



Made-in-China.com
Connecting Buyers with Chinese Suppliers



Monthly Business Report

EP08

Electric Bike Industry



CONTENT

Abstract.....	2
1. Electric Bike Industry.....	2
1.1 Implementation of government regulations to encourage the use of electric bikes.....	2
1.2 Consumer inclination toward use of e-bikes as an eco-friendly & efficient solution for commute.....	3
1.3 Restraints: High cost of e-bikes.....	3
1.4 Improvement in bicycling infrastructure & battery technology.....	4
1.5 Opportunity: Trend towards connected e-Bikes.....	4
1.6 Challenges: Technology challenges.....	5
1.7 Lithium-Ion batteries are estimated to hold the largest share in the ebike market.....	5
1.8 Mid-motor is expected to be the fastest-growing market segment.....	6
2. Product Recommendations.....	7
3. PPI for Industrial Products.....	8

Abstract

This reports contains the intro and analysis of Electric Bike Industry and product recommendation, also with the monthly PPI and Shandong Industrial Clusters.

1. Electric Bike Industry

Electric bike is a bicycle with an integrated electric motor drive mechanism and battery, which produces power for causing or assisting propulsion. Various kinds of globally available e-bikes range from electric bikes with a small motor to assist the pedal-power of the rider to more powerful e-bikes that produce power to completely drive the bike using throttle.

1.1 Implementation of government regulations to encourage the use of electric bikes

Governments of various countries are taking initiatives to reduce the carbon footprints by encouraging the use of electric bikes, electric vehicles, and bicycles, owing to increase in awareness toward the hazardous effects of using vehicles running on fossil fuels. Moreover, governments are constructing bicycle-friendly streets, which are encouraging individuals to opt for bicycle as a key mode of commute. Electric bicycles, scooters, and motorcycles have gained significant attention from various governments as reliable and efficient types of light motor vehicles (LMVs), which help in reducing the carbon footprint. Furthermore, to encourage the use of these environment-friendly vehicles, governments around the world are supporting for the purchase of electric mobility, in terms of tax credits and incentives. For instance, in June 2019, the Indian Government announced a plan to lower the goods & service tax (GST) on e-vehicles from 12% to 5% for faster adoption of electric vehicles. Furthermore, infrastructure facilities such as guarded bicycle parking facilities, construction of more bicycle (express) routes, and establishment of battery charging stations in many countries by the governments significantly boost the adoption of electric bikes by users, thereby propelling the growth of the E-bikes market.



1.2 Consumer inclination toward use of e-bikes as an eco-friendly & efficient solution for commute

Increase in global carbon emission by fuel combustion has been one of the major concerns for governments and environmentalists from the past few decades. This, in turn, boosts the demand for electric vehicles across the globe, thereby supplementing the growth of the market. In addition, due to rise in cost of fuel at international level, increase in pollution, and traffic congestion especially in urban areas have increased the popularity of electric bikes across every continent. Moreover, higher running and maintenance cost of fuel vehicle leads to shift in preference for electric bike in daily commute, which, in turn, propels the E-bikes market growth.

1.3 Restraints: High cost of e-bikes

High cost of e-bikes is a major factor that restrains the growth of the E-bikes market. The cost of the battery and technology makes e-bikes costlier as compared to traditional bicycles, conventional scooters, or motorcycles. Hence, consumers find conventional scooters or motorcycles superior in performance with same or less price. Moreover, the use of lithium-ion batteries or drive mechanism of motor incurs maximum cost, thereby restraining the growth of the market. Hence, upsurge in adoption of e-bikes in countries other than China is limited by high costs. However, the E-bikes market is growing at a rapid rate globally, which may reduce the impact

of this restraint in the near future.

1.4 Improvement in bicycling infrastructure & battery technology

E-bikes are less expensive than cars, do not require license, and can be used on existing bicycling infrastructure. Rapid urbanization and less preference of consumers to use cars due to increased traffic congestion are anticipated to offer lucrative opportunities for market expansion. In addition, governments of various countries focus on the development of infrastructure for e-bikes, including bicycle tracks and public charging stations with the inclination of consumers toward e-bikes. For instance, Sanyo (Japan) opened two solar parking lots in Tokyo where around 100 electric bicycles can be recharged from solar panels. Moreover, consistent technological innovations in e-bike by market players is propelling the market growth. For instance, in 2017, commercial bike racks & bike parking systems manufacturer, Bikeep introduced the solution of smart bicycle rack that provides electric bicycle charging. The solution will be available for the most popular e-bikes. Thus, all these factors collectively are expected to offer remunerative opportunities for the expansion of the global E-bikes market during the forecast period.



1.5 Opportunity: Trend towards connected e-Bikes

With the growing popularity of e-bikes, there are technological advancements in the

field of e-bikes. The connected e-bike is one such advancement, wherein the SIM module enables the e-bike to send and receive data to and from the cloud without a connected smartphone. Some of the important features offered by the connected e-bike include automatic emergency call, integrated navigation, social media connection, an anti-theft system, and remote diagnostics. Bosch is one of the major players in the ebike market, offering connected e-bike solution. For instance, SmartphoneHub by Bosch can connect e-bikes to a smartphone and support the riders before and after their journey. The Lock premium function by Bosch also transforms the Kiox connected onboard computer into the key for greater security. Nyon from Bosch determines the pedaling force and frequency during the journey and uses this information to calculate the cyclist's performance and energy consumption. On platforms such as komoot, which is integrated into the COBI.Bike app, millions of users can exchange information with each other and discover new routes with recommendations and tips from the community.

1.6 Challenges: Technology challenges

The two most fundamental elements of the e-bike are the motor and battery. The motor provides the force, and the battery stores and supplies the energy. Controlling the motor's speed and torque across a wide range of speed and load conditions is one of the challenges for e-bike manufacturers. With the finite amount of stored energy available in a battery, the battery capacity must get used as efficiently as possible. An increase in the battery size would increase the capacity, increasing the weight of the e-bike. Therefore, determining the right battery capacity in terms of operation and range would be important for battery manufacturers. Also, consumers are very technology-oriented with devices such as smartphones and tablets. Therefore, e-bike manufacturers are faced with the challenge of providing functionality and intelligence in e-bikes that would be compatible with smartphones and tablets at a minimum amount of power, either through a dedicated onboard device or by providing connectivity to the smartphone or tablet.

1.7 Lithium-Ion batteries are estimated to hold the largest share in the ebike market

The lithium-ion battery segment is estimated to account for the largest share of the ebike market due to lithium-ion batteries' various benefits. For instance, lithium-ion batteries are eco-friendly, have a better life cycle, and generate more power to weight ratio than other battery types. These batteries have also shown a sharp decline in price in recent years. The effort of e-bike manufacturers to produce lightweight e-bikes has also resulted in the higher adoption of lithium-ion batteries. E-bikes in China were equipped with lead acid batteries. However, due to government

regulations announced in April 2019, the Chinese market has shifted towards lithium-ion batteries, resulting in a huge spike in demand for lithium-ion batteries in the Asia Pacific region from 2019.



1.8 Mid-motor is expected to be the fastest-growing market segment

The majority of the European and North American e-bike manufacturers are shifting from hub to mid motors due to mid motors' advantages, such as smaller size, lighter weight, lesser noise, and seamless integration with bike frames. Therefore, the mid-motor segment is projected to register a higher CAGR during the forecast period.

Electric Bike Market by Usage

- Mountain/Trekking
- City/Urban
- Cargo
- Others

Electric Bike Market by Battery

- Lithium-Ion
- Lithium-Ion Polymer
- Lead Acid
- Others

Electric Bike Market by Speed

- Up to 25 KMPH

- 25-45 KMPH

Electric Bike Market by Motor

- Mid Motor
- Hub Motor

Electric Bike Market by Mode

- Pedal Assist Mode
- Throttle Mode

2. Product Recommendations

When it comes to products, especially in electric bike business, reliable and big suppliers often comes with better after-service and technical support, as well as wider range of choices for products of different appliance purposes. We put together a list for you to choose from, click **Contact Now** to see more.



Wholesale-2400W-Two-Wheel-EEC-E-Scooter-Electric-Motorcycle-Lithium-Battery

[Contact Now](#)



20-Inch-500W-Folding-Fat-Ebike-with-Removable-Battery

[Contact Now](#)



48V-20ah-20inch-New-Fat-Tire-Electric-Bike-with-500W-Motor

[Contact Now](#)



Hot-Selling-26inch-Hidden-Battery-Mountain-Fat-Tire-Electric-Bike

[Contact Now](#)



Emark-Certified-Road-Legal-1440W-S4-Electric-Motorcycle

[Contact Now](#)



Wholesale-2400W-Two-Wheel-EEC-E-Scooter-Electric-Motorcycle-Lithium-Battery

[Contact Now](#)

3. PPI for Industrial Products

The producer price index, which indicates the raw material prices, still has a general increase.

Producer Price Index for Industrial Products

Indicators [Producer Price Index for Industrial Products (preceding month=100)]	Aug 2021	Jul 2021	Jun 2021
Total	100.7	100.5	100.3
Mining and Washing of Coal	106.5	106.6	105.2
Extraction of Petroleum and Natural Gas	98.8	105.9	102.5
Mining and Processing of Ferrous Metal Ores	98.5	103.6	105.4
Mining and Processing of Non-Ferrous Metal Ores	100.7	100.2	101.6
Mining and Processing of Non-metal Ores	100.6	100.4	100.5
Mining and Support Activities	99.8	105.0	99.7
Processing of Food from Agricultural Products	100.0	100.0	99.1
Manufacture of Foods	100.3	100.2	100.0
Manufacture of Liquor, Beverages and Refined Tea	99.7	100.2	100.1
Manufacture of Tobacco	100.0	100.0	100.2
Manufacture of Textile	101.0	100.6	100.0
Manufacture of Textile, Wearing Apparel and Accessories	100.1	100.2	99.8
Manufacture of Leather, Fur, Feather and Related Products and Footwear	100.1	100.3	99.7
Processing of Timber, Manufacture of Wood, Bamboo, Rattan, Palm and Straw Products	100.1	100.4	99.9
Manufacture of Furniture	100.1	100.5	99.5
Manufacture of Paper and Paper Products	99.7	99.4	100.0
Printing and Reproduction of Recording Media	99.8	100.1	99.7
Manufacture of Articles for Culture, Education, Arts and Crafts, Sport and Entertainment Activities	100.0	100.3	99.6
Processing of Petroleum, Coal and Other Fuels	101.0	102.6	103.1
Manufacture of Raw Chemical Materials and Chemical Products	101.9	100.8	100.2

Manufacture of Medicines	100.0	99.8	99.7
Manufacture of Chemical Fibres	101.0	101.8	99.2
Manufacture of Rubber and Plastics Products	100.1	100.1	100.2
Manufacture of Non-metallic Mineral Products	99.9	98.9	100.0
Smelting and Pressing of Ferrous Metals	102.2	99.8	99.3
Smelting and Pressing of Non-ferrous Metals	101.4	99.9	99.9
Manufacture of Metal Products	100.6	100.5	100.8
Manufacture of General Purpose Machinery	100.2	100.3	100.4
Manufacture of Special Purpose Machinery	100.2	100.2	100.1
Manufacture of Automobiles	100.1	100.1	100.2
Manufacture of Railway, Ship, Aerospace and Other Transport Equipments	100.3	100.2	100.0
Manufacture of Electrical Machinery and Apparatus	100.4	100.5	100.9
Manufacture of Computers, Communication and Other Electronic Equipment	100.1	100.6	100.2
Manufacture of Measuring Instruments and Machinery	100.0	100.5	99.6
Other Manufacture	100.1	100.3	99.7
Utilization of Waste Resources	100.2	99.8	99.6
Repair Service of Metal Products, Machinery and Equipment	100.1	100.2	99.7
Production and Supply of Electric Power and Heat Power	99.6	100.0	99.6
Production and Supply of Gas	101.7	100.2	99.9
Production and Supply of Water	100.0	100.1	100.3

Data Sources: National Bureau of Statistics