

Product differentiation: OEM strategy confronts consumers

Presentation proposal

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Passenger vehicles are highly differentiated consumer durables. Previously at GERPISA I analyzed the covid-related price dynamics stemming from the durable component. For this conference I will develop three strands of market characteristics linked to product differentiation, and extend that to implications for OEM product strategy.

One facet is segmentation by product characteristics, such as vehicle size. While those segments vary over time due to changes in regulation and slow changes in consumer preferences, they are stable over a the duration of an individual product cycle. Competition is first and foremost between models within a given segment, and so is the immediate focus of the OEM product development organization.

The second is vertical "quality" differentiation on the basis of price, which reflects budgets and individual preferences tied to status and self-image. OEMs respond by developing multiple brands and trim levels. This is an old story, dating back to Alfred Sloan at GM, so I only provide snapshots to make the case that it remains empirically relevant.

A third is segmentation into models. I utilize data on sales by model for China, (and less systematically) Europe and North America to show an apparent 2% upper limit to sales in a single market. This likely reflects the ease of generating a new "top hat" to fit on an underlying platform. As a result, an OEM needs to offer a product portfolio to stabilize sales. This must be matched by the capability to assemble multiple models on the same assembly line to maintain capacity utilization and hence profitability. Funding the expansion of their model lineup also imposes a financial challenge to new entrants, as they will inevitably remain cash-flow negative for several years after startup.

A final implication is that regulatory mandates to offer electric drivetrains alongside ICE drivetrains effectively splits the market that each differentiation-linked product strategy addresses. That impedes achieving the scale required to maintain capacity utilization. Open questions include whether it will be possible to assemble ICE and electric drivetrain vehicles in the same facilities, given the advent of platforms specific to EVs. Electric drivetrains and battery cell production may also entail different economies of scale, which will interact with product strategy. Lower economies of scale or an enhanced ability to utilize the same drivetrain components across a product portfolio, for example, could imply greater model and brand proliferation, with negative implications for long-term profit margins.