비즈니스 네트워크를 활용한 수익모델 창출
SAP Vehicle Network/Vehicle Insight

김종광
Automotive Value Advisor, SAP Korea
1. Automotive Trends
2. New Business Model
3. How to transform
4. Hunt or be Hunted
1. Automotive Trends
2. New Business Model
3. How to transform
4. Hunt or be Hunted
• 공유형 운송 (Shared mobility)
• 연결 서비스 (connectivity services)
• 차량 성능 개선 (Feature upgrades)
• 신규 비즈니스 모델 매출 USD 1.5조
2030년

Source: Automotive Revolution – perspective towards 2030, McKinsey
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• Car Sharing 확대
• 개인 소유 차량 판매 대비 Car Sharing 차량 판매 비율 9% 2030년

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공유형 운송 (Shared mobility)
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Car Sharing 확대
개인 소유 차량 판매 대비 Car Sharing 차량 판매 비율 9% 2030년

Connected Car 운행 비율 80% 2020년
완전 무인차량 판매 비율 15% 2030년

Source: Automotive Revolution – perspective towards 2030, McKinsey
Strong forces will reshape the 130-year-old automotive business model.
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자동차 산업의 Disruptive Innovation

“Now the car is becoming the ultimate technology product, and we are becoming more of an information company”
Mark Fields, CEO Ford

The Disruption Uber Has Brought To The Taxi Business Is Coming To Trucking
### New Player의 등장 및 새로운 비즈니스 모델

#### 기존 Player
<table>
<thead>
<tr>
<th>부품사</th>
<th>완성차</th>
<th>판매</th>
<th>A/S</th>
<th>Connectivity &amp; Media</th>
<th>Mobility on Demand</th>
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<tbody>
<tr>
<td>DELPHI</td>
<td>Johnson Controls</td>
<td>TOYOTA</td>
<td>DAIMLER</td>
<td>PENSKE</td>
<td>LEO</td>
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#### 신규 Player
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<td>DENSO</td>
<td>MAGNA</td>
<td>FORD</td>
<td>HYUNDAI</td>
<td>IMPERIAL</td>
<td>KOOL</td>
</tr>
</tbody>
</table>

### “Non Traditional” Industry Segments

- **Traditional Radio Broadcasting**
- **Stored Media (USB)**
- **London Black Cabs**
- **Yellow Cabs**
- **Radio Taxis**
- **Hertz Car Rentals**

### 새로운 비즈니스 기회

- 부품 디지털화 서비스
- Connectivity 서비스
- 무인 자동차 소프트웨어
- 서비스 모델
- 기존 환경, 마케팅, Social 활용
- 차량 온라인 판매
- 예방 정비 서비스
- At-Your-Door-Step
- 3D Printing

### Mobility 서비스

- 차량 공유
- E-hailing
- Car Pooling

Source: World Economic Forum, Accenture Analysis
“Now the car is becoming the ultimate technology product, we are becoming more of an information company”

Mark Fields, Ford CEO
Car as a Platform
TOYOTA's Activities towards SMART MOBILITY SOCIETY

Toyota aims to create a smart mobility society where people feel secure and happy in transport and everyday life.

COMFORT  Connected with people...

The vehicle will become a trusted partner through close communication with the driver.
- The vehicle complements the driver's verbal and nonverbal commands.
- The vehicle provides the driver's actions in order to promote services.

SAFETY  Connected with vehicles and roads

Toward the realization of Toyota's ultimate goal: zero accidents from traffic accidents.
- Vehicles receive useful information from available infrastructure.

ECOLOGY  Connected with the community...

Optimizing the energy use of the entire community.
  - Establishing a knowledge society in which humans
    and vehicles share energy and useful data.
  - Creating communities that are strong enough to withstand natural disasters.

CONVENIENCE  Connected with society...

Building a stress-free traffic environment where everyone can move around as they wish.
- Utilizing big data processed from vehicles to improve traffic control
  and disaster recovery measures.
- Implementing an ultra-fast CV sharing service integrated
  with public transportation.

Source: http://www.toyota-global.com
Safety - V2X(V2V, V2I, V2P)

Advanced automatic collision notification
Green wave driving assistance
V2P cooperative system: Vehicle to Pedestrian
V2V cooperative system: Vehicle to Vehicle
V2I cooperative system: Vehicle to Infrastructure
Intelligent Driver-support System

Source: http://www.toyota-global.com
Convenience - Mobility

- Smart Mobility Park
- High-performance automatic parking system: Smart parking
- Energy management for the entire community: EDMS
- Multimodal route guidance: Ha:mo
- Next generation ultra-micro EV: i-ROAD
- Micro EV sharing system: Ha:mo RIDE

Source: http://www.toyota-global.com
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Feb 26, 2014: SAP, BMW Co-Developing Mobile Services for the 'Connected Car'

July 1, 2014: SAP, Volkswagen Co-Innovate to Connect Cars with Parking and Food Services in German Pilot Program

July 1, 2014: SAP, Toyota InfoTechnology Center, and VeriFone Connect Cars Provide Drivers With Simplified Fueling

SAP Connected Car – Use Cases
단일 플랫폼, 다양한 서비스, 다양한 완성차업체
Connected Vehicle Landscape

End-to-end coverage
- B2BC integration
- Big Data
- Transactions

OEM BackOffice
- On Premise
- SAP & Non SAP

Vehicle Insight

Firewall

Vehicle Network

Automotive Cloud Network

• SF park
• STREETLINE
• Hertz
• zipcar
• SAMSUNG pay
• Google wallet
• Apple Pay

Backend

CRM

Marketing

Commerce

Partner
SAP Vehicle Insights 적용 고객

Connected 서비스 제공, 운전자 분석

4
완성차

차량 원격 진단, 물류 최적화

2
부품사

connected fleets, 트레일러, 지게차 관리, Digital Farming

10+
상용차

Connected Fleet

4
통신사

20 +
Partners & Verticals

aftersales, 차량 진단, 사용량 기준
보험관리, 스마트시티, 운송관리
운전 패턴:
Act. Fuel Consumption 8.6l/km
Avg. Trip duration: 17 min 46 sec
Daytime Trips: 82%
Avg. Time in car/day: 35 min 9 sec

도로 및 교통상황:
Next Routes prediction: Hasso-Plattner Ring
Eco Scoring: Top 25%
Predicted distance/year: 376.36 km

차량 상태:
Enginge Speed: 3.766 RPM
Battery Voltage: 13.9 Volt
Intake Air Temperature: 51 C
Velocity: 165

 ilişki정보:
Latitude: N 49° 18' 33.5"
Longitude: E 8° 37' 38.8"

도로 및 교통 상황:
Route class: motorway
Speed limit: 130 km/h
Traffic: medium for 150 m

차량 상태:
Enginge Speed: 3.766 RPM
Battery Voltage: 13.9 Volt
Intake Air Temperature: 51 C
Velocity: 165

타이어:
Tire Pressure: 260 kPa

차량 상태:
Gear Recognition
Next Service Prediction: 2016-01-15

SAP Vehicle Insights Algorithms
지도/교통 정보
Vehicle CAN BUS
SAP Vehicles Network – SVN

**고객**
- 서비스 경험/구매

**채널**
- 고객 접속 채널 및 고객 정보 관리
- 서비스 제공

**SVN 마켓플레이스**
- 다양한 채널 접근
- 다양한 서비스 제공
- 서비스 단일화/공용화

**서비스 제공**
- 서비스별, 지역별 관리
- Broker or reseller

**서비스 Cloud**
- 제품 및 서비스 제공
- 디지털 채널 활용 및 판매 채널 다양화

Automotive OEM’s
Telco Providers & Aftermarket Providers
Car as a platform

SAP Vehicles Network – SVN

HANA Cloud Platform
Every journey is unique and every point of engagement matters.
운전자 패턴 인식
휴식 & …
바우처 추천

Your Coffee-Break voucher

Use the voucher and receive an additional discount on our lovely cakes
모바일 결제
로열티 관리

Thank you for your purchase!

Order: 54324

Congratulations! You received 25 Eco Loyalty Points for driving safely.

9954 Points
What’s next?
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It is time to build the future

SAP Vehicle Network / Vehicle Insight

- 공유경제
- Industry 4.0
- 디지털 경제
- Big Data
- IoT
- 클라우드
- 플랫폼 비즈니스
- 신규 비즈니스 모델
- 비즈니스 네트워크
SAP 플랫폼 기반 비즈니스 모델
Networked enterprises are 50% more likely to have increased access to knowledge, higher profit margins, better information sharing, and be a market leader.

"Increasingly companies are embracing collaboration as part of their strategy to grow."
