https://doi.org/10.22364/hssl.28.2.01

GLOBAL LEADERSHIP AND CHANGE MANAGEMENT ON THE EXAMPLE OF THE GERMAN AUTOMOTIVE INDUSTRY

Markus Filkorn
Dipl. Wirtschaftsinformatiker, MBA

Abstract

Change Management is a term which is omnipresent in nowadays discussions of all areas, be it politically or economically motivated. This article discusses different scientific process theories of Change Management, such as *Teleological theories, Dialectical theories, Life cycle theories and Evolutionary theories,* that all regard change as involving a number of events, decisions and actions that are connected in some sort of sequences, but distinguish themselves when understanding change as a structured process. Moreover, the linkage of the interconnected fields of Change Management and Strategy Management are seized. Lastly, the importance and different role of Leadership and Management are discussed before reviewing the historic evolvement of the German automotive industry, as well as its current challenges. It is concluded why Change Management in this industry is nowadays more important than ever due to fierce global competition, regulatory requirements and different technological developments all ending up in distinct client requirements and expectations.

Keywords: Germany, Change Management, Leadership, Management, Organisational Change

Introduction

The goal of this article is to introduce different theories of Change Management and related Leadership, as well as to discuss the change that the automotive industry experiences both from a historical, as well as a current view. Prognoses for forthcoming changes of the automotive industry are illustrated and lastly an analysis and interpretation of the automotive industry in the context of Change Management is elaborated on.

Change Management and Leadership

"The only constant is change" is an idiomatic expression often used by humans of all kinds and social classes. Already Charles Darwin formulated that "it is not the strongest of the species that survives, nor

the most intelligent, but the one most adaptable to change."[1] Those two statements demonstrate that "change" has obviously a special meaning for the species living on earth and following for human beings and their social and organisational structures. Organisations, regardless if their aim is to achieve profit or not, are subject to constant change. As our world is steadily becoming "faster" due to technological advancement and the ability to process information constantly in a higher frequency, changes in organisations occur permanently and these changes need to be managed.

Defining Change Management[2]

Change Management deals with techniques of optimally controlling change processes within organisations from a certain starting point towards a defined goal. While starting point and goal definition are provided by means and methods of a strategy process, Change Management primarily focusses on the way to achieve the defined goal. Strategic Management and Change Management can therefore be seen as two interacting disciplines. While Strategic Management is identifying the need to change and adapt to the organisation's external environment, Change Management ensures that this adaptation will be successful by focusing on the organisation's internal structure and processes. Change Management primarily focusses on the following three dimensions:

- Individuals
- Organisational/enterprise structures
- Organisational/enterprise culture

Individuals represent the smallest social elements of an organisation. Without its employees, organisations cannot change. With focus on individuals, on the one hand, Change Management has to foster the development of employees' additional skills and capabilities needed for the targeted new situation; but on the other hand also to evoke a positive attitude of all stakeholders towards the defined goal and the undergoing change needed.

Organisational/enterprise structures encompass the formal structure and processes as well as strategies and resources. Conceptual changes to organisational/enterprise structure seem easy, however it has to be taken into account that there are evolutionary grown informal structures behind, that are typically reluctant to changes and therefore need to be certainly considered and addressed.

---

[1] de Stricker (2014), p. 141

[2] Lauer (2014), pp. 3–8

Organisational/enterprise culture is reflected by informal structures that are responsible for general attitudes, norms and social interactions within an organisation. Culture is independent from each individual's single behaviour but the sum of all individuals' behaviour is defining the organisational/enterprise culture. Change Management without addressing cultural aspects is most likely leading to enormous problems, not to say leading to the failure of a planned change endeavour. Peter Drucker once underlined the importance of considering culture by his famous saying "culture eats strategy for breakfast" and "this may thwart any change initiative"[3]

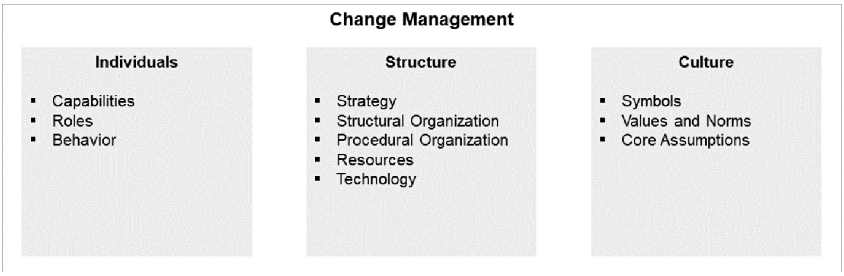

Figure 1: Change Management dimensions
Source: Lauer (2014), p. 8

Process Theories within Change Management

There are different views on Change Management; one important view on Change Management is from a process perspective. While there are over 20 different process theories, further analysis lead to four ideal types:[4]

- *Teleological theories:* regard change as "an unfolding cycle of goal formulation, implementation, evaluation and learning". Learning is seen of high importance as it "can lead to the modification of goals or the actions taken to achieve them".
- *Dialectical theories:* "focus on conflicting goals between different interest groups and explain stability and change in terms of confrontation and the balance of power between opposing entities".
- *Life cycle theories:* regard that change "progresses through a necessary sequence of stages that are cumulative, in the sense that each stage contributes a piece to the final outcome, and related – each stage is a necessary precursor for the next".

[3] Schramm (2014), p. 8
[4] Hayes (2014), pp. 5–8

- *Evolutionary theories:* assume that change "proceeds through a continuous cycle of variation, selection and retention." While variations just happen, they "are selected on the basis of best fit with available resources and environmental demands. Retention is the perpetuation and maintenance of the organisational form that arise from these variations".

All theories have in common that they view change "as involving a number of events, decisions and actions that are connected in some sort of sequence". However, they differ in terms of the "degree to which they present change as following certain essential stages and the extent to which the direction of change is constructed or predetermined".

Very much focussing on the application of Change Management methods, Dr. John P. Kotter, who is seen as a pioneer in Change Management, defined an eight-step process for leading change that consist of the following stages:[5]

1. *Establishing a sense of urgency*
   - Examining the market and competitive realities
   - Identifying and discussing (potential) crises or major opportunities
2. *Creating the guiding coalition*
   - Putting together a group with enough power to lead the change
   - Getting the group to work together like a team
3. *Developing a vision and strategy*
   - Creating a vision to help direct the change effort
   - Developing strategies for achieving the vision
4. *Communicating the change vision*
   - Using every vehicle possible to constantly communicate the new vision and strategies
   - Having the guiding coalition role model the behaviour expected of employees
5. *Empowering employees for broad based action*
   - Getting rid of obstacles
   - Changing systems or structures that undermine the change vision
   - Encouraging risk taking and non-traditional ideas, activities, and actions
6. *Generating short-term wins*
   - Planning for visible improvements in performance
   - Creating "wins"
   - Visibly recognising and rewarding people who made wins possible

[5] Kotter (1996), pp. 35–158

7. *Consolidating gains and producing more change*
   - Using increased credibility to change all systems, structures and policies that don't fit together and don't fit the transformation vision
   - Hiring, promoting and developing people who can implement the change vision
   - Reinvigorating the process with new projects, themes and change agents
8. *Anchoring new approaches in the culture*
   - Creating better performance through customer and productivity-oriented behaviour, more and better leadership, and more effective management
   - Articulating the connection between new behaviour and organisation success
   - Developing means to ensure leadership development and succession

Stages one to four help to "defrost a hardened status quo". Stages five to seven introduce what needs to be changed in terms of new practices, while stage eight injects the change in the organisational culture with the goal that it will be maintained and does not lose any momentum over time. Kotter stresses that all stages are important to pass through and that no stage may be skipped, which often happens when change endeavours are under pressure or in a hurry.[6]

While following through the single stages, Hayes stresses the impact of sequences on the outcome by elaborating about "Reactive" and "Self-reinforcing" sequences, as well as "Path Dependence". All three patterns deal with the alternating number of events, decisions and actions that are connected in a sequence. Thereby each event is influenced by a former event/action/decision and influences subsequent events/actions/decisions. This chain of interacting events/actions/decisions is very much dependent on how others response as well as the experience of decision-makers and stakeholders.[7]

Reactive Sequences[8]

Reactive sequences are especially supported by Dialectical theories and postulate that the response of others to certain events/actions/decisions will have an influence on how decision-makers will decide in the future. This entail the risk that future decision may lead to the circumstance that

[6] Kotter (1996), p. 22

[7] Hayes (2014), p. 8

[8] Ibid.

an originally defined goal will vanish from sight and – often unconsciously – a new goal sneaks in. Such situations often arise when one party challenges the attempt of another party to secure a particular change. Figure 2 illustrates Reactive Sequences. The case could be that a Leader implements a decision (A) in order to achieve a particular outcome (F). The decision (A) leads to responses (events B and C) that influence the leader's initial intention in a negative way. In this example later, the leader realises the negative impact of decision (C) and takes a corrective action in order to refocus on the original intended goal (F).

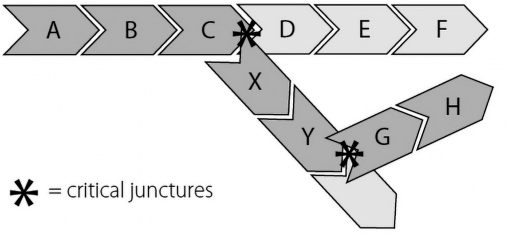

Figure 2: Example of a Reactive Sequence
Source: Hayes (2014), p. 8

Reactive Sequences demonstrate that it is not always possible to satisfy the interests of all stakeholder (e.g. bosses, peers, subordinates, customers, suppliers) and that a formulated vision and the path to that vision will end up in conflicts of interest. This highlights the importance of acting in ways that will align involved parties in order that they truly support it.

Self-reinforcing Sequences[9]

Self-reinforcing Sequences imply that actions or decisions that produces positive feedback reinforces earlier events and support the direction of change. This reinforcement encourages a further movement into the same direction of change without proper reflection and eventually follow a path that will deliver negative outcomes. The following three drivers often support self-reinforcing Sequences:

- Increasing returns
- Psychological commitment to past decisions
- Cognitive biases

[9] Hayes (2014), p. 10

Path Dependence[10]

Path Dependence refers to a constraining process that begins with a critical event that "squeeze out alternatives and limit a change manager's scope for action" Path Dependence follows a three-phase process:

- *Phase I – Preformation:* in this phase only few constrains limit the change managers' freedom to act. However, one or more decision or actions trigger a Self-reinforcing Sequence and limit the change mangers' freedom in the next phase
- *Phase II – Path formation:* in this phase Self-reinforcing Sequences "lead to the development of a pattern of events, decisions and actions that begin to dominate and divert change managers' attention away from alternative ways forward". This narrows from choosing alternative options and makes it progressively difficult for change mangers to change course.
- *Phase III – Lock-in:* this phase is characterised by a "further narrowing of options and the process becomes locked into a particular path". At that stage leaders lose the capability to "adapt to new circumstances or better alternatives" which may make them dysfunctional in their capabilities to lead the change successfully

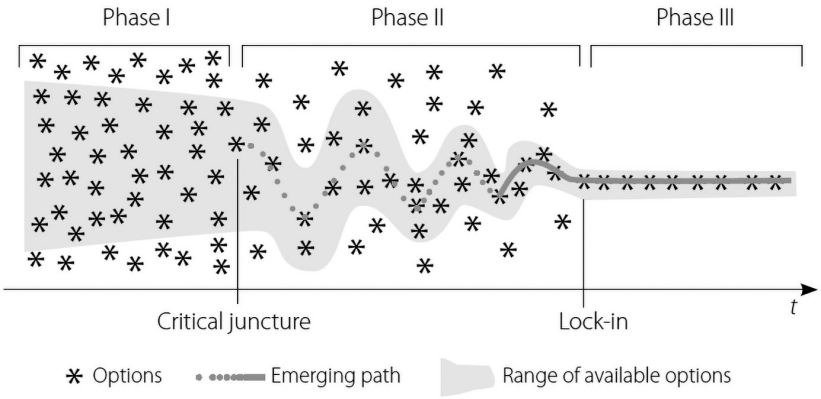

Figure 3: The three phases of Path Dependence
Source: Hayes (2014), p. 15

[10] Hayes (2014), pp. 14–15

The role of Leadership within Change Management

Kotter stipulates that Leadership play a crucial role within the process of Change and strongly distinguishes between Leadership and Management.

Leadership is all about establishing direction, aligning people, as well as motivating and inspiring them. Management focuses on planning and budgeting in terms of establishing detailed steps and timelines in order to reach a set goal as well as organising, staffing, controlling and operational problem solving.[11]

Management therefore produces "a degree of predictability and order and has the potential to consistently produce short-term results" while leadership "produces change, often to a dramatic degree", e.g. by new products highly relevant for customers, new approaches that help to make a firm much more competitive.[12]

Kotter stresses that both functions Leadership and Management are needed and of high importance. There should neither be an absence of any of those two.[13]

However, Kotter also stipulates that for a successful transformation Leadership is more important than Management, saying that it is about 70 to 90 percent Leadership and only 10 to 30 percent Management that successfully drives change. This is often not accordingly reflected by today's organisations that do not have much leadership in place and focus too much on managing change. Moreover, Kotter identifies that it is the same situation on universities. Students are taught to be great Managers, however there is only little taught about Leadership. The reason may be that Management is taught easier than Leadership, but also as more Managers were typically needed than Leaders. "For every entrepreneur or business builder who was a Leader, we needed hundreds of Managers to run their ever growing enterprises".[14]

The German Automotive Industry

Historic Development

The pre-conditions for nowadays car industry came into being in 1885 when Wilhelm Maybach and Gottfried Daimler installed a small combustion engine in a wooden bicycle and one year later into a four-wheeled coach. At the same time, only a short distance away, Karl Friedrich Benz created

[11] Kotter (1996), p. 26

[12] Ibid.

[13] Ibid., pp. 57–61

[14] Ibid., pp. 26–27

a vehicle with a gasoline engine that in contrast to Daimler and Maybach formed a unified whole in terms of chassis and engine and obtained a road legal accreditation on January 29, 1886. This event marked the birth of the automobile.[15]

Between 1885 and 1908, interestingly not in Germany, but in France, the automobile found rapid spread due to good infrastructure and cooperation between industry, customers and purchasing power.[16] However, crucial for the rapid spread were not technical or economic reasons, but a different mindset between the French and the German culture. While the usage of automobiles in France were welcomed with open arms and supported by the government, the Germans at first had a critical attitude towards the automobile, because of noise, stench and danger of accidents. After 1900 the social acceptance towards the automobile rose in Germany and more and more manufacturers emerged.[17] At the beginning, the German manufacturers were very much focused on an artisan-like production, that came along with high quality. A volume production was widely rejected due to the German sense of artisanship.[18]

In contrast to the Germans, the Americans regarded the automobile not as a technical challenge, but more as a mean to "make money". Due to the high demand, Henry Ford realised already in an early stage, that the production and the sales of automobiles is less a technical, but rather an economic challenge. A milestone to satisfy the high demand was his invention of the assembly line in 1913. This enabled him not only to produce high quantities, but also to produce vehicles at a lower price, which made the automobile also affordable for a broader spending group. At this time the US was the biggest producer of automobiles in terms of production quantities and sales.[19] The mass production in the US forced German car manufacturers to rethink their attitude towards artisanship and made them also introduce the mass production system. The first car produced on an assembly line was sold by the German car manufacturer Opel in 1924. This marked the milestone for European production of less expensive automobiles.[20]

Nevertheless, until 1933 the German automotive industry was rather small with many small manufacturers and an insufficient transport infrastructure. Only after Hitler's rise of power, the automotive industry

---

[15] Eckermann (1981), pp. 42–43

[16] Haubner (1998), p. 44

[17] Ibid., p. 65

[18] Eckermann (1981), p. 94

[19] Ibid., pp. 66–89

[20] Ibid., p. 99

moved into the political focus in Germany, with the aim to mass motorise the country. Many infrastructure projects started and a state-owned automotive enterprise was founded with the mission to build affordable cars for everyone.[21] The aim to build 500 000 civil cars per year, as planned by Ferdinand Porsche in 1934, was never reached due to the effects of World War II. Instead, only a few hundred civilian cars were produced in the new Volkswagen factory in Fallersleben. Nevertheless, after World War II, German car makers quickly went back into production and in 1953, almost 500 000 civilian cars were manufactured and sold. Between 1952 and 1959 a serious consolidation of the automotive industry took place.[22]

Eventually, mass motorisation in Germany was reached in the 1960s. Due to rapid economic growth, German purchasing power increased and the total number of automobiles tripled within 10 years, from 1960 to 1970, from 4.5 million cars to 13.9 million cars.[23]

Current State

Export

In 1957 out of 1 040 188 in Germany produced vehicles, 502 214 vehicles were exported which reflects an export quota of 48.28%. In 2018, 5 120 409 vehicles were locally produced and 3 992 724 cars were exported to foreign countries. That reflects an export quota of 78%.[24] In 2018, German cars had a total share of 17.5% on the overall German export market. Therefore, cars are the most important export good for the German economy.[25]

Research and Development

Research and development (R&D) are one of the leading strengths of the German car makers.[26] Due to the shift from a seller's market to a buyer's market starting at the end of the 1960s, car makers can only retain or enhance their market position through continuous product innovation. Over the last ten years, this situation led to the fact that German car makers' contribution to the overall German R&D expenditures rose from 17% to more than 30%.[27] R&D expenditures rose in the last years compared to other sectors above average. According to the European Commission,

[21] Eckermann (1981), p. 127

[22] Ibid., p. 159

[23] Kuhm (1995), p. 159

[24] VDA – Verband der deutschen Automobilindustrie (2019)

[25] Statistisches Bundesamt (2019)

[26] Schade et al. (2012), p. 36

[27] Roth (2012), p. 53

worldwide R&D expenditures increased by 7% in 2016 to 40.2 billion Euro. According to that, German car makers and suppliers contribute more than one third to the global R&D expenditures and rank on top, even before Japan and the US.

The main R&D focus lies currently on the optimisation of the combustion engine, connected and automated driving, as well as the development of alternative power trains (e.g. the electrification of cars and further development of fuel cells).[28]

According to the "Verband Deutscher Automobilindustrie" (VDA), German car makers follow the goal to set trends by innovations, to be the long-term leader in the automotive sector that also includes actively designing the technological paradigm shift.[29] That this is not only an ambition but currently still the reality, which is proved by many research studies. The study "Automotive Innovation" of the Center of Automotive Management confirms regularly that almost the half of the worldwide product innovations still comes from the German automotive sector.

Changes

Today, more than 130 years since that first automobile was designed, change and innovation drivers are stronger than ever. Scarcer resources, regulatory requirements, as well as drastically changing client demands require the automotive sector to rethink its products and views on mobility. In this section, those changes will be analysed under the viewpoint of Client Structure and Behaviour, Technology, as well as Regulatory Requirements.

Client Structure and Behaviour

Success of innovative products is mainly dependent on meeting the changing demands of incumbent and future customers. Changing social structures due to demographic changes, growth or decline of income and changing values have a huge influence on meeting those changing demands.[30] Changes in customers' behaviour and structure need therefore to be strongly focused when developing target group oriented automobiles.[31] In the last years customer demands on automobiles have extremely changed in terms of diversity.[32] This is caused by a more and more flexible lifestyle of individuals in the western society and their pursuit for self-actualisation and change. In those customers' view, an automobile

---

[28] VDA – Verband der deutschen Automobilindustrie (2018), p. 16

[29] VDA – Verband der deutschen Automobilindustrie (2010), p. 17

[30] Roth (2012), p. 78

[31] Wallentowitz (2009), p. 14

[32] Reichhuber (2010), p. 48

is not only a vehicle that has to satisfy mobility demands but also needs to support their respective expression of lifestyle.[33] Consequently, the buying behaviour of customers in the automotive sector becomes more and more unpredictable with changing sensitivity for price and quality levels.

Technology

Not only changing customer expectations, but also the advancements in product development, as well as new manufacturing techniques that allow building automobiles far beyond former technical dimensions lead to a high product diversity. This again spurs higher customer expectations and accelerates the frequency of technology cycles. Today the innovation cycle in the automotive industry has been reduced to about three years until an innovation fully penetrates the market. In comparison, former innovations like the ABS system took twenty years or the Airbag took ten years until they fully penetrated the automobile market. Moreover, mass customisation is not anymore a buzzword, but needs to be offered to customers. The evaluation and selection of automobiles got more complicated. Modern information and communication systems, design differentiation as well as a variety of assistant systems are very important criteria for selection.[34]

Regulatory Requirements

Innovations in the automotive sector and its dynamics are highly influenced by politics and new laws and regulations. Those are typically linked to climate and environmental goals, demanding new automobiles to reduce their CO2 emissions.[35] In Europe these laws are made by the European Commission (EU), which has the goal to reduce CO2 in the transport sector by 60% until 2050, compared to 1990. This requires the automotive sector to not only increase the speed of innovation in order to bring new forms of propulsion (e.g. electric engines and fuel cells) to the market faster, but also to develop new business models that rethink our view on mobility (e.g. car sharing). This leads to the circumstance that partnerships between companies becoming more and more important and have to be intensified in order to be successful. Especially partnerships between "traditional" automotive companies and new tech-firms come into being, where different skills and capabilities are joining forces.[36]

[33] Diez (2006), pp. 45–50

[34] Reichhuber (2010), pp. 49–50

[35] Roth (2012), p. 79

[36] Schade (2012), p. 41

Conclusion

Looking back in history demonstrates that the automotive sector was already from its emergence a sector subject to strong forces of innovation and change, influenced by politics, technology and customers. When looking on the current changes that can already be foreseen in the automotive sector, the need for change and innovation will also not slow down, but rather accelerate. Speed and frequency that requires changes and innovations has increased drastically compared to former times. This may not be a problem from a technological perspective – due to technological aids the increased pace can be managed – however there may be limitations from a human perspective, as every change needs to be implemented to an organisation and requires an altered mindset by customers, employees and any other stakeholders.

With reference to the three Change Management Dimensions "Individuals", "Structure" and "Culture" the following recommendations are given:

The automotive sector needs to think how to restructure its research and development organisation. While R&D departments currently follow a rather strict waterfall approach, a more agile approach may be the answer to the high frequency of innovations expected by customers and regulators. As future innovations will be highly driven by software that controls the car and interacts with the passengers, iteratively and incrementally development and release cycles also allow, that customer experience and product improvements can happen on a very high frequency, giving the customer multiple – daily – chances to "re-experience" the bought product again and again. This may also lead to a higher customer loyalty, as the customer may install personal "app-like" solutions on the car platform, similar to that what we already experience from the smartphone market and that hinders the customer from migrating away from a certain platform (brand). Car makers on the other hand can build new business models on that platform idea and generate additional revenue streams that secure or even increase revenue, even in a more competitive environment that they already facing today. This new business models can also help to support the regulators' requirements in terms of climate and environmental protection. Smart software and new business models may foster the idea of sharing, meaning that not everybody possess a car by its own. This helps to save production resources and energy consumption. E.g. there are also concepts for solutions that allow passengers who are heading for the same direction to pool for joint rides.

Such new concepts will not only have an enormous effect from a structural perspective. They cause higher focus on each individual: from a customer's side that he or she gets his or her demands satisfied much quicker

and from an employee's/worker's side that he or she experience a very new way of working with much more freedom and higher decision-making power. Lastly, it will cause an enormous change in culture, as the viewpoint on the product car, its way of usage, its components and way of production will very much be different from today. So drastically different that it will have the power to change our lifestyle and society tremendously. Therefore, German car makers need to focus on all three dimension – individuals, structure and culture – carefully to succeed in this change process on the long run. This needs to be framed and supported by skilled leaders that have the capability to align the perspective of new customer structure and behaviour, technological expertise, as well as accommodate for regulatory requirements.

REFERENCES

de Stricker, U. (2014), *Knowledge Management Practice in Organizations – The View from Inside*, Hershey, Information Science Reference.

Diez, W. (2006), *Automobil-Marketing. Navigationssystem für neue Absatzstrategien,* 5th edition, Landsberg am Lech, mi-Fachverlag, Redline GmbH.

Eckermann, E. (1981), *Vom Dampfwagen zum Auto. Motorisierung des Verkehrs.,* Reinbek bei Hamburg, Rowohlt Taschenbuch Verlag GmbH.

Haubner, B. (1998), *Nervenkitzel und Freizeitvergnügen. Automobilismus in Deutschland 1886–1914,* Göttingen, Vadenhoeck und Ruprecht.

Hayes, J. (2014), *The Theory and Practice of Change Management,* 4th edition, New York, Palgrave Macmillan.

Kotter, J. P. (1996), *Leading Change,* Boston, Harvard Business School Press.

Kuhm, K. (1995), *Das eilige Jahrhundert. Einblicke in die automobile Gesellschaft,* 1st edition, Hamburg, Junius Verlag GmbH.

Lauer, T. (2014), *Change Management – Grundlagen und Erfolgsfaktoren,* 2. Auflage, Heidelberg, Springer Gabler.

Reichhuber, A. W. (2010), *Strategie und Struktur in der Automobilindustrie. Strategische und organisatorische Programme zur Handhabung automobilwirtschaftlicher Herausforderungen,* 1st edition, Wiesbaden: Gabler, GWV Fachverlage GmbH.

Roth, S. (2012), *Innovationsfähigkeit im dynamischen Wettbewerb: Strategien erfolgreicher Automobilzulieferunternehmen,* Wiesbaden, Gabler Verlag/Springer Fachmedien.

Schade, W., Zanker, C., Kühn, A., Kinkel, S., Jäger, A., Hettesheimer, T., Schmall, T. (2012), *Zukunft der Automobilindustrie. Innovationsreport,* Berlin (= Arbeitsbericht der TAB – Büro für Technikfolgen-Abschätzung beim Deutschen Bundestag; Nr. 152).

Schramm, A. (2014), *Leadership, Strategic Planning and Strategic Management for Higher Education Institutions in Developing Countries*, Paper prepared for the World Business and Economics Research Conference, 24–25 February 2014.

Statistisches Bundesamt (2019), *Wichtigstes deutsches Exportgut 2018: Kraftfahrzeuge,* URL: https://www.destatis.de/DE/Themen/Wirtschaft/Aussenhandel/handelswarenjahr.html (accessed 30.08.2019).

VDA – Verband der deutschen Automobilindustrie (2010), *Jahresbericht 2010,* Berlin.

VDA – Verband der deutschen Automobilindustrie (2018), *Jahresbericht 2018,* Berlin.

VDA – Verband der deutschen Automobilindustrie (2019), *Jahreszahlen, 2019,* URL: https://www.vda.de/de/services/zahlen-und-daten/jahreszahlen.html (accessed 30.08.2019).

Wallentowitz, H., Freialdenhoven, A., Olschewski, I. (2009), *Strategien in der Automobilindustrie. Technologietrends und Marktentwicklungen,* 1st edition, Wiesbaden, Vieweg + Teuber, GWV Fachverlage GmbH.