The value of mobile connectivity in the automotive industry

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1. Introduction

In just a couple of decades, mobile connectivity technologies have advanced from 2G/GSM technologies to the current 4G/LTE technologies and the next generation of 5G technologies is already in development. These advanced mobile technologies enable devices to communicate more data, in less time, more robustly and cheaper than ever before. In recent years, the use of mobile connectivity has increased from the most visible use case of smartphones to a much broader range of applications in a megatrend most commonly referred to as the Internet of Things (IoT).

In contrast to the traditional mobile connectivity market environment of smartphones, the market environment for IoT is more complex and uncertain with a wider array of connected products and more market participants. In order for the investments, cost structures and pricing to be determined and optimized in this new market, the market participants must understand the value proposition that connectivity brings to their IoT products.

The automotive industry is one sector with an increasing use of mobile connectivity. Car manufacturers offer a growing range of products and services enabled by mobile connectivity and adoption rates are increasing among customers. **The objective of this report is to provide insights into the value of mobile connectivity in the automotive industry. It focuses on the U.S. and German markets and is based on a large-scale online end customer study conducted by Simon-Kucher & Partners.**

2. Mobile connectivity in the automotive industry

Car manufacturers have been offering connected services for several years, but only recently such services have received broader public attention in the context of e-mobility and autonomous driving. New features and growing customer take rates make mobile connectivity an important element on the equipment list of any new car and it creates a platform for further innovations.

Most automotive manufacturers currently offer features or systems that are enabled through mobile connectivity. BMW’s ConnectedDrive, GM’s OnStar and Volkswagen’s Car-Net are just a few examples of connectivity-enabled systems. These systems cover a broad range of services today, from predictive maintenance and automated roadside assistance to concierge services and online entertainment. In most cases they are offered as optional equipment available for new car buyers at prices set by car manufacturers. They also may be included in a higher-level navigation/infotainment system or as part of a trim line set-up. Additional service fees may be charged as well.
Even though connectivity is not the primary factor for the buying decision of a new car today, it already provides important and attractive features and creates added value. The connectivity features not only provide benefits for customers (e.g. remote control, enhanced driving experience, WiFi hotspots and online entertainment for passengers), they can also benefit fleet owners (fleet management, telematics) and automotive manufacturers themselves (e.g. data gathering and customer relationship management). In order to understand the value of connectivity for the automotive industry as a whole, it is important to look at the value provided to both the customer and to the automotive manufacturer. The value of connectivity from the customer perspective is strongly reflected by the customer’s willingness to pay for mobile connectivity-enabled features and services. The value of connectivity from the manufacturer perspective is reflected for example by customer retention in aftersales and potential savings on warranties.

3. Customer value: Willingness to pay for connectivity features

In a recent study conducted by Simon-Kucher & Partners, the value of connectivity was examined by studying new car buyers’ willingness to pay for connectivity features in the U.S. and Germany. A mix of open questions and trade-off exercises tested the customers’ preferences and willingness to pay for connectivity. In an online menu-based conjoint exercise, respondents were confronted with a range of connectivity options to choose from, similar to a car configurator used in actual car purchase situations.

The researchers found that U.S. customers spent an average of $840 on connectivity items in the exercise. In Germany the average spend was about €400. Both values are in line with the average willingness to pay stated when respondents answered an open question. Removing the methodological constraint of fixed pricing scenarios in the exercise in order to optimize prices and customers’ choice, the average spend for connectivity increases up to €440 in Germany and up to about $1,070 in the U.S.

The research also revealed that willingness to pay varies significantly by respondent group. Younger respondents as well as buyers of larger cars tend to be willing to spend more on mobile car connectivity. Another important dimension underlying willingness to pay is the respondent’s exposure to connectivity. People who stated that they already have some connectivity in their current car expressed a higher willingness to pay for connectivity features in a future car. As connectivity has penetrated the U.S. market much more than the German market, this finding may explain the significant difference in willingness to pay between the two markets. Further potential reasons for the higher values in the U.S. are the overall level of interest in connectivity, the number and quality of services offered, the longer average time spent in cars in the U.S., and the higher level of concern regarding data security in Germany.
The researchers also found that between six different categories of connectivity features (automated roadside assistance, condition-based services, remote services, online navigation, online/digital entertainment and online comfort services), preferences vary strongly by customer segment. With an average of approximately four (U.S.) and two (Germany) different connectivity features picked in the exercise, there was no clear overall favorite feature, as each customer segment tended to choose a different set of features. The research further showed that once respondents have decided on their most important features, the impact of price is minimal, leading to a low price elasticity per feature.

Furthermore, in a second indirect questioning method, a Maximum Difference Scaling (MaxDiff) exercise, the respondents were confronted with trade-offs between equipment options from the area of connectivity as well as options in the areas of comfort, driving assistance, infotainment & navigation, light & sight and exterior & sport equipment. It was confirmed that in the U.S. connectivity is very important for new car buyers, surpassed only by driving assistance. Of a total 36 equipment features tested, three of the six connectivity items appeared in the list of top 10 features for U.S. respondents. In Germany, connectivity is equally important as infotainment & navigation. Only driving assistance and comfort options are of higher importance to customers.

4. Automotive manufacturer value:
   New opportunities, greater sales and lower costs

In addition to the value provided to end customers, mobile connectivity can provide value to the automotive manufacturers in a number of ways. In order to develop, understand and qualitatively assess the different value areas, in-depth interviews with industry experts representing different responsibilities were conducted. The interviews showed that aside from the sheer value of the data gathered through connected cars, e.g. for customer relationship management, R&D or advertising purposes, the two most promising value creation areas of connectivity are customer retention in aftersales and potential savings on warranties.

A large share of many car manufacturers’ profit is generated through aftersales, as margins on parts and services are much higher than margins on the core product. All car manufacturers are struggling to stay in touch with their customers and serve them in authorized workshops as soon as their cars are out of warranty. Total aftermarket sales (mostly parts & service) per year in the U.S. are around $200 billion and the German market size is roughly €30 billion. Given these large total market sizes, even a slight increase in customer loyalty in aftersales can yield a substantial revenue potential. Features such as remote diagnostics, predictive maintenance and online service scheduling particularly enable car manufacturers to increase aftersales retention. First indications of this effect can already be observed in the U.S.

Maximum Difference Scaling (MaxDiff)
Method to measure the importance and preference for several items such as product features. Also known as one form of “best-worst scaling”.

For more information, please also see:
With increasing penetration of car connectivity and an increasing age of the connected car park, the impact will become notable both in the U.S. and Germany where car manufacturers’ aftersales market shares could be boosted by up to 5% according to the automotive industry experts of Simon-Kucher & Partners.

On the cost side, warranty claims and recalls amount to billions of dollars per year and can create challenges for workshop capacity management. For connected cars, an estimated one in three recalls could be addressed via over-the-air software updates, resulting in significant cost savings for the automotive manufacturers and a less cumbersome recall experience for the car owners.

5. Conclusions and Outlook
The research by Simon-Kucher & Partners shows that mobile connectivity brings substantial additional value to the automotive industry. Customers currently have a significant willingness to pay for connectivity-enabled features in new cars. Particularly young people, and those who have already been exposed to connectivity-enabled features in their current vehicle, show an above average willingness to pay for car connectivity in new cars. As more and more connected services and features become available, and as more and more customers get used to having such features in their cars, it is expected that the average value of car connectivity will increase over the next years. The additional revenue and cost saving potential for the automotive manufacturers is of substantial size. It will depend on their ability to align their organization, including dealers and workshops, to fully unlock it.
Simon-Kucher & Partners

Simon-Kucher & Partners, Strategy & Marketing Consultants

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Simon-Kucher & Partners’ Automotive Competence Center advises both leading automotive manufacturers as well as suppliers in creating marketing, sales and pricing strategies with the objective of maximizing profits at any stage of the product lifecycle. Drawing on its industry expertise, Simon-Kucher & Partners develops actionable solutions for complex questions such as innovation and value-based pricing, service monetization, change management and many more.

Global presence

34 offices worldwide · 1,000 employees · €240m revenue in 2016

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>2,000 projects in the last 3 years

- Growth and competitive strategies
- Product portfolio (re-)design
- Pricing excellence
- Customer relationship and customer value management
- Sales strategies and sales channel optimization

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