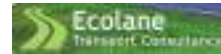


From 'mpg paradox' to 'mpg mirage': How car purchasers are missing a trick when choosing new cars

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Low CVP Conference, 23rd July 2008

"Off the top of my head I can't remember what the fuel economy was, but it is quite good ... it was at least as good as anything else, and certainly in terms of the way I work out fuel efficiency is how much petrol I put [in], in a week"



The 'mpg paradox'

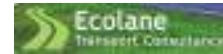
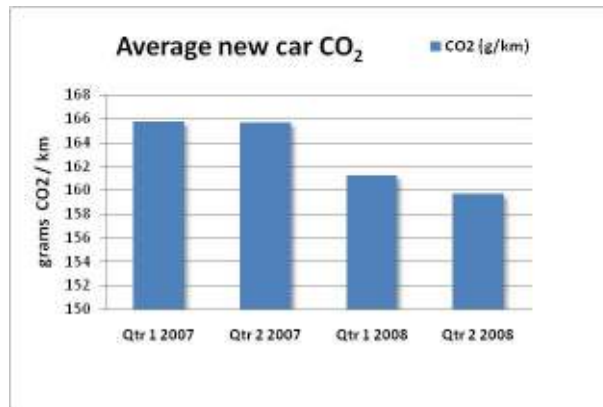
*Mpg is reported by car drivers to be a key factor.
In reality little effort is made to compare fuel consumption
data (LowCVP 2005)*

- Why?
 - Buyers assume similar 'mpg' for all cars within a class
 - Buyers have little confidence in published mpg figures
 - Buyers believe improving mpg compromises performance and safety
 - Costs too complex to compute (mpg and p/litre → p/mile)
 - Private motorists use a high private discount rate



Recent shifts in the car market

The first 6 months of 2008 - "biggest drop in new car CO₂ on record" (-3.6% yr on yr) (SMMT)



This research

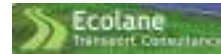
- This research set out to understand:
 - Car buyers conceptualisation of 'mpg'
 - The role of fuel economy in car purchasing in the new and used car markets
 - The influence of VED and CO₂ emissions
- Methodology:
 - 21 semi-structured in depth interviews
 - New and (post-2001) used cars purchased in the last three months
 - Aberdeen, Bristol and London



The 'mpg paradox' lives on

“Off the top of my head I can't remember what the fuel economy was, but it is quite good ... it was at least as good as anything else, and certainly in terms of the way I work out fuel efficiency is how much petrol I put [in], in a week”

- People are increasingly talking about mpg ... *and* increasingly purchasing lower carbon vehicles ...
- ... but it is not the *mpg metric* which is influencing behaviour - it is simply the cost to fill up the tank
- Very few know their official mpg and it is rarely used to calculate future costs or systematically compare cars



'mpg' is too complex

“Will I work it out? To be perfectly honest, I think I'd rather take their word for it than work out miles. The other thing is, this thing is always all in litres & kilometres so you've got to convert, and I... It's just too much hassle. ”

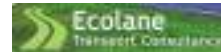
- Which saves more fuel?:
 - Upgrading from (i) 34mpg to 50mph (ii) 18mpg to 28mpg?
 - Answer = (ii) : 2.5 times more fuel saved than (i)
- Buyers think in terms of how much it costs to fill the tank
- Many know roughly how many miles they can travel on a tank
- Few know the *capacity in gallons* of their tank
- Few think in terms of 'per gallon', 'per mile', or 'per year' and virtually none think in litres per 100 kilometre ...



Why the shift in behaviour?

"I was doing, what, £26 a month. Now, I'm doing, like, £40, lately, I think, because the price has gone up so much, near enough doubled for me....That's about my limit, I won't put no more than that in it."

- Fuel cost was always about filling up the tank - but now consumers are reaching their cost thresholds
- Fuel costs have risen the equivalent of £400 per year in the first six months of 2008
- The speed of this price increase is combined with a squeeze on disposable incomes = **step change in behaviour**

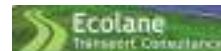


Previous car has greatest influence

"We knew petrol was obviously going to be a lot cheaper than the Mini, not so heavy, so didn't even think about [mpg]. We didn't have to."

- Previous car is used as primary benchmark for 'good' or 'bad'
- Buyers will settle for cars with only slightly better mpg
- This has implications where previous car was old or has poor fuel economy
- This limits the options people consider

"The old car before was throwing out a lot more. So, I think I've improved."



Other simple rules of thumb

Most assume that the main routes to fuel economy are:

- a smaller car:

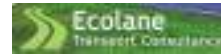
“Because it was a lower engine size it was just common sense overall that it was going to be a lot cheaper to run.”

- ... a diesel car:

“I don’t know much about the other cars, but I would imagine anything that’s diesel would be quite economical.”

- ... a new car

“If we’d had a bigger budget we might have looked at a newer car which would have less CO2 emissions, and stuff like that.”



Best-in-class concept is missed

“I think it’s more... it’s cost effective in comparison to the bigger car. I think all small cars are the same; I don’t think it’s any different... to, you know, a smaller Audi or a smaller Corsa or anything like that; I think it’s a small car. A small car is a small car. ”

- Buyers assume that all cars in the same class have roughly the same ‘mpg’
- Buyers are not aware of or seeking best-in-class information
- It means once a ballpark mpg figure has been ‘chosen’, it drops out of focus and other things (safety, comfort, ‘curry hooks’, vanity mirrors ...) become more important



VED and CO2 make little difference

“It helps, but it’s not a huge real factor for me, as far as I was concerned. It’s the fuel consumption that was the real biggy...”

“Based over a year, it’s quite negligible.”

Almost all know that ‘road tax’ is tied to CO2 but ...

- Very few know their VED *band*, virtually none their CO2g/km
- Most give reasonably accurate VED cost for this year and next
- Buyers generally aspire to ‘not be in the worst’ categories
- Most are content to pay the same as for their previous car
- Current differentials have no discernable influence on choice



Excuses are plentiful:

Many believe the existence of gas guzzlers on the road means any car they purchase will be good by comparison:

“It could be better, I know, but I don’t want to think ...about the gases that comes out. It’s not the best in the world but there’s people driving around in big gas guzzlers...”

Others believe they are already offsetting their own fuel use:

“Psychologically, we can offset it a bit ... and we’ve got the caravan, so we don’t go on holidays abroad at the moment, so we’re not flying, jetting off, so you know. Why should we be penalised ...?”



Its not about *what* you drive, anyway..

Some believe changing their car makes little difference compared to how much you use it:

“Any car has an impact, it doesn’t matter how badly or how big it is or how much fuel we put in it, we still sit in the road, we’re still using it. It helped a little bit but all cars are the same.”

Some are starting to save fuel in other ways:

“I find myself thinking, petrol is one, diesel is about 1.40 a gallon now, or 1.40 a litre, whatever it is, and, um, I wish it was 1.40 a gallon, ah, and I think, do I need to make that trip? I don’t.”



From ‘mpg paradox’ to ‘mpg mirage’

Why ‘mirage’?

- The mpg *metric* is only treated superficially in the decision making process
- Buyers only consider a small range of options when considering a more efficient model (smaller, diesel, new)
- Buyers still assume a similar mpg for all cars in their class
- Simple rules of thumb are used to assess ‘good’ and ‘bad’ - especially comparison to previously owned vehicle
- Once a ballpark mpg figure has been ‘chosen’, the issue moves out of focus and other attributes gain importance
- Mpg is too complex to be used to compute on-going costs



Policy implications

“I know it says fuel economy there [on the label], but this is linked to being greener, isn't it, in your emissions, not just fuel ...so that is a misnomer...it's a con. If it was just fuel economy I would...I'd see which one was more economical.”

- The shift to lower carbon vehicles could be accelerated with better information which downplays mpg and CO2 metrics
- The car label would benefit from comparative best in class information on the basis of *monthly average fuel costs*
- It should also be on second-hand cars (75% total cars sold)
- Info needs to be updated to reflect fuel prices & the market; it could take the form of electronic/ web based displays

= The Low Cost Vehicle Partnership?!

