

## **CONSUMER PERCEPTIONS OF PRICE, QUALITY, VALUE ON LOW COST GREEN CAR IN SURABAYA and SIDOARJO**

Fitri Novika Widjaja

[Fitri.novika@gmail.com](mailto:Fitri.novika@gmail.com)

A. Budhiman Setyawan

[budhiman@staff.ubaya.ac.id](mailto:budhiman@staff.ubaya.ac.id)

Prita Ayu Kusumawardhany

[Pritaayu.k@gmail.com](mailto:Pritaayu.k@gmail.com)

Faculty of Business and Economics  
Department of Management  
Universitas Surabaya

### **Abstract**

In recent months, the Indonesian Automotive industry has been abuzz with news of the government's new Low Cost Green Car (LCGC) policy. In this scenario, the government's bid to push up sales through a LCGC policy has been widely welcomed and touted as a win-win measure for all. As the government battles to manage the burgeoning fuel subsidies, high mileage cars would help reduce the country's fuel consumption in the long run. This study aims to know how exactly customer perceptions on their LCGC based on its perceived price, perceived quality and perceived value. A method used in this paper is Exploratory Study. In-depth consumer interviews were conducted to gain insight into consumer perceptions of price, quality and value. It is found that the main factor consumers buy their LCGC is because it's low price. However, only a few of consumers are really aware the main objectives of LCGC that are environmental friendly and fuel efficient.

Keywords: Consumer perceptions, price, quality, value

### **Introduction**

Many people consider their car an essential part of everyday life. However, cars are major polluters and cause damage to our natural environment. Green cars are usually much more environmentally friendly as they have less pollutant emissions and use sustainable fuel resources. Green cars are cars which are more environmentally friendly than conventional cars. It is usually how the car is fuelled which determines whether or not it is a green car.

A conventional car works using an internal combustion engine which burns fuel to create motion. Fuel is a fossil fuel which means it is non renewable and will one day run out. The burning of fossil fuel results in the emission of greenhouse gases into the atmosphere. Greenhouse gases have been proven to contribute to the effect of global warming. On top of this, fuel is created from crude oil. Crude oil is not only a non renewable resource which will one day run out, the production of oil is also highly dangerous for the natural environment. Oil spills, such as the BP Deepwater Horizon Disaster oil spill in 2010, destroys natural habitats and kills

wildlife. These factors have led to the development of 'green' cars, which cause less damage to the environment.

## **Green Car**

A green car is a vehicle that is considered to be environmentally friendly and have less of a damaging impact on the environment than conventional cars. A green car consumes less petroleum than conventional cars or uses renewable energy sources to fuel its engine

Green cars can be essentially classified into the following types: (1) Local emission conventionally fuelled vehicles (petrol/diesel) that have lower than 130gCO<sub>2</sub>/km emission levels, (2) Electric vehicles, (3) Flexi-fuel vehicles which can run on renewable bio fuels, (4) Hybrid vehicles that have lower than 130gCO<sub>2</sub>/km emission levels. Other definitions and regulations may emerge including: (1) More car sizes. A fuel consumption of 4 liters petrol/100 km is impressive for a mid-size car such as a Toyota Prius, but not for a mini-car such as Smart. It is also impressive with a fuel consumption of 4.5 liters diesel / 100 km for a big car such as Volvo V70 and Volkswagen Passat. Therefore it is reasonable to introduce different car-sizes, which was already discussed when the clean vehicle definition was first introduced. (2) Safety. The green car should have at least four stars in Euro NCAP, or similar, to get green car benefits, and anti-skid control system (as ABS) should be standard equipment. (3) Lower limit on the emissions of fossil carbon dioxide. The current requirement of 120 grams of carbon dioxide per kilometer will reasonably be reduced, perhaps to 100 grams. It affects mainly the many diesel vehicles emission just below 120 grams per kilometer. (4) Increased efficiency requirements. Vehicles powered by renewable fuels will probably not be allowed to have emissions of carbon dioxide in excess of the 11 average car, which means about 180 grams of carbon dioxide per kilometer. The requirement affects the gas and ethanol vehicles with high fuel consumption. (5) Stricter requirements for nitrogen oxides. Today's demands for particle purification supplemented with reasonable requirements for nitrogen oxides, which imposes some form of treatment. The requirement affects diesel cars. (6) Noise. It is likely that we for the first time get noise requirements of new green cars, around 73 dB for petrol cars and slightly higher for diesel vehicles

There are a range of green cars available on the market and they are becoming more popular as we realize the need for greener cars. When looking for an eco friendly car you should look at the CO<sub>2</sub> emissions to check how green the car actually is. Any car with less than 100 g/km CO<sub>2</sub> emissions is a pretty good car. Another way to tell if a car is eco friendly is by looking at the tax band; the lower the band the better. There are now a lot of cars in the market now that cost nothing to tax because of their low CO<sub>2</sub> emission.

Green cars are affordable and cost much the same price as conventional cars. Small cars are much more fuel efficient than large cars, they produce fewer toxic emissions and if driven sensibly can substantially lower your fuel bill. You could also save up to £80 per year on road tax if you purchase a small car. Each car has different fuel efficiency; the better the fuel efficiency the more environmentally friendly it is likely to be, and the more you will save on your fuel bill. Check the fuel efficiency before you buy a car by looking at the MPG (miles per gallon). The higher the MPG, the better the fuel efficiency.

## **Low Cost Green Car**

In recent months the Indonesian automotive industry has been abuzz with news of the government's new Low Cost Green Car (LCGC) policy. The policy has no doubt caught the industry's imagination as a much-needed shot in the arm that would help Indonesia overtake long-time leader Thailand as the largest manufacturer of cars in the region.

In the Indonesian context, LCGC definition is simply a car with efficient fuel consumption driven by a smaller engine and running on conventional fuel technology. Though the final specifications are yet to be released by the government, expectations are for a car with an engine under 1200cc, delivering a fuel economy of at least 20 km per liter, with a local content of at least 80% and priced below Rp 100 million.

While Toyota's Agya and Toyota subsidiary Daihatsu's Ayla are the first cars to be unveiled for the program, other brands such as Nissan and Tata Motors are expected to join the fray soon. Through the LCGC, Nissan hopes to resurrect its Datsun brand and use Indonesia as a springboard for other emerging markets. Tata is likely to field the path breaking Nano as its green car offering.

To help make "green" cars more affordable, the Indonesian government is set to provide fiscal incentives that would include exemptions on the luxury tax but also duty free imports of machinery (pressing, stamping and welding) and raw materials. Currently, duties on machines are up to 15% of their value while the luxury tax on cars less than 1200cc stands at 10%. The exact tax relief may vary and is expected to be proportional to the fuel economy achieved by the car, degree of localization and technology transfer.

## **LITERATURE REVIEW**

### **Perceived Quality**

Quality can be defined broadly as superiority or excellence. By extension, perceived quality can be defined as the consumer's judgment about product's overall excellence or superiority. Perceived quality is (1) different from objective or actual quality, (2) a higher level abstraction rather than a specific attribute of a product, (3) a global assessment that in some cases resembles attitude and (4) a judgment usually made within a consumer's evoked set.

Perceived quality has been defined as the consumer's judgment about a product's overall excellent or superiority. Perceived quality differ from objective quality. Perceived quality is a global assessment characterized by a high abstraction level and refers to a specific consumption setting (Zeithaml in RodoulaTsiotsou, 2006)

Seven perceived product quality dimensions (Aaker, 1991):

1. Performance, the primary operating characteristics of product
2. Features, the bells and whistles of products. They are secondary elements of products that supplement the product's basic functioning.
3. Conformance with specifications, the absence of defects. This is a traditional, manufacturing oriented view of quality.
4. Reliability, it is the consistency of performance from each purchase to the next.
5. Durability, a measure of product life.

6. Serviceability, it reflects the ability to service the product or the speed, courtesy and competence of repair.
7. Fit and finish, it refers to the appearance or feel of quality.

Eight attributes of product quality according to Garvin, D.A. in Shaharudin Jakpar (2012): (1) Performance; (2) Features, (3) Reliability; (4) conformance; (5) Durability; (6) Serviceability; (7) Aesthetics; (8) Perceived Quality.

By definition, quality attributes or product quality attributes refer to the cues that could be used by consumers to infer some expected and/or experienced (product) quality; ‘experienced quality’ refers to the result of physical evaluations of the product when experiencing, utilizing, or consuming the product, whilst ‘expected quality’ refers to the point of purchase, before experiencing or consuming the product. Although, experienced product quality and expected product quality are two different terms, however, due to their usage in perceiving different levels of product quality through both intrinsic and extrinsic cues, they are somewhat correlated and often used in the visual demonstration of product quality attributes valuations (Acebron and Dopico, 1999 in PajareeAckaradejruangsri, 2013).

Perceived quality is defined in the model as the consumer’s judgment about the superiority or excellence of a product. This perspective is similar to the user-based approach of Garvin (1983) and differs from product based and manufacturing based approaches. Perceived quality is also different from objective quality, which arguably may not exist because all quality is perceived by someone, be it consumers or managers or researchers at Consumer Reports.

A product’s quality is evaluated as high or low depending on its relative excellence or superiority among products or services that are viewed as substitutes by the consumer. Garvin (1987) proposes that product quality can be captured in eight dimensions: (1) performances , (2) features, (3) reliability, (4) conformance, (5) durability, (6) serviceability, (7) aesthetics, and (8) perceived quality.

The literature on hedonic quality measurement (Court 1939; Griliches 1971) maintains that price is the best measure of product quality. Considerable empirical research has investigated the relationship between price and quality (Olson, 1997) and has shown that consumers use price to infer quality when it is the only available cue. When price is combined with other (usually intrinsic) cues, the evidence is less convincing.

### **The Concept of Perceived Price**

The components of price are (1) objective price, (2) perceived monetary price and (3) sacrifice. From the consumer’s perspective, price is what is given up or sacrificed to obtain product. This definition is congruent with Ahtola’s (1984) argument against including monetary price as a lower level attribute in multi attribute models because price is a “give” component of the model, rather than a “get” component. Defining price as a sacrifice is consistent with

conceptualizations by other pricing researches (Chapman 1986; Mazumdar 1986; Monroe and Krishnan 1985). Jacoby and Olson (1977) distinguished between objective price (the actual price of a product) and perceived price (the price as encoded by the consumer). Objective monetary price is frequently not the price encoded by consumers. Studies reveal that consumers do not always know or remember actual prices of products. Instead, they encode price in ways that are meaningful to them (Dickson and Sawyer 1985; Zeithaml 1982, 1983)

Full price models in economics (e.g., Becker 1965) acknowledge that monetary price is not the only sacrifice consumers make to obtain product. Time costs, search costs, and psychic cost all enter either explicitly or implicitly into the consumer's perception of sacrifice. If consumers cannot find products on the shelf, or if they must travel distances to buy them, a sacrifice has been made. If consumers must expend effort to assemble durable products or time to prepare packaged goods, and if this time and effort does not provide satisfaction to the consumer in the form of recreation or a hobby, a sacrifice has been made.

Consumers sacrifice both money and other resources such as time, energy, effort to obtain product and services. To some consumers, the monetary sacrifice is pivotal. Some supermarket shoppers will invest hours clipping coupons, reading food advertising in the newspaper, and traveling to different stores to obtain the best bargains. To these consumers, anything that reduces the monetary sacrifice will increase the perceived value of the product.

### **The Concept of Perceived Value**

Patterns of responses from the exploratory study can be grouped into four consumer definitions of value: (1) value is low price, (2) value is whatever I want in a product, (3) value is the quality I get for the price I pay, (4) value is what I get for what I give. Each definition involves a different set of linkages among the elements in the model and each consumer definition has its counterpart in the academic or trade literature on the subject. The diversity in meanings of value is illustrated in the following four definitions and provides a partial explanation for the difficulty in conceptualizing and measuring the value construct in research.

#### **Value is low price**

Some respondents equated value with low price, indicating that what they had to give up was most salient in their perceptions of value. In their own words: value is price – which one is sale, when I can use coupons, I feel that the juice is a value, value means low price, value is whatever is on special this week.

#### **Value is whatever I want in a product**

Other respondents emphasized the benefits they received from the products as the most important components of value: value is what is good for you, value is what my kids will drink, little containers because then there is no waste, value to me is what is convenient. This second

definition is essentially the same as the economist's definition of utility, that is, a subjective measure of the usefulness or want satisfaction that results from consumption. This definition also has been defined as "whatever is that the customer seeks in making decisions as to which store to shop or which product to buy" (Chain Store Age, 1985). Schechter (1984) defines value as all factors, qualitative and quantitative, subjective and objective, that make up the complete shopping experiences. In these definitions, value encompasses all relevant choice criteria.

Value is the quality I get for the price I pay

Other respondents conceptualized value as tradeoff between one "give" component, price, and one "get" component, quality: value is price first and quality second, value is the lowest price for a quality brand, value is the same as quality. No – value is affordable quality. This definition is consistent with several others that appear in the literature (Bishop 1984,; Dodds and Monroe 1984; Doyle 1984; Shapiro and Associates 1985)

Value is what I get for what I give

Finally, some respondents considered all relevant "get" components as well as all relevant "give" components when describing value. This fourth definition is consistent with Sawyer and Dickson's (1984) conceptualization of value as a ratio of attributes weighted by their evaluations divided by price weighted by its evaluation. These four consumer expressions of value can be captured in one overall definition. Perceived value is the consumer's overall assessment of the utility of a product based on perceptions of what is received varies across consumers (i.e., some may want volume, others high quality, still others convenience) and what is given varies (i.e., some are concerned only with money expended, others with time and effort), value represents a tradeoff of the salient give and get components.

Value and Quality

Value (like quality) is proposed to be a higher level abstraction. It differs from quality in two ways. First, value is more individualistic and personal than quality and is therefore a higher level concept than quality. Value may be similar to the "emotional payoff". Second, value (unlike quality) involves a trade off of give and gets components. Though many conceptualizations of value have specified quality as the only "get" component in the value equation, the consumer may implicitly include other factors, several that are in themselves higher level abstractions, such as prestige and convenience (Holbrook and Corfman, 1985). How carefully do consumers evaluate these components of products in making assessments of value? Rather than carefully considering prices and benefits, most respondents depended on cues, often extrinsic cues in impressions of value. Holbrook and Corfman, 1985 maintain that value perceptions are situational and hinge on the context within which an evaluative judgment occurs.

## **METHODS**

After conducting depth interviews on eleven informants, processing data began by open coding. Informants buy LCGC in 2012 and 2014. Informants whose interviewed are direct user of LCGC in Surabaya and Sidoarjo. Coding is an attempt to classify respondents' answers according to it kinds. After the interview was conducted, the results made in the form of a transcript and the transcript of each statement respondents were considered related to the elements of LCGC's perceived quality, value and price will be marked in accordance with the classification of keyword. Furthermore, any statements of the respondents are numbered in order to facilitate the conduct of open coding. Any statements of the respondents were deemed to be related to the elements used in the study will be summarized in words keywords. After doing open coding, then the next step was followed by axial coding to make. The statements were selected and marked on the open coding will be tabulated in a table called axial coding table. In axial coding, tabulation statement made was elected to the table. This process started or found on any of respondents' answers to the axial coding table.

After performing axial coding, the further step is to process and analyze qualitative data from respondents' statement, which makes selective coding. Selective coding is the stage where the data analysis phases of these statements have been made on the selective coding is reduced and selected. Is reduced if there is a statement of the respondents in the selective coding that is incompatible with the purpose of the research is carried out or not in accordance with the subject of the statement is discarded or not used . Selected are statements that have the same meaning or significance then it could be a statement or can be made to be discarded after key points based on predefined keywords.

## **RESULT**

Eleven informants were interviewed. All of them buying LCGC in mid 2013 until early 2014, which used premium fuel, only three informants use pertamax fuel, and the rest use premium or mixed of premium – pertamax. The type of LCGC they use are Toyota Agya, Daihatsu Ayla, Honda Brio Satya and Suzuki Karimun Wagon R.

### **Perceived Product Quality**

#### **Performance**

LCGC categories perceived performance of the car its pretty good, in terms of ease of driving because it has been equipped with power steering technology, the car can go with a nimble and agile due to its small size. There is a 3 -cylinder engine that uses light but for Brio Satya use 4 -cylinder engine making more powerful. However, there is a sense that when driving on the streets being jammed, the car power is reduced so the cars sometimes have to turn off the air conditioner.

#### **Features**

Innate features of the car such as Audio LCGC is standard (there are single Din some are double

Din), instead of the usual double blower air conditioner, standard wheels, seatbelt, such as locks and security systems anti uv. For Satya Brio is equipped with Dual SRS Airbags and seatbelt. Some car types Ayla has plans to replace the car seat to better suit the user's taste.

#### Conformance

Wobble is still felt in the car at high speed, it felt LCGC car users due to the relatively small and lightweight car. The user feels no need to drive at high speed because the car is enough to know the capacity used at the required speed alone. Fuel use is felt quite economical. So the fuel needs can be suppressed. Though the fact is not always able to meet the standard conditions i.e. 1 liter to 20 km. The concept of green cars is already being felt, but unfortunately most informants still use premium fuel. LCGC technology is actually designed for cars with fuel Pertamina, LCGC users still choose a more economical fuel because the price is high enough.

#### Reliability

Most LCGC users not feel any particular damage spare part, this is because the period of usage is still relatively new. The first periodic service maintenance has been done to the car within the warranty period. LCGC users' awareness to meet maintenance schedule has been felt to prevent damage to the parts so that the car remains reliable.

#### Durability

Within a few months of use, LCGC users have make some changes in car components because of some troubles such as noise in tires, doors, alarms were not functioning, and the reverse gear is substandard. However, in general the car still works fine, because the car users LCGC immediately brought to the workshop for repair.

#### Service Ability

After-sales service that LCGC users felt are they feel easy to get a service. Most of them choose the closest place to home. Booking services can also be done however some do not book in advance. Services place are adequate but the speed of aspects still need the patience to wait, especially if they need spare parts replacement, it still takes about 1-2 weeks.

#### Aesthetics

Selection of white color car is still a trend. Perceived interior design is quite interesting, there is a simple modern argued, there is also a feeling fancy enough for the class. Agya users felt satisfy with interior because it is spacious, while Karimun users felt that the wagon door sufficiently large so as to facilitate passenger entry. Most users also love the car body design , for example the Brio Satya perceived sporty and Agya perceived masculine. The car's engine sound are still felt less refined.

#### Perceived Quality

In general, the perceived quality of LCGC is in appropriate price. Gearshift is relatively easy although there are complaints on Karimun Wagon car on gearshift while retreating. Comfort suspension could still be felt and LCGC is more convenient to use in urban areas.

## **Perceived Price**

### Objective Price

Price on the road of LCGC range from IDR 93 million to IDR 120 million. The price varies for each brand and type of the selected user and depends on the period of booking a car. Booking early in the period before the launch will be cheaper.

### Perceived nonmonetary

Most LCGC users not made additional costs to fulfill personal desires. They took the decision to buy LCGC because of its cheap price so they can accept it with all conditions and inherent features of the car. Honda Satya Brio user add cost to participate in the Extra Care program because user felt more favorable treatment when user join the program. Toyota Agya users add insurance cost for all risks.

### Sacrifice, Time Cost , Search Cost , Psychic Cost

The majority of LCGC users takes time to order the car until the car is received. It is natural to happen on the new car output. For example karimun wagon only took 2 weeks. Agya users took 1 month but there is also an almost 1 year, it is highly dependent on the supply of cars. User who waited nearly a year was because it was booked before the car was launched. Before deciding to buy, some users see the exhibition, read the information on the internet offers new cars , discussions with friends and family. Users get a conviction when they make decision to buy LGCG, because of the relatively cheap price of the car they do not want to later -acquired low-quality cars so they need additional information about LCGC.

## **Perceived Value**

### Value is Low Price

Most LCGC users have bought a car with cheap price. By looking at the physical car and interior and exterior design and technology has to offer, the price offered is perceived as cheap. For Indonesian people, the LCGC price is affordable.

### Value is whatever I want in a product

Honda Brio Satya seen as performance car brands, so the brand Honda has more power than the other brands. This makes the decision to buy Brio Satya become stronger. It also occurs in the Toyota Agya. User consider the strength of the Toyota brand in choosing a car. The concept of small cars as a city car which is fitted to daily activities in urban as well be the opinion of some users LCGC. This indicates that the LCGC synonymous with small cars.

### Value is the Quality I Get for the Price I Pay

Most Users agree that the quality of cars ranging from the engine, interior, exterior and everything in accordance with the price they pay. Users assume that as long as the car does not run into problems then they are quite satisfied and do not look forward to more quality because it

is all in keeping with what consumers pay. Users also consider that the quality of the price is quite balanced.

Value is what I get for what I give

Some users expend greater effort to get LCGC. There are users who patiently waited until the pivot process requires up to one year . There is also intense consumers who come to the exhibition just to compare prices and get a chance to test drive. In addition, there are users whom require more effort to browsing information through the internet and through friends before deciding to buy LCGC. The more effort they spend they deem fit and satisfied with what they get from LCGC.

### **Conclusions**

From the results of interviews, LCGC consumers perceived that cars purchased are indeed a cheap car. In terms of quality, LCGC performance is standard, comfort and ease of transition suspense -quality gear, standards and full-featured, there is no case of replacement in major component parts, body and interior design are considered interesting and satisfying, easy to service, consumers are always on the scheduled maintenance LCGC and they feel comfortable. In price, consumers perceived that all LCGC is the car at a low price. Consumers also do not need most of the additional cost associated LCGC because what is considered acceptable complete enough. There is only a few of consumers who spend an additional charge for insurance as protection LCGC. Related costs such as sacrifice cost, the time spent on information retrieval LCGC also indirectly incurred consumers, but they do not mind it. In terms of value, LCGC consumers perceived that Value is the Quality I Get for the Price I Pay. LCGC quality that the consumer has already purchased in accordance with the price they pay. Consumers realize that the quality and the price is quite balanced.

Most consumers still use premium fuel, it indicates that consumer awareness of the concept of Surabaya and Sidoarjo LCGC still limited to the low cost aspect. The perception that emerged during the interview process also shows the tendency of consumers always associate LCGC is a car with a low price, yet the aspect of environmentally friendly cars. The government should keep trying to defend the existence of low cost green car as it deems fit. Fuel must be used for LCGC pertamax or oil or fuel shall be in accordance with international guidelines for environmentally friendly cars. The existence of any cheap car measured by the consumer through the purchase price was not tenable because there has been a rise in the price of cheap car classification due to a decrease in the value of the rupiah against the U.S. dollar.

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