ECOSYSTEMS AND BUSINESS MODELS FOR THE SMART HOME MARKET

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HTTP://MGMT.AU.DK/SMART-HOME/

SMART HOME
Digitale forretningsmodeller for Smart Home virksomheder

Smart Home projektet er et forsknings- og innovationsprojekt med fokus på virksomheder, der udvikler, producerer, installerer eller servicerer IoT baserede produkter og services til private hjem.

Målet er at udvikle ny viden og et udviklingskoncept, der kan hjælpe virksomheder i feltet med at udvikle strategier og nye digitale forretningsmodeller.

Smart Home udviklingsforløb

Smart Home Living Labs
Smart Home Living Labs er et forskningsbaseret udviklingsforløb med fokus på digitale forretningsmodeller for virksomheder inden for Smart Home feltet.

Endagskursus for virksomhedsledere

Digital Ecosystem and Business Models for the Smart Home industry
Dette kursus stiller skærpt på Smart Home-industrien, og vi vil arbejde med de store linjer om digital ledelse, forretningsmodeller, marked og kunder.
SMART HOME?
DEVICE TYPES

**Control and Connectivity**
- Gateways/hubs that are capable of controlling devices of all segments
- Smart speakers with a primary focus on control, and digital assistants
- Control buttons and smart plugs/sockets

**Comfort and Lighting**
- Digitally connected and controlled devices for living atmosphere improvement
- Smart lighting/bulbs
- Window/door sensors, shading devices, garage door controls

**Security**
- Digitally connected and controlled devices for burglar prevention and other security issues
- Motion sensors, door locks, security cameras, Hazard prevention devices like water or smoke sensors

**Home Entertainment**
- Connected and controlled devices for entertainment purposes
- Multiroom entertainment systems with entertainment focus (e.g. Sonos)
- Entertainment remotes

**Energy Management**
- Digitally connected and controlled devices for energy conservation
- Included products: Thermostats, Radiator controls, Temperature/ wind/ humidity sensors, Air condition controls

**Smart Appliances**
- Large appliances such as fridges, washing machines, dish washers, ovens
- Small appliances such as coffee machines, vacuum robots, microwaves
## A CROWDED SPACE

Representative Smart Home key players by type and segment

<table>
<thead>
<tr>
<th>Control and Connectivity</th>
<th>Comfort and Lighting</th>
<th>Security</th>
<th>Home Entertainment</th>
<th>Energy Management</th>
<th>Smart Appliances</th>
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<tr>
<td>Dedicated Smart Home companies</td>
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<td>SONOS</td>
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<td>PURE</td>
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<td>ADT</td>
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<td>BOSCH</td>
<td>NEATO</td>
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<td>BeON</td>
<td>LUPUS</td>
<td>DEFINITIVE TECHNOLOGY</td>
<td>BANG &amp; OLUFSEN</td>
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<td>GIRA</td>
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<td>Vivint</td>
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<td>Whirlpool</td>
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<td>Players entering the market from foreign industries</td>
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<td>Amazon</td>
<td>AT&amp;T</td>
<td>logitech</td>
<td>Danfoss</td>
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<td>echo</td>
<td>ASSA ABLOY</td>
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<td>BOSCH</td>
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<tr>
<td>Belkin</td>
<td>Samsung</td>
<td>SCHLAGE</td>
<td>DENON</td>
<td>Honeywell</td>
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<td>NETGEAR</td>
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</table>
MARKET GROWTH

Global market sizes in billion US$ and growth rate

- Control and Connectivity
- Comfort and Lighting
- Security
- Home Entertainment
- Energy Management
- Smart Appliances

2017: 3.1, 5.2, 2.8, 8.2, 6.8, 33.4
2022: 20.2, 11.9, 23.7, 14.9, 9.5, 32.6

~27.5% growth
DEVICE PLANNED TO BUY

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<tr>
<th>Category</th>
<th>Denmark</th>
<th>Norway</th>
<th>Germany</th>
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<td>7.00</td>
<td>5.60</td>
<td>7.50</td>
<td>9.60</td>
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<tr>
<td>Comfort/Lighting</td>
<td>18.20</td>
<td>19.50</td>
<td>20.30</td>
<td>20.00</td>
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<tr>
<td>Security</td>
<td>20.60</td>
<td>21.20</td>
<td>20.00</td>
<td>22.20</td>
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<td>Home Entertainment</td>
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<td>15.80</td>
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<td>Energy Management</td>
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<td>23.20</td>
<td>22.40</td>
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<tr>
<td>Smart Appliances</td>
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<td>12.10</td>
<td>13.20</td>
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<tr>
<td>Total</td>
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<td>7.80</td>
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</table>
OWNER – CROSS-SEGMENT USE

Performance Expectancy
Effort Expectancy
Enjoyment
Facilitating Conditions
Price Value

Perceived Value for Personalization
Cross-Segment Use

Habit (single smart device)
Cross-Segment Intention

Disposition to Value Privacy
Trust in Companies

24-07-2019
Users want a integrated ecosystem personalized to their interests and needs
DEVICES VS ECOSYSTEMS
ECOSYSTEMS?

- Technology ecosystems are **product platforms** defined by **core components** made by the **platform owner** and complemented by applications made by **autonomous companies** in the **periphery**.

- The **value** of an ecosystem is larger than the sum of the parts.

- Ecosystems create customer **dependencies**.
WHO HAS THE POWER IN YOUR ECOSYSTEM?
**OMNI-CHANNEL**
- ‘Own’ customer relationship
- Create multi product customer experience to address life events
- Customer chooses channels
- Integrated value chain

**SUPPLIER**
- Sell through other enterprises
- Potential for loss of power
- Core skills: low cost producer, incremental innovation

**ECOSYSTEM DRIVER**
- Become the destination in your space
- Add complementary and possibly competitor products
- Ensure great customer experience
- Customer data from all interactions
- Match customer needs with providers
- Extract ‘rents’

**MODULAR PRODUCER**
- Plug and play product/service
- Able to adapt to any ecosystem
- Constant innovation of product/service

**Value Chain**
- FIBARO, Bticino,
- Fitbit, IKEA, Denfoss, Velux

**Ecosystem**
- Google, Amazon, Samsung, Apple
- Netatmo, Nest, Philips Hue

*Business Design*
Who controls key decisions like brand, contracts, price, quality, participants, IP & data ownership, regulation
PHILIPS HUE PRICES AND COMPETITION

”Who would have thought that we could charge 70 dollars for a bulb?” CEO, Philips, 2014

”We do not collect customer data. We focus on making the best lamps. We will let others monetize data. ... IKEA cannot upgrade the lamps. CEO, Signify, 2018
- Hue launched in Apple Stores (exclusively)
- New Philips Hue app (2.0)
- New Hue Lux bulb
- Friends of Hue partnership program
- Hue works with Amazon Echo
- Hue Sync and Entertainment
APPROACHING THE MATURE STAGE
IF YOU WERE HUE OR FITBIT
SHOULD YOU WORRY?
OMNI-CHANNEL
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Google, Amazon, Samsung, Apple

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Forskning
Viden
Nyheder
Om projektet
Tilmeld dig Living Labs
Tilmeld dig executive kursus
Read about the project
Tilmeld dig nyhedsbrevet
Pressekontakt
THANK YOU

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