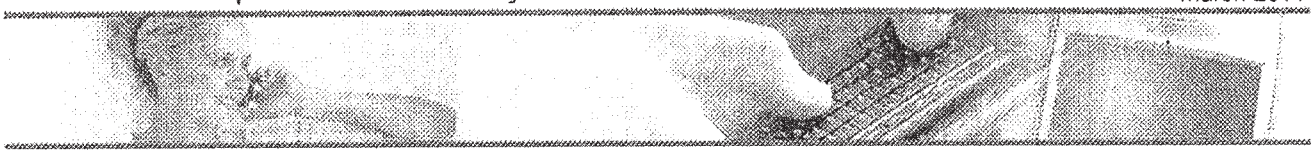

Features Desired on Future Smartphone[1]

Features Desired on Future Smartphone	2011 Vol. 1
Memory expansion	19%
Push-to-talk	16%
Touch screen	16%
Voice recognition/command/dialing	11%
Mobile radio capability	11%
Photo speed dial	10%
International roaming capabilities	10%
Global Positioning System (GPS)	10%
Downloadable programs	9%
Wi-Fi capabilities	9%
Capture/Record video with device	9%
QWERTY Keyboard	9%
Stream music/video	7%
View and pay bills from phone	6%
Games	6%
Download/View video clips	5%
MMS/Picture messaging	5%
Listen to music/MP3 player	5%
Download MP3/music files	5%
Ability to send and receive e-mail on multiple accounts	5%
Integrated application store	5%

[1] Responses less than 5% not shown.

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Features Desired By Current Smartphone Manufacturer[1]

Features Desired on Future Handset	Apple	HTC	Motorola	Nokia	Palm	RIM BlackBerry	Samsung	Industry Avgerage
Memory expansion	37%	7%	11%	7%	26%	7%	6%	19%
Push-to-talk	16%	20%	32%	7%	15%	12%	17%	16%
Touch screen	1%	4%	5%	21%	1%	42%	10%	16%
Voice recognition/command/dialing	15%	6%	6%	9%	33%	5%	12%	11%
Mobile radio capability	9%	11%	11%	12%	14%	11%	11%	11%
Photo speed dial	11%	10%	11%	9%	13%	8%	13%	10%
International roaming capabilities	7%	16%	21%	6%	12%	8%	12%	10%
Global Positioning System (GPS)	7%	6%	3%	9%	18%	13%	13%	10%
Downloadable programs	14%	9%	10%	8%	6%	6%	6%	9%
Wi-Fi capabilities	2%	4%	6%	12%	20%	18%	13%	9%
Capture/Record video with device	19%	2%	3%	3%	3%	5%	4%	9%
QWERTY Keyboard	8%	21%	7%	10%	4%	6%	10%	9%
Stream music/video	5%	7%	4%	9%	5%	8%	7%	7%
View and pay bills from phone	3%	7%	5%	2%	12%	8%	10%	6%
Games	4%	8%	14%	4%	10%	3%	6%	6%
Download/View video clips	2%	4%	2%	6%	6%	9%	6%	5%
MMS/Picture messaging	6%	4%	4%	7%	4%	5%	5%	5%
Listen to music/MP3 player	1%	3%	2%	12%	11%	8%	9%	5%
Download MP3/music files	3%	5%	2%	7%	5%	6%	9%	5%
Ability to send and receive e-mail on multiple accounts	4%	5%	3%	7%	7%	5%	5%	5%
Integrated application store	2%	8%	1%	4%	9%	4%	11%	5%

[1] Responses less than 5% for the industry average not shown.

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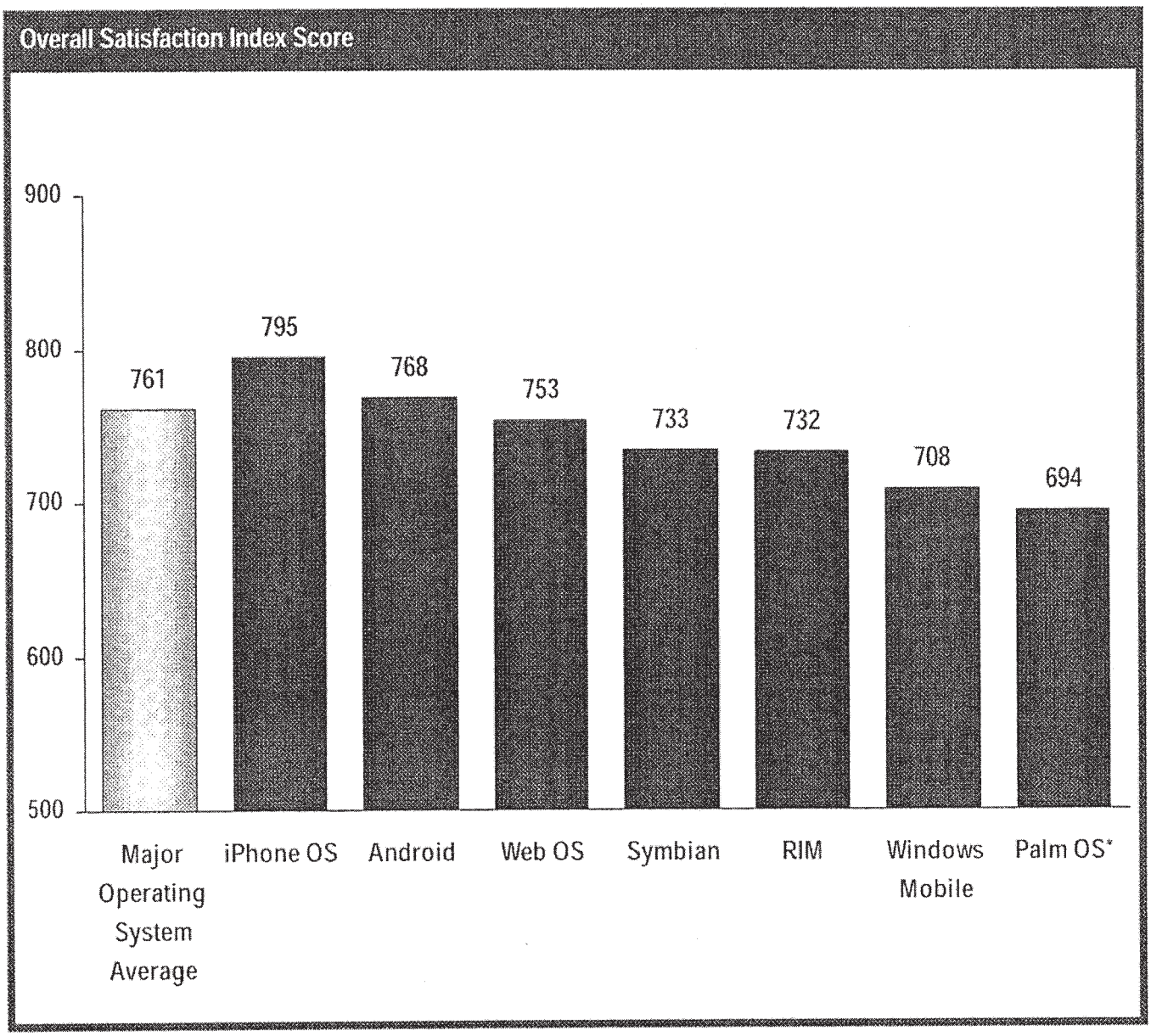
Overall Smartphone Satisfaction by Operating System



For handsets used for less than 2 years.

*Caution: low base.

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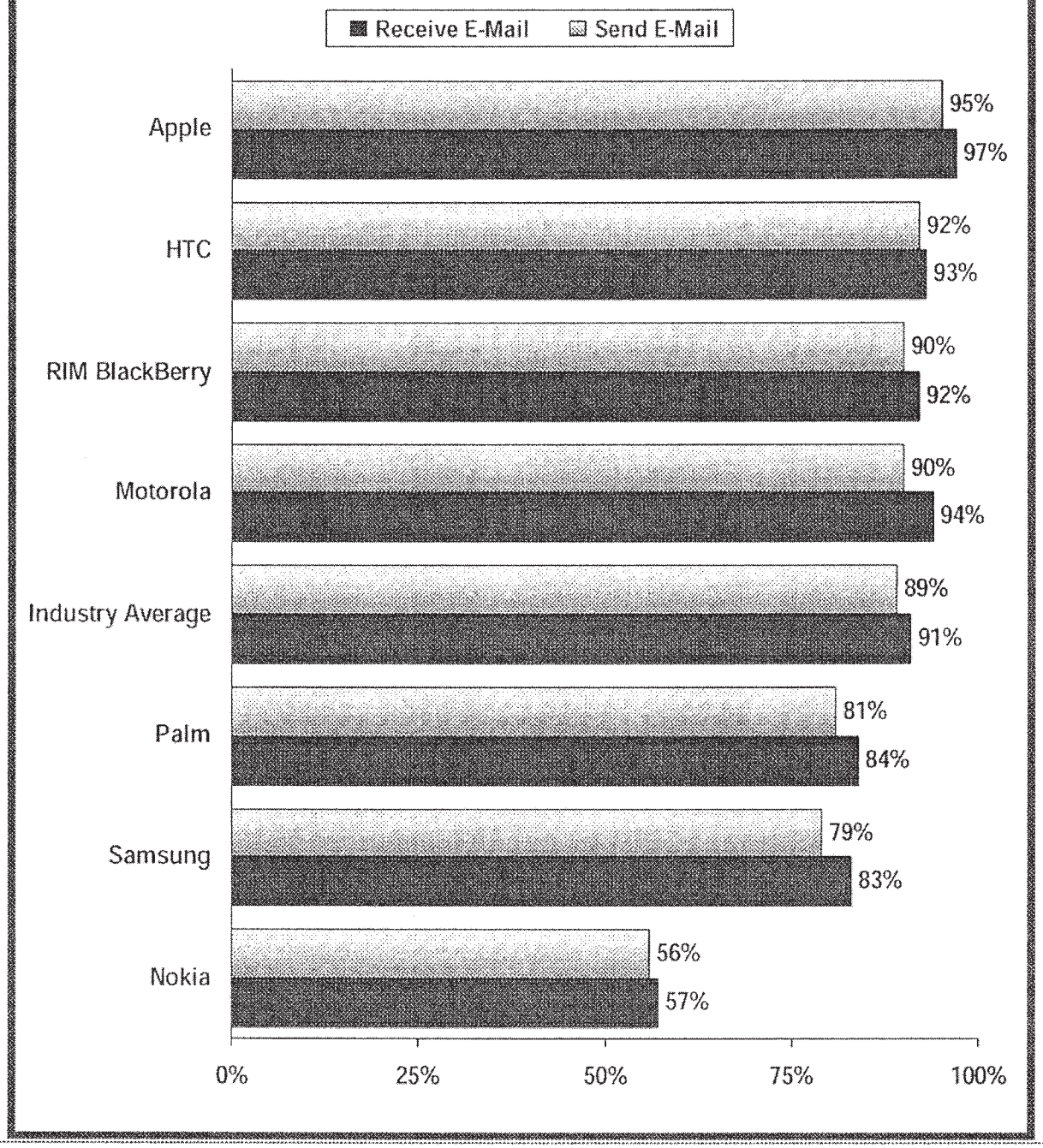
Smartphone Usage

Use E-Mail on Smartphone



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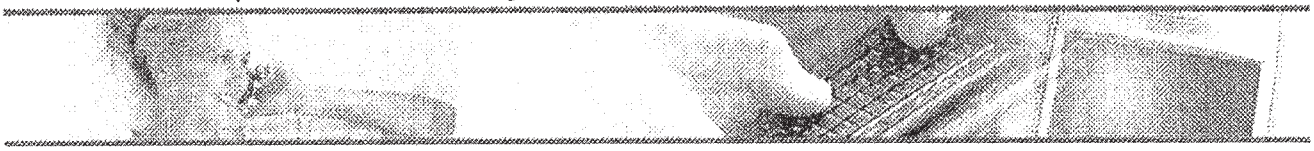
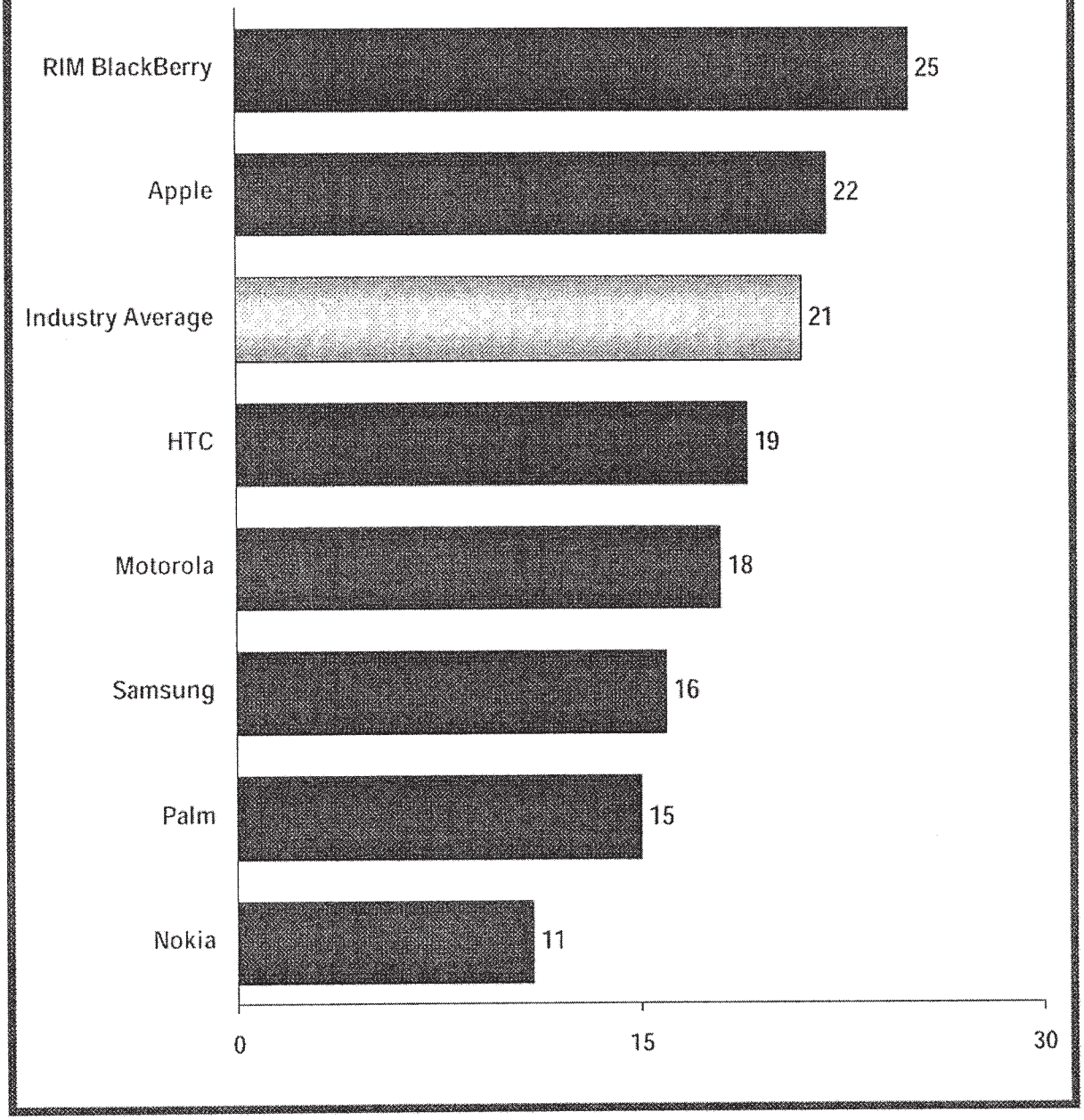


Smartphone Usage

Total E-mail Messages Sent/Received In a Typical Day[1,2]



[1] Excludes "None."

[2] Data is based to those respondents that were able to identify their handset's operating system.

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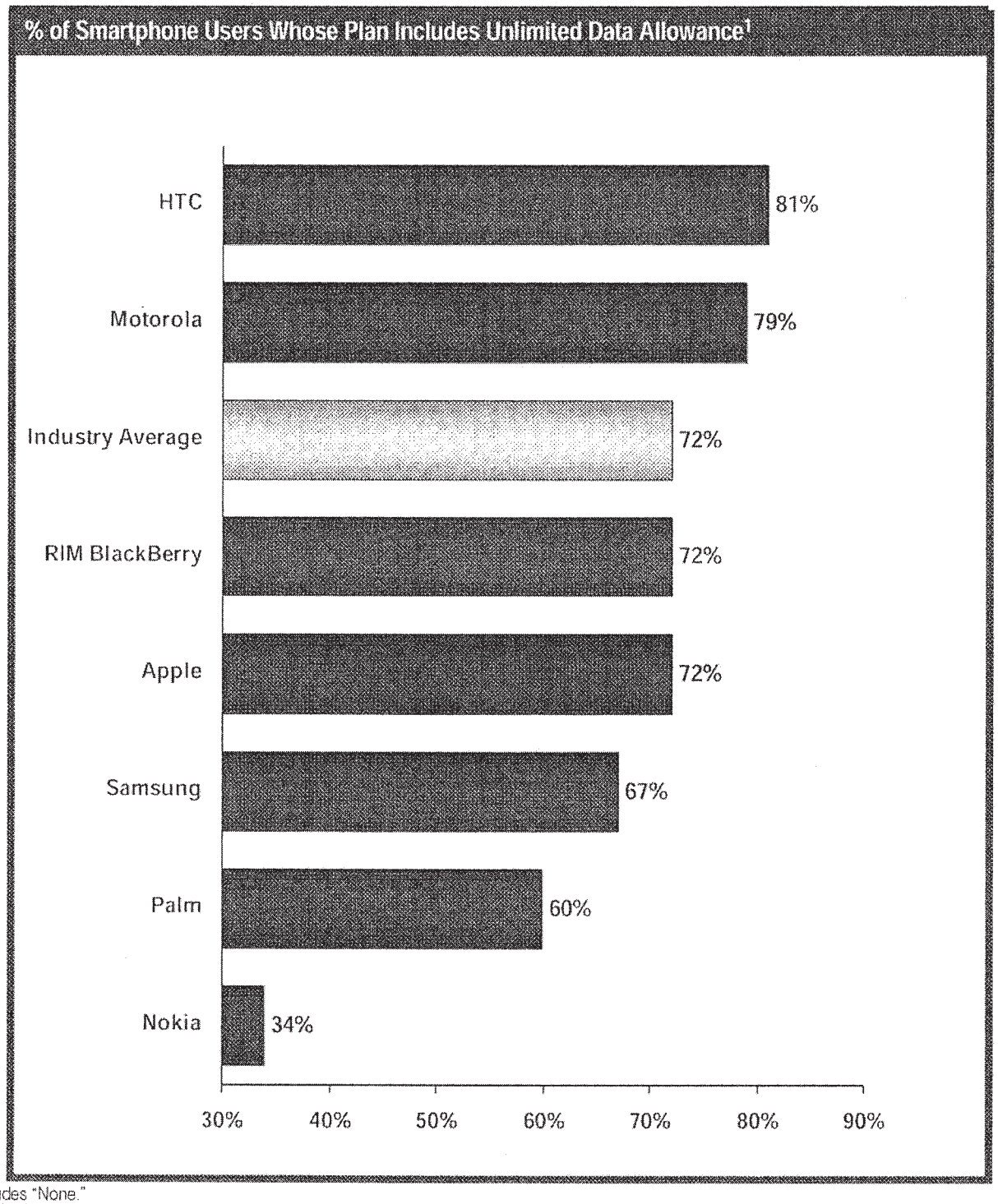
Smartphone Usage



[1] Excludes "None."

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Operating System

Attribute Index Scores by Operating Systems[1]

Factor/Attribute	Major Operating System Average	iPhone OS/OSx	Android	Blackberry RIM	Symbian	Windows Mobile	Palm OS/Garnet OS	Web OS
Overall Index	**761**	**795**	**768**	**732**	**733**	**708**	**694**	**753**
EASE OF OPERATION	786	826	786	762	752	724	707	771
Quality of sound when on a call	7.77	7.84	7.87	7.68	7.76	7.51	7.31	7.73
Ease of pressing / activating keypad / keyboard	7.70	8.12	7.62	7.49	7.55	7.16	6.96	7.22
Ease of navigating phone using touch screen, toggle/navigation wheel	7.88	8.51	7.93	7.41	7.21	7.01	6.94	7.96
Ability to adjust volume to suit your needs	7.87	8.18	7.95	7.62	7.55	7.34	6.91	7.69
Ease of navigating around phone menu system	7.91	8.49	7.89	7.56	7.31	7.01	7.05	7.88
Ease of using basic calling features	8.01	8.42	7.83	7.89	7.78	7.46	7.33	7.77
Ease of using text messaging	7.94	8.33	7.97	7.74	7.47	7.21	7.02	7.74
OPERATING SYSTEM	728	769	745	685	691	657	676	737
Reliability/stability of smartphone operating syste	7.35	7.81	7.50	6.91	7.08	6.54	7.28	7.31
Speed of mobile internet	7.11	7.58	7.45	6.47	6.72	6.42	6.28	7.36
Amount of time it takes to move between applica	7.44	7.89	7.56	7.07	7.02	6.61	6.75	7.56
Timeliness of syncing	7.29	7.57	7.39	7.06	6.81	6.81	6.71	7.37
Amount of time it takes to attach/transfer files	7.08	7.40	7.26	6.73	6.66	6.55	6.18	7.28
PHYSICAL DESIGN	795	831	798	763	760	757	701	810
Visual appeal of your wireless phone	8.16	8.63	8.15	7.79	7.67	7.74	6.88	8.20
Size of display screen	7.93	8.37	8.22	7.34	7.33	7.57	6.56	7.61
Brightness of background display screen lighting	8.14	8.45	8.22	7.82	7.80	7.76	7.52	8.34
Weight of wireless phone, including battery	7.73	8.00	7.56	7.62	7.67	7.37	7.28	8.22
Size of wireless phone	7.75	8.01	7.69	7.57	7.54	7.40	6.84	8.10
FEATURES	774	821	797	726	727	708	684	747
Usefulness of applications available on your pho	8.01	8.59	8.17	7.50	7.33	7.38	7.27	7.56
Ability to download additional applications	7.84	8.57	8.15	7.20	7.07	6.62	6.37	7.36
Availability of multimedia functions	7.74	8.33	7.86	7.19	7.32	7.02	6.85	7.67
Quality of camera pictures and videos	7.50	7.73	7.81	7.07	7.25	7.19	6.65	7.50
Variety of ring tones supported	7.45	7.48	7.75	7.25	7.37	7.19	6.96	7.22
BATTERY FUNCTION	651	619	625	702	736	665	708	596
Amount of battery life before it needs recharging	6.19	6.13	5.64	6.70	7.18	6.29	7.14	5.28
Length of time needed to recharge battery	7.16	7.27	6.86	7.34	7.56	6.99	7.15	6.89
Ease of replacing batteries	6.41	4.71	7.07	7.45	7.58	7.16	6.77	6.47

[1] Data is based to those respondents that were able to identify their handset's operating system.

For handsets used for less than 2 years.

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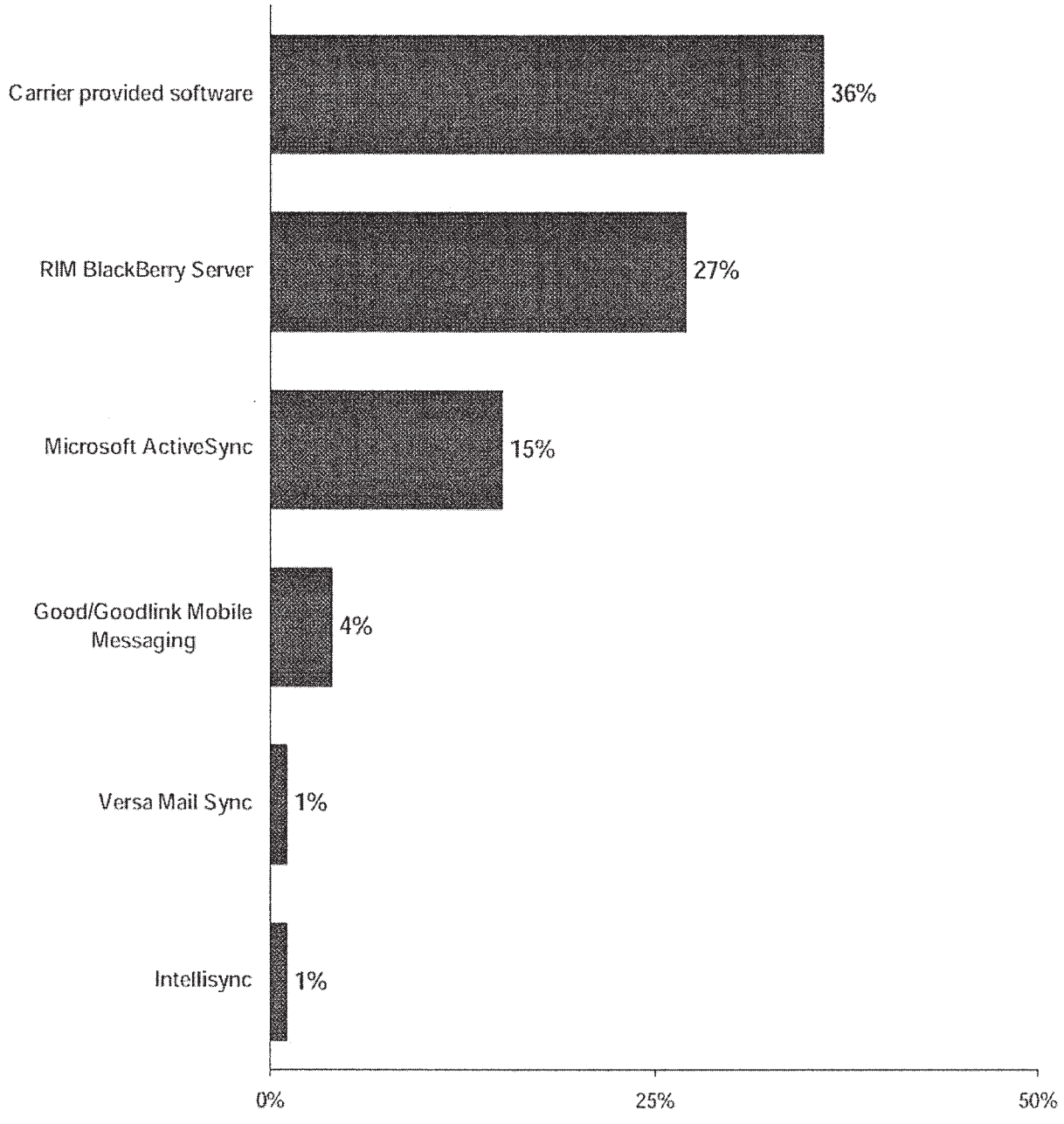
E-Mail Functionality

Connectivity Technology Used on Smartphone[1,2]



[1] Excludes "Don't know."

[2] Data is based to those respondents that were able to identify their handset's operating system.

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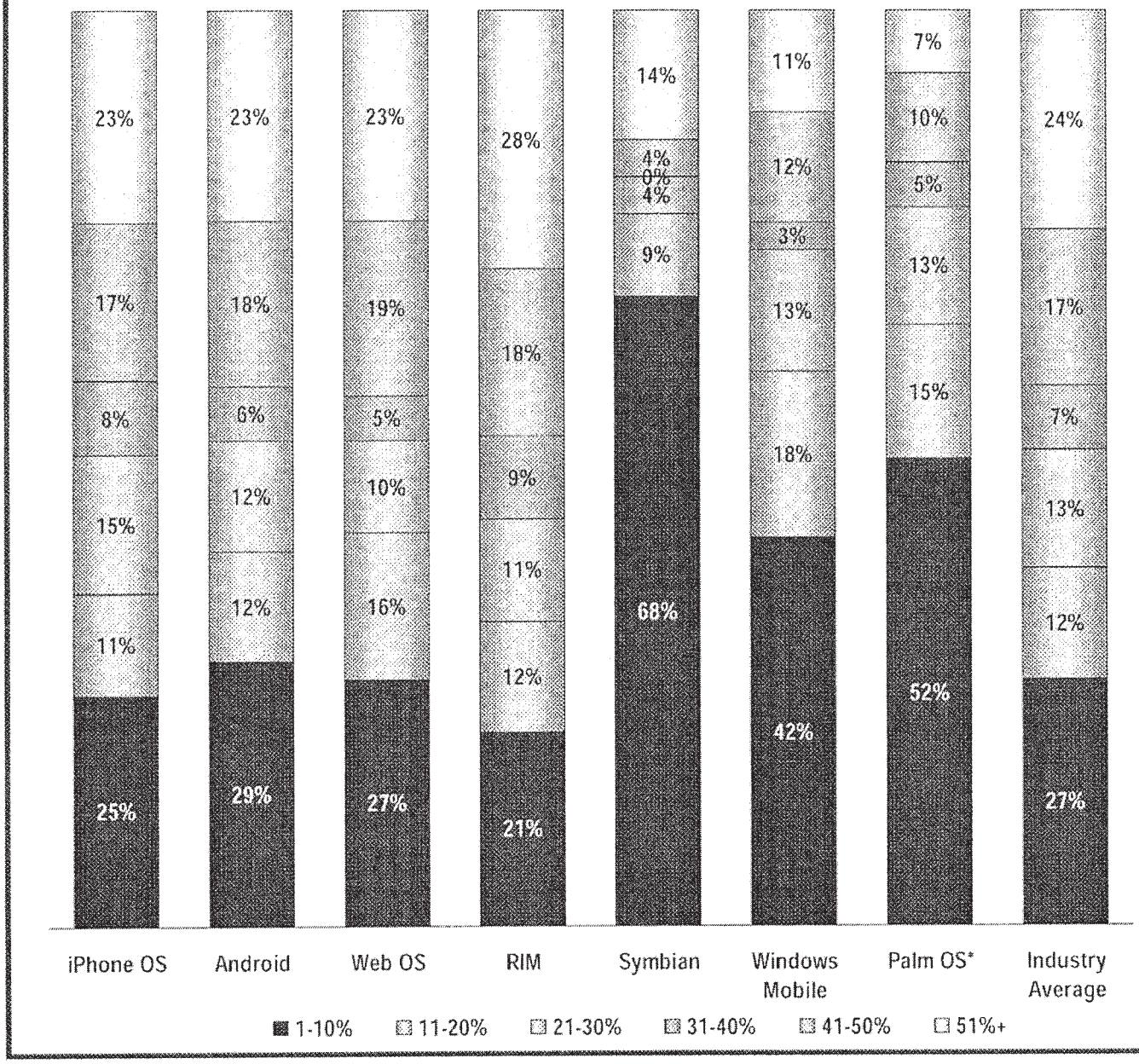
E-Mail Functionality

Percent E-Mails Originated from Smartphone



* Caution: small sample size.

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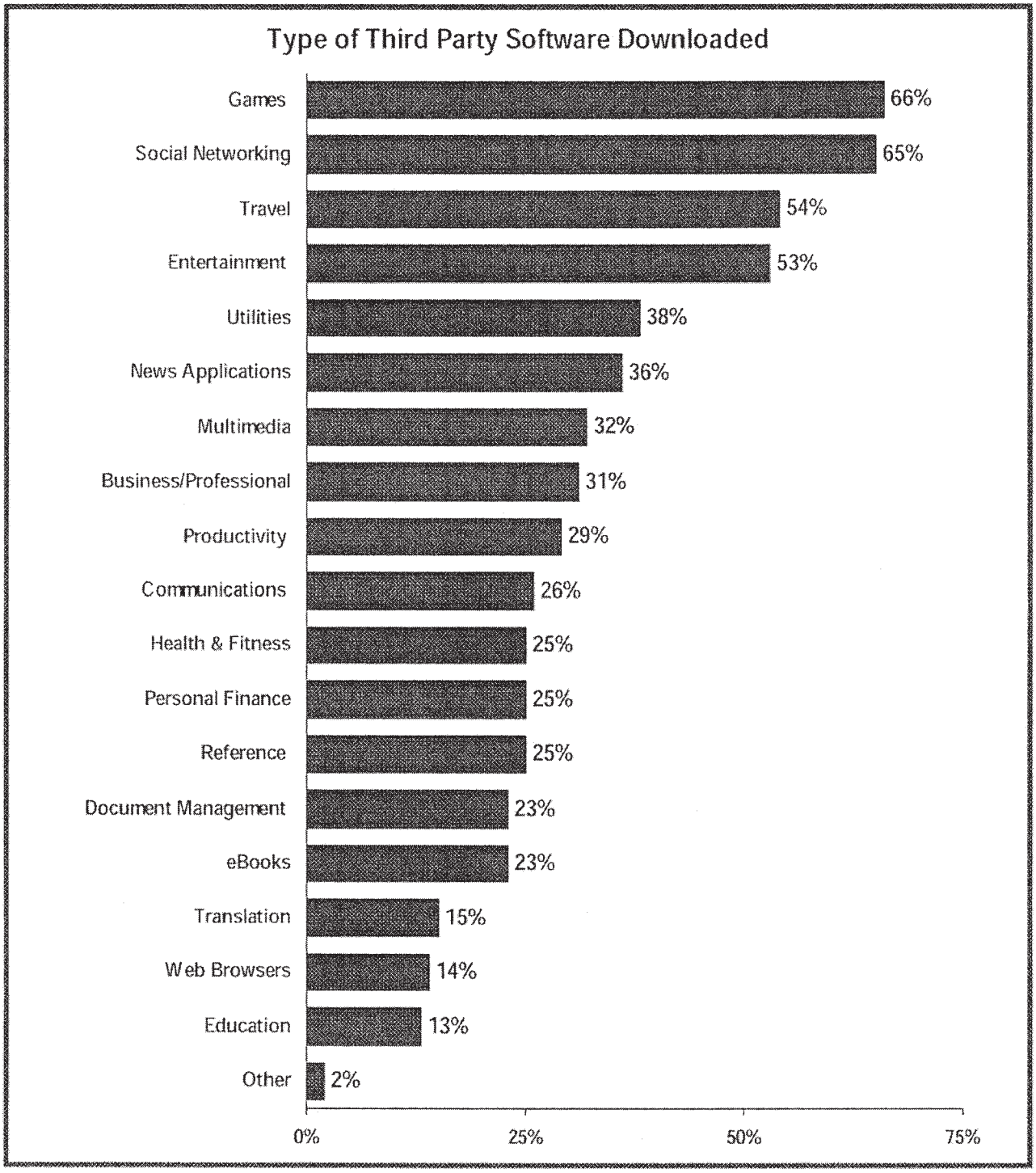
Third Party Software



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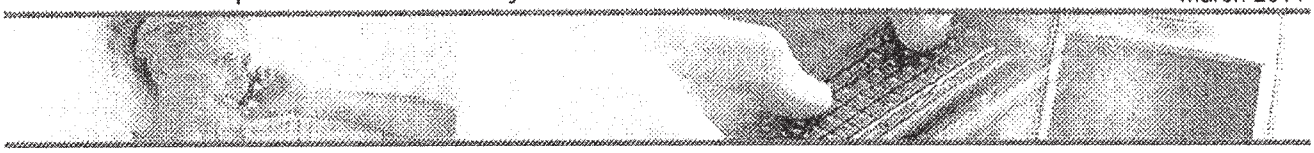

Third Party Software by Manufacturer

Third Party Software	Industry Average	Apple	HTC	Motorola	Nokia*	Palm	RIM BlackBerry	Samsung
Games	66%	78%	71%	69%	64%	77%	42%	65%
Social Networking	65%	75%	56%	63%	44%	45%	63%	54%
Travel	54%	64%	47%	59%	28%	31%	48%	45%
Entertainment	53%	69%	50%	59%	27%	43%	31%	46%
Utilities	38%	48%	40%	47%	28%	28%	19%	37%
News Applications	36%	48%	29%	36%	8%	24%	28%	27%
Multimedia	32%	40%	33%	36%	34%	27%	22%	32%
Business/Professional	31%	40%	26%	30%	29%	19%	24%	25%
Productivity	29%	36%	33%	37%	18%	27%	13%	24%
Communications	26%	28%	27%	30%	16%	8%	23%	28%
Health & Fitness	25%	40%	20%	25%	26%	18%	8%	16%
Personal Finance	25%	36%	24%	26%	9%	17%	12%	16%
Reference	25%	35%	22%	21%	16%	25%	12%	16%
Document Management	23%	22%	31%	32%	25%	22%	13%	27%
eBooks	23%	34%	19%	20%	21%	20%	10%	19%
Translation	15%	22%	14%	12%	9%	12%	5%	16%
Web Browsers	14%	13%	15%	18%	16%	5%	13%	17%
Education	13%	21%	8%	7%	17%	11%	5%	5%
Other	2%	1%	1%	3%	9%	5%	2%	1%

* Caution: small sample size.

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Customer Satisfaction Performance

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Customer Satisfaction Performance

Apple continues to be ranked highest in overall satisfaction among the covered smartphone manufacturers with an index score of 795, scoring 32 index points above its closest competitor, Motorola. In addition, Apple performs 34 index points significantly above the industry average of 761. Apple, as was the case in previous volumes, excels in four of five factors, scoring highest in Ease of Operation (826), Operating System (769), Physical Design (831) and Features (821). However, Apple does fall significantly below the industry average in Battery Function (619 vs. 651).

Among the remaining smartphone manufacturers, highlights include:

Motorola ranks second overall with an index score of 763, slightly above the industry average (761). Motorola ranks significantly higher than the industry average in the Operating System (749) and Features (792) factors. Motorola has an opportunity to improve within the Physical Design factor (777), as the manufacturer scores significantly below average in this particular aspect.

HTC ranks third overall (762), 1 index point below second-highest-ranked manufacturer, Motorola, and 1 index point above the industry average. HTC smartphone owners indicate they are significantly more satisfied than the industry average in Physical Design (808) and Features (789), whereas HTC is significantly below average in Ease of Operation (777) and Battery Function (615).

Palm scores significantly 25 index points lower than the industry average with a score of 736, which is actually an 11-point improvement from 2010 Vol. 2. The manufacturer is significantly below the industry average overall and in two of five factors: Ease of Operation (757) and Features (726).

Nokia ranks fifth overall, in a tie, with a score of 734, falling significantly below the industry average. Although Nokia ranks significantly above the industry average in Battery Function (737), it is significantly below average in the remaining four factors: Ease of Operation (752), Operating System (691), Physical Design (761), and Features (727).

Samsung ranks fifth place, in a tie, in 2011 Vol. 1 with a score of 734 overall. The manufacturer is significantly below the industry average by 27 index points. Samsung struggles significantly in four factors: Ease of Operation (756), Operating System (688), Physical Design (780) and Features (741). Satisfaction with the Battery Function stands above average (656 vs. 651).

RIM BlackBerry falls from its fourth place ranking in 2010 Vol. 2 to being the lowest-ranked manufacturer in 2011 Vol. 1 with an overall index score of 732, a significant 29 index points below the industry average. RIM BlackBerry smartphone owners are significantly more satisfied than the industry in Battery Function (702), despite being significantly below average in the remaining four factors.

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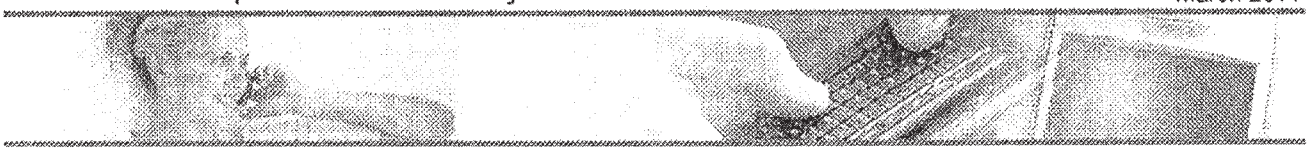
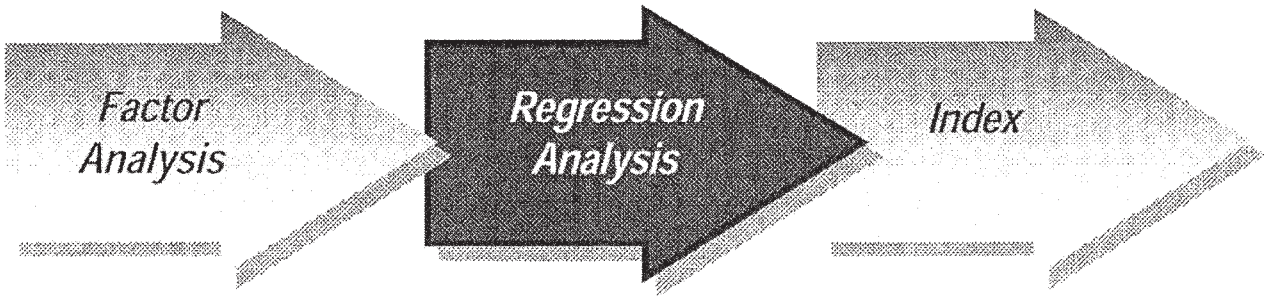


Wireless Smartphone CSI Summary

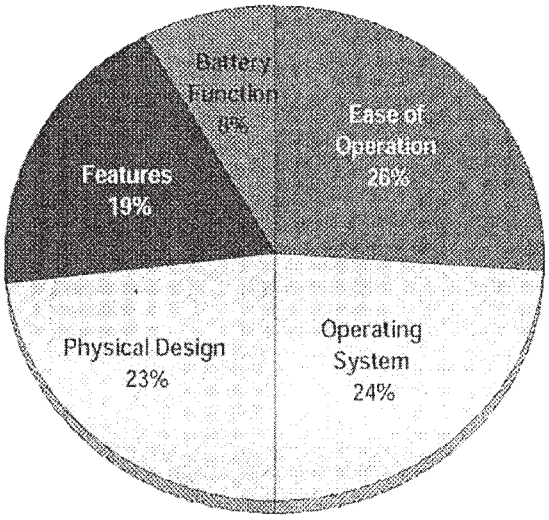


Validates unique satisfaction dimensions and eliminates non-discriminating dimensions

Identifies importance based on implied weights of each unique dimension

Scores respondents based on weights and establishes an average

Wireless Smartphone Customer Satisfaction Index Weights: 2011 Vol. 1



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Question Topics Used to Determine Factors

Ease of Operation (26%)

- Quality of sound when on a call (16%)
- Ease of pressing/activating keypad/keyboard buttons (15%)
- Ease of navigating phone using touch screen, toggle/navigation wheel (15%)
- Ability to adjust volume to suit needs (14%)
- Ease of navigating around phone menu system (14%)
- Ease of using basic calling features (13%)
- Ease of using text messaging (13%)

Operating System (24%)

- Reliability/stability of smartphone operating system (33%)
- Speed of mobile Internet (20%)
- Amount of time it takes to move between applications (19%)
- Timeliness of syncing (16%)
- Amount of time it takes to attach/transfer files (12%)

Physical Design (23%)

- Visual appeal of your wireless phone (22%)
- Size of display screen (20%)
- Brightness of background display screen lighting (20%)
- Weight of wireless phone (including battery) (19%)
- Size of wireless phone (19%)

Features (19%)

- Usefulness of applications available on phone (26%)
- Ability to download additional applications (21%)
- Availability of multimedia functions (20%)
- Quality of camera pictures and videos (17%)
- Variety of ring tones supported (16%)

Battery Function (8%)

- Amount of battery life before it needs recharging (53%)
- Length of time needed to recharge battery (28%)
- Ease of replacing batteries (19%)

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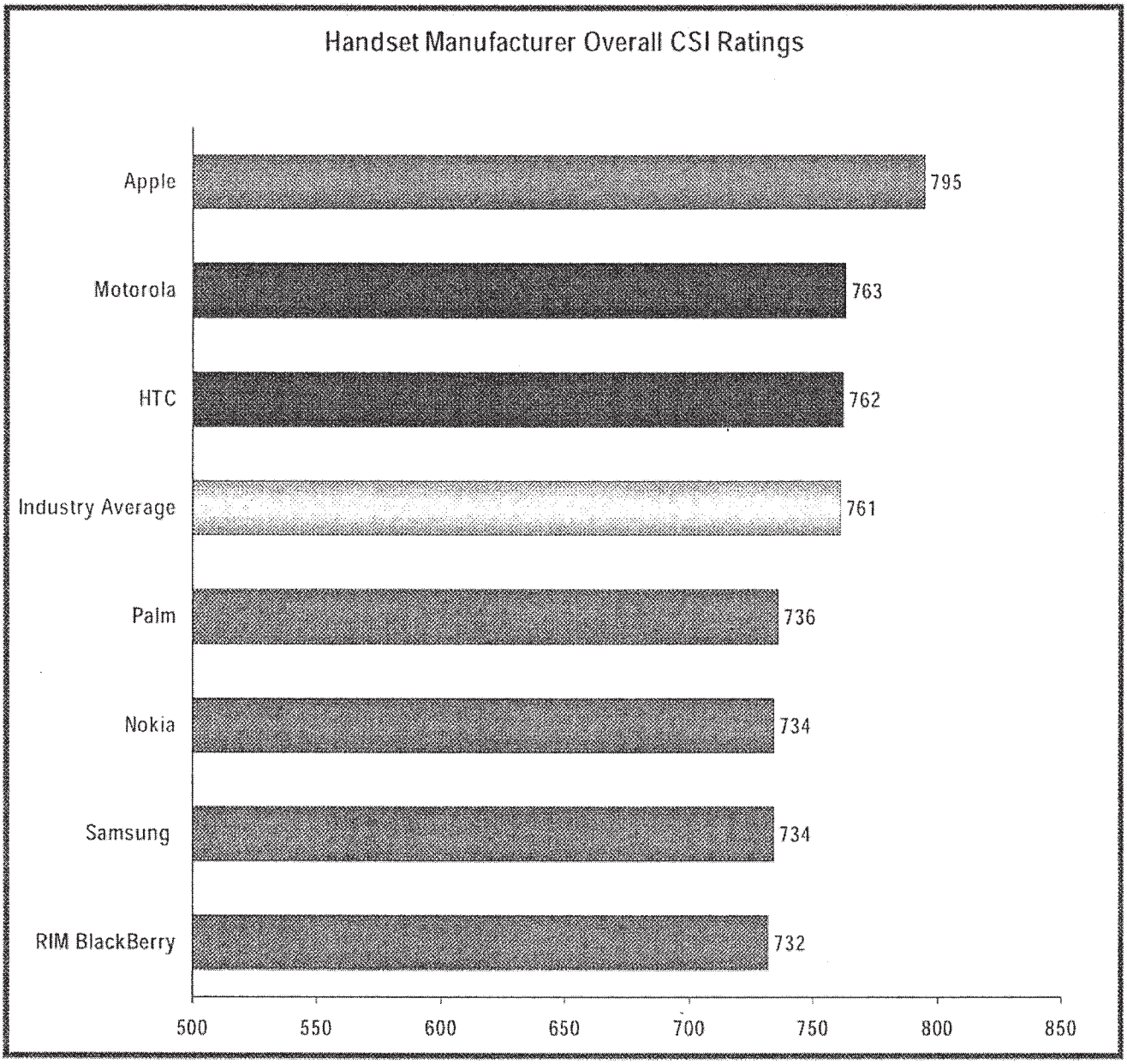
Overall Smartphone CSI Rating



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).

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Smartphone CSI Ratings by Manufacturer

	Industry Avg.	Apple	Motorola	HTC	Palm	Nokia	Samsung	RIM BlackBerry
Overall	761	795	763	762	736	734	734	732
Ease of Operation	786	826	780	777	757	752	756	762
Operating System	727	769	749	731	714	691	688	685
Physical Design	795	831	777	808	782	761	780	763
Features	774	821	792	789	726	727	741	726
Battery Function	651	619	650	615	630	737	656	702

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).

Smartphone CSI Ratings—2011 V1 *minus* 2010 V2

	Industry Avg.	Apple	Motorola	HTC	Palm	Nokia	Samsung	RIM BlackBerry
Overall	-3	-5	-28	-19	10	23	-1	-5
Ease of Operation	-6	-9	-32	-27	-14	30	-1	0
Operating System	1	-2	-23	-15	40	23	1	-7
Physical Design	-4	-9	-27	-4	14	19	-3	-5
Features	1	-6	-17	-18	18	25	15	-5
Battery Function	-16	19	-58	-46	-23	6	-34	-14

For handsets used for less than 2 years.

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