

Digitalization of Finnish automobile sales operations

Kerttu Salokannel

Bachelor's Thesis
Degree Programme in
Business Management
2017



Author(s) Kerttu Salokannel	
Degree programme Business Administration	
Report/thesis title Digitalization of Finnish automobile sales operations	Number of pages and appendix pages 51 + 29
<p>The thesis is partly based on Media Project (November 2015-May 2016) where our research team studied the impact of digitalization on Finnish news media and collected research data for updating the news media revenue model to a form in which digital micro products alongside the core product operate as an important source of income. After the project ended, no suitable subject for further research was found. However, in a subsequent meeting with the commissioning party, centrality of digitalization on automobile industry was emerged as a key topic of discussion. It was made clear that the changes digitalization is enabling are revolutionizing the current market and its environments. We chose to study this change and our research in broad terms focuses on the changes digital revolution has caused on the industry, its business model and surrounding environments.</p> <p>The objective of the thesis is to form a clear understanding of the changes digitalization has caused in the business model (finances, infrastructure, customers and value proposition), sales promotion processes, engagement with the customers and distribution channels of automobile sales. This objective is achieved by answering research problem and four investigative questions. Table 1 introduces the overlay of the research approach with the chapters of the theoretical framework, research questions and results related to each investigative question.</p> <p>The research is based on both primary and secondary data collecting methods. Primary data collection method is qualitative (in-depth interviews) with experts on marketing (Autotalo Laakkonen, VV-Autotalot, Delta), commercial activities (Fokus Media) as well as development of the industry and its sales processes (AutoBild) in December 2016. The theoretical framework is established through a profound literature review on relevant books, articles, reports and other online publications. Main literature and key models and concepts are specified in more detail in the section 1.3 Methodology.</p> <p>Main findings conclude that in the future car is much more than a means of transport and the whole business must be redefined: "Motoring is a sense, the car only an intermediate piece of freedom". Locality, political and environmental changes as well as Finnish climatic conditions are very strong elements affecting the industry even though changes are often global. Major changes can be divided into four categories (concept of mobility; urbanisation; choices of power, digital advancements), but the order and time frame of these changes is uncertain and is dependent on several interrelated factors. Rest of the main findings in relation to research problem and investigative questions can be found in section 6.5.</p> <p>References are made using the Harvard model with Mendeley reference manager. Empirical research and some parts of the theoretical framework was done in co-operation with a graduate student Ulla Ruuskanen, who is continuing the research in the spring 2017 in her master's thesis.</p>	
Keywords Automobile sales, automobile industry, digitalization, marketing, media	

Table of contents

1	Introduction	1
1.1	Research aim and objectives	2
1.2	Demarcation	3
1.3	Methodology	4
1.4	Benefits to stakeholders.....	4
1.5	Key concepts	4
2	Business environment, characteristics and models	7
2.1	Business environment.....	7
2.2	Digitalization and business environments.....	9
2.3	Automobile sales business environments.....	10
2.4	Business environment characteristics	10
2.5	Business model.....	11
2.6	Automobile sales business model	13
3	Sales of automobiles	18
3.1	Development of automobile sales in Finland	18
3.2	Marketing of automobiles in Finland.....	20
4	Digitalization of media	23
4.1	Going digital.....	23
4.2	Marketing in the reformed media.....	23
4.3	Future of media.....	25
4.4	Conclusion of theoretical framework	27
5	Research strategy	29
5.1	Qualitative research and in-depth interview.....	29
5.2	Primary and secondary data	30
5.3	Interview question set for the interviews.....	30
5.4	Data analysis	31
5.5	Validity and reliability.....	31
6	Key findings and discussion	34
6.1	Key findings about business environment	34
6.2	Key findings about business model and consumer behaviour	37
6.3	Key findings about marketing processes and media channels of automobile sales	39
6.4	Key findings about distribution channels and attributes of the end product.....	41
6.5	Conclusion about key findings in relation to research problem and investigative questions.....	42
7	Recommendations and conclusion.....	45
7.1	Recommendations, suggestions and further research ideas	45

7.2 Assessment of own learning	45
References	46
Appendices	50
Appendix 1. Consolidated Statements of Financial Position	50
Appendix 2. Consolidated Statements of Income	50
Appendix 3. Consolidated Statements of Comprehensive Income	51
Appendix 4 Development of passenger car ownerships in Finland between 1960- 201251	
Appendix 5 Ten biggest car brands in Finland and their market shares and retailers ..	52
Appendix 6. Effect of environmental changes on business canvas	52
Appendix 7. Industry challenges and strategy levers	53
Appendix 8. Characteristics of Business Environment.....	53
Appendix 9. Interview questions in Finnish.....	55
Appendix 10. Interview questions in English.....	66

1 Introduction

In this time and age, companies striving for maintaining their profitability and creating income streams is closely connected to their ability to create, maintain and acquire value, which is grounded on the functionality of their business model. If the underlying market conditions and business environments were to change unexpectedly, companies must be able to develop more innovative business models or alter their existing ones or they won't survive or succeed in the altered milieu. The ability to anticipate, analyse and respond to change is a key factor when endeavouring sustainable success and competitive advantages. (Pantaleo & Pal 2008; Shafer et al. 2005)

Businesses all over the world have encountered rapid and unexpected changes in their operational environments during the past decades. The undergoing third industrial revolution, following on from mechanical and electrical, has driven and transformed the business and society of today into a digital economy. Digitalization has been predicted to radically alter innovation processes, operational models and even fundamental structures of certain markets. Particularly corporations operating in banking, retail, transportation and publishing industries are struggling to obtain sustainable growth in an environment that is more competitive, dynamic and complex than ever before. Products today must provide utility and high-quality as well as exquisite design that befits their functionality. Companies that combine present-day technologies e.g. big data, mobility, e-commerce and advanced analytics with their products and services for more effective actions, tools, knowledge and communication will be at the forefront of their industries.(Chakravarti 2013; Pantaleo & Pal 2008; Vasconcelos 2015)

Technical developments of the 21st century have produced safer, lighter, faster and more cost-effective vehicles to match the needs and desires of a contemporary customer. What is more, cleaner and environmentally more sustainable fuels are now sold to reduce emissions and give better engine performance. Paradoxically, at the same time the manufacturers would prefer cars replaced frequently within a short time span to benefit from economies of scale and to reach sustainable growth in the industry. Furthermore, target customer base for automobile sales has shifted from baby boomer generation towards Generation Y and Generation X who question the traditional consumption patterns and who are open to more diverse ways of mobility. Sales processes of automobiles are for this reason developing to serve more diverse needs and expectations and major changes are to be seen in marketing processes in the near futures. Globally the automobile industry uses more money on advertisements than any other industry (2016

estimate 44 billion) and for this reason further research on the topic can be considered timely and relevant.

1.1 Research aim and objectives

The aim of this thesis is to form a clear understanding of the prospective future of Finnish automobile sales and the changes and possibilities digitalization has brought upon the industry. The research tries to clarify how digitalization is altering the sales channels and in which form is the sales promotion content distributed in the foreseeable future. The Finnish market for automobile sales possesses some unique attributes, e.g. high average age of consumers purchasing a new car, high car tax and high amount of annually sold used cars, which characterizes the underlying market conditions to a certain degree. (Barker 2002)

Therefore, the research problem is *“What are the ways in which the Finnish automobile industry can respond to the changes digitalization has caused in the business environment and business models to stay profitable, retain brand-loyalty and reach sustainable growth”?*

From this problem, the following research question was formed:

How should the marketing content, engagement with the customers and distribution channels of new automobile sales be developed so that customers are reached accordingly to the digitalized surroundings and advanced market conditions?

To define the approach to the research, the objectives of this thesis are expressed under four investigative questions:

1. *What kind of changes has digitalization generated in the business environment of automobile industry in Finland?*
2. *How has the business model of automobile sales altered due to changes in the business environments and consumer behaviour in Finland?*
3. *Through which channels and in which form is the sales promotion content distributed in the future in Finland?*
4. *How digitalized are physical car stores getting within the next years in the Finnish market and what attributes does the end product include?*

These questions are further discussed in the results section of the thesis.

Investigative question	Theoretical framework (chapter)	Results (chapter)	Interview questions
------------------------	---------------------------------	-------------------	---------------------

Impact of digitalization on business environment	2.1 – 2.2	6.1	1.1 – 1.2
Changes in business model and consumer behaviour	2.3 – 2.6	6.2	2.1 – 2.4
Future of used sales channels and content	3.1 – 4.3	6.3	3.1 – 3.3
Future of physical car stores and sold product	3.2 – 4.1	6.4	4.1

Table 1 Overlay of the research approach

1.2 Demarcation

This research focuses on the changes and possibilities digitalization has brought along to the sales processes of new passenger cars in Finland. The research tries to clarify how digitalization is altering the sales channels and content and in which form is the sales promotion content distributed in the foreseeable future. The research does not take stand on the effect of digitalization on other functions (e.g. manufacturing, repair) that automobile companies have. To obtain a coherent understanding of the current situation and plausible future scenarios the thesis includes a general view of the business environment and business model as well as general introduction to media. This provides tools for a deeper understanding of the empirical part and strives to do the conclusions more trustworthy and accurate.

The first investigative question (*“What kind of changes has digitalization generated in the business environment of automobile industry in Finland?”*) aims to explain how the underlying market conditions and business environment have been changed due to the third industrial revolution.

The second investigative question (*“How has the business model of automobile sales altered due to changes in the business environments and consumer behaviour in Finland?”*) tries to clarify if the business model (finances, infrastructure, customers and value proposition) of automobile sales has changed fundamentally due to the digitalization.

The third investigative question (*“Through which channels and in which form is the sales promotion content distributed in the future in Finland?”*) examines how the marketing content is distributed, how involved is the consumer, what is the role of tribes and hobby groups as well as what is the future of media advertisement.

The fourth and last investigative question (*“How digitalized are physical car stores getting within the next years in the Finnish market and what attributes does the end product include?”*) tries to resolve if physical car stores are going to adapt to the digital changes

and will the end product sold in the near future be a product (car), mobility (service) or a combination of some kind.

1.3 Methodology

The theoretical framework is established through a literature review on business environment and business models, marketing, digitalization as well as guides about conducting an empirical study. The study is grounded on theory concerning the changes and possibilities digitalization has brought along to business environments and models, especially to distribution channels and sales promotions. This research refers to business environment model by Worthington & Britton (2014), business model canvas by Osterwalder & Pigneur (2010), concept of reformed media by Vucanovic (2011) as well as modelling of the state of media in 2030 by Heinonen and Ruotsalainen (2014). Digitalization as a concept is studied more deeply and for this reason refers to an extensive research of literature. The concept and models refer to Chakravarti's (2013) digital buying experience, Willmott's and Markovitch's (2014) framework of digitizing business processes and Pantaleo's (2008) concept of turning accelerated global change into opportunity. The thesis also refers to comprehensive reports on digitalization published by Accenture (2015) and Ernst&Young (2011).

The main research method is qualitative and the primary data for the thesis was collected in the form of five interviews that were performed with experts on marketing (Autotalo Laakkonen, VV-Autotalot, Delta), commercial activities (Fokus Media) as well as development of the industry and its sales processes (AutoBild) in December 2016. Everything that was discussed in the interviews was written down and recorded to analyse it thoroughly afterwards.

1.4 Benefits to stakeholders

There are three distinct beneficiaries for this thesis: The education institution (Haaga-Helia), me as a business administration student and a thesis writer as well as Ulla Ruuskanen with whom I planned, executed and analysed the empirical part of the work and who is using the collected data and its analysis and continuing the research with a development perspective in her Master's thesis over the spring semester 2017.

1.5 Key concepts

Digitalization came into being some five decades ago when first digital electronic devices and computing technologies were created and put to use. The concept of digitalization means integrating digital technology into our everyday lives and beyond the general ways

of living to the ways we operate, interact with each other and conduct business. This is visible in the change of format in traditional databases, simplification of processes, breakdown of linguistic barriers and facilitation of the free movement for people, culture, goods and capital. (Picard 2011)

Marketing can be defined as the process of moving the good or service from concept to the customer in respect of the 4P's: selecting and developing the **product** (or service), determining its **price**, selecting the distribution channel so that it reaches the **place** of the customer and both developing and implementing a successful **promotional strategy**. Marketing has evolved a great deal since its birth during the industrial revolution (1760-1840) and its development can be seen in three separate phases. During the industrial revolution, the products were rather simplistic and designed for mass markets so the marketing can be said to be **product-oriented**. This means everyone in the public was viewed as potential customers. Over the technological revolution **customer-oriented** marketing was born. IT development broadened the field of products and created the need to segment the product in relation to market needs and customer segments. Easy and fast access to information created the possibility to compare products, which created the idea of "customer being the king". Third phase of the development exists in the current markets and is constantly evolving. It includes the ethical values a product or service provides as well as those the producing company encases. Therefore, it can be called as **value-oriented marketing**. People are no longer considered as solely consumers but also emotional individuals. However, the fundamental goal of marketing still stays the same (filling customer needs). The biggest difference is that the underlying values and company mission and vision have a great impact on purchasing decisions. (Anon 2016g; Kotler et al. 2010)

The automotive industry is formed by a wide range of companies and organizations involved in the design, development, manufacturing, marketing, and selling of motor vehicles and it is often characterized as highly capital and labour intensive. The branch is considered one of the world's most important economic sectors by revenue and it supports a great number of other industries, such as financial services, maintenance and repair services as well as suppliers in aluminium, rubber, textiles and rubber both indirectly and directly. The industry does not include industries dedicated to the maintenance of automobiles following delivery to the end-user, such as automobile repair shops and motor fuel filling stations. **The automotive sales processes** consist of organising the sale of the good and relevant services (financial leases, insurances) as well as maintaining profitability and key relationships with suppliers, partners and customers. (Rae & Binder 2016)

Media. In the 21st century, the public spends a notable amount of their waking hours abundantly consuming modern-day mass media, which consists of print, outdoor, broadcast and digital media. Globally, a clear majority of advertising expenditure is embedded in this media. The so-called two-sided business model works on the basis of media firms' need to make the production of media content cost-effective, while advertisers require the media coverage to make their services and products renowned among potential customers. The model is emphasised by the advertisers' demand to gain potential customer's attention and since the sovereignty of the viewers is indirect, it has great implications for performance and success in the current market. (Anderson & Gabszewicz 2005)

2 Business environment, characteristics and models

The thesis begins by modelling the automobile sales environment, environmental characteristics and business model and aims to explain how they've been altered during the past years by the third industrial revolution (TRI). The first theoretical chapters include key theories and modelling mentioned in 1.4 mythology such as business model canvas by Osterwalder & Pigneur (2010), business environment theory by Worthington & Britton (2014) and Kattookaran (2015) as well as digitization of business processes by Willmott & Markovitch (2014).

2.1 Business environment

Business environment refers to a set of contextual and operational factors that affect the functionality, progression and profitability of a company. These factors are intertwined with the outside world and often characterized as uncontrollable by nature. Business environment factors are visible e.g. in the form of organizational structures, nature of economy, suppliers and clients, improvements in technology and social trends. They have a continuous influence on all business activities and maintain a crucial role in shaping the future of the organization. The environment can even have a major effect on fundamental business processes such as complicating the transformation process and the creation and consumption of the good or service (figure 1). (Kattoorakan 2015; Worthington & Britton 2014)

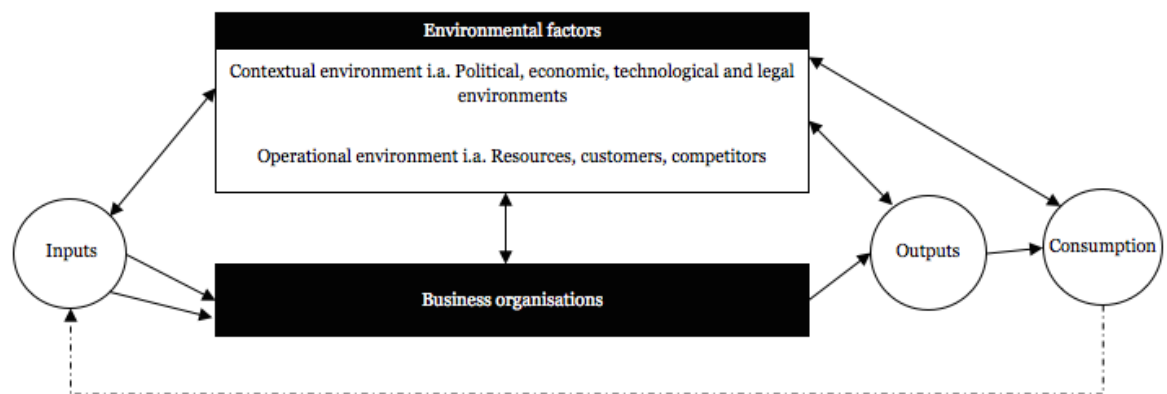


Figure 1 The environment of a company (Worthington & Britton 2014)

Business environment of a company consists of both internal (operational) and external (contextual) environments. Internal environment encases elements such as organizational structure and company image and has a big impact on company strategic decisions and

plays a decisive role creating the future of a business organization. Contextual environment (e.g. economic system, demographic and cultural environments) exists outside the company and is uncontrollable by nature to a large extent. External environment is classified into two categories, micro and macro environments. Digitalization has brought along fundamental changes in both operational and contextual environments during the past decades by e.g. simplifying processes, creating more efficient, cost-effective and faster distribution channels and facilitated the free movement of capital, people, goods and culture. Underneath the individual factors inside each environment influenced by digitalization are emphasized with bolding.

Operational environment consists of

- **Organisation itself and its owners**
- **Resources and resource markets**
- **Vision, mission, objectives, values**
- **Company image and brand**
- **Management structure**
- **R&D**
- **Technological factors**

Microeconomic environment consists of

- **Suppliers**
- **Customers**
- **Competitors**
- **Intermediates**
- **Public**
- **Partners**
- *Legal regulators*
- *Financiers*

Macroeconomic environment consists of

- *The political/legal environment*
- **The economic environment**
- **The social, cultural and demographic environment**
- **The technological environment**
- *The ethical environment*

(Kattoorakan 2015; Sloman & Jones 2008; Worthington & Britton 2014)

As stated earlier, operational factors occur within the organization and they have implications on the strategic decisions, approaches and success of operations and in general these factors are easier to control than contextual environment factors. One of the most crucial players in the internal environment is the labour force of the company: Talented, industrious and motivated employees creates better results than less motivated, ungifted and lazy workers. The relationships and processes between individual employees and even whole departments have a significant impact on the profitability and efficiency of the company. (Worthington & Britton 2014; Kattoorakan 2015)

Microeconomic environment includes all individual factors that concern a company operating in a certain market, such as suppliers, customers, partners and competitors. These factors, however, do not necessarily affect all operating companies in the same industry in a similar way and some factors might appear uniquely to an individual firm. In addition to microeconomic environment, a company also belongs to a much larger milieu, the macroeconomic environment. The macroeconomic environment includes both national and international economic situations and the changes e.g. in legislation, technology, ethics or demographics. In the past decades the macro environment in several firms has become increasingly more and more global, which makes the transfer of knowledge more efficient, the market more integrated and competition more intense. (Worthington & Britton 2014; Kattoorakan 2015)

2.2 Digitalization and business environments

Digitalization has brought along several changes in both internal and external business environments through reformation in the connections between people, processes, data and factors that provide actionable insights enabling business outcomes. In this time and age, customers demand effortless payment methods, around-the-clock availability, personalised services, universal consistency, zero errors and real-time execution of tasks. This has resulted in cutting the number of required steps in operations, reducing the number of produced documents and bringing automated decision making to the next level. To match the renewed processes, operating skills and models as well as roles in the organisations have had to be redesigned. Digitalization has also enabled the companies to digitize information-intensive processes, cut costs and enhance turnaround times with the use of collected data. This up-to-date information understands accurately the process performance, cost drivers and risk factors and allows managers to prepare for problems before they reach the critical stage. In addition, new communication channels allow companies to improve their internal communication processes and send out information faster and to a wider range of customers. (Willmott & Markovitch 2014)

2.3 Automobile sales business environments

The automobile industry and its sales processes faces continuous pressure generated by both internal and external environments. There is a perennial need for new innovations caused by changes in external environment (e.g. customer needs and desires, technologic innovation, environmental factors) as well as intense rivalry among companies. Due to high rivalry and moderately high customer bargaining power product/service differentiation has a vital role when seeking profitability. In contrary, bargaining power of suppliers is rather low as a result of high amount of supply companies.

The biggest pressure for the industry and automobile sales is formed by the macroeconomic environment. Economic factors, such as buying capacity, level of economic activities and dependency of fuel economy, are connected to sales volumes of automobiles and prospects for the commercial vehicle industry is strongly dependant on the changes in the rate of growth in national economy. Furthermore, cost of running a vehicle increases when prices of external resources (gas, electricity) increases, which may result in decrease sales and growth in the use of public transportation. Ecological factors also play a key role since automobiles are a large net contributor to climate change pollution and developing alternative biofuels and electric cars is in high demand. Moreover, safety, tax and environmental regulations, EU directives and quality standards that are created within the legal environment have a major impact on both industry and factors in the social, cultural and demographic environments (e.g. age distribution, changes in income levels and family structures) contribute to the sales of automobiles in the same manner. Global concerns over pollution and individual health have supported the growth of car-sharing (e.g. zipcar, blablacar), MaaS-services and alternative ways of transportation (public transportation, biking). (Kattoorakan 2015; Russo 2015)

2.4 Business environment characteristics

Due to its complex, continuously altering, vivacious and multifaceted nature, business environment has a profound effect on the development and resilience of a company and having an eye on the company's business environment and its characteristics (appendix 8) has several benefits when seeking sustainable growth. The business environment characteristics include complexity, dynamicity, uncertainty, relativity and interrelatedness and the cause of them lie in both microeconomic and macroeconomic environments. Complexity is created then companies face constant challenges such as new technologic innovations, shifting social/economic conditions and change in leadership. Dynamicity is created by evolving customer preferences and new policies/regulations and it has a big

effect on both internal and external environments of the company. First two characteristics influence strongly the third feature, uncertainty, and make it impossible to assume anything with a degree of certainty. Relativity bounds environment to local conditions and interrelatedness describes the strong co-relation between the factors of business environment – a change in one factor might have a great impact on another factor. The benefits of analysing the causes of these characteristics include identifying rivalry as well as the weaknesses, threats, strengths and opportunities of the company. (Kattoorakan 2015)

Business environments in automobile sales industry are under constant change due to new technologic innovations, shifting customer preferences, growth of sharing economy and new regulations and directives created to slow down global warming and greenhouse gas emissions. For automobile sales changes in the environments and characteristics are also centric due to the status and nature of an automobile in society and as a commodity. All characteristics (complexity, dynamicity, uncertainty, relativity and interrelatedness) are visible in the automobile sales environments with unique attributes and varying leverages. (Rae & Binder 2016)

Complexity and dynamicity can be seen particularly with companies operating in banking, retail, transportation and publishing industries and together these two characteristics influence the uncertainty and unpredictability of these industries. In addition, relativity (local business conditions) is one of the most influential characteristics, since new cars are in most cases sold through local car dealers in diverse environments to consumers living in different parts of the country and therefore having varying needs for transportation. Homogeneous sales processes are for this reason impossible to maintain. Automobile companies should continuously monitor and analyse the environments closely to detect the changes and make use of opportunities or prepare for the threats they bring along. This helps them to reinforce their strengths to make sustainable and long-term strategy decisions that affect the operability, progress and profitability. (Rae & Binder 2016)

2.5 Business model

A business model represents the underlying logic and strategic choices that a firm possesses for value creation, delivery and capture within the company value network. In itself a business model is not a strategy, but it facilitates testing, analysing and validating the strategic choices a company makes. Business models should be simple enough so that it can be easily understood, communicated and remembered by all stakeholders. It can be divided into two parts: activities associated with manufacturing a product or service

and activities associated with selling a product or service. The use of business models grew considerably when personal computer and spreadsheets became accessible to companies and enterprises. Before that, prosperous business models were created rather by accident than carefully planned design or foresight. Enabling companies to find the connection between marketplace insights to the resulting financial gains made it possible to create business models before launching a product a service to the market. (Ovans 2015; Shafer et al. 2005)

According to Kaplan (2012), business model can be simply created by answering the following questions:

- How the company creates value and to whom?
- How the organisation delivers value?
- How the organisation captures value through various revenue sources?

Osterwalder & Pigneur (2010) have created a more detailed business model canvas (figure 2) that can be used to develop a new model from scratch or document already existing ones in a visual form. It includes nine elements related to the finances, infrastructure, customers and value proposition of the company and helps to understand the outlines of business activities and visualize the value proportions.

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Key suppliers Key resources Key activities	Customer relationships Distribution channels Revenue streams	What value do we deliver? Which problems are we helping to solve? Which needs are we satisfying?	What kind of relationships are expected to be maintained? Which ones have we established? How costly are they? How are they integrated?	For whom do we create value? Who are our most important customers?
	Key Resources Distribution channels Revenue streams Key resources		Channels What channels are we using now? Which channels are most cost-efficient? Are the channels integrated? Through which channels do the customers want to be reached?	
Cost Structure		Revenue Structure		
What are the most important costs? What Key Resources are most expensive? What Key Activities are most expensive?		What are customers willing to pay? How are they currently paying? How would they prefer to pay?		

Figure 2 Business Model Canvas (Osterwalder & Pigneur 2010)

In this time and age, technology intermediates almost every step of work processes and a great majority of the labour is global, distributed, abstract, related to knowledge and information intense. Consequently, all nine elements of the canvas (figure 3) have been impacted by digitalization with varying degrees, which has been visualised with the help of color-coding (darker colour implies greater impact). (Lyytinen 2015)

Elements related to the infrastructure (key partners, key activities, key resources) of the company are influenced by digitalization to some extent, depending on the industry in which the company operates and product or service they're offering to their consumers. Effect of digitalization is visible in the infrastructural factors in the form of distributed resources (knowledge, skills, materials), their distribution channels as well as strategic decisions about partner relationships, joint ventures, partnerships, co-operations and strategic alliances. Substantial changes in key resources and key partners will cause fundamental changes in the key activities of the company, and vice versa. (Willmott & Markovitch 2014)

Value propositions, which determines what products or services are necessary to create value to the selected customer segments, are strongly impacted by technologic innovations and digitalization. The product or service a company is producing to satisfy a specific need or certain problem faces major pressure when customer needs and desires alter or when unpredictable and novel problems arise due to developments and changes in microeconomic or macroeconomic environments. (Willmott & Markovitch 2014)

In the same manner, customer elements in the business model canvas (distribution channels, customer relationships, customer segments) face continuous pressure to change due to technologic innovations (more efficient, cost-effective and faster distribution channels; developed CRM systems) and birth of new customer segments generated by product innovation. Furthermore, cost and revenue structures are widely influenced by the digital age as well. Digital pioneers as key partners can help companies to gain resources and optimize economies of scale as well as save costs from key activities through outsourcing and automatization. (Lyytinen 2015)

2.6 Automobile sales business model

As in the blank business model canvas (figure 2), the impact of digitalization has been visualised with the help of color-coding (darker colour implies greater impact) with figure 3. Changes in the technological environment in general have the biggest impact on the

business canvas (appendix 6), other factors in macro environments have affected it with varying degrees. (Accenture 2016)

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Suppliers	Marketing and sales	Sustainability	Long-term relationships: Customer loyalty	Need based customers
Government (policies and taxation)	Services (e.g. spare parts)	Safe and reliable way to travel	Brand-aware customers: Brand sensitivity	Businesses
Energy companies	Operations	Independence		Consumers
Business Alliances	IT system maintenance	Status symbol		Travelers
	Key Resources		Channels	
Technology alliances	Suppliers		Social media, websites, mobile apps	
Commercial partners	Dealers		Newspapers	
Financial institutions: Capital requirements	Knowledge, skills		Exhibitions	
			Dealer shop	
			Exclusive events	
Cost Structure		Revenue Structure		
Fixed costs (e.g. Labor costs) Overhead costs (e.g. Advertising) R&D		Sales (spare parts, new and used cars) Rental fees Services Insurances and financial leases for companies and private persons		

Figure 3 Automobile industry business model (Accenture 2016; Osterwalder & Pigneur 2010)

Digitalization affects the infrastructure (key partners, key resources and key activities) of the automobile industry to some extent. Relationships with key partners, e.g. suppliers, energy companies and strategic alliances, have faced big changes caused by the rise of environmentally-friendly cars, diversified means of distribution in both advertisement and sales and changes in the features the end product will encase. Therefore, it also affects the key resources (knowledge, skills and materials). Changes caused by digitalization and technologic innovation in the key partnerships and key resources will greatly affect the key activities as well. (Chakravarti 2013)

In the same manner, value propositions of the automobile industry have been going through prominent changes. End-product consumer needs have become more versatile and specific, and reaction time companies must respond to changes is shorter than ever. In addition, new innovations and global trends are appearing and spreading faster than ever. Some problems that the product used to solve have now been solved by more agile, environmentally-friendly and cost-effective companies and services (e.g. Blablacar, Whim). However, requirements for subsidies that could provide as acceptable

and effective level of service in both urban and rural areas will not be universally popular. (Chakravarti 2013; Foy 2013)

The customer segment of the canvas (distribution channels, customer relationships and customer segments) have faced rapid alterations in the past decades. Technologic innovations (faster and more cost-efficient distribution channels; developed CRM systems) and birth of new customer segments have variegated and deepened the traditional company-consumer relationship. Thorough data analysis and understanding all aspects of customer behaviour is more vital than ever to survive in the competitive market. In the future, the segment of need based customers is likely to go through rapid changes. User and environmentally friendly (MaaS) services that offer car rental or car sharing possibilities to customers are likely to grow rapidly. When using these services consumers benefit from having no risk concerning the decrease of resale value and no need for initial capital when purchasing a vehicle. Public transportation services will be improved greatly to break dependency on private motoring. Nevertheless, private car ownership is not likely to diminish in the next few decades. (Foy 2013; Rae & Binder 2016)

One of the biggest changes concerning the customer segment is seen in distribution channels: the location and appearance of physical stores. Physical stores with wide selection of vehicles are expensive and they tie a great amount of capital into themselves and for this reason automobile sales promotion in the future is likely to occur near city centres in smaller spaces. Lack of time customers experience is driving advertising towards more efficient and cost-effective channels. E.g. in the US Tesla Motors has opened several showrooms, exhibition venues, in shopping malls – physically going where the customers spend their free time and highlighting the consumer experience. In these venues, the focus is on sharing experiences, information and expertise without any kind of pressure to buy. Customers visiting can model the experience according to their likes and dislikes. Alongside the showrooms companies have built comprehensive online stores, where the actual purchase transaction is made. Automobiles are custom made accordingly to customer needs and delivered to their front door. In 2016 average factory order time globally for custom-made new cars was 13 weeks and it has been estimated that global online sales will eightfold during 2011-2025. In Finland these kinds of car sales haven't been done even though companies have noticed the potential internet and digital platforms are providing for their business. (Foy 2013; Lamoreaux 2013)

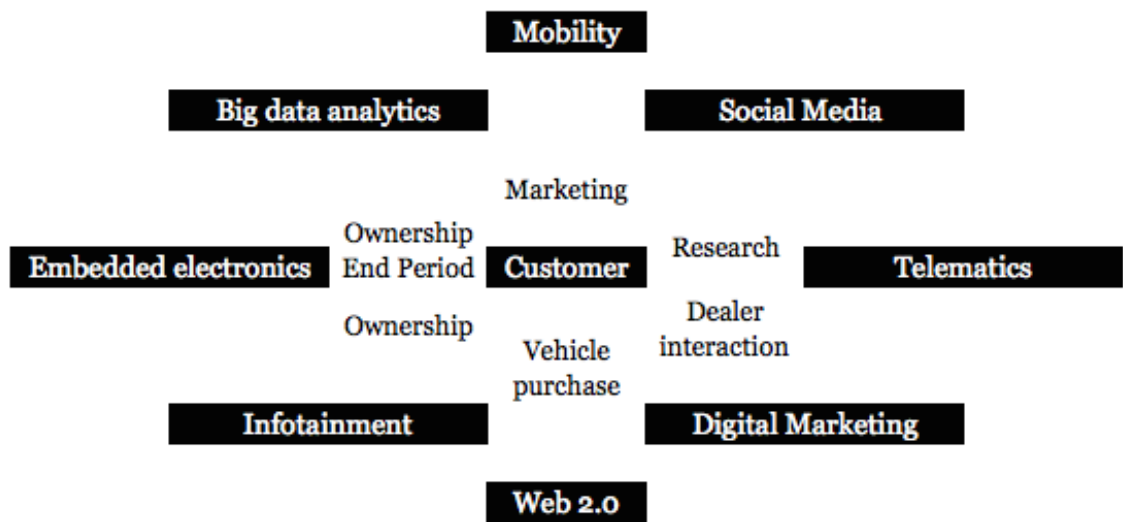


Figure 4 Digital buying experience (Chakravarti 2013)

Technologies that enable companies to personalise the user experience (digital marketing, social media, integrated customer experience management) are already becoming a vital part of everyday operations of automobile sales companies. In addition to this, customer-centric business systems (figure 4) such as e-commerce rewards, loyalty management linked to incentives are amounting to become a substantial portion of ICT budgets. These customer management incentives enable the birth of virtual communities where consumers can share their experiences with each other. Having latest technology at their hands means that automobile sales companies could personalise e.g. the assembly and upholstery through digital showrooms. Seeing dealership as a supermarket is gaining ground and enables to customers to choose from plural supplementary services in addition to the traditional financial and warranty packages. These fundamental changes in digital buying experience are generating new kind of service providers who deliver a profound menu including anything and everything customer might desire. (Chakravarti 2013)

Digitalization has fundamentally changed the customer empowerment and behaviour as well (appendix 7). Internet usage and smart phone penetration among potential customers in Finland has reached almost its full capacity and this has given consumers a variety of sources to look for information and compare products as well as enabled product personalisation. As mentioned before, customers have also grown to demand around-the-clock availability, effortless payment methods and universal consistency, to which automobile companies have to be able to prepare for with necessary skills, knowledge and tools. (Willmott & Markovitch 2014)

In the same manner, cost and revenue structures are highly influenced by digitalization and technological innovations. Costs are no longer generated just by R&D and traditional fixed and overhead costs and revenues do not solely come from sales of one type of end product. Changes can be seen in the financial statements (appendix 1, 2, 3) e.g. as decrease in inventories (exhibition venues instead of car dealer shops; products produced on-demand) and change in cost of sales in terms of source and volumes of the cost. Nowadays costs also include acquiring knowledge and skills from a third party, maintaining IT systems and value networks, more versatile promotional events and sustaining partnerships and strategic alliances. Revenues are created from sales of new and used cars as well as spare parts, rental fees, different kinds of services (Q&A, online booking), insurances and financial leases. Physical stores that tie a great amount of capital into themselves are slowly replaced with showrooms (“exhibition venues”) that make use of newest digital innovations. (Foy 2013; Honda 2015)

To conclude, companies in all industries are affected to a great extent by contextual and operational factors that are characterized uncontrollable by nature. Changes in the business environments can have a major effect on fundamental business processes, such as complicating the transformation process and creation and consumption of the good or service. Digitalization has brought along several changes in both internal and external business environments of automobile sales through reformation in the connections between people, processes, data and factors that provide actionable insights enabling business outcomes. It has also had a huge impact on the automobile sales business canvas (finances, infrastructure, customers and value proposition) - other factors in macro environments have affected the canvas with varying degrees. Biggest changes are seen in personalised experiences, customer empowerment, changes in distribution channels and form of the end product.

3 Sales of automobiles

The second theoretical framework chapter introduces development of automobile processes in Finland during the past few years, impact of digitalization and the predicted short-term future of the industry. Sales, ownership and registration data for the charts was collected from publications of The Finnish Information Centre of Automobile Sector (AuT).

3.1 Development of automobile sales in Finland

In Finland, the automobile sales industry faces unique attributes and conditions with sparsely populated land, high car tax and high volumes of annually sold used cars. Three most popular passenger vehicle brands (Volkswagen, Toyota and Skoda) hold together 32% of market share (appendix 5) and these brands can be purchased through the biggest companies in the industry (by revenue): Veho Oy, Kauppahuone Laakkonen Oy and Delta Motor Group Oy. (Anon 2016f; Yläne 2016)

Number of car ownerships has closely followed the growth of living standards, economy and wealth in Finland between the years 1960 and 2015 (appendix 4) reaching 2,500,000 in 2012. This means 46% of the population had their own automobile in 2012, assuming there was only one car registered per capita. First registrations of passenger cars have dropped significantly after 2011 (figure 6), and it is expected to reach similar measures only next year. It is estimated that in this year 131,220 new cars are bought, out of which 116,000 are passenger vehicles. In conclusion, the capacity of automobile sales was built for the sales of 150,000 vehicles a year but in reality it has remained under 120,000 sold cars since 2008, which has made the competition more intense and not only forced changes in the sales processes but also enforced to look for new modes of operation, e.g. digitalized and customer-oriented operating models. (Anon 2016b; Anon 2016c)



Figure 6 First registrations of passenger cars in Finland between 2010-2017 (Anon 2016c)

Sales forecast of automobiles is based on the growth of the economy, car tax rates and nationwide economic development programmes. The Bank of Finland estimated 1,1% growth of economy for the year 2016-2017 and Finnish Parliament has decided on moderate lowering of the car tax between the years 2016-2019. Moreover, progression of the competitive agreement, if successful, will increase the total purchasing power of wage earners in 2017-2020. (Anon 2016a; Anon 2016c; Anon 2016f)

Average age for consumer buying a new car in Finnish market is rather high and exceeds the European average (52 years in 2012). The combination of unique market conditions and high price/high tax rates has contributed to the fact that Finland has one of the oldest fleet of cars in Europe, average age of passenger cars rising from 1960's 5,6% to 11,7% in 2015 (figure 6). The government has been trying to support the renewal of the fleet in several ways during the past years. E.g. In 2015 they introduced a scrapping incentives in the form of financial support where the car user getting rid of the car would benefit 1,000€ and the car dealer 500€. Emission limits for these vehicles were 120g/km. The experiment cost the government 8 million euros and renewed the car fleet with 8,000 new cars. In November 2016, the Ministry of Transport and Communications introduced another scrapping incentive model where the amount of financial support would be dependent on the emissions produced by the new car. Emission limits for cars in the new trial would be 100g/km. If the government agrees to the new trial, it is estimated that during the half-year experiment in 2017 the car fleet would renew with 10,000 cars. However, experts argue

that there are more effective ways to renew the fleet, e.g. lowering the car tax (which in 2016 varies between 5% and 50% depending on the carbon dioxide emissions produced by the vehicle). Average carbon dioxide emissions for first registered cars in 2015 was 124g/km. (Anon 2016a; Anon 2016c; Anon 2016e; Russo 2015; Salmela 2015)

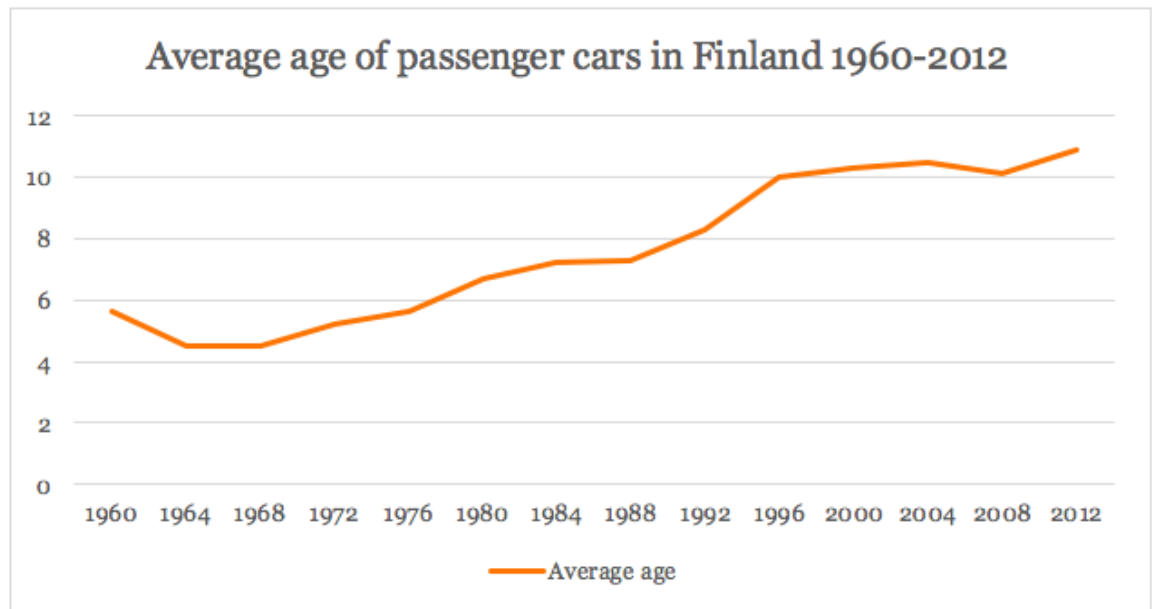


Figure 6 Average age of passenger cars in Finland (Anon 2016d)

3.2 Marketing of automobiles in Finland

Globally the automobile industry uses more money on advertisements than any other industry (2016 estimate 44 billion). In 2013 the average marketing expenditure per sold car was 500€, with some car models reaching marketing expenditure of 2,000€ per sold car.

Information about more specific marketing expenditure figures in Finland wasn't available. Over time the automobile marketing has become more digital and identified and today's consumers face familiar brands in both social (Facebook, Twitter) and mass media (broadcast, digital, print). (Kallstrom 2015)

Marketing of automobiles in Finland doesn't greatly differ from the common marketing done in other industries. Even different car brands are using the same means of conducting online marketing and trade and content produced for online and offline varies very little between competitors. Top brands in the automobile industry in Finland are powerful, highly valued and considered long-lived. For this reason, one of the ways to market is to make use of so-called long-term brand building, which strengthens and creates an image of the brand and its features. The impact of long-lasting marketing can

usually be seen years later, but it creates long-term circles of customers which are vital in the automobile industry. (Ihamuotila 2014; Kallstrom 2015)

For building content that contains added value and developing the whole online marketing of sales processes companies should use content strategy that acts as a tool in developing business activities online and eases the work of both company executives and marketing managers. This means e-commerce channels should be distinguished from social media channels and content produced for e-commerce channels should contain added value e.g. current topics and interests of the customers. Therefore, it is important to find the topics customers want to talk about. Coming up with interesting content might be challenging, but companies can use tools such as Google Trends for their help. With this tool companies can study what are popular keywords at the moment and how many searches have been made with those keywords. It also tells the company where these searches were done and with what timespan. These results tell the topics customers are interested in at that very moment. In the future, CRM systems of better quality and comprehensive big data analysis are going to be in high demand since they enable companies to target their services and products in real time as well as forecasting their needs well in advance. (Williams 2015)

In recent years, change in demographics has also had a major impact on the target customer base. For many years, the Baby Boomers generation has been the main target market for automobiles: average age for consumer buying a new car in Finnish market is above 50 years, which is way above the European average. As this generation is getting ready to retire and consume less, automobile companies are targeting younger generations. At this moment, the focus is shifting to Generation X (children of Baby Boomers) and Generation Y (millenials). (Salin 2010)

To conclude, the Finnish market for automobile sales possesses some unique attributes, e.g. high average age of consumers purchasing a new car, high car tax and high amount of annually sold used cars, which characterizes the underlying market conditions to a certain degree. In addition, capacity of automobile sales was built for the sales of 150,000 vehicles a year. However, in reality it has remained under 120,000 sold cars since 2008, which has made the competition more intense and not only forced changes in the sales processes but also enforced to look for new modes of operation, e.g. digitalised and customer-oriented operating models. It is vital to comprehend that the target customer base is getting younger and they have different consumption patterns than previous generations. In the future, some consumers see mobility as more important than ownership in which automobile sales companies must respond accordingly. For

developing customer relationships companies should build content that contains added value and develop the whole online marketing of sales processes with content strategy that acts as a tool in developing business activities online.

4 Digitalization of media

The third and final theoretical chapter focuses on digitalization of media, marketing in this reformed media as well as future of the media. The chapter introduces comparison of characteristics of both new and old media by Vukanovic (2011), media value chain by AvidEverywhere (2014) and Hamm (2010) as well as predictions about media in 2030 by Heinonen and Ruotsalainen (2014).

4.1 Going digital

Digitalization has been changing the traditional media landscape for a lengthy amount of years, first making fundamental changes in the print production and then moving to alter the television and audio production. It is important to understand that digitalization hasn't created new ways for us to communicate, like writing, taking photos or recording sound did. However, it has changed the processes by which these activities occur and created more efficient, cost-effective and faster distribution channels. Digitalization shouldn't be seen as an isolated and separate occurrence but ought to be understood as a vital part of a transformation that changed and is changing the basic structures of companies, activities and whole industries thanks to developments and advancements in computing and telecommunication. Together the advancements have created a convergence that integrates and puts together different ways of communication. These means create economies of scope, alter the means of distribution, fasten speed and increase flexibility as well as shift more control to readers by giving them the ways to select, control, search, filter and take part in all the forms of communication. (Ernst&Young 2011; Picard 2011)

4.2 Marketing in the reformed media

Reformed media has enabled media and advertisement companies to take advantage of more than one dimension, include customers in their content creation and created new ways of distribution through various platforms (figure 7). However, regardless of their fundamental position in the traditional revenue model of media, advertisements placed in printed or digital newspapers haven't generally had a similar nuisance as in other channels of mass media (broadcast and digital media). The lack of nuisance enables readers to skip the advertisements without paying much attention to them, while similar ads in other channels can postpone or interfere e.g. a radio broadcast, YouTube video or TV program. However, some readers might discover a positive net benefit from the advertisements. Usually this occurs if the ads appear as classified advertisements in specialist magazines, such as sports, technology or other periodic publications. If readers experience that they obtain the positive net benefit, the market interaction differs

fundamentally. This means that if medium can attract more viewers, more advertisers are inclined to pay to promote their service or product. When readers are willing to be exposed (“ad-loving” behaviour), the market may be depicted in terms of a “positive spiral”. (Anderson & Gabszewicz 2005; Caillaud & Jullien 2001)

Factor	Traditional media	Reformed media
Role of user	Participation only in small sections e.g. letter, opinion Publisher-Centric	More active User-Centric UGC (User Generated Content)
Content production	Top-down Factual journalism Physical news rooms are present	Bottom-up Less researched stories, less journalism Physical news rooms are less present
Producer	Industrial media	Industrial media, internet users, (?)
Editing published content	Corrections in future publications	Easily modified
Revenue	Subscriptions, advertisements	Paywalls, banners, sponsors, search engines, market places
Distribution	One to many content distribution	Many to many content distribution Network and on-demand media
Time frame	Days, weeks or months	Immediate; only participants cause delays
Storability	Low	High e.g. online databases
Content sharing	Low	High e.g. widgets and tagging
Creativity	Low	High
Dimension	2D	3D
Technology	Analogue	Digital media Mobile and wireless media Augmented media

Figure 7 Traditional and reformed media characteristics (Vukanovic 2011)

As in previous figures, the impact of digitalization has been visualised with the help of color-coding (darker colour implies greater impact). Role of the user has become more centric, digital tools have fostered creativity and in the future media producers will be located both inside and outside of the industrial media. However, biggest changes have been seen in the content and in its production as well as distribution. Editing already published content is more effortless than ever, storing and sharing is quick and simple and revenues are created from multiple sources with volumes instead of solely selling subscriptions and advertisements. Automobile industry has co-operated with media for decades, using advertisements as their main mean of sales promotion. (Rae & Binder 2016)

Media in 2030

Foundation	Media works as the ground for finances and politics as well as identity and social relationships
Communities and tribes	Communities based on interests and values are formed, ideology is in key position
Production	"Civil journalists" in different communities work as producers
Companies	Companies produce their own quality journalism. Advertisements are blended into the media content
Industries	Barriers between industries are diminishing. Media content is wildly used in education. Companies develop their products and services with data collected from different open media sources.
Print media	Printed newspapers and magazines have become luxury items and it appeals to consumers who've numbed by digital media.
Content	Some parts of the content is created by machines. However, humanity still has its place. Machinery has helped with routine work and increased the quality standards for media content.

Figure 9 Media in 2030 (Heinonen & Ruotsalainen 2014)

In 2030, media has been intertwined with the society, companies and everyday lives of the public (figure 9). It is speculated that instead of industrial media houses, various communities and companies will create journalistic and other media content and reform the old models of journalism. In the future, media content is the foundation for finances and politics as well as identity and social relationships. People will be divided into “digital-native” consumers and people excluded from the media. Print media will be considered as a luxury item and mainly affluent people will pay for quality. Hobbies and lifestyle circles will become more essential than ever.

To conclude, digitalisation has created more efficient, cost-effective and faster distribution channels and enabled media and advertisement companies to take advantage of more

than one dimension, include customers in their content creation and created new ways of distribution through various platforms. Automobile industry has co-operated with media for decades, using advertisements as their main mean of sales promotion and now the advertisement processes are following these digital changes. Role of the user has become more centric, digital tools have fostered creativity and in the future media producers will be located both inside and outside of the industrial media. The future media will be agile and intimate. In the new media, analysing the data created by customer behaviour has a key role in the processes of a media house and advertisements. Processes such as customization and interpretation of customer experience enable companies to create products and services that coincide with market demand. In 2030, media has been intertwined with the society, companies and everyday lives of the public. It is speculated that various communities and hobby groups we be in the centre of content creation

4.4 Conclusion of theoretical framework

Content and scope of this thesis is outlined in figure 10. This figure models the interaction between key elements: environmental factors, inputs, outputs and processes inside the automobile industry as well as marketing, distribution and consumption of the good. The first theoretical framework chapter forms a basis for the first and second investigative questions and aims to explain in detail how the underlying market conditions and business environments have been changed due to digitalization and to which degree digital revolution has altered the business model of automobile industry. Theory about sales and marketing of automobiles as well as digitalisation of media clarifies the third and fourth investigative questions by outlining the future distribution channels, changes in customer empowerment as well as the form of the end product for future markets. Focus of the thesis is on digitalization and its effect on the key elements. The aim is to clarify what are probable forms for sales/marketing distribution channels and processes and attributes of the end product in the foreseeable future.

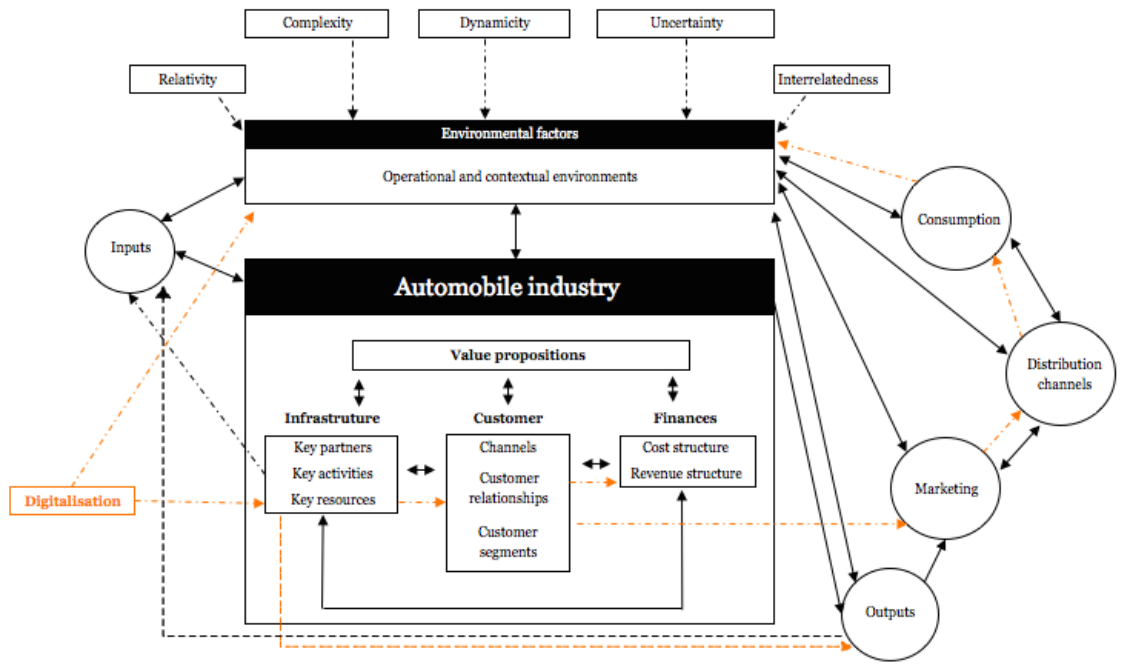


Figure 1 Theoretical framework of thesis

5 Research strategy

The following chapter introduces the research methods and target, phases of the research process, data analysis tools, sources of primary and secondary data as well as validity and reliability of the research. The objectives of the interviews are to get acquainted with the current situation in the industry and get insight on the near future of automobile sales processes. An overview of the research strategy is presented below (figure 11) and an overlay matrix of the research approach can be found from table 1 in the introduction chapter. Research was done in two parts. Theory was gathered from various text books, articles and reports that focused on digitalization, business models and development of the automobile industry to create a coherent theoretical framework to support the thesis. Following was the qualitative research in the form of in-depth interviews with experts on marketing, commercial activities and development in the automobile sales industry. All the collected material was analysed and the results were analysed together with the collected secondary data. Final conclusions derive from the research findings.



Figure 2 Research strategy

5.1 Qualitative research and in-depth interview

According to Burns and Bush (2010) qualitative research is “collecting, analysing, and interpreting data by observing what people do and say”. The reason qualitative research method was used was the reason it offers detailed information on the subject and helps to build a better understanding of complex interrelationships. In-depth interviews (IDIs) were chosen as the main data collecting method since they are likely to generate richer and deeper responses than predetermined yes-no questions typical of a structured survey. However, this lack of structure might lead to a major disadvantage of in-depth interviews; lack of structure throughout the process. Conducting more than one in-depth interview demands systematic logging and clear vision on what are the objectives of each interview. After the interviews, it is of primary importance to compile the collected data into a summary to identify common themes.

In depth-interviews were performed with five experts of marketing, commercial activities and development of the industry to answer all four investigative questions. One set of question was handed out to all people interviewed. All interviews were conducted in December 2016.

5.2 Primary and secondary data

Primary data is information gathered by the researcher for the project specifically (Burns & Bush 2014). For my thesis, the primary data was collected through five individual interviews with experts on marketing (Autotalo Laakkonen, VV-Autotalot, Delta), commercial activities (Fokus Media) as well as development of the industry and its sales processes (AutoBild) in December 2016 in Helsinki, Finland. Everything that was discussed in the interviews was written down and some recorded to analyse it thoroughly afterwards. Primary data collected from in-depth interviews should be treated as reliable as it is information someone participants answered subjectively.

Secondary data (information and theory) was collected from books such as *Accelerating the digitization of business processes* (2014) by Willmott and Markovitch and *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers* (2010) by Osterwalder and Pigneur. Main literature and key models and concepts are specified in more detail in the chapter 1.3 Theoretical framework. In addition, relevant information found on the internet (reports, articles, blog posts) was used as secondary data. Gathering secondary data demanded concentration and precision as only the most relevant theory was collected. Caution and judgement were exercised while analysing the reliability of Internet sources.

5.3 Interview question set for the interviews

The interviewees were asked a list of questions that consisted of four sets (business environment, business models and consumer behaviour, marketing processes and media channels of automobile sales and distribution channels). The question lists can be found in Finnish (appendix 9) and English (appendix 10). The interviews were performed in December 2016 and the language used in the interviews was Finnish. The researcher translated the questions and answers into English. Table 2 shows the theoretical framework chapters, interview questions as well as results for each investigative question.

Investigative question	Theoretical framework (chapter)	Results (chapter)	Interview questions
Impact of digitalization on business environment	2.1 – 2.2	6.1	1.1 – 1.2

Changes in business model and consumer behaviour	2.3 – 2.6	6.2	2.1 – 2.4
Future of used sales channels and content	3.1 – 4.3	6.3	3.1 – 3.3
Future of physical car stores and sold product	3.2 – 4.1	6.4	4.1

Table 2 Overlay of the research approach

5.4 Data analysis

Thematic analysis was used to analyse the collected data because it offered me a systematic approach in an accessible and flexible way. The purpose of this analysis was to search for patterns and themes that occur in interviews, observations or analysed literature.

I used the thematic analysis in five ways:

- 1 When trying to understand large and disparate amounts of qualitative data
- 2 When integrating related data that was collected from different sources
- 3 When identifying key patterns or key themes from sets of data
- 4 When producing a thematic description of this data
- 5 When drawing and verifying conclusions from this data

I adopted a deductive approach for my research, examining themes that are linked to existing theory. My research question was firmly established and research objectives were used to derive certain themes to examine in my data. I discarded some initial themes in order to narrow down the scope of the study. I made the choice to remove the insufficient data by re-reading the coded data under each relevant theme. Doing so I also collapsed two or more intertwined themes together. (Saunders et al. 2016)

5.5 Validity and reliability

To define the credibility of the results and quality of the research, validity and reliability of the thesis must be evaluated. Reliability is the extent to which the analysis methods or data collection technique will generate consistent and reliable findings. Therefore, it is discussed with accuracy, repeatability, consistency and credibility of the measurement method used. When discussing reliability, a distinction between internal and external reliability is often made. (Saunders et al. 2016)

Internal reliability refers to the consistency during a project. This can be achieved when using more than one researcher to conduct both data collection and data analysis. One might also seek consistency through writing memos to support the stability in ways data is coded, analysed and interpreted. In this research, more than one researcher was used for

data collection and analysis. I was working with Ulla Ruuskanen, with whom I planned, executed and analysed the empirical part of the work. She also contributed to the theoretical framework of the thesis. To achieve consistency, we both took notes when conducting interviews, agreed on the data analysis ways and met on a weekly basis to achieve unified understanding of both theoretical and empirical parts of the work. (Saunders et al. 2016)

External reliability refers whether the data collection methods and analysis techniques used in the study would produce consistent findings if they were replicated by another party or repeated by the same researcher again. Saunders et al (2016) defined threats to reliability (participant error/bias and researcher error/bias) which indicate that one needs to be “methodologically rigorous” when planning and executing the research so that the reliability of the findings and conclusions of the study won’t be unreliable. We minimised the risk of researcher error and researcher bias by setting clear time spans for each task (question lists, interview requests) and clearly determining the goals of each meeting and interview to avoid having factors that affect participant performance or outcome in a negative way (uncertainty, lack of time, personal disposition). To avoid participant errors (caused by e.g. lack of time) and participant bias (false responses) by giving our interviewees the possibility to answer our questions in a private space with no rush and with the option of having their name covered in the final report.

Validity of the results is discussed with the extent to which the appropriateness of methods accuracy of the analysed findings and the generalisability of the results. It defines if the methods used measure what they intended, determines if the analysis of the results and the relationships are accurate and raises the question would similar observations be reached by other observers. First aspect (often referred as measurement validity) contains different types as validity such as content validity, construct validity, predictive validity and convergent validity. Second aspect studies the external validity of the research. (Saunders et al. 2016)

Internal validity (also measurement validity) in relation to questionnaires relates to the ability of the research to measure what he or she intended to measure. It is often associated with a quantities research, but can be applied to a causal or explanatory study. Biggest threats to internal validity are change in instruments, mortality, maturation and impact of testing. Internal validity wasn’t given much importance since the research was done by using qualitative research method (in-depth interviews) and causal relationships between variables weren’t examined. (Saunders et al. 2016)

External validity is discussed with studying the generalisability of the study: Can the similar results be achieved with other setting, context and group? By providing a fundamental description of research problem, investigative questions, context of the study as well as findings and conclusions we provided the readers with possibility to evaluate the transferability of the research in another setting. (Saunders et al. 2016)

6 Key findings and discussion

In this chapter the key findings from the in-depth interviews are discussed. The chapter is divided into subchapters and each chapter provides insight into each investigative question. The first chapters cover key findings about the business environment of automobile sales industry and it's followed by central findings about business model and consumer behaviour. Thirdly, findings about marketing processes and media channels are presented. Lastly, digitalization of physical car stores and form of the end product sold is taken into closed observation. The chapter ends with conclusions about key findings in relation to research problem and each investigative question.

6.1 Key findings about business environment

Based on the interviews, changes in the industry closely follow the developments in the following factors and phenomena:

1. Concept of mobility
2. Urbanisation
3. Choices of power/fuel
4. Digital advancements

However, the order and time frame of the changes is uncertain and is dependent on several interrelated factors. Technological developments can go fast, if all parties involved reach consensus and the political decision-making is supporting the changes. It is also vital to take into account that relatively small size of Finland's market area accounts for slow changes in the industry. As comparison, one car dealer in Germany sells as many new cars per year as what's sold on a national level in Finland.

Significance of physical car sales shops depends on whose point of view is considered. New operational methods and models are developed actively and the transition occurs to digital environments at varying speeds for the forerunners of the industry than for the slower players. The interviewees concluded that there will not be major changes in physical car sales shops over the next five years. Products are slowly moving to e-shops but consumers still want to experience the physical test drive. However, in ten years' time some fundamental changes are happening. Existing customer quality of experience is changing the direction of the facilities.

This customer quality of experience can be divided into three subcategories:

1. Customer experience that's based on better service paths or service processes

2. Customer experience that's based on the experiences from the self (self-service shops)
3. Customer experience that's based on digitalization

Furthermore, when thinking about the future of automobile sales, one central factor is vital to take into consideration: In 2030 80% of the world's middle class will be in countries which are currently defined as "Emerging Countries". For this reason, it is important to think for whom is the technology planned? Automobile sales companies must consider who are the future consumers since the importance of a Western society in global consumption is reducing in the long run.

Personalisation of the main product isn't seen that important in the Finnish market, since the possibilities and demand is considered narrow. Waiting time for personalised products is long and not favoured because it might cause a decrease in the resale value. Showrooms are clearly seen as the least important opportunity/change, even though there is no doubt they are coming.

Changes digitalization has caused in consumer behaviour are considered centric in the market: customers are ready, but the industry is not. E-commerce and achieving a greater number of potential customers is seen as the most centric possibility digitalization is enabling. In the future, demand is likely to exceed expectations and industry fail to answer accordingly. E-shops will be parallel to the physical stores and they rise to a significant role (some forecasting a 50/50% percentages). One dealer per region -mentality will no longer apply. E-commerce will bring solutions to the problems physical stores are facing and offer a wider range of new vehicles. Internet ordering is already made easy with e.g. food, technology and clothing, automobile companies only needed to find a workable concept for selling vehicles online in Finland.

When asking if interviewees believed if some change or possibility was going to rise to an increasingly important role in the future they highlighted various things. Locality and Finnish climatic conditions are very strong elements even though changes in the industry are often global. These changes are already known, but companies do not yet know how to answer to them. Connected cars mind-set will rise, which means that in future car is much more than a means of transport (service platform) and the whole business must be redefined: "Motoring is a sense, the car only an intermediate piece of freedom".

Changes in the economic environment over the next five years divided the interviewees to completely extreme ends. The only change with some sort of consensus is dependence on oil, which was estimated to be zero, low or moderate effect. Alternative sources of

energy were thought to be used widely on future roads and electric vehicles are expected to rise in popularity over the next few years, if the infrastructure for their maintenance (charging stations, power) and improved battery technology development follows. One of the interviewees assessed the potential of biofuels as a key factor, since it does not require any changes to the factory, such as biogas, and, consequently, Finland could serve as an example of a country in global markets.

Changes in the socio-political environment over the next five years was seen to have a great impact on the sales processes of cars. Governmental policies, subsidies and tax incentives and EU standards was found to be high or very high impact. Norway was used as an example of a pioneer country for electric cars and governmental support: Electric cars have been given special permits (the freedom to use bus lanes), as well as several tax breaks to reduce emissions and renew the car fleet. Furthermore, standards set by the EU will affect car purchase in several ways. For example, if a car model wants 5-star safety, it must include all possible safety features available in the market.

Changes in the economic social/cultural/demographic environment over the next five years divided the interviewees. Significance of age distribution was assessed in different ways by every interviewee. The effect of changes in the ethical environment over the next five years was estimated to be almost identical in all the interviews. Climate treaties and attitudes change was estimated to be moderate or high impact. The pressure to reduce CO2 emissions is high, whereas concerns over individual health had little or no effect on the industry. MaaS-services will have either mediocre or very strong influence and they're expected to enable new business models, such as e-connected cars. Mobility is seen in the future as more important than ownership in which case also the quality is better and discomfort smaller (insurance, maintenance, payment only driving).

All business environment characteristics were seen to affect the industry a lot, and one individual trait was a challenge to pick out. Many factors are changing simultaneously (as a concept car, car sales occupations, law) and the industry is seen to be full of opportunities and uncertainties. The most important thing was to focus on the people who use the services and where. Political and environmental changes influence the market lot. Dynamism was seen to affect everything. Complexity and dynamics are not changeable.

6.2 Key findings about business model and consumer behaviour

The effect of digitalization on the automotive sales infrastructure was estimated high or very high. The importance of partner relationships in Europe will rise. Furthermore, when creating new dimension or developing operational models speciality help or skills are needed. These skills are often purchased from partners/third parties. For example, social media and IT system maintenance is outsourced in several auto houses, merely because of efficiency and cost-effectiveness. The effect of digitalization on business value proposition fully divided the interviewees completely. There was no coherent vision for the future development and digitalization of the production or usage of real-time data.

MaaS-services are mainly seen as an opportunity. Time will tell which way the development of these services will go and how much political decision-making support they get. The technology allows for a lot, but needs and desires vary greatly. Perception of ownership is changing, which supports the development of the MaaS-services.

The opinions of conservative consumers will be given less weight in the future when developing corporate strategy and business models - focus in the business is on trends and new phenomena. Development is bound to changes in environment and new technologies, though, today the former forces keep the industry in still. Market will become fragmented after which each consumer will be perceived an individual. Women and men behave in different ways when purchasing goods and that is vital to take into account when planning the sales processes. There are no forerunner countries where a great amount young consumers are engaged as paying customers.

The relationship between consumers and motoring and the importance of driving experience will face major changes in the future, depending on the age of the consumer, consumption history, as well as the place of residence. Generations who are accustomed to owning a vehicle will end their consumption history in the same way. However, young adults are open to new ways of moving. In situations where an individual socio-economic and cultural role changes (marriage and children) young adults are likely to consider more alternatives than older generations.

Concept of brand loyalty in the automobile industry divided the interviewees. Some of the interviewees saw that loyalty to dealers will be strengthened, but customer loyalty to the brand is likely to decrease. Other interviewees felt that while customer loyalty to the brand is high now and in the future, if transition digital transition is handled thoroughly, it can be maintained.

The importance of value-added services was highlighted in all the interviews, but only with people who knew how to put them into some kind of order. Their importance varies depending on the company strategy and in which direction the business is developing. Bigger companies are almost forced to deliver all the (mainstream) ways the added value - however, many businesses collide with the privacy policies (data collection is challenging). Today, it is vitally important to create a unique experience of success: The one who manages (in his opinion) to buy a car that from his starting point is satisfactory consider themselves successful. For this reason, automobile sales should take into account individual habits and needs.

Importance of tribes, hobby groups and communities grows and develops in the future market. Own media is going to be more central and passionate supporters are becoming important tribes. Value for consumers is created through e.g. brand ambassadors (athletes, celebrities) who promote the car brand as a part of their everyday lives.

The concept of personalised products varies in automobile companies. Some of the interviewees saw that only radical changes (upholstery, wheels) in premium models as personalisation, while others felt that every car is different. (25,000 parts, all of which can be changed). Even all season tires were seen as personalisation. Personalisation of services was emphasized greatly. The cars personalisation possibilities depended on the car brand (Volkswagen can be personalised with individual equipment, but Kia changes are tied to specific equipment levels). The resale value of products manufactured with a specific order might be lower and the delivery time may be up to 6 months.

Only half of the people interviewed had insight on the changes in cost and revenue structure. One of the interviewees believed that the automotive sector follows the transition in the media industry, and noted that the structure will change in the coming years in the same way and for the same reasons. Two other interviewees believed the changes to be minor. Labour costs are believed to increase due to digitalization. Furthermore, their sources and internal relationships have changed. Robotics will be even stronger in the industry and before long the factories, but also maintenance services will be robotised. Long review of the cost is expected to decline.

The number of environmentally friendly vehicles is expected to grow steadily in the coming years, but higher growth can be expected only when the battery life significantly better and the number of charging points will improve. In the long run, this will affect the current age of Finnish car fleet. Ideal age would be less than 10 years (currently 11.3).

Corporate brand image and is expected to evolve. Co-ownership and relationships with cars are going to change and the concept of co-ownership will become more and more central.

The changes are mainly seen in most cities and growth centres, where distances are short. In sparsely populated Finland replacing passenger is impossible since in some parts of the country it's the only way to get around. It would be good to think about depopulation of rural areas; to facilitate traffic/public transport solutions. The German market urbanization has formed her own ideas. For example, transportation firms hire people stern containers for the transport of packets. Digitalization impact investments very much and in many different ways. In particular, new services, as well as information, data, and hardware (digital infrastructure) acquisition.

6.3 Key findings about marketing processes and media channels of automobile sales

The importance of after-sales marketing (events, promotions, expertise, advertising) was seen to increase in importance in the next five years. Also, well-functioning maintenance services were brought up: poorly organised car maintenance services may significantly influence all vehicle related future decisions of consumers. Importance of expertise will also grow substantially since future cars will encase so many features that for an ordinary consumer it is impossible to be knowledgeable about every single one of them.

Some aspects of the future of the media were considered essential. The reliability of the source of information was highlighted: How to be aware what sources of information are impartial? The availability of open data was considered one of the key things for the whole of the industrial society. However, different regulations define the usage of available data: If the collected information does not move in accordance with the principles of accessibility, it will never be completely at disposal for commercial activities. Communities, tribes, and including individuals are going to have a central role in media channels and marketing.

All media formats (earned, private, paid) will exist in the future, but in different proportions than today. Paid media will remain the same in the near future, but it will be reduced in long-term perspective. The reason for the reduction is that it is produced as a bulk product and therefore rather impossible to create the feeling of individuality in it. Earned media will grow. Future of print divided the interviewees: some believed it to disappear after a few years, others predicted it to become a luxury product.

Interviewees had a hard time putting the possibilities digitalization has enabled into order of importance. However, each interviewee brought up some of the key changes that will affect the operating environment in the coming years. Producing value-added experiences, diversifying distribution channels and encasing participation of individual consumers in the sales processes are on the rise and the business model must be adapted to it. Understanding the significance of individual life circumstances were found to be in a key role when creating marketing content for consumers.

The importance of hobby magazines (AutoBild, V8, GTI) was assessed as high or very high. The sheer amount of interesting content will not be sufficient - quality and reliability of the magazine will matter greatly as well. Print journals are believed to be transferred to digital publications. The challenge for digital publications is that it behaves very much like a traditional media: Consumers go there, spend some time browsing the content and if the things he or she reads don't resonate they'll quickly stop going to the site and forget the username and password. Paywalls should only be used for highly qualitative or specialty publications (with information you can't get from elsewhere).

Different communities, tribes and amateurs are believed to be used moderately or a lot of the marketing and promotion over the next five years with e.g. blogs. They are already being used to a certain degree, but in the automotive sector very little and in very different ways. Other industries have successful examples of using everyday consumers for sales promotion: design (more diversified), or fashion (the classic example). There are no superstar bloggers in the automobile industry - yet. It takes a lot of time, effort and hard work.

The amount of media advertising are expected to grow significantly over the next five years. Portion of print remain either the same or decrease some. Last year, in one interviewed car houses print media accounted for 80% and of media resources and 20% was invested in digital media. 2016 the ratio changed to 70% - 30%. 2017 estimate is 50% - 50%.

Whether to target content to digital magazines with paywalls or open sites depends greatly on the product and target audience. Mainly advertisements are targeted towards open sites, since the aim is to reach as many consumers as possible. However, specific product or service users might receive tailored advertisements or fixed prices. Pioneers in the global industry are Tesla and Elon Musk. The question is whether the model scalable or not. Finnish pioneers included VV-Autotalo, Laakkonen, Shareitblogcars, Wetrafi.

The use of modern tools of media value chain was seen as a key. There are many forerunners and it depends on what strategy car shops will see useful. All the while, use of these tools should be developed, since one can never be “finished” in the continuously evolving environment. Understanding the customer experience is very essential.

6.4 Key findings about distribution channels and attributes of the end product

Digital showrooms are seen as a key or a significant part of the sales process in the future. The technology is already cheap and enabling. For example, shopping centre Kaari has already had demo rooms, which did not present physical cars. Customers can also get a 3D view of the insides of a car from their own desktop using modern day technology. In conclusion, some of the traditional automobile stores will cease to exist.

Growth of e-commerce over the next five years is seen as mediocre (20-30%) or significant (30-50%). Today's consumers test drive cars approximately 1.2 cars so automobile sales still require physical contact, which means that e-commerce does not come to conquer the physical stores. One of the interviewees highlighted the possible changes in the terms and conditions of the order, which would enable ordering of a vehicle from another EU country online and no doubt fundamentally alter the nature of the competition.

Importance of different e-commerce development areas rose divergent opinions. One interviewee stated that there is no natural law that would determine the course and the choice depends entirely on the company's core strategy. Two of the interviewees chose the platforms and websites as the most important development area. It was found that the old-fashioned characteristics of banks slow down the development of the sector and there are huge differences between the banks. Having working financial services when purchasing automobile is vital, since consumers often have the so-called final debt from old vehicles before they purchase a new car.

VR/AR/3D technologies are considered to be one of the key or part of the sales process within five years. Certain generations are accustomed to buying in a certain way and will end their consumption in a certain manner, although major changes in technology would allow huge advances in the operating environment. However, mere technological development will not be enough, needs and experiences of service must be in a central part of business activities. It is vital to understand how to serve the human experience on all possible levels. People still don't know what are all the possibilities augmented/virtual reality is capable of providing, time and experimentations will show what has demand and produces added value.

6.5 Conclusion about key findings in relation to research problem and investigative questions

The first investigative question (“*What kind of changes has digitalization generated in the business environment of automobile industry in Finland?*”) was set to explain how the underlying market conditions and business environment have been changed due to the third industrial revolution. Key findings from the interviews were that major changes can be divided into four categories (concept of mobility; urbanisation; choices of power, digital advancements), but the order and time frame of the changes is uncertain and is dependent on several interrelated factors. Significance of physical car sales shops depends on whose point of view is considered. Changes digitalization has caused in consumer behaviour are considered centric in the market: customers are ready, but the industry is not. However, personalisation of the main product to match customer preferences isn't seen that important in the Finnish market, since the possibilities and demand is considered narrow. Locality, political and environmental changes as well as Finnish climatic conditions are very strong elements affecting the industry even though changes are often global. Alternative sources of energy were thought to be used widely on future roads and electric vehicles are expected to rise in popularity over the next few years, if the infrastructure for their maintenance (charging stations, power) and improved battery technology development follows. In addition, changes in the socio-political environment over the next five years was seen to have a great impact on the sales processes of cars.

The second investigative question (“*How has the business model of automobile sales altered due to changes in the business environments and consumer behaviour in Finland?*”) was set to clarify if the business model (finances, infrastructure, customers and value proposition) of automobile sales changed fundamentally due to the digital revolution. Key conclusions from the interviews stated that former forces in the industry slow down the development and hold some parts of the industry still. The effect of digitalization on the automotive sales infrastructure is high or very high. Furthermore, the effect of digitalization on business value proposition fully divided the interviewees completely but the future of MaaS-services will have either mediocre or very strong influence and they're expected to enable new business models, such as e-connected cars. The opinions of conservative consumers will be given less weight in the future when developing corporate strategy and business models. Market will become fragmented after which each consumer will be perceived an individual. Generations who are accustomed to owning a vehicle will end their consumption history in the same way. However, young adults are open to new

ways of moving. The importance of value-added services was highlighted in all the interviews and the significance of tribes, hobby groups and communities grows and develops in the future market. Labour costs are believed to increase due to digitalization. Furthermore, their sources and internal relationships have changed. Number of environmentally friendly vehicles is expected to grow steadily in the coming years, but higher growth can be expected only when the battery life significantly better and the number of charging points will improve and in the long run, this will affect the current age of Finnish car fleet. However, the changes are mainly seen in most cities and growth centres, where distances are short. In sparsely populated Finland replacing passenger is impossible since in some parts of the country it's the only way to get around. It would be good to think about depopulation of rural areas; to facilitate traffic/public transport solutions.

The third investigative question (*“Through which channels and in which form is the sales promotion content distributed in the future in Finland?”*) was set to examine how is marketing content distributed, how involved is the consumer, what is the role of tribes and hobby groups as well as what is the future of media advertisement. Key findings from the interviews showed that all media formats (earned, private, paid) will exist in the future and communities, tribes, and including individuals are going to have a central role in media channels and marketing via e.g. blogs. Earned media will grow and paid media will remain the same in the near future, but reduce in long-term perspective. The importance of after-sales marketing (events, promotions, expertise, advertising) is seen to increase in importance in the next five years and the importance of expertise will also grow substantially in the future. The availability of open data was considered one of the key things for the whole of the industrial society. However, different regulations define the usage of available data. Producing value-added experiences, diversifying distribution channels and encasing participation of individual consumers in the sales processes are on the rise and the business model must be adapted to it. Understanding the significance of individual life circumstances were found to be in a key role when creating marketing content for consumers. Pioneers in the global industry are Tesla and Elon Musk, but scaling the successful business model is challenging. Understanding the customer experience is very essential.

The fourth and last investigative question (*“How digitalized are physical car stores getting within the next years in the Finnish market and what attributes does the end product include?”*) was set to find out if physical car stores are going to adapt to the digital changes and what attributes does the end product will encase in the near future. The key findings showed that digital showrooms are seen as a key or a significant part of the sales

process in the future and the technology for them is already cheap and enabling. Some of the traditional automobile stores will cease to exist. However, e-commerce does not come to conquer the physical stores. Growth of e-commerce over the next five years is seen as mediocre (20-30%) or significant (30-50%). Certain generations are accustomed to buying in a certain way and will end their consumption in a certain manner, although major changes in technology would allow huge advances in the operating environment. However, mere technological development will not be enough, needs and experiences of service must be in a central part of business activities. It is vital to understand how to serve the human experience on all possible levels. People still don't know what are all the possibilities augmented/virtual reality is capable of providing, time and experimentations will show what has demand and produces added value. Connected cars mind-set will rise, which means that in future car is much more than a means of transport (service platform) and the whole business must be redefined: "Motoring is a sense, the car only an intermediate piece of freedom".

These four investigative questions and key findings from the data collection and thematic analysis provide a profound answer for the research problem "*What are the ways in which the Finnish automobile industry can respond to the changes digitalization has caused in the business environment and business models to stay profitable, retain brand-loyalty and reach sustainable growth?*"). Main findings conclude that in the future car is much more than a means of transport and the whole business must be redefined: "Motoring is a sense, the car only an intermediate piece of freedom". Locality, political and environmental changes as well as Finnish climatic conditions are very strong elements affecting the industry even though changes are often global. Major changes can be divided into four categories (concept of mobility; urbanisation; choices of power, digital advancements), but the order and time frame of these changes is uncertain and is dependent on several interrelated factors. To sustain profitable growth, respond to these changes and stay profitable Finnish automobile sales companies must learn how to create comprehensive and individualistic consumer experience, read and understand the collected big data, invest in after-sales marketing and value added content as well as understand that the generations that are becoming the target customers after Baby Boomers question the traditional consumption patterns and are open to more diverse ways of mobility. (Koivisto 2016; Lindvall-Harki 2016; Rastas 2016; Rautanen 2016; Silvani 2016)

7 Recommendations and conclusion

The last chapter of the research brings forward the recommendations, suggestions based on the research process as well as development ideas and suggestions for further research and assessment of own learning.

7.1 Recommendations, suggestions and further research ideas

As it was stated in the interviews, both local and global automobile sales industries are facing fundamental changes during the next few decades. On account of the fact that this research only covered a small portion of the topic, future research on the topic can and should be conducted. The future research could e.g. look more closely into the participation of tribes and communities or the possible forms of the end product (whether it was a product, service or combination of these two) in the future. More research can also be conducted over development of e-commerce or effective incentives that could renew the old car fleet in Finland.

7.2 Assessment of own learning

Going out of my comfort zone to study a completely unfamiliar industry contributed greatly to my knowledge and learning. I feel that I learned a great deal about conducting an empirical research as well as all central factors involved in the process. I also confirmed my own perception about important networks – all interviewees were contacted through personal networks. Interview invitations were also sent to people with whom we didn't have any relations with but these people never responded to the e-mail inquiries.

When writing about the topic I learned a lot about the subject and got a better understanding of factors that could be studied more in depth. Time management in planning and implementation was also critical, and finishing the research well in the desired time span gave me time to do the needed corrections with time and focus.

References

- Accenture, 2016. *From OEM to digital business – the impact of digitisation on the auto industry on Vimeo*, Automobile Megatrends. Available at: <https://vimeo.com/175814429>.
- Anderson, S.P. & Gabszewicz, J.J., 2005. The media and advertising: a tale of two-sided markets. In *Handbook of Cultural Economics*. Virginia: Department of Economics, University of Virginia, pp. 20–64.
- Anon, 2016a. Autokauppa. *Autoalan Tiedotuskeskus*. Available at: http://www.autoalantiedotuskeskus.fi/autoala_suomessa/autokauppa [Accessed November 2, 2016].
- Anon, 2016b. Automäärän kehitys. *Autoalan Tiedotuskeskus*. Available at: http://autoalantiedotuskeskus.fi/tilastot/autokannan_kehitys/automaaran_kehitys [Accessed November 14, 2016].
- Anon, 2016c. Henkilöautojen ensirekisteröintimäärän kehitys. *Autoalan Tiedotuskeskus*, pp.2016-11–14. Available at: http://autoalantiedotuskeskus.fi/tilastot/ensirekisteroinnit/aikasarjat/henkilöautojen_ensirekisterointimaaran_kehitys.
- Anon, 2016d. Henkilöautokannan keski-ian kehitys. *Autoalan Tiedotuskeskus*. Available at: http://autoalantiedotuskeskus.fi/tilastot/autokannan_kehitys/henkilöautokannan_keski-ian_kehitys [Accessed November 14, 2016].
- Anon, 2016e. Henkilöauton hinnanmuodostus. *Autoalan Tiedotuskeskus*. Available at: http://www.autoalantiedotuskeskus.fi/tilastot/verotus_ja_hintakehitys/henkilöauton_hinnanmuodostus [Accessed November 15, 2016].
- Anon, 2016f. Suurimmat yritykset liikevaihdon mukaan. *Largest Companies*. Available at: <http://www.largestcompanies.fi/toplistat/suomi/suurimmat-yritykset-liikevaihdon-mukaan-ilman-tytaryhtioita/toimiala/moottoriajoneuvojen-ja-moottoripyorien-tukku-ja-vahittaiskauppa-seka-korjaus> [Accessed November 25, 2016].
- Anon, 2016g. The Marketing Mix and the 4Ps of Marketing. *Mindtools*. Available at: https://www.mindtools.com/pages/article/newSTR_94.htm [Accessed November 25,

2016].

AvidEverywhere, 2014. *A Vision for the Future of the Media Industry*,

Barker, L., 2002. *The Motor Industry 2002 Market Review*,

Burns, A.C. & Bush, R.F., 2014. *Marketing Research 7th ed.*, Florida: Prentice Hall.

Caillaud, B. & Jullien, B., 2001. Competing cybermediaries. *European Economic Review*, 45, pp.797–808.

Chakravarti, S., 2013. *Digitization - The Way Forward for Automotive Companies*, Available at: [http://www.tcs.com/SiteCollectionDocuments/White Papers/Digitization-Way-Forward-For-Auto-Companies-0913-1.pdf](http://www.tcs.com/SiteCollectionDocuments/White%20Papers/Digitization-Way-Forward-For-Auto-Companies-0913-1.pdf).

Ernst&Young, 2011. The digitisation of everything: How organisations must adapt to changing consumer behaviour. , pp.1–14.

Foy, H., 2013. Online showrooms and digital dealerships revolutionise car buying. *Financial Times*. Available at: <https://www.ft.com/content/d13c6b1e-6e51-11e3-ac2a-00144feabdc0>.

Hamm, A., 2010. New Value Chain of Journalism. *The Media Consortium*. Available at: <https://www.themediaconsortium.org/2010/01/28/new-value-chain-of-journalism/>.

Heinonen, S. & Ruotsalainen, J., 2014. *Media ja journalismi 2030. Heikkoja signaaleja ja uusia alkuja*, Turku: Tulevaisuuden Tutkimuskeskus.

Honda, 2015. *Annual Report 2015*, Tokyo.

Ihamuotila, P., 2014. Mikä avuksi autokaupan haasteisiin? *TNS Gallup*. Available at: <https://www.tns-gallup.fi/uutiskirje/2014/mika-avuksi-autokaupan-haasteisiin> [Accessed December 27, 2016].

Kallstrom, H., 2015. Advertising is key for automotive companies. *Market Realist*. Available at: <http://marketrealist.com/2015/02/automotive-companies-spend-heavily-advertising-rd/> [Accessed December 27, 2016].

Kattoorakan, T.P., 2015. *Business Environment*, Calicut.

Koivisto, T., 2016. Interviewed by Kerttu Salokannel and Ulla Ruuskanen.

Kotler, P., Kartajaya, H. & Setiawan, I., 2010. *Marketing 3.0 From Products to Consumers*

to the Human Spirits,

Lamoreaux, S., 2013. Tesla's Radical Marketing Strategy. *Business 2 Community*. Available at: <http://www.business2community.com/marketing/teslas-radical-marketing-strategy-0604838#!bhiuca#TsGDx4qVAjm88ZKd.97>.

Lindvall-Harki, J., 2016. Interviewed by Kerttu Salokannel and Ulla Ruuskanen.

Lyytinen, K., 2015. How digitisation is changing the world. *International Innovation*. Available at: <http://www.internationalinnovation.com/how-digitisation-is-changing-the-working-world/> [Accessed November 8, 2016].

Miller, D. & Friesen, P.H., 1984. A Longitudinal Study of the Corporate Life Cycle. *Management Science*, 30(10), pp.1161–1183.

Osterwalder, A. & Pigneur, Y., 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers* T. Clark, ed., New Jersey: John Wiley & Sons, Inc.

Ovans, A., 2015. What Is a Business Model? *Harvard Business Review*. Available at: <https://hbr.org/2015/01/what-is-a-business-model> [Accessed October 31, 2016].

Pantaleo, D. & Pal, N., 2008. *From Strategy to Execution: Turning Accelerated Global Change into Opportunity*, Springer-Verlag Berlin Heidelberg.

Picard, R.G., 2011. *Mapping Digital Media: Digitalization and Media Business Models*,

Rae, J.B. & Binder, A.K., 2016. Automotive Industry. *Encyclopedia Britannica*. Available at: <https://global.britannica.com/topic/automotive-industry> [Accessed November 15, 2016].

Rastas, J., 2016. Interviewed by Kerttu Salokannel and Ulla Ruuskanen.

Rautanen, R., 2016. Interviewed by Kerttu Salokannel and Ulla Ruuskanen.

Russo, L., 2015. European driver profile. *Datafirst*. Available at: <http://www.datacar.com/en/what-is-the-profile-of-the-2015-european-driver/> [Accessed November 25, 2016].

Salin, K., 2010. Uuden henkilöauton ostajakunta vanhenee - T&T. *Tekniikka & Talous*. Available at: <http://www.tekniikkatalous.fi/arkisto/2010-10-26/Uuden-henkilöauton-ostajakunta-vanhenee-3253359.html> [Accessed December 27, 2016].

- Salmela, E., 2015. *SUOMESSA*. Tampereen Ammattikorkeakoulu.
- Saunders, M., Lewis, P. & Thornhill, A., 2016. *Research Methods For Business Students*,
- Shafer, S.M., Smith, H.J. & Linder, J.C., 2005. The power of business models. *Business Horizons*, 48(3), pp.199–207.
- Silvani, P., 2016. Interviewed by Kerttu Salokannel and Ulla Ruuskanen.
- Sloman & Jones, 2008. *Economics and the business environment* 2nd ed., Essex: Pearson Education Limited.
- Vasconcelos, G. de, 2015. The Third Industrial Revolution -- Internet, Energy And A New Financial System. *Forbes*.
- Vukanovic, Z., 2011. New Media Business Models in Social and Web Media. *Journal of Media Business Studies*, pp.52–67.
- Williams, N., 2015. The Importance of Creating Value With Your Content. *Business 2 Community*. Available at: <http://www.business2community.com/content-marketing/importance-creating-value-content-01126015#kHuXEv5PMGxvkG2h.97> [Accessed December 27, 2016].
- Willmott, P. & Markovitch, S., 2014. Accelerating the digitization of business processes. *McKinsey*. Available at: <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/accelerating-the-digitization-of-business-processes> [Accessed November 3, 2016].
- Worthington, I. & Britton, C., 2014. *The Business Environment* 7th ed., Edinburgh: Pearson Education Limited.
- Yläne, K., 2016. Volkswagen tammikuussa Suomen myydyin automerkki. *Iltasanomat*. Available at: <http://www.iltasanomat.fi/autot/art-2000001110553.html> [Accessed November 14, 2016].

Appendix 3. Consolidated Statements of Comprehensive Income

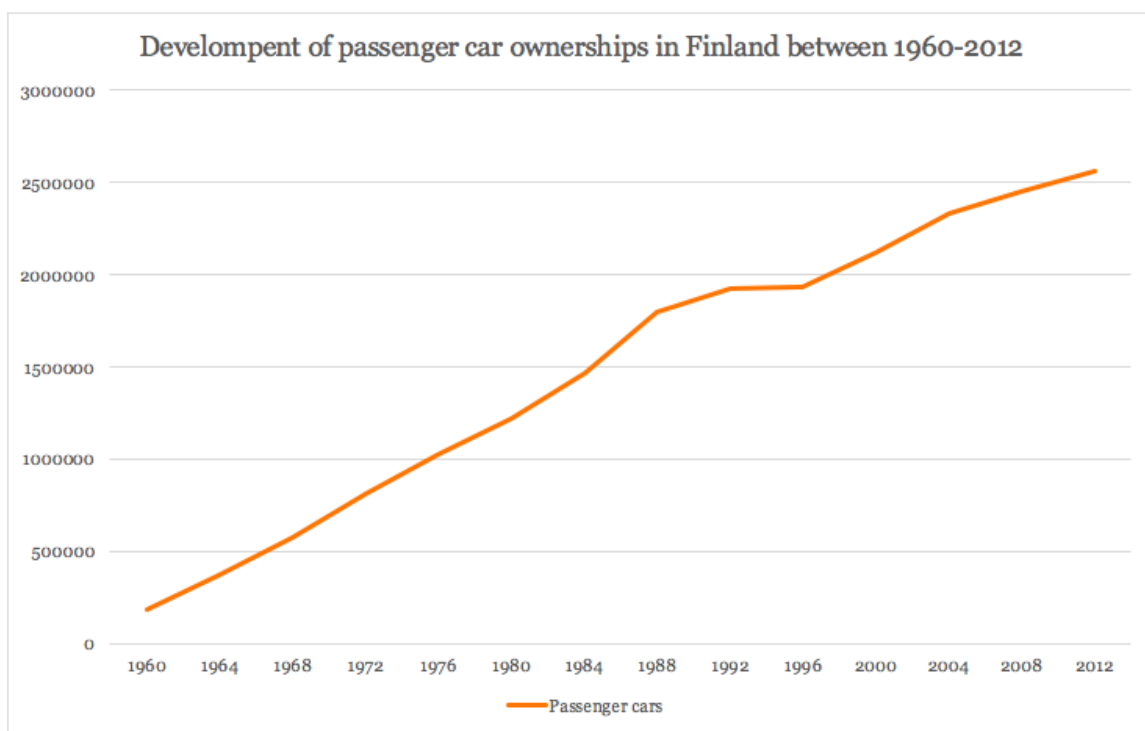
Consolidated Statements of Comprehensive Income

Years ended March 31, 2014 and 2015

	Yen (millions)	
	2014	2015
Profit for the year	¥665,911	¥ 561,098
Other comprehensive income, net of tax:		
Items that will not be reclassified to profit or loss		
Remeasurements of defined benefit plans	83,292	(101,286)
Net changes in revaluation of financial assets measured at fair value through other comprehensive income	13,581	24,007
Share of other comprehensive income of investments accounted for using the equity method	6,855	(714)
Items that may be reclassified subsequently to profit or loss		
Exchange differences on translating foreign operations	193,509	465,776
Share of other comprehensive income of investments accounted for using the equity method	27,059	57,356
Total other comprehensive income, net of tax	324,296	445,139
Comprehensive income for the year	¥990,207	¥1,006,237
Comprehensive income for the year attributable to:		
Owners of the parent	¥944,706	¥ 931,709
Non-controlling interests	45,501	74,528

Chart taken from Honda Motors Annual Report (Honda 2015)

Appendix 4 Development of passenger car ownerships in Finland between 1960-2012



Development of private car ownership in Finland between 1960-2012 (Anon 2016b)

Appendix 5 Ten biggest car brands in Finland and their market shares and retailers

Brand	Market share 1/2016	Market share 1/2015
Volkswagen	12 %	13 %
Toyota	10 %	9 %
Skoda	10 %	9 %
Ford	8 %	7 %
Volvo	8 %	9 %
Opel	6 %	5 %
Audi	6 %	7 %
Nissan	6 %	7 %
BMW	5 %	7 %

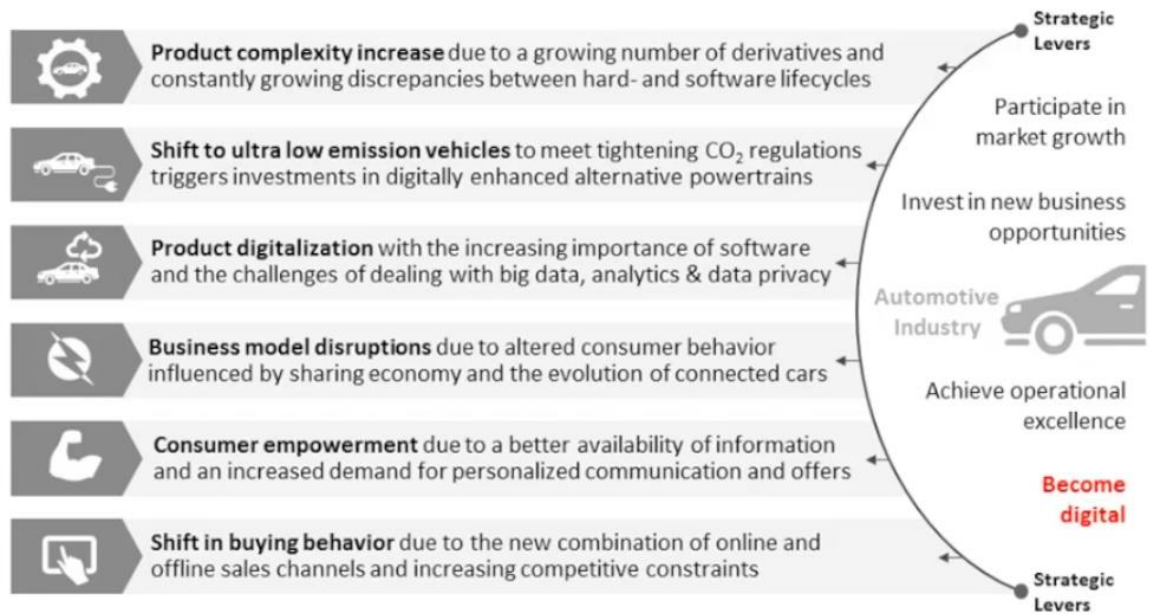
Ten biggest car brands in Finland and their market shares (Yläanne 2016)

Appendix 6. Effect of environmental changes on business canvas

	Infrastructure	Customer	Value propositions	Finance
Changes in the legal environment	3	1	1	1
Changes in the economical environment	3	3	2	3
Changes in the social, cultural and demographic environment	1	3	3	2
Changes in the technological environment (digitalisation)	3	3	3	3
Changes in the ethical environment	1	2	3	1

How changes in macro environment affect the business canvas (Accenture 2016)

Appendix 7. Industry challenges and strategy levers



Industry challenges and strategy levers (Accenture 2016)

Appendix 8. Characteristics of Business Environment

Characteristic	Cause
Complexity	Continuous challenges e.g. leadership change, global competition, technological disruptions
Dynamicity	Evolving customer preferences, new technology, new resources, new policies, changing demography
Uncertainty	Constant change of the business environment. Four dimensions include macro-environmental, competitive, market/demand and technology uncertainty
Relativity	Business environment is bound to local conditions
Interrelatedness	Different factors of business environment are co-related and a change in one environment has an effect on another

Characteristics of Business Environment (Kattoorakan 2015; Miller & Friesen 1984)

Appendix 9. Interview questions in Finnish

1 Liiketoimintaympäristö

1.1 Digitalisaation vaikutus yrityksen toimintaympäristöön

1.1.1 Miten fyysisen autokaupan merkitys tulee Suomessa muuttumaan seuraavan viiden vuoden aikana?

- a. sen merkitys tulee pysymään samana
- b. sen merkitys tulee kasvamaan vähän
- c. sen merkitys tulee kasvamaan paljon
- d. sen merkitys tulee laskemaan vähän
- e. sen merkitys tulee laskemaan paljon

1.1.2 Minkälaiseen tärkeysjärjestykseen asettaisitte seuraavat digitalisaation tuomat muutokset/mahdollisuudet liiketoimintaympäristössä (1=tärkein, 3=vähiten tärkein)

- a. tuotannon kehitys
 - () automatisoitu päätöksenteko
 - () kulujen karsiminen
 - () tuotantoaikojen nopeutuminen
- b. reaaliaikainen data ja sen tehokkaampi analyysi
 - () asiakassuhteiden syvempi ymmärrys
 - () tuotteiden personointi
 - () riskien ennakointi
- c. jakelukanavien monipuolistuminen
 - () e-kauppa
 - () showroomit
 - () suuremman asiakaspotentiaalin saavuttaminen

1.1.3. Uskotteko tulevaisuudessa jonkun muutoksen/mahdollisuuden nousevan yhä tärkeämpään asemaan? Jos kyllä, mikä muutos ja miksi?

1.2 Muiden ulkoisten ympäristöjen vaikutus suomalaiseen autoalaan

1.2.1 Kuinka merkittäviksi arvioitte seuraavat muutokset ekonomisessa ympäristössä seuraavan viiden vuoden aikana?

	Riippuvuus öljystä	Kuluttajien ostokapasiteetti	Ostamisen kalleus
Ei vaikutusta			
Pieni vaikutus			
Keskinkertainen vaikutus			
Suuri vaikutus			
Erittäin suuri vaikutus			

1.2.2 Kuinka merkittäviksi arvioitte seuraavat muutokset yhteiskuntapoliittisessa ympäristössä seuraavan viiden vuoden aikana?

	Maan sisäiset poliittiset linjaukset	Tuet, verohelpotukset	EU-standardit (turvallisuus, ympäristö)
Ei vaikutusta			
Pieni vaikutus			
Keskinkertainen vaikutus			
Suuri vaikutus			
Erittäin suuri vaikutus			

1.2.3 Kuinka merkittäviksi arvioitte seuraavat muutokset sosiokulttuurisessa sekä demografisessa ympäristössä seuraavan viiden vuoden aikana?

	Ikäjakautuminen	Tulotason muutokset	Perherakenteen muutokset
Ei vaikutusta			
Pieni vaikutus			
Keskinkertainen vaikutus			
Suuri vaikutus			

Erittäin suuri vaikutus			
-------------------------	--	--	--

1.2.4 Kuinka merkittäviksi arvioitte seuraavat muutokset eettisessä ympäristössä seuraavan viiden vuoden aikana?

	Ekologiset tekijät (ilmastosopimukset; asenteiden muutokset)	Yksilön terveys	MaaS –palveluiden suosion kasvu
Ei vaikutusta			
Pieni vaikutus			
Keskinkertainen vaikutus			
Suuri vaikutus			
Erittäin suuri vaikutus			

1.2.5 Miten liiketoimintaympäristön luonteenpiirteet vaikuttavat alan kehitykseen? (liite 1)

2. Liiketoimintamalli ja kuluttajakäyttäytyminen

2.1 Digitalisaation vaikutus liiketoimintamalliin

2.1.1 Kuinka suureksi arvioitte digitalisaation vaikutuksen suomalaisen autoalan yritysten infrastruktuuriin (liite 2; suhteet partnereiden kanssa, resurssit ja keskeiset toiminnot).

- a. ei vaikutusta
- b. pieni vaikutus
- c. keskinkertainen vaikutus
- d. suuri vaikutus
- e. erittäin suuri vaikutus

2.1.2 Kuinka suureksi arvioitte digitalisaation vaikutuksen suomalaisen autoalan yritysten arvolutapakseen (liite 2; value proposition)?

- a. ei vaikutusta

- b. pieni vaikutus
- c. keskinkertainen vaikutus
- d. suuri vaikutus
- e. erittäin suuri vaikutus

2.1.3 Nähdäänkö julkinen liikenne ja täysin uudenlaiset palveluntarjoajat (esim. mobility as a service) Suomen markkinoilla uhkana vai mahdollisuutena?

2.2 Kuluttajat ja kuluttajakäytännön muutokset

2.2.1 Kun luodaan strategiaa ja toimintamalleja digitalisaation tuomille muutoksille ja mahdollisuuksille, kuinka paljon painoarvoa ns. "konservatiivisten kuluttajien" mielipiteille ja asenteille annetaan?

- a. ei yhtään
- b. vähän
- c. keskinkertaisesti
- d. paljon
- e. erittäin paljon

2.2.2 Kuinka paljon uskotte, että ihmisten suhde autoon (asiakasuskollisuus) ja sen merkitykseen muuttuu Suomessa digitalisaation ja auton käyttötarkoituksen muutoksen myötä?

- a. ei vaikutusta
- b. pieni vaikutus
- c. keskinkertainen vaikutus
- d. suuri vaikutus
- e. erittäin suuri vaikutus

2.2.3 Minkälaiseen tärkeysjärjestykseen asetatte seuraavat lisäarvoa tuottavat tavat? (1= tärkein, 4=vähiten tärkein)

- () Asiakkaan ja kolmannen toimijan mutkaton yhdistäminen (rahoitus- ja vakuutuspalvelut)
- () Kattava CRM-järjestelmä (asiakkaan mieltymysten, tarpeiden ja tapojen ymmärtäminen)
- () Lisäarvoa tuottava sisältö (ajankohtaiset aiheet; asiantuntijuus)
- () Personoidut kokemukset

2.2.4 Heimojen, harrasteryhmien ja yhteisöllisyyden merkitys kasvamaan tulevaisuudessa. Onko tätä huomioitu suomalaisella autoalalla? Jos on, miten?

2.2.5 Kuinka suuri merkitys tuotteiden/palveluiden personoinnilla (product/service differentiation) uskotte olevan viiden vuoden kuluttua?

- a. ei yhtään
- b. vähän
- c. jonkin verran
- d. paljon
- e. erittäin paljon

2.4 Tuotto- ja kulurakenne

2.4.1 Kuinka paljon uskotte yritysten kulu- ja tuottorakenteen muuttuvan digitalisaation myötä?

- a. ei yhtään
- b. vähän
- c. jonkin verran
- d. paljon
- e. erittäin paljon

2.4.2 Miten digitalisaatio on vaikuttanut työvoimakustannusten osuuteen kulurakenteessa?

- a. kustannukset ovat kasvaneet
- b. kustannukset ovat laskeneet
- c. kustannukset ovat pysyneet samana, mutta niiden lähteet ja sisäiset suhteet ovat muuttuneet

2.4.3 Miten uskotte ympäristöystävällisten (pitkäikäisempien ja vähäpäästöisempien) ajoneuvojen määrän kasvun ja sitä edistävien poliittisten päätösten (esim. tuet, veronalennukset) vaikuttavan suomalaisen yksityisautoilun kehitykseen seuraavan viiden vuoden aikana?

- huoltopalvelujen kysyntä laskee
- suomen autokannan ikä nuortuu
- sähköautojen latauspaikkojen määrä kasvaa
- sähköautojen määrä suhteutettuna kokonaisautomäärään kasvaa
- uuden auton ostoväli pitenee
- yritysten brändi/imago muuttuu
- ympäristöystävällisten autojen määrä ei tule kasvamaan radikaalisti Suomessa lähivuosien aikana

2.4.4 Jos muutoksia tapahtuu, ovatko ne nähtävissä vain kaupungeissa ja kasvukeskuksissa?

2.4.5 Vaikuttaako digitalisaatio investointeihin? Jos kyllä, miten?

3. Autoalan markkinointiprosessit sekä mediakanavat

3.1 Autoalan markkinointiprosessit

3.1.1 Kuinka paljon uskotte jälkimarkkinoinnin (tapahtumat, promootiot, asiantuntijuus, mainonta) merkityksen kasvavan tulevan viiden vuoden kuluessa?

	Tapahtumat	Promootiot	Asiantuntijuus	Mainonta
Ei yhtään				
Vähän				
Jonkin verran				
Paljon				
Erittäin paljon				

3.1.2 Mitä median tulevaisuuden ulottuvuuksia pidätte keskeisenä suomalaisen autokaupan markkinoinnin ja myynnin kehitykselle? (liite 3)

- avoimen datan saatavuus
- printtimedian luonteen muuttuminen "luksukseksi"
- sisältötuotannon osittainen automatisaatio
- tuottaminen (yksilön osallisuus)
- yhteisöjen ja heimojen syntyminen
- yritysten omat uutistalot

3.2 Media

3.2.1 Miten näette tulevaisuudessa ansaitun median (arviot keskustelupalstalla, somepäivitykset), oman median (asiakaslehdet, foorumit) ja maksetun median (mainonta) suhteet?

- pysyy samana
- suhteet muuttuvat vähän
- suhteet muuttuvat keskinkertaisesti
- suhteet muuttuvat paljon
- suhteet muuttuvat merkittävästi

3.2.2 Minkälaiseen tärkeysjärjestykseen asetatte seuraavat digitalisaation mahdollistamat muutokset mediassa? (1= tärkein, 6=vähiten tärkein)

- aikaikkunan supistuminen (tuotannosta kuluttajalle)
- jakelukanavien monipuolistuminen
- käyttäjän roolin muutos
- sisällön jako
- teknologia (AR, VR, mobiili, langaton)
- ulottuvuus (3D)

3.3 Painettu media (digi- ja printti) näkökulma

3.3.1 Millä tavoin uskotte automainonnan kehittyvän seuraavan viiden vuoden aikana?

- kanavat muuttuvat merkittävästi
- kuluttajan osallisuus muuttuu merkittävästi
- personointi kasvaa
- sisältö muuttuu merkittävästi

3.3.2 Kuinka suuri merkitys harrastelehdillä nyt ja tulevaisuudessa yhteisöllisyyden luomisen ja mainostuksen kannalta?

- a. ei merkitystä
- b. pieni
- c. keskinkertainen
- d. suuri
- e. erittäin suuri

3.3.3 Kuinka paljon uskotte yhteisöjä ja harrastajia hyödynnettävän (esim. blogit) markkinoinnissa ja myynninedistämässä seuraavan viiden vuoden aikana?

- a. ei lainkaan
- b. vähän
- c. keskinkertaisesti

- d. paljon
- e. erittäin paljon

3.3.4 Miten uskotte mediamainonnan printti- ja digiosuoksien muuttuvan seuraavan viiden vuoden kuluessa?

- digi kasvaa
- digi vähenee
- printti kasvaa
- printti vähenee
- molemmat pysyvät samoissa suhteissa

3.3.5 Kuinka paljon kuluttaja otetaan mukaan sisällön luomiseen viiden vuoden kuluttua?

- a. ei lainkaan
- b. vähän
- c. keskinkertaisesti
- d. paljon
- e. erittäin paljon

3.3.6 Kuinka paljon kohdennetaan mediasisältöä maksumuurillisiin lehtiin vs. avoimiin sivustoihin?

- a. paljon maksumuurillisiin
- b. paljon avoimiin
- c. riippuu tuotteesta ja kohdeyleisöstä
- d. ei tietoa

3.3.7 Onko alalla jokin edelläkävijäryitys, jonka markkinointi ja myyntiprosessit olisivat edistyksellisiä? Jos on, mikä/mitkä?

3.3.8 Kuinka paljon uskotte digitalisaation mahdollistamien prosessien (asiakaskokemuksen ymmärtäminen, metadatan analysointi, rich indexing) median arvoketjussa vaikuttavan autotalojen mainontaan?

- a. ei yhtään
- b. vähän
- c. keskinkertaisesti
- d. paljon
- e. erittäin paljon

4 Myytävien tuotteiden jakelukanavat

4.1 Myyntiprosessit

4.1.1 Miten uskotte digitaalisten näyttelytilojen (showroom) merkityksen kehittymään Suomessa seuraavan viiden vuoden aikana?

- a. ne tulevat olemaan yksi osa myyntiprosessia
- b. ne tulevat olemaan keskeinen osa myyntiprosessia
- c. ne tulevat olemaan merkittävä osa myyntiprosessia

4.1.2 Kuinka suureksi arvioitte e-kaupan kasvun Suomessa seuraavan viiden vuoden aikana?

- a. kasvu pientä (alle 10%)
- b. kasvu keskinkertaista (20-30%)
- c. kasvu merkittävää (30-50%)
- d. e-kauppa tulee ohittamaan kivijalkakaupan

4.1.3 Minkälaiseen tärkeysjärjestykseen asetatte seuraavat e-kaupan kehityskohteet (1=tärkein, 4=vähiten tärkein)

- () alustat, nettisivut
- () maksutavat/rahoitus- ja vakuutusmallit
- () asiakkaan puhuttelu (käyttökokemuksen hiominen; personointi)
- () kaupattavat tuotteet

4.1.4 Kuinka paljon uskotte VR/AR/3D -teknologioita hyödynnettävän viiden vuoden kuluttua suomalaisen autokaupan myyntiprosesseissa?

- a. ne tulevat olemaan yksi osa myyntiprosessia
- b. ne tulevat olemaan keskeinen osa myyntiprosessia
- c. ne tulevat olemaan merkittävä osa myyntiprosessia

Liite 1.

Characteristics of Business Environment	
Characteristic	Cause
Complexity	Continuous challenges e.g. leadership change, global competition, technological disruptions
Dynamicity	Evolving customer preferences, new technology, new resources, new policies, changing demography
Uncertainty	Constant change of the business environment. Four dimensions include macro-environmental, competitive, market/demand and technology uncertainty
Relativity	Business environment is bound to local conditions
Interrelatedness	Different factors of business environment are co-related and a change in one environment has an effect on another

Figure 3 Characteristics of Business Environment (Kattoorakan 2015; Miller & Friesen 1984)

Liite 2

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Suppliers	Marketing and sales	Sustainability	Long-term relationships: Customer loyalty	Need based customers
Dealers	Services (e.g. spare parts)	Safe and reliable way to travel		
Energy companies	Operations	Independence	Brand-aware customers: Brand sensitivity	Businesses
Business Alliances	IT system maintenance	Status symbol	Channels Social media, websites, mobile apps Newspapers Exhibitions Dealer shop Exclusive events	Consumers
Technology alliances	Key Resources			
Commercial partners	Suppliers (original equipment manufacturers, replacement parts, rubber fabrication)			
Financial institutions: Capital requirements	Dealers			
Government (policies and taxation)				
Cost Structure		Revenue Structure		
Fixed costs (e.g. Labor costs) Overhead costs (e.g. Advertising) R&D		Sales (spare parts, new and used cars) Rental fees Services Insurances and financial leases for companies and private persons		

Figure 7 Automobile industry business model

Factor	Traditional media	Reformed media
Role of user	Participation only in small sections e.g.letter, opinion Publisher-Centric	More active User-Centric UGC (User Generated Content)
Content production	Top-down Factual journalism Physical news rooms are present	Bottom-up Less researched stories, less journalism Physical news rooms are less present
Producer	Industrial media	Industrial media, internet users, (?)
Editing published content	Corrections in future publications	Easily modified
Revenue	Subscriptions, advertisements	Paywaylls, banners, sponsors, search engines, market places
Distribution	One to many content distribution	Many to many content distribution Network and on-demand media
Time frame	Days, weeks or months	Immediate; only participants cause delays
Storability	Low	High e.g. online databases
Content sharing	Low	High e.g. widgets and tagging
Creativity	Low	High
Dimension	2D	3D
Technology	Analogue	Digital media Mobile and wireless media Augmented media

Appendix 10. Interview questions in English

1 Business environment

1.1 Effect of digitalisation on business environment

1.1.1 How is the meaning of physical car shops going to change in Finland during the next five years?

- a. It will stay the same
- b. It will increase a little in terms of importance
- c. It will increase a lot in terms of importance
- d. It will diminish a little in terms of importance
- e. It will diminish a lot in terms of importance

1.1.2 In what kind of order would you arrange the following changes/possibilities digitalisation generated in the business environment (1=most important, 3=least important)?

- a. Development of production
 - automatized decision-making
 - cut of costs
 - speeding up production times
- b. Real-time data and its analysis
 - better understanding of customer relationships
 - personalisation of products
 - better forecasting of risk factors
- c. Diversification of distribution channels
 - e-commerce
 - showrooms
 - reaching more potential customers

1.1.3. Do you believe that some change/possibility will be more centric in the future? If yes, which one and why?

1.2 Effect of changes in other external environments on Finnish automobile sales

1.2.1 How significant are the following changes have in the economic environment of Finnish automobile sales industry during the next five years?

	Dependence on oil	Buying capacity of customers	The high cost of purchasing
No significance			
A minor significance			
A moderate significance			
A major significance			
A pivotal significance			

1.2.2 How significant are the following changes have in the political/legal environment of Finnish automobile sales industry during the next five years?

	Political rulings made by the Parliament	Financial support, tax incentives	EU-standards (safety, environment)
No significance			
A minor significance			
A moderate significance			
A major significance			
A pivotal significance			

1.2.3 How significant are the following changes have in the social/cultural/demographic environment of Finnish automobile sales industry during the next five years?

	Age distribution	Changes in income levels	Changes in family structures
No significance			
A minor significance			
A moderate significance			
A major significance			

A pivotal significance			
------------------------	--	--	--

1.2.4 How significant are the following changes have in the ethical environment of Finnish automobile sales industry during the next five years?

	Ecological factors (environmental agreements; changes in attitudes)	Individual health	Growth of MaaS – services in popularity
No significance			
A minor significance			
A moderate significance			
A major significance			
A pivotal significance			

1.2.5 How are the characteristics of business environment affecting the development of the industry? (appendix 1)

2. Business model and consumer behaviour

2.1 Effect of digitalisation on the business model

2.1.1 How big of an effect does digitalisation has on the infrastructure of the Finnish automobile sales industry? (appendix 2; relationships with partners, resources, key activities)

- a. No influence
- b. A minor influence
- c. A moderate influence
- d. A major influence
- e. A pivotal influence

2.1.2 How big of an effect does digitalisation has on the ivalue propositions of the Finnish automobile sales industry? (appendix 2; value proposition)

- a. No influence
- b. A minor influence
- c. A moderate influence
- d. A major influence
- e. A pivotal influence

2.1.3 Are public transportation companies and new kind of service providers (e.g. MaaS) seen as a thread or possibility in the Finnish market?

2.2 Consumers and changes in consumer behaviour

2.2.1 When companies are creating/developing their strategy and operational models how much value is given to the opinions and attitudes of 'conservative consumers'?

- a. No value
- b. A little value
- c. Some value
- d. A great deal of value
- e. They will have a central role when creating/developing strategy and operational models

2.2.2 How much is the relationship with cars (customer loyalty) and meaning of vehicles going to change in Finland due to digitalisation and shift in the utility of cars?

- a. It's going to stay the same
- b. It's going to change a little
- c. It's going to change some
- d. It's going to change a lot
- e. It's going to change significantly

2.2.3 In what kind of order would you arrange the following value added services and products? (1=most important, 4=least important)

- () Seamlessly connecting the customer and a third party (financial services; insurances)
- () Comprehensive CRM-system (understanding customer preferences, needs and habits)
- () Value added content (expertise; interesting/timely topics)
- () Personalised experiences

2.2.4 The meaning of tribes, hobby groups and communities will grow in the future? Has the change been into account in the Finnish automobile sales? If yes, how?

2.2.5 What kind of significance will personalised products/services have in five years?

- a. No significance
- b. A minor significance
- c. A moderate significance
- d. A major significance
- e. A pivotal significance

2.4.1 How much are cost and revenue structures going to change in the next five years due to digitalisation?

- a. They're not going to change
- b. They're going to change a little
- c. They're going to change some
- d. They're going to change a lot
- e. They're going to change significantly

2.4.2 How has digitalisation affected labour costs?

- a. Labour costs have increased
- b. Labour costs have decreased
- c. Labour costs have stayed the same but their sources and internal relations have changed

2.4.3 How do you think the growth of environmentally-friendly vehicles and more sustainable political decisions (e.g. tax incentives) will affect the development of private car ownership and use during the next five years?

- need for repair services will decrease
- the average car fleet age in Finland will be rejuvenated
- the amount of electronic charging stations will increase
- the amount of electric cars in proportion to the total number of cars will increase
- people will buy a new car less often
- the image/brand of automobile sales companies will change
- the amount of more environmentally-friendly cars will not grow rapidly in Finland during the next few years

2.4.4 If there are changes are they seen only in cities and densely populated areas?

2.4.5 Does digitalisation has an effect on investments? If yes, what kind of effect?

3. Marketing processes and media channels of automobile sales

3.1 Marketing processes of automobile sales

3.1.1 How much is the significance of after sales (events, promotions, expertise, advertisement) going to change during the next five years?

	Events	Promotions	Expertise	Advertisements
It's not going to change				
It's going to change a little				
It's going to change some				
It's going to change a lot				
It's going to change significantly				

3.1.2 What characteristics of future media are central for the development of Finnish automobile marketing and sales? (appendix 3)

- () access for open data
- () print media becoming "luxury"
- () content production becoming party automatized
- () production (individual consumer participation)
- () birth of communities and tribes
- () companies owning their own media/news houses

3.2 Media

3.2.1 How are the percentages between earned media (ratings, social media updates), own media (company magazines, forums) and paid media (advertisements) going to change in the future?

- They will stay the same
- They will change a little bit
- They will change some
- They will change a lot
- They will change significantly

3.2.2 In what kind of order would you arrange the following changes in media caused by digitalisation (1=most important, 6=least important)

- Time window contraction (from production to the consumer)
- The diversification of distribution channels
- Change in the user's role
- Content sharing
- Technology (AR, VR, mobile, wireless)
- Dimension (3D)

3.3 Print media (digital and print) perspective

3.3.1 In what ways do you believe automotive advertising is going to develop over the next five years?

- Channels will change significantly
- The consumer's involvement will change significantly
- Personalization is going to grow
- The content is going to change significantly

3.3.2 How big of a significance do hobby magazines have now and in the future in terms of advertising and creating of communality?

- a. No significance
- b. A minor significance
- c. A moderate significance
- d. A major significance
- e. A pivotal significance

3.3.3 How much will communities and car-enthusiasts (eg. blogs) be made use of in automobile sales marketing and promotion processes over the next five years?

- a. Not at all
- b. They will have a minor part

- c. They will have a moderate part
- d. They will have a major part
- e. They will have a significant part

3.3.4 How do you think the percentages of print and digital in media advertising will change within the next five years?

- Digital advertising will increase
- Digital advertising will decrease
- Print advertising will increase
- Print advertising will decrease
- Both will remain in the same proportions

3.3.5 How much will the consumers be involved in the creation of content in five years?

- a. Not at all
- b. They will be involved a little
- c. They will be moderately involved
- d. They will be involved a lot
- e. They will have a significant part in content creation

3.3.6 How much of the media content is produced in digital magazines with paywalls vs. So-called open websites?

- a. A lot of content is produced for digital magazines with paywalls
- b. A lot of content is produced for open websites
- c. It depends on the product and the target audience
- d. No comment

3.3.7 Is there a pioneer in the field of automobile sales that utilises advanced marketing and sales processes? If yes, what company?

3.3.8 How much are processes enabled by digitalisation in the media value chain (understanding customer experience, analysis of metadata, rich indexing) going to affect the marketing of automobile sales companies?

- a. No effect
- b. A minor effect
- c. A moderate effect
- d. A major effect
- e. A pivotal effect

4 Distribution channels for products

4.1 Sales processes

4.1.1 How is the significance of digital showrooms going to develop in Finland over the next five years?

- a. they are going to be one part of the sales process
- b. they are going to be a key part of the sales process
- c. they will be a significant part of the sales process

4.1.2 How big is the growth of e-commerce going to be in Finland over the next five years?

- a. Small (less than 10%)
- b. Moderate (20-30%)
- c. Significant (30-50%)
- d. E-commerce will overtake physical stores

4.1.3 In what kind of order would you arrange the following e-commerce development areas? (1=most important, 4=least important)

- () Platforms, websites
- () Methods of payment / financing and insurance models
- () Addressing the customer (improve the user experience, personalization)
- () Products/services sold

4.1.4 How much are VR / AR / 3D technologies utilized in the five years the Finnish automobile sales processes?

- a. they are going to be one part of the sales process
- b. they are going to be a key part of the sales process
- c. they will be a significant part of the sales process

Liite 1.

Characteristics of Business Environment	
Characteristic	Cause
Complexity	Continuous challenges e.g. leadership change, global competition, technological disruptions
Dynamicity	Evolving customer preferences, new technology, new resources, new policies, changing demography
Uncertainty	Constant change of the business environment. Four dimensions include macro-environmental, competitive, market/demand and technology uncertainty
Relativity	Business environment is bound to local conditions
Interrelatedness	Different factors of business environment are co-related and a change in one environment has an effect on another

Figure 3 Characteristics of Business Environment (Kattoorakan 2015; Miller & Friesen 1984)

Liite 2

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Suppliers	Marketing and sales	Sustainability	Long-term relationships: Customer loyalty	Need based customers
Dealers	Services (e.g. spare parts)	Safe and reliable way to travel		
Energy companies	Operations	Independence	Brand-aware customers: Brand sensitivity	Businesses
Business Alliances	IT system maintenance	Status symbol	Channels Social media, websites, mobile apps Newspapers Exhibitions Dealer shop Exclusive events	Consumers
Technology alliances	Key Resources			
Commercial partners	Suppliers (original equipment manufacturers, replacement parts, rubber fabrication)			
Financial institutions: Capital requirements	Dealers			
Government (policies and taxation)				
Cost Structure		Revenue Structure		
Fixed costs (e.g. Labor costs) Overhead costs (e.g. Advertising) R&D		Sales (spare parts, new and used cars) Rental fees Services Insurances and financial leases for companies and private persons		

Figure 7 Automobile industry business model

Factor	Traditional media	Reformed media
Role of user	Participation only in small sections e.g.letter, opinion Publisher-Centric	More active User-Centric UGC (User Generated Content)
Content production	Top-down Factual journalism Physical news rooms are present	Bottom-up Less researched stories, less journalism Physical news rooms are less present
Producer	Industrial media	Industrial media, internet users, (?)
Editing published content	Corrections in future publications	Easily modified
Revenue	Subscriptions, advertisements	Paywaylls, banners, sponsors, search engines, market places
Distribution	One to many content distribution	Many to many content distribution Network and on-demand media
Time frame	Days, weeks or months	Immediate; only participants cause delays
Storability	Low	High e.g. online databases
Content sharing	Low	High e.g. widgets and tagging
Creativity	Low	High
Dimension	2D	3D
Technology	Analogue	Digital media Mobile and wireless media Augmented media