



# Mobile Chargers:

## *Global Markets*

August 2018

*Mohammed Javed*

Report Code: ENG009A

# Table of Contents

<b>Chapter 1: Introduction</b> .....	<b>1</b>
Study Goals and Objectives.....	1
Reasons for Doing This Study.....	1
Intended Audience.....	1
Scope of Report.....	2
Information Sources.....	3
Methodology.....	3
Regional Breakdown .....	4
Analyst's Credentials.....	8
Related BCC Research Reports.....	8
<b>Chapter 2: Summary and Highlights</b> .....	<b>10</b>
<b>Chapter 3: Market and Technology Background</b> .....	<b>15</b>
Driving Factors of the Mobile Charger Market .....	17
Increasing Mobile Phone Sales.....	17
Growing Need for Power Banks .....	18
Growing Electric Vehicle Market.....	19
Reduced Battery Capacity for High-end Phones .....	21
Rising Demand for Fast-charging Chargers .....	22
Factors Restraining Market Growth.....	24
High Cost of Wireless and Solar Chargers .....	24
Increasing E-waste.....	25
Opportunities.....	26
Introduction of Wireless Chargers .....	26
Increasing Trend of Solar Mobile Chargers .....	27
Increasing Demand for Smart Wearable Devices.....	28
<b>Chapter 4: Market Breakdown by Technology</b> .....	<b>31</b>
Electric Mobile Chargers .....	35
Wired Chargers.....	36
Wireless Chargers.....	42
Power Banks .....	44
Solar Mobile Chargers.....	47
Solar Trickle Chargers .....	50
Clamshell Solar Chargers .....	52
Folding Solar Chargers.....	53
Backpack Solar Chargers .....	54
Mobile Charging Market by Solar Charger Panel Technology .....	56
Monocrystalline Silicon Solar PV Module.....	56
Polycrystalline Silicon Solar PV Modules.....	58
Thin-film Solar PV Modules .....	60
<b>Chapter 5: Market Breakdown by End User</b> .....	<b>65</b>
Individual Consumers.....	66
Transportation .....	68
Commercial .....	70
Military.....	71
Other .....	72

Education.....	72
Animation and Entertainment .....	73
<b>Chapter 6: Market Breakdown by Application .....</b>	<b>75</b>
Mobile Chargers.....	76
Types of Mobile Chargers.....	77
Portable Device Charging.....	79
Laptops/Tablets.....	81
Wearable Devices.....	84
Audio Devices .....	87
Cameras.....	88
Consumer Electronics.....	89
Other .....	91
Portable Device-charging Services .....	91
Vehicle Charging Management .....	94
Drones .....	99
Electric Vehicles.....	100
<b>Chapter 7: Market Breakdown by Region .....</b>	<b>103</b>
North America.....	103
U.S. ....	104
Canada.....	106
Europe.....	107
U.K. ....	107
Germany.....	109
Italy.....	110
Spain.....	110
France.....	112
Rest of Europe .....	113
Asia-Pacific .....	113
China.....	114
India.....	116
Japan.....	117
Rest of Asia-Pacific .....	119
Rest of the World .....	121
<b>Chapter 8: New Developments and Competitive Landscape.....</b>	<b>123</b>
New Developments in the Solar Mobile Charger Market.....	123
New Developments in the Mobile Charger Market.....	124
Motion-powered Chargers.....	124
Smart Mobile Chargers.....	124
Electric Vehicle Chargers .....	125
Prolonged Battery Life.....	129
Competitive Landscape.....	130
Key Strategy Analysis.....	130
Key Company Analysis.....	131
<b>Chapter 9: Company Profiles .....</b>	<b>134</b>
<b>Appendix.....</b>	<b>163</b>
<b>About BCC Research.....</b>	<b>167</b>

About BCC Research.....	168
BCC Membership .....	168
BCC Custom Research .....	168

# List of Tables

Summary Table: Global Market for Mobile Chargers, by Application, Through 2022 (\$ Millions) .....	12
Table 1 Power Bank Price Range in Emerging Economies (\$).....	19
Table 2 Target Sales of OEMs of Electric Cars.....	21
Table 3 Battery Size of High-end Smartphones, 2017 .....	22
Table 4 Technology Offered by Qualcomm Technologies .....	23
Table 5 Solar Charger Cost (\$).....	24
Table 6 Wireless Charger Cost (\$).....	25
Table 7 Global E-waste Generation, 2014–2018 .....	26
Table 8 Global Market for Mobile Chargers, by Technology, Through 2022 (\$ Millions).....	31
Table 9 North American Market for Mobile Chargers, by Technology, Through 2022 (\$ Millions) .....	32
Table 10 European Market for Mobile Chargers, by Technology, Through 2022 (\$ Millions) .....	33
Table 11 Asia-Pacific Market for Mobile Chargers, by Technology, Through 2022 (\$ Millions).....	34
Table 12 Rest of the World Market for Mobile Chargers, by Technology, Through 2022 (\$ Millions).....	35
Table 13 Global Market for Mobile Chargers, by Type, Through 2022 (\$ Millions) .....	36
Table 14 Comparison of Different Models of Tronsmart Fast Chargers.....	37
Table 15 Global Market for Wired Mobile Chargers, by Type, Through 2022 (\$ Millions).....	38
Table 16 Global Market for Wired Mobile Chargers, by Region, Through 2022 (\$ Millions) .....	39
Table 17 Global Market for Simple Wired Mobile Chargers, by Region, Through 2022 (\$ Millions) .....	40
Table 18 Global Market for Fast Wired Mobile Charger, by Region, Through 2022 (\$ Millions) .....	41
Table 19 Smartphones Offering Wireless Chargers .....	43
Table 20 Global Market for Wireless Mobile Chargers, by Region, Through 2022 (\$ Millions) .....	43
Table 21 Global Market for Power Banks, by Region, Through 2022 (\$ Millions) .....	45
Table 22 List of Power Bank Brands and Prices for Capacity of 5,000 mAh (\$) .....	46
Table 23 List of Power Bank Brands and Prices for Capacity of 5,000 mAh to 10,000 mAh (\$) .....	47
Table 24 List of Power Bank Brands and Prices for Capacity Above 10,000 mAh (\$) .....	47
Table 25 Global Market for Solar Mobile Chargers, by Type, Through 2022 (\$ Millions) .....	48
Table 26 Global Market for Solar Mobile Chargers, by Region, Through 2022 (\$ Millions) .....	49
Table 27 Average Cost of Different Solar Chargers (\$) .....	50
Table 28 Global Market for Solar Trickle Chargers, by Region, Through 2022 (\$ Millions).....	51
Table 29 Average Cost of Solar Trickle Chargers (\$) .....	51
Table 30 Global Market for Clamshell Solar Chargers, by Region, Through 2022 (\$ Millions).....	52
Table 31 Average Cost of Clamshell Solar Chargers (\$) .....	53
Table 32 Global Market for Folding Solar Chargers, by Region, Through 2022 (\$ Millions).....	53
Table 33 Average Cost of Folding Solar Chargers (\$) .....	54
Table 34 Global Market for Backpack Solar Chargers, by Region, Through 2022 (\$ Millions) .....	55
Table 35 Average Cost of Backpack Solar Chargers (\$).....	56
Table 36 List of Companies and Their Prices for Monocrystalline Silicon PV Modules (\$/W).....	57
Table 37 List of Monocrystalline Solar Charger Specifications and Prices (\$) .....	58
Table 38 List of Companies and Their Prices for Polycrystalline Silicon PV Modules, 2016 (\$).....	59
Table 39 List of Polycrystalline Solar Chargers and Their Prices, 2017 (\$) .....	60
Table 40 List of Companies and Their Prices for Thin-film Panels, 2016 (\$).....	61
Table 41 List of Thin-film Solar Chargers and Their Prices, 2017 (\$) .....	62
Table 42 Comparison of Major Categories of Thin-film Panels .....	63
Table 43 Global Market for Mobile Chargers, by End User, Through 2022 (\$ Millions).....	65
Table 44 Global Market for Individual Consumer Use of Mobile Chargers, by Region, Through 2022 (\$ Millions) .....	67
Table 45 Wireless Mobile Car Charger Mounts .....	68

Table 46 Global Market for Transportation Use of Mobile Charger, by Region, Through 2022 (\$ Millions)	69
Table 47 Global Market for Commercial Use of Mobile Chargers, by Region, Through 2022 (\$ Millions)	71
Table 48 Global Market for Military Use of Mobile Chargers, by Region, Through 2022 (\$ Millions)	72
Table 49 Global Market for Other End Users of Mobile Chargers, by Region, Through 2022 (\$ Millions)	73
Table 50 Global Market for Mobile Chargers, by Application, Through 2022 (\$ Millions)	75
Table 51 Global Market for Mobile Phone Charging, by Region, Through 2022 (\$ Millions)	78
Table 52 Global Market for Portable Device Charging, by Region, Through 2022 (\$ Millions)	79
Table 53 Global Market for Portable Device Charging, by Type, Through 2022 (\$ Millions)	80
Table 54 Global Market for Laptop/Tablet Chargers, by Region, Through 2022 (\$ Millions)	81
Table 55 List of Laptop Chargers and Their Prices, 2017 (\$)	83
Table 56 List of Tablet Chargers and Their Prices, 2017 (\$)	84
Table 57 Global Market for Wearable Chargers, by Region, Through 2022 (\$ Millions)	85
Table 58 List of Smartwatch Chargers and Their Prices, 2017 (\$)	86
Table 59 Global Market for Audio Device Chargers, by Region, Through 2022 (\$ Millions)	87
Table 60 Global Market for Camera Device Chargers, by Region, Through 2022 (\$ Millions)	88
Table 61 Global Market for Consumer Electronics Chargers, by Region, Through 2022 (\$ Millions)	89
Table 62 List of Trimmer Chargers and Their Prices, 2017 (\$)	90
Table 63 List of Kindle Chargers and Their Prices, 2017 (\$)	91
Table 64 List of Major Laptop Charging Carts and Their Prices, 2017 (\$)	92
Table 65 List of Major Mobile and Laptop Charging Carts and Their Prices (\$)	94
Table 66 List of Portable Electric Vehicle Chargers Available in the U.S. and Their Prices (\$)	96
Table 67 List of Major Roadside Assistance Services and Their Prices, 2018 (\$)	98
Table 68 Major Drone Chargers	99
Table 69 Global Market for Other Applications, by Region, Through 2022 (\$ Millions)	101
Table 70 North American Market for Mobile Chargers, by Country, Through 2022 (\$ Millions)	104
Table 71 European Market for Mobile Chargers, by Country, Through 2022 (\$ Millions)	107
Table 72 Prices of Solar Chargers in the U.K., 2016 (\$)	109
Table 73 Asia-Pacific Market for Mobile Chargers, by Country, Through 2022 (\$ Millions)	113
Table 74 Classification of Electric Vehicle Chargers	127
Table 75 Strategies and Activity Count of Leading Players, 2015–2017 (No. of Activities)	131
Table 76 Recent Activity of Leading Players, 2015–2017 (No. of Activities)	132
Table 77 Activities of Key Players in the Mobile Charger Market, 2015–2016	163

# List of Figures

Summary Figure: Global Market for Mobile Chargers, by Application, 2016–2022 (\$ Millions).....	13
Figure 1 Wireless Phones (GSM and CDMA) in India, 2013–2016 (Millions).....	18
Figure 2 Global Electrical Vehicle Sales, 2013–2016 (Thousands).....	20
Figure 3 Percentage of Mobile Charged in 30 Minutes by Different Technologies (%).....	23
Figure 4 Global Market for Mobile Chargers, by Technology, 2016–2022 (\$ Millions).....	31
Figure 5 North American Market for Mobile Chargers, by Technology, 2016–2022 (\$ Millions) .....	32
Figure 6 European Market for Mobile Chargers, by Technology, 2016–2022 (\$ Millions).....	33
Figure 7 Asia-Pacific Market for Mobile Chargers, by Technology, 2016–2022 (\$ Millions) .....	34
Figure 8 Rest of the World Market for Mobile Chargers, by Technology, 2016–2022 (\$ Millions).....	35
Figure 9 Global Market for Mobile Chargers, by Type, 2016–2022 (\$ Millions).....	36
Figure 10 Global Market for Wired Mobile Chargers, by Type, 2016–2022 (\$ Millions).....	39
Figure 11 Global Market for Wired Mobile Chargers, by Region, 2016–2022 (\$ Millions) .....	40
Figure 12 Global Market for Simple Wired Mobile Chargers, by Region, 2016–2022 (\$ Millions).....	41
Figure 13 Global Market for Fast Wired Mobile Chargers, by Region, 2016–2022 (\$ Millions).....	42
Figure 14 Global Market for Wireless Mobile Chargers, by Region, 2016–2022 (\$ Millions) .....	44
Figure 15 Global Market for Power Banks, by Region, 2016–2022 (\$ Millions) .....	45
Figure 16 Global Market for Solar Mobile Chargers, by Type, 2016–2022 (\$ Millions) .....	48
Figure 17 Global Market for Solar Mobile Chargers, by Region, 2016–2022 (\$ Millions) .....	49
Figure 18 Thin-Film Module Efficiency (Approximate) (%) .....	62
Figure 19 Global Market for Mobile Charger, by End User, 2016–2022 (\$ Millions) .....	66
Figure 20 Global Market for Individual Consumer Use of Mobile Chargers, by Region, 2016–2022 (\$ Millions) .....	67
Figure 21 Global Market for Transportation Use of Mobile Chargers, by Region, 2016–2022 (\$ Millions)	70
Figure 22 Global Market for Mobile Chargers, by Application, 2016–2022 (\$ Millions).....	75
Figure 23 Number of Smartphone Users Worldwide, 2014–2020 (Billions) .....	77
Figure 24 Global Market for Mobile Phone Charging, by Region, 2016–2022 (\$ Millions) .....	78
Figure 25 Global Market for Portable Device Charging, by Region, 2016–2022 (\$ Millions) .....	80
Figure 26 Two Different Types of Laptop Charging Techniques .....	82
Figure 27 Publicly Accessible Fast and Slow Charger Stock, by Country, 2016 (No. of Units).....	97
Figure 28 U.S. Mobile Cellular Subscriptions (Per 100 People) .....	103
Figure 29 U.S. Hybrid and Electric Vehicle Sales, 2011–2015 (Thousands) .....	105
Figure 30 New Registrations of Battery Electric Cars and Plug-in Hybrid Electric Cars in Canada, 2011– 2016 (Thousands).....	106
Figure 31 Mobile Cellular Subscriptions in the U.K., 2012–2016 (Per 100 People).....	108
Figure 32 Mobile Cellular Subscriptions in Spain, 2013–2016 (Per 100 People).....	111
Figure 33 Mobile Cellular Subscriptions in France, 2010–2016 (Millions).....	112
Figure 34 Mobile Cellular Subscriptions in China, 2012–2016 (Millions) .....	114
Figure 35 Electric Vehicle Sales in China, 2013–2016 (Thousands) .....	115
Figure 36 Mobile Cellular Subscriptions in India, 2012–2016 (Per 100 People).....	116
Figure 37 Mobile Cellular Subscriptions in Japan, 2012–2016 (Millions) .....	118
Figure 38 Electric Vehicle Sales in Japan, 2013–2016 (Thousands) .....	119
Figure 39 Mobile Cellular Subscription in Major Countries of Asia-Pacific, 2013–2016 (Millions) .....	120
Figure 40 Electric Vehicle Sales in South Korea, 2013–2016 (Thousands) .....	121
Figure 41 Electric Car Stock in Select Countries, 2016 (%) .....	126
Figure 42 Publicly Available Slow Charger Distribution in Select Countries, 2016 (%).....	128
Figure 43 Publicly Available Fast Charger Distribution, 2016 (%).....	129



*About BCC Research*



## *About BCC Research*

With our unparalleled 45-year history, BCC Research provides comprehensive analyses of global market sizing, forecasting and industry intelligence, covering markets where advances in science and technology are improving the quality, standard and sustainability of businesses, economies and lives.

## *BCC Membership*

From market sizing and forecasts, to opportunity assessments and competitive analyses, our ever-expanding library gives you the data, insights and intelligence required to ensure your project is a success. Members benefit from ongoing, unlimited access to the category or collections of their choice, and most membership packages pay for themselves within two to three reports being accessed.

Did you buy this report? You may qualify to apply your purchase price towards a full membership. Call 866/285-7215 or email [info@bccresearch.com](mailto:info@bccresearch.com) to request a demo.

## *BCC Custom Research*

Our experts provide custom research projects to those working to identify new markets, introduce new products, validate existing market share, analyze competition and assess the potential for products to impact existing markets. With impressive academic credentials and broad and deep knowledge of global industrial markets, our independent analysts and consultants develop the facts, figures, analyses and assessments to inform the decisions that will move your company ahead. Confidential inquiries to: [custom@bccresearch.com](mailto:custom@bccresearch.com) or 781/205-2429.

## DISCLAIMER

The information developed in this report is intended to be as reliable as possible at the time of publication and is of a professional nature. This information does not constitute managerial, legal or accounting advice, nor should it be considered as a corporate policy guide, laboratory manual or an endorsement of any product, as much of the information is speculative in nature. BCC Research and the author assume no responsibility for any loss or damage that might result from reliance on the reported information or from its use.

ISBN: 978-1-62296-803-9  
August 2018