

Pattern finding in automobile market

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Abstract: We discuss the history of automobiles and their features, which helps you understand the automobile industry. Whereas, we figure out market size in Bangladesh for automobile parts. Therefore, we analyze the interior car decoration accessories market size and add charts to understand the sales of Elite Automart. Moreover, we compare Elite Automart and other car accessories shops to analyze their strategy, price, and opportunity. Finally, we talk about Elite Automart's future plans.

History:

Transportation and economic growth were developed by the automobile industry. The first diesel fuel car and assembly line were invented by Karl Benz and Henry Ford in the late 19th century.

Automobiles became more affordable in the early 1900s due to mass production.

The 1908 Ford Model T was introduced as a personal car, and production increased to fulfill the demand.

World War I forced the industry to produce military vehicles and enhance technology. After the war, innovations like electric starters and engines improved driving.

In the late 20th century, we saw globalization caused mergers of Car Company, acquisitions, and multinational business growth. Japanese cars were efficient and dependable, whereas threatening American and European dominance.

Hybrid and electric vehicles were developed in the 21st century to become sustainable. Tesla is popularizing electric cars and promoting greener mobility.

Feature of Automobile:

1. **Hybrid Car:** A hybrid car uses two or more power sources like fuel engine along with battery to drive the car. Most hybrid cars have a petrol-powered engine that burns fuel and an electric battery system. Popular hybrid cars like the Toyota Prius, Honda Insight, Ford Fusion Hybrid, Hyundai Ioniq Hybrid, and others.

2. **Non Hybrid Car:** It works with a traditional classic fuel-injected engine. This type of vehicles runs on gasoline or diesel. No electric engines or battery-powered motors are used in these vehicles. Toyota Corolla, Honda Civic, Ford F-150, BMW 3 Series, Chevrolet Silverado, and others are non-hybrids.

3. **AI Based Car:** Autonomous or self-driving automobiles use AI to navigate, evaluate information from the senses, make decisions, and function without human supervision. These cars use cameras, sensors for radar, Lidar, GPS, and powerful onboard computers to analyze the environment and make actual-time choices while driving.

Several companies are actively working on AI-based car technology:

- I. Waymo
- II. Tesla
- III. Cruise (owned by General Motors)
- IV. Argo AI (collaborating with Ford and Volkswagen)
- V. NVIDIA (providing AI computing platforms for autonomous vehicles)

Feature of Spare parts of Automobile:

1. Car Engine Spare Parts - Engine block, Cylinder head, Engine, alternator, radiator, air conditioner, suspension, brake pads, spoiler, rim, tire, trim package, body components, Pistons, Valves, Spark plugs, Flywheel.
2. Interior Car Decoration Accessories – Car key Cover , Air freshener , Car cleaning kit , Engine oil , LED lights , Dash Cam , Leather cover, Document holder, windshield wiper etc

Auto parts market size in Bangladesh:

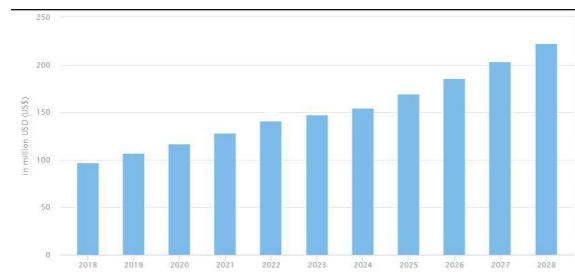
Rising ownership of cars in Bangladesh has doubled the automotive component industry in a decade.

Engine, alternator, radiator, air conditioner, suspension, brake pads, spoiler, rim, tyre, trim package, body components, and other replacement parts are imported for the increasing automobile market.

The automobile parts market was Tk 1,300 crore to Tk 1,400 crore the previous year, growing 10–12% annually over the past decade.

The automobile spare parts market is chaotic, therefore industry data is limited. Thailand, China, Indonesia, Taiwan, Dubai, and India supply most importers with refurbished and new car components.

200 businessmen import car spare parts, and most of them have workshops. Over 2,500 dealers trade components.



Customer Demography in Automobile industry in Bangladesh (Interior Car Decoration Accessories):

Car interiors are commonly decorated with ornaments for numerous reasons:

Car accessories: people customize their cars and make that stand out. People use car interior design to convey their character, sense of style, and hobbies.

Improved Comfort: Seat covers, pillows, and steering wheel covers can improve driving comfort. These products may improve driving comfort by adding padding, ergonomics, or temperature control.

Status and Prestige: Some people adorn their cars with fancy extras to show off. These may feature luxury leather seats, special trim, or custom interior detailing.

Safety and security: Car alarms, GPS trackers, and dash cams provide safety and security. These features prevent car theft and monitor driving behavior, giving peace of mind.

Collected Data, Data Analysis & Result Analysis on Elite Automart:

A well-known Online page Elite Automart, who is selling interior car decoration accessories since 2020.

Range of Products:

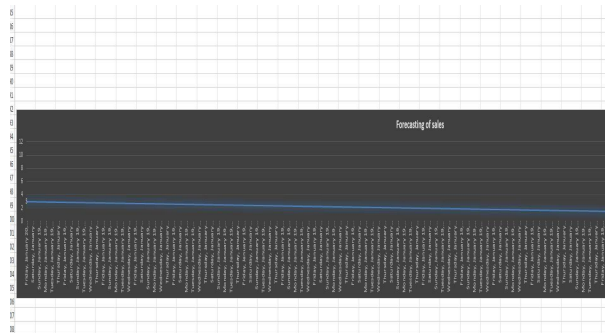
1. Car Key Cover – Leather key cover, Carbon fiber, leather key ring, Silicone Cover.
2. Document holder.
3. Car Remote battery.
4. Microfiber towel – small, medium & large.
5. Air Compressor.
6. Air freshener – little trees (Brand) – Fiber can, spray, hanging trees.
7. Number Plate Cover.
8. Windshield cleaning tablet.
9. Duster.
10. USB Charger.
11. Wiper Blades.

Collection of Sales data from Elite Automart & Data Analysis on Sales data:

We have collected sales data from Elite Automart April 21, 2023 to December 03, 2023.

Date	Product Name	Quantity	Price	Profit	Delivery fee	Inside Dhaka	Outside Dhaka	Address	Customer Name	Inspected Customer
Friday, April 21, 2023	Leather key ring	1	300	100	140	No	Yes	Gopalganj	Erman Ahmed	
Tuesday, April 25, 2023	Silicon Cover	1	250	150	60	Yes	No	Uttara	Yati Islam	
Friday, April 28, 2023	Carbon fiber	1	1000	150	60	No	No	Banani	Hemel	
Tuesday, May 2, 2023	Leather key cover	1	650	250	60	Yes	No	Motipail	Yousuf	
Saturday, May 6, 2023	Carbon Cover	1	1000	190	60	Yes	No	Gulshan	Sakiet	R
Wednesday, May 10, 2023	Carbon Cover	1	1000	190	60	Yes	No	Mulbagh	Shavo	
Wednesday, May 10, 2023	Leather key ring	1	300	100	60	Yes	No	Nawabpur	Toubar	
Monday, May 15, 2023	Carbon Cover	1	900	150	60	Yes	No	Mipur	Shahab Uddin	R
Thursday, May 18, 2023	Silicon Cover	2	950	230	60	Yes	No	Progot Sarai	Sabon	
Friday, May 19, 2023	Silicon Cover	2	500	240	60	Yes	No	Kelavaur	Past Basu	

If we look the sales forecast April 21, 2023 to December 03, 2023

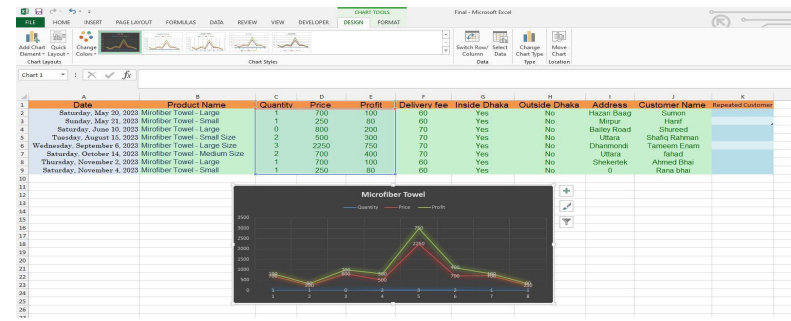


Top Selling Product:

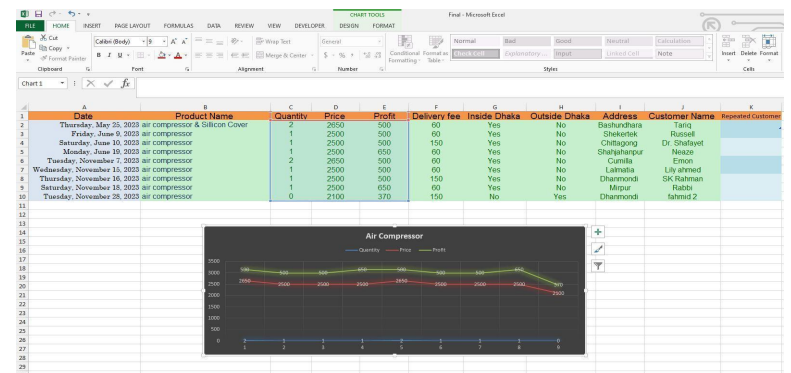
1. Car key Cover:



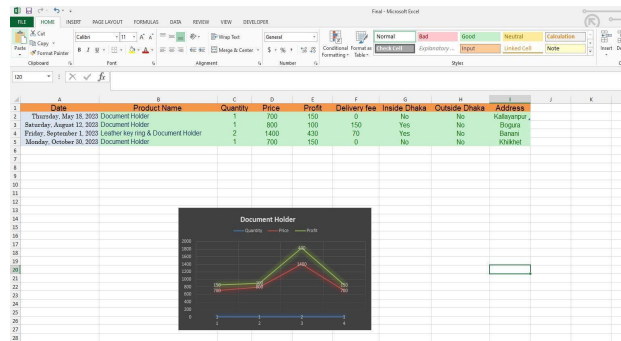
2. Microfiber towel:



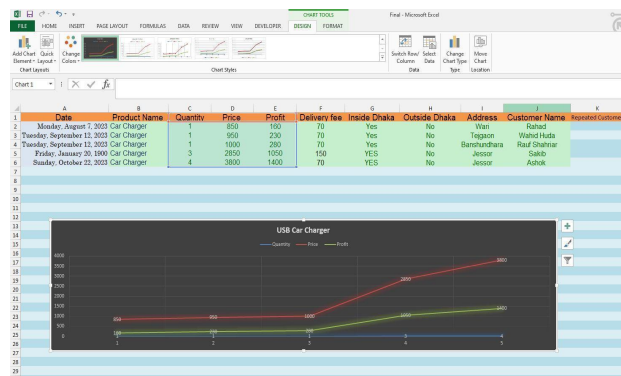
3. Air Compressor:



4. Document Holder:



5. Car Charger:



1.39 million. The success of Thailand's industrialization has prompted interest from policy officials and researchers in emerging economies seeking to expand the automobile sector.

Whereas Bangladesh's middle class is developing quickly and buying more, auto parts demand is still modest compared to India and Thailand. The market is now worth USD 1 billion after growing exponentially. Industry analysts estimate the Auto Parts automobile market at Tk 1500 crore.

With the rising middle and upper class's purchasing power, the auto parts market is growing 12% yearly. The middle class buys majority passenger automobiles and auto parts accessories. Commercial vehicle producers can import auto parts duty-free for four years. New technology and improved human resource management are helping the local car sector reach critical mass.

- Market size was Tk 1,300cr-Tk 1,400cr last year
- Annual growth rate 10-12pc
- Market size was below Tk 500cr 10 years ago
- At least 200 traders import auto parts

Auto Parts retail Competitors for Elite Automart:

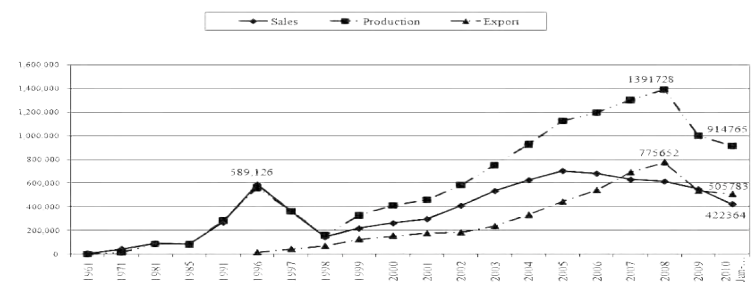
1. Oilco
2. Japan Parts
3. Car Hub Store
4. Oil house.
5. Car Monkey
6. Parts Station

These are top notch Competitor in the auto parts retail industry market.

Comparing Thailand Auto Parts VS Bangladesh Auto Parts Industry:

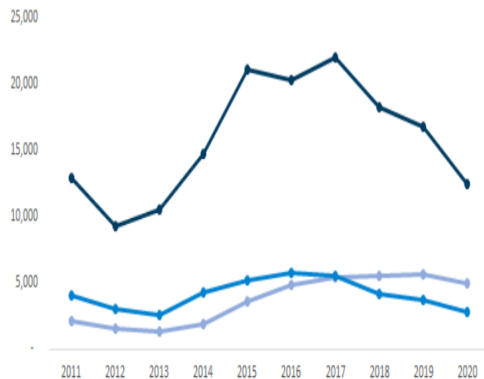
Thailand's automobile sector has joined the worldwide manufacturing network of several vehicle and auto parts manufacturers in less than 50 years of industrial growth. In 2005 and 2008, Thailand produced over one million cars and parts accessories, setting a record of

Figure 1: Thailand Production, Sales, and Exports of Automobile (1961 – 2010 July)



Source: Federation of Thai Industries, The Thai Automotive Industry Association.

Bangladesh Auto Parts Figure:



Comparing Elite automart with other competitors and figuring out the marketing strategy, growth, and customer trend of Elite Automart:

Comparing with Competitors: As there are some competitors in the market, all of them are selling the same kind of products. If I pick up Oilco and Japan parts, which are renowned in the auto parts retail market, their prices are fixed and high. Whereas elite automart products are affordable, and they also direct import them from the manufacturer company. Other competitors depend on local suppliers; if the local supplier increases the product price, then other auto parts shops have to increase their price. Then customers do not get budget-friendly products from them. Whereas Elite Automart plays a significant role, they import the product and sell it according to the customer's budget. Friendly, and there is an option for customers to negotiate, whereas other competitors don't have this option because their price is fixed.

Marketing and Sales Strategy: Elite Automart analyses the marketing trends of auto parts and consumer behaviour through social media marketing, content marketing, and search engine optimization. Whereas they track key performance indicators like Facebook page

traffic and customer engagement. And they use some data-driven tools to figure out the KPI results and do marketing.

Therefore, they do B2B and B2C business. Whereas, their sales rate is much better than that of other competitors.

B2B Business: As they import the product from a manufacturer with an affordable price range, Elite Automart works as a supplier for them.

Customer trend: In the auto parts industry, we see different ages of customers, like young and middle-aged. Sometimes customers want to customize parts kits according to their style. So Elite Automart has the option to customize the product according to the customer's taste. Customers prefer the convenience of purchasing auto parts online. They research products, compare prices, and buy from e-commerce platforms or manufacturer websites. Accessibility to a wide range of products and the ease of doorstep delivery are major drivers of this trend. Elite Automart sells their products both online and offline, so customers get that kind of access.

Future Plan and Opportunity:

As we see, now consumers are having electric cars, or in the future, electric car demand will get higher. So figuring out that opportunity, we have to do research on it and make the electric car parts available in the future. And also setup a charging station with better service.

Conclusion:

Auto parts retail is a dynamic industry shaped by evolving consumer preferences, technological advancements, and a growing demand for convenience, quality, and customization. The sector's future success hinges on embracing online platforms, catering to the DIY culture, prioritizing sustainability, delivering reliable products, and leveraging digital influences to meet customer needs

effectively. Adaptability, innovation, and a customer-centric approach remain key factors for sustained growth and competitiveness in the auto parts retail landscape.

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