



A STUDY ON SELF DRIVING CAR RENTAL SERVICE IN INDIA

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Abstract:

The self-drive automobile rental market has grown in a nation like India because of recent advancements in technology and the internet. As transportation is the lifeblood of the working man and a conduit for so many organizations, institutions, and people. Everyone appreciates a good mode of transportation, and the self-drive automobile rental sector works to provide one on a global scale.

Our primary goals in conducting this study were to understand consumer preferences and to examine the self-drive automobile rental market's current state on the Indian market. We have a variety of goals to work towards as we analyze the self-drive automobile rental market.

We performed a poll of 100 people to reach our final goal, which was to learn about consumer preferences on which self-drive automobile rental firm they prefer. We were able to understand the current state of the self-drive rental automobile market in India through this analysis and poll, as well as how consumers felt about the businesses in the market.

Keywords:

Self-Drive Rental Cars, Rental Market, Organization, Analysis, Customer Preference, and Policies.

Introduction:

The automobile rental industry in India was completely unregulated and chaotic between 2010 and 2011. For out station trips, people relied on hyperlocal taxis and taxi aggregators. In 2010, Ola started managing intra-city taxis, and since then, it has emerged as a major player in India's vehicle rental industry.

Nonetheless, there was yet a hole in between city transportation administrations. The global car rental market was valued at 58.26 billion dollars in 2016 and was anticipated to reach over 124.56 billion dollars by 2022.

SIXT, which is still among the largest car rental companies in the world, started the first car rental company in 1912 in Germany. Then, in 1916, Joe Saunders started renting out Ford's Model T, and a local car rental business was established in Nebraska. The fundamental idea was to provide private transportation to neighborhood and visiting financial professionals with the goal that they can move around in solace and protection for their work excursions. The US car rental industry got its start with this, and the rest is history.

Thanks to the development of science and technology, there are countless new business opportunities as India makes significant progress. In the heat of the summer, do you still recall the days when you had to ride crowded buses to work and hail a cab or rickshaw to travel to the nearest food store? Even while the number of car owners is rising, public transportation options like buses and cars are falling as more individuals choose to rent a car for a safer and more convenient trip.

Starting a rental car company is among the top ideas for small businesses. In big cities as well as small towns, people want to travel in comfort and luxury. One may easily reserve a cab using their mobile device, and they will be sitting comfortably, in an air-conditioned vehicle, far from the congestion and heat of the outside world, in just a few minutes.

These digital taxi services are spreading throughout India. Such rental cars and taxis cater for everyone from middle class to ultra-rich. Aside from the famous Uber and Ola taxis, Audis and sedans are the few sold to the very wealthy by luxury car rental companies.

First, we must explore the business model, as car rental companies are undergoing a transition that will continue to develop over time. Regular rental and contract rental are the two main business strategies used in the car rental industry. Customers can hire the cars daily. Travelers, business managers, and those with vehicle problems will be the main customers in this form of car rental business plan.

What exactly is a car rental agency?

Car rental companies are companies that rent out cars for a limited period, from a few minutes to a few days. They offer a variety of sites for consumers to pick up and return rental cars, as well as online platforms that allow for online bookings with prepayment alternatives.

Zoomcar is India's largest car rental market. From short road trips to shopping, picking up groceries or a quick food run for a meal, they have the most affordable car rental options to meet the customer's needs. A hatchback for daily commute, a sedan for short trips, SUV for hills, and a luxury car for surprises.

The India car rental revenue is projected to show an annual growth rate (CAGR 2023-2027) of 2.83% resulting in a projected market volume of US \$2.94 billion by 2027. In the car rentals segment, the number of users is expected to amount to 78.9 million users by 2027. This shows that it is a fast-growing market and rental cars will be highly in demand in the future. Our company with its innovative approach can attract and establish a huge customer base.

Worldwide vehicle rental industry is worth billions and is relied upon to develop and reach a revenue point of US \$2.63 billion in 2023. This kind of business existed back in 2013 and that was the point at which oneself

driving vehicle business began to fill the hole for individuals who wanted to go by street yet didn't have any desire to possess a vehicle. In India there are numerous Companies considering the self-propelled.



A large portion of the population has not yet fully embraced the concept of self-propelled vehicles, and here is where the companies in this business step in to raise awareness among people and swiftly grow their clientele. The growing demand for better and sustainable modes of transportation among India's expanding urban population has led to a rapid expansion of the country's car rental industry. India's millennials are increasingly empowered, driven by a desire to travel long distances and an innate fear of missing out on opportunities that is fuelling the growth of the car rental industry.

The market for self-driving car rental service is having a rapid growth in India, due to the factor of the easy availability of cars without the hassles of owning one or the toil people face with public transportation.

Literature Review:

1. (Adamczak, Torz, Cyplik, Walaszczyk and Fijalkowska, 2020) the main goal of the article is to identify the attractiveness of eco-driving incentives for drivers under short-term rental. The study used the survey method. The study was based on 323 completed questionnaires. The evaluation of the attractiveness of the incentive to eco-driving depends on the characteristic of the client who rents the car. It is possible to shape incentive systems for car rental customers that can shape their positive behaviour on the road. Among the most attractive incentives for eco-driving in a rented car are- the possibility of upgrading a car in the next rental, discount for future rental and free carwash.
2. (Fontem, 2016) The rental customers arrive successively, and rent out cars for random durations while effectuating random incremental mileages on them. This stochastic rental behavior makes the decision of when to sell a rental car quite a crucial one for the firm because it involves a certain amount of risk. Selling a car when its mileage is low proactively avoids a huge decline in the car's residual market value (even though it could also cause the firm to forfeit income from future rental customers who intend to rent that car for long durations while driving it sparingly).

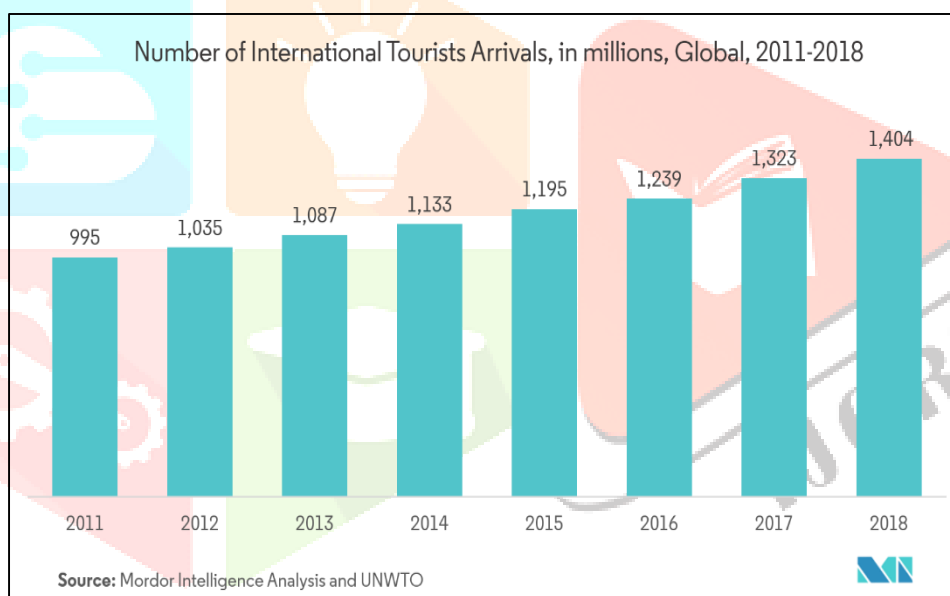
3. (H. Dean, 2010) The present study aims to examine prior rental car experience for its effect on estimated odds of an accident and likelihood to purchase rental car insurance. Compared to people who had not rented a car before, people with prior rental experience estimated the odds of an accident involving their vehicle to be significantly less likely. subjects with prior rental car experience were significantly less likely to purchase a collision damage waiver and supplemental liability insurance.
4. (Grgurina, 2016) This bachelor thesis describes development of a car rental website using technologies. The car rental owner wants to efficiently manage all his/her business assets, while customers need the ability to search all available cars and get smart recommendations, make an online reservation, rate vehicles, and leave a comment about the driving experience. Web application consists of administration module for the car rental owner and the user module for the customers.
5. (Jancy, N Krithi, P.S Niranjana and S Niranjan, 2022) Even if a person owns a car, they use a rental vehicle for extended trips, making the rental car system unavoidable. Some people prefer to rent a car because they do not want to deal with the responsibilities of owning a car, such as maintenance, road taxes, and vehicle insurance. The proposed system has taken the place of the conventional car rental system. The prototype allows the user to select the vehicle of their choice as well as the features using the mobile application that will be required during the trip.
6. (Mukherjee, Datta, Ganguly and Bandopadhyay, 2022) Travel suppliers largely depend on business travel as their main source of profit because it is fewer prices conscious compared to the pleasure travel market. Car rental companies are a major part of the travel industry. Car rental rates vary with economic ups and down. Nowadays, there are online car renting services which give much benefit to users in modern society. Customers have inadequate time to make any transactions. With the help of the online car rental system, we can elongate our operational hours. An attempt has been made to design an entire car rental analysis server using data visualization techniques.
7. (Narsaria, M. Verma and A. Verma, 2020) Rental Car services were introduced in 2013 in India. Enfoldng the benefits of automobile without owning it, it is essential to understand major factors contributing to the satisfaction of rental car services. This paper explores the relationship between input factors such as socio-demographic characteristics and individuals' overall satisfaction level of the service. The results indicate that individuals influenced by the availability of car and ease in hiring are satisfied with the rental car service, while price has a negative effect on the satisfaction level.

Objectives of the Study:

- i. The goal of this project is to automate the vehicle rental and reservation process. This saves the customer from having to call the vehicle and waste time waiting. To convert the manual car rental procedure into a digital method.
- ii. The purpose of the Car Rental system is to build an application program to reduce the manual work for managing the Car, Payment, Booking, Customer. Track all details about your customers, suppliers and insurance.
- iii. The large number of elements make it an extremely worthwhile industry to put resources into India.

- iv. The client entrance rate was 0.8% in the year 2017 which shows that there is a great deal of potential for every one of the players in the business to develop.
- v. Some companies set up a minimum age for the vehicle driver, which in some cases is as high as 25, even in countries where the minimum legal age to hold a driver's license is much lower.
- vi. The phrase “**Easy drive, safe arrive**” seems to be appropriate and logical for the purpose of self-driving car rentals in India.
- vii. Most people in India cannot afford to purchase cars, this is when companies like Zoomcar, Revv, Avis India, Zing Car, Myles etc come to the rescue.

A large portion of the population has not yet fully embraced the concept of self-propelled vehicles, and here is where the companies in this business step in to raise awareness among people and swiftly grow their clientele. Car rentals have many conditions that vary from brand to brand. Vehicles must be returned in good condition and maximum mileage must not be exceeded. Otherwise, additional charges may apply.



Research Gap:

- i. **Consumer adoption and usage patterns:** Despite the growing popularity of self-driving cars, it is unclear how willing consumers are to use them for rental purposes. There is a need to explore factors that drive or inhibit consumer adoption and usage patterns of self-driving car rental services, such as trust, comfort, affordability, and convenience.
- ii. **Safety and liability concerns:** Self-driving cars are still a relatively new technology, and there are concerns about their safety and liability, especially in the event of accidents. Research is needed to explore how rental companies can ensure the safety of their vehicles and passengers, and how liability should be allocated between the rental company, the manufacturer of the self-driving car, and the user.

- iii. **Pricing strategies:** Self-driving car rental services may be priced differently from traditional car rental services, given the differences in technology and maintenance costs. There is a need to explore different pricing strategies that rental companies can use to make their services affordable and competitive, while also ensuring profitability.
- iv. **Infrastructure requirements:** Self-driving cars rely heavily on advanced technology, such as sensors, cameras, and GPS. Research is needed to explore the infrastructure requirements for self-driving car rental services, such as the need for high-speed internet, 5G connectivity, and advanced mapping and navigation systems.
- v. **Business models:** Self-driving car rental services are still in their early stages, and there is a need to explore different business models that rental companies can use to make their services profitable and sustainable in the long term. This could include exploring partnerships with other companies, such as ride-sharing services or parking lot operators, or exploring new revenue streams, such as advertising or data monetization.

Research Methodology:

- i. **Size of the Study-** The target audience or respondents for this questionnaire were the public above the age of 18 who are eligible for driving with a license. The sample size from which we chose to collect the information was 80 people.
- ii. **Sources for Data Collection-** The data was collected by using Primary and Secondary sources of data collection. The primary data was collected through a questionnaire. The questions were designed according to the target audience. The data collected from this source can be used to build a better understanding of self-driving car rental service in India. The secondary data collected is the published information from reports, research papers, articles, and the internet.

Scope of the Study:

In-depth research has been conducted in multiple regions to capture precise details of global market presence and sales demographics, allowing users to get the most out of their data. Recent actions by major international market players are examined by Self-Drive Car Rental analysis. The research report's findings are based on observational synthesis of primary and secondary data and perspectives of major market players.

1. **Market Segmentation Analysis-** The study includes segmentation of the self-driving car rental market by type, industry, channel sector, and market size (in terms of volume and value) for each category. The Self-drive Car Rental market major Segments and Subsegments are listed below:

- i. Self-drive Car Rental market segmentation, by type-
 - a. Hatchback
 - b. Sedan
 - c. SUV
 - d. Other

- ii. Self-drive Car Rental Market Segmentation, By Application
 - a. Business
 - b. Leisure
 - c. Other

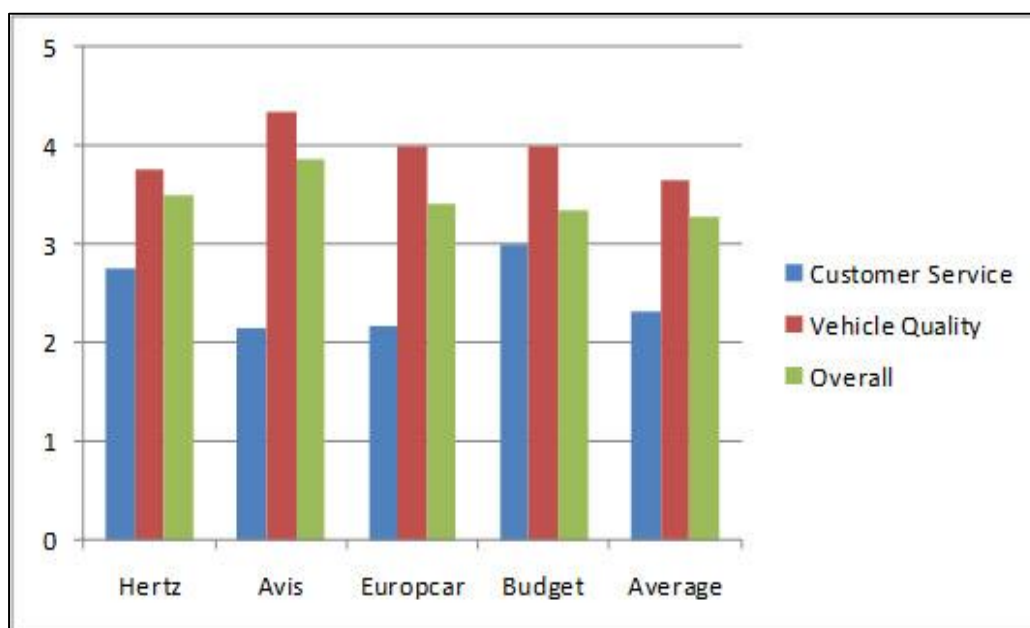
Sampling Techniques:

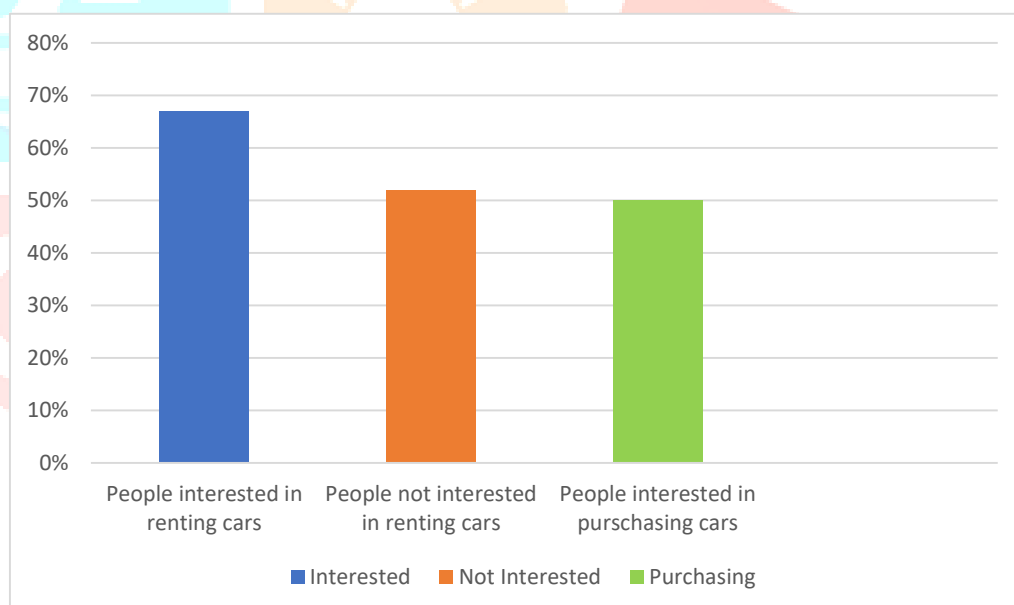
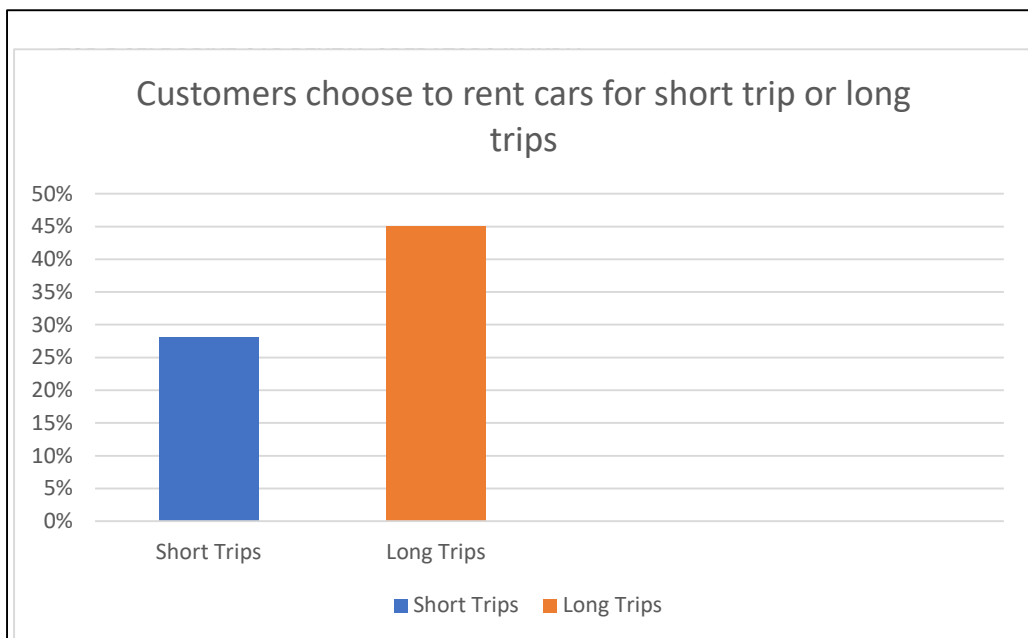
At Self driving rentals the companies are continuously striving to make the rental experience effortless and delightful. Ideally, it should be easy to book, pick up and return a car. In fact, the experience should be so good that you rave about it to your friends and come back when the customers needs to book another car.

To get a better understanding of the car rental customer experience, we conducted a questionnaire from 80 people to map out the rental experience and gather information regarding it. Random sampling technique was used for data collection as this method involves a subset of the selected population.

It is a straightforward method as it involves choosing of random selection and requires mere knowledge about the chosen population for the study.

Data Analysis:



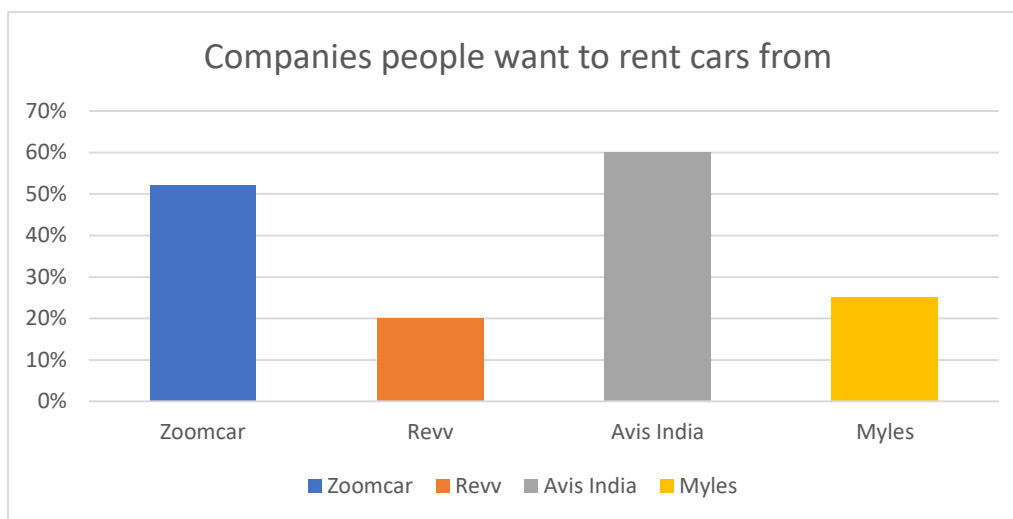


The self-driving car rental market is expected to grow rapidly in the coming years as technology advances and consumer demand increases. While the market is still in its early stages, it has the potential to revolutionize the transportation industry and change the way we think about mobility.

The data on self-driving car rental services reveals that the market is poised for significant growth in the coming years, driven by increasing consumer demand for autonomous vehicles and advancements in technology. The market size is projected to increase from \$54.23 million in 2018 to \$1.96 billion by 2025, representing a CAGR of 55.4%.

In conclusion, the data suggests that the self-driving car rental market has significant growth potential in the coming years, driven by increasing demand for autonomous vehicles and advancements in technology.

While the market is still in its early stages, it has the potential to revolutionize the transportation industry and change the way we think about mobility.



Findings:

1. The budget for renting cars by customers on an average for short trips is around ₹ 1,000-2,000 depending on the cars kms travelled and for long trips is around ₹ 5,000-6,000 depending on the cars and the kms travelled.
2. This business targets customers who do not own cars and prefer going on road trips very often. This could help those customers rent cars and not worry about the hassle of buying cars.
3. There is a pickup and drop facility for the Cars and the company gives fuel reimbursement for corporate usage.
4. The cars have great mileage and go through regular tunings as and when required.
5. The company takes feedbacks from the customers and contacts people to know of any future needs. After sale services are also provided to the customers.
6. The cars have the GPS option along with charging points to help the customer travel in ease.
7. The trunk of the car has enough space to fit all the bags or essentials required by the customer in road trips.
8. Most of the respondents get to know about the car rental services provided by a business either through word of mouth or social media after which they visit the website.

The above-mentioned points make it easier for Car rentals customers to become regular customers. Car rentals is one of the growing and prospering car rental places that can help a business owner to expect a faster return on investment in less time.

A smart investment allows you to enter the car rental market and lead the market in your name.

Conclusion:

This research paper has provided some information on the analysis of the self-drive automobile rental market in India. The analysis shows that this market has been expanding rapidly over the last few years.

This paper includes a description of the current state of the industry in the Indian market, as well as information on how it operates and a survey of consumer preferences for their favourite companies. The Zoomcar and Ola Ride have mostly emerged as the market leaders in this sector in India. Uber Hire has gained less notoriety and market share while Myles is at the bottom of the list.

Zoomcar is currently the customer favourite and is doing the best job of conquering the Indian market, whereas Myles, which is among the least popular options, has very little market share now.

The Ola Ride, which ranks second among Indian consumers in terms of preference, is the most popular service after Zoomcar due to its reasonable pricing and alluring offers. Since it is still in its infancy in this market segment in India and requires more development, Uber Hire comes in third when it comes to consumer preference among Indians.

In a summary, it might be claimed that the Indian market gives the self-drive automobile rental business a lot to gain from and is expanding at an enormous rate compared to the previous few years. And this will continue to grow as new prospects like startups and many other businesses enter the market every day or every other day.

Ola Rides is performing well in maximising these chances to develop their market and make the most of the underutilised environment, much like businesses like Zoomcar.

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