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Applied Insights from the FH Kufstein Tirol

DIGITALIZATION AND ARTIFICIAL INTELLIGENCE

Thematic anthology | 2016 - 2025

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EDITORIAL

DIGITALIZATION AND ARTIFICIAL INTELLIGENCE

Dear Reader!

Applied Insights is a specialist newsletter that has been published every two months since 2016 and now has several thousand subscribers. Each issue presents a compact overview of a current topic, relevant to all industries and all company sizes. The structure of each improve is standardized, i.e: Presentation of the topic, checklists, and a tool or general example for implementation. The authors are subject matter experts who have both the practical experience and the scientific background in their fields. The thematic anthologies combine the previous individual improve editions with the following focal points (alphabetical order):

- Digitalization and artificial intelligence
- Communication and change
- Management and effectiveness
- Marketing and customer orientation
- Organization and productivity
- Strategy and navigation

The focus of this thematic anthology is digitalization and artificial intelligence. It presents tried-and-tested approaches, methods, and tools to make the "new world" of digitalization and AI both understandable and usable. Contents include: Digitization program, implementation controlling, personnel development, transformation, and change management for AI and digitization.

We hope that this collection of topics will give you some ideas and suggestions for discussion, decision-making and implementation.

Yours sincerely,

The FH Kufstein Tirol
University of Applied Sciences

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IMPLEMENTATION CONTROLLING FOR AI AND DIGITIZATION

Prof. (FH) Dr. Roman Stöger

ISSUE #52 | JULY 2024

IMPLEMENTATION CONTROLLING FOR AI AND DIGITALIZATION

ACHIEVE A PROFESSIONAL AND TARGETED IMPACT

Once AI and digitalization programs are in place, a competition between the digital future model and day-to-day business begins in many companies. Ideas usually fail not because of the quality of the content, but because of poor implementation. This is simply because the conservative forces of the "old world" are usually stronger than the approaches of the "new world": people and organizations are habit-driven, they come from a familiar past, reproduce existing conditions, and feel secure in the prevailing system. AI and digitalization will therefore only have a chance if the implementation process is actively managed.

By Prof. (FH) Dr. Roman Stöger

A. IMPLEMENTATION PROCESS: FROM DESIRE TO EFFECTIVENESS

We live in a world where proposals, ideas, measures, projects, etc. are constantly being generated. The corresponding discussion processes are usually exciting and in many cases useful or forward-looking. However, the problem is that only a small number of topics can be implemented effectively - simply because resources are limited. AI and digitalization topics in particular demonstrate this challenge very clearly - and often lead to the frustrating realization that many things are not implemented, or are implemented with a significant delay. Many companies have now recognized that not only a topic, but also the implementation process, needs to be actively managed. Professional implementation controlling for AI and digitalization is the key to achieving results (see Fig. 1).

The implementation process shouldn't be left to chance.

The first step is to define the corporate responsibility for the overall result and the methodological competence. Secondly, the timing of reporting is defined, i.e. the cycle for results and overall reports and for updating the relevant documents. Thirdly, the meetings and procedures for implementation controlling are defined. The link to existing management processes such as target agreements or budgets is particularly important. Fourthly, operational and in this sense "manual" issues must be clarified, such as filing

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structure, communicability of results and the corresponding target group. Finally, automatable methods should be used to support implementation controlling. This involves automated reporting systems, real-time updating, impulse, and reminder functions.

Fig. 1: Design of implementation controlling for AI and digitalization	
1. Corporate	1. Overall responsibility for the company and individual responsibility for key topics (business areas, projects, modules...) 2. Authority to issue instructions to line and project participation staff and functions 3. Methodological responsibility for implementation controlling (instruments, status...)
2. Reporting procedures	1. Schedule for result reports (implemented topics, key decisions...) 2. Schedule for comprehensive overall reports (annual, semi-annual reports, final report...) 3. Schedule for updating documents
3. Meetings and processes	1. Special committees for the approval of results reports 2. Integration of reports into existing management bodies and processes 3. Linking implementation with annual targets, performance appraisal, and personnel development
4. Documents and reports	1. Filing structure of the core documents and the results reports 2. Comprehensibility and communicability of (interim) results 3. Definition of end users, confidentiality and skills / competencies with regard to updating and release
5. Usage of digital systems	1. Filing structure of the core documents and the results reports 2. Comprehensibility and communicability of (interim) results 3. Definition of end users, confidentiality and skills / competencies with regard to updating and release

AI and digitalization programs will only succeed with professional implementation controlling. This is exactly what is meant by the step from desire to effectiveness[1]. When a retailer like Rewe Digital or IKEA creates new digital or AI worlds with the Space 10 Innovation Lab, they underpin this with a corresponding implementation system. Precisely because these companies are successful in their "old world" business, the defensive forces against AI and digitalization will be correspondingly strong. This has nothing to do with organized resistance, but is due to the organizational psychology of clinging to the successful past. Officially, everyone will claim to be in favor of change, but de facto, day-to-day business and the old world will remain dominant if there is no consistent implementation process. It is precisely at this point that the ability of employees and managers in particular to think - and act - in "new worlds" becomes apparent.

[1] Cf. corresponding case studies in: Hofert, S., The agile mindset, Wiesbaden 2018, p. 207 ff.

Numerous empirical values are available from corporate practice that are useful in an implementation process. For example, there should first be clarity about the architecture of the content: i.e. the overall topic and the structuring of the sub-topics into sub-projects, work packages and modules. In the second step, the individual persons or committees responsible for the results are defined for these levels or elements. A classic delineation is often made in the form of overall responsibility, partial responsibility, reporting committees, etc. It is important that there is comprehensive clarity, commitment, and a common understanding. If responsibilities are split or usual business operations dominate, implementation becomes difficult or impossible. Thirdly, the tasks, competencies, and responsibilities of these levels are defined. It must be made clear which person or committee is responsible for what. Fourthly, the respective reporting formats and the cycle are defined.

The implementation process is flexible and can be linked with numerous methods.

The implementation process is not a rigid framework, but can be combined with new, networked and agile procedures - such as sprints or scrums. It is important that controlling remains simple and manageable. It is also advisable to link it to management processes or management committees that are already functioning. For example, if there is already an effective monthly management project forum, then this should be used for AI and digitalization. Parallel methods make little sense, complicate matters, and slow down implementation. Implementation controlling defines how individual contributions fit into the overall whole, so that this whole has a chance of being realized. It is the operating system that ensures action, speed, and results.

B. RESULTS REPORT: CONSISTENCY AND CLARITY

There is a tried-and-tested implementation controlling tool that has proven its worth in various industries and company sizes: the results report. It focuses on the question of whether real results are being achieved from the potential of AI and digitalization. For example, a distinction should be made between digitalization and digitalization management, because they are not the same thing. Digital technologies, digital business models, or digital market services can be discussed endlessly. This digitalization discourse is not wrong or bad in itself, it just needs to be steered by competent management in order to produce an entrepreneurial result.

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In practice, AI and digitalization mean
Many ideas, few results.

In business practice, AI and digitalization are always accompanied by an imbalance. A lot of time and energy is invested in intellectual analysis, but in the end relatively little is moved and changed. To put it bluntly, AI and digitalization have an automatism and a potential: the automatism is that dealing with these topics leads to endless discussions and a dissipation of energy. If there is no professional management, there is no benefit for the company or for customers. In contrast, the potential of AI and digitalization lies in the many positive effects that can occur: new market services, improved productivity, a future-oriented business model. However, this potential must first be realized and competent implementation controlling is required specifically for that[2].

The results report for AI and digitalization presents the concrete results from the most important initiatives (see Fig. 2). It is about taking stock, looking ahead and any key decisions or new topics. Practically all successful examples of implemented solutions show that they are consistently geared towards results from the outset and use appropriate reporting tools. This applies to industry examples such as General Electric, start-ups such as Funding Circle and the digitalization of financial management.

Fig. 2: Results report - topics and practical tips	
1. Results in the current reporting period	1. Presentation of the business benefits of AI and digitalization, i.e. effective and tangible results 2. Business language formulation: "is available", "is effective", "works", "has been implemented", etc. 3. Avoid pure activities without an achieved result: "check", "analyze", "clarify", "coordinate"...
2 Planned results in the next reporting period	1. Identification of planned implementation measures for the next reporting period 2. Anticipation of the result with the formulation "is available", "is effective", "works", "has been implemented", etc. 3. Announcement of originally unplanned, additional or random results
3. Necessary key decisions	1. Presentation of the initial situation, problem and challenge as the basis for the decision 2. Development of a proposal for the decision 3. Official approval of changes (in terms of content, scheduling, personnel)
4. Additional or general remarks	1. Presentation of new or unplanned topics 2. Possible reflection on the discussion and implementation to date 3. Space for general comments or topics that cannot be assigned to 1 to 3

Before using a results report, it must be clarified at which level the results are to be reported. AI and digitalization initiatives can be very extensive and multi-layered, for

[2] Erner, M. (ed.), Management 4.0 - Unternehmensführung im digitalen Zeitalter, Berlin 2019, p. 79 ff.

example in the case of a change to the business model in a large international corporation. This is a genuine corporate program and the reporting logic will be correspondingly multidimensional or scaled accordingly. Individual AI and digitalization projects in small and medium-sized enterprises (SMEs) are a completely different case, for example when introducing an electronic personnel file. In this case, a simple results report no more than one or two pages is sufficient.

The structure of the results report is relatively simple (see Fig. 3). The first step is to present the results of the current reporting period. It is important to concentrate on a few key results. The focus is on the benefits for the customer or for the company. Foreign words, technical terms, abbreviations, and jargan should be avoided to ensure comprehensibility. It is also important to use clear, action-orientated language - such as "is available", "is effective" and "works". Step two involves presenting the planned results for the next reporting period. If deviations from the plan are already foreseeable, they must be reported at an early stage in order to avoid surprises. This leads on to the third part of the results report, the identification of any necessary key decisions. If something is outside the original plan, the decision-makers must be informed in good time so that countermeasures can be taken. Finally, additional or general comments can be included.

The results report creates commitment and transparency.

The results report ensures that randomness and flying blind into AI and digitalization are avoided. It provides clear feedback on implementation[3]. AI and digitalization are not an end in themselves and are constantly in danger of being too big, too abstract, too aloof and too academic. That is why it is the task of company management to keep their feet on the ground and always focus on one thing: Results for the customer and for the company. This is the best and ultimately the only justification for AI and digitalization in our organizations.

[3] Stöger, R., Künstliche Intelligenz: Ein unternehmerischer Kompass zur KI-Nutzung, in: Zeitschrift für Corporate Governance 02/2024, p. 4.

Summary: Application and benefits

1. Development of a professional implementation process for AI and digitalization
2. Creating transparency and results orientation
3. Results report as a pragmatic tool for all industries and company sizes

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Fig. 3: Result report for AI and digitalization: tool and example (bank)	
Background: A bank digitizes its business model and defines eight digitization projects (D01 - D08) for this purpose. Between three and five implementation modules are defined for each project, which are managed via results reports. A results report from the digitalization project "D 04 Customer Response" is shown here.	
Digitization Project	D 04: Customer Response
Implementation Topic	Module "M 03. Sales Processes"
Date / Responsible	29.03. / P. Gurtler
1. Results in the current reporting period	1. Positive tests of the "Private Banking" and "Insurance" response modules: functionalities, information transfer 2. Functioning information interface to the development department (automated reports, feedback on new products already launched) 3. Implementation of the Data Protection Banking Supervision Directive (BA-CF 4.0) 4. Four successful training sessions in sales, two in service provider development
2 Planned results in the next reporting period	1. Clarification of data protection for all information pools and links 2. Implementation of a further three training courses in sales and five in service provider development 3. Redesign of the interface to the accounting department
3. Necessary key decisions	1. Reprogramming of the interface to the accounting department (approx. 30,000 Euros) 2. Forced overall training in service provider development (completion by 31.07. instead of 30.09.)
4. Additional or general remarks	1. No topics

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THE PERSONNEL DEVELOPMENT COCKPIT FOR AI AND DIGITALIZATION

Prof. (FH) Dr. Roman Stöger

ISSUE #48 | NOV 2023

THE PERSONNEL DEVELOPMENT COCKPIT FOR AI AND DIGITALIZATION

ENSURING SKILLS / COMPETENCIES AND FITNESS FOR THE "NEW WORLD"

Artificial intelligence (AI) and digitalization are bringing numerous changes to business models, products, service providers, organization, and culture. Due to this multi-layered impact and dependency, it is clear that success is only possible if personnel development (PD) supports this transformation accordingly. Human resource development should not be seen as a centralized task of the HR department. It is one of the most important management tasks and therefore cannot be delegated. Systematic HR work is becoming increasingly important, especially in these times of skills shortages. To put it bluntly: HR works without AI or digitalization, but AI and digitalization will never work without the right people with the right skills and competencies.

By Prof. (FH) Dr. Roman Stöger

I. HUMAN RESOURCES DEVELOPMENT AS A KEY ISSUE FOR THE "NEW WORLD"

In many organizations, AI and digitalization are still equated with IT, big data or technology. It is clear that (information) technology topics are an essential component and must also be used professionally. However, focusing solely on this overlooks what is ultimately the most important factor: employees and managers who understand, help shape, and implement the transformation brought about by AI and digitalization. This is the only way to turn the potential of AI and digitalization into a real result, and the many technical promises into a real impact.

In practice, the personnel development cockpit has proven to be a simple and pragmatic procedure. This methodology ensures the training and development of employees and managers for the "new world" and systematizes individual development planning. What may sound obvious is anything but everyday practice. One example: A comprehensive management study shows that only three percent of managers' time is spent on personal development and training - whereas over seventy percent consists of meetings[4]. This shows the imbalance in many companies: Day-to-day business and

[4] See Porter, M. / Nohria, N., How managers plan their day, in: HBM 09/2018, p. 18 ff.

hectic operations make it increasingly difficult to focus on future topics such as AI and digitalization.

Personnel development for AI and digitalization is a 360-degree program.

There are numerous interesting corporate examples in the field of personnel development. When Carnival Corporation, for example, improves many guest processes in the travel business through AI and digitalization, this means a change in traditional service tasks and skills & competencies. With AI and digital solutions, guest wishes are anticipated. This requires different skills for supervising and serving guests and thus accompanying personnel development. The same applies to publishing groups that have been breaking new ground for some time, such as Random House, Cornelsen, and Klett. AI and digitization not only affect the classic production processes of reading content, but also the conversion from article and book formats to workflows and from paper to solution providers. When a publishing group like Haufe now generates over ninety percent of its turnover with AI and digital business, this clearly demonstrates the need for professional personnel development.

2. THE PERSONNEL DEVELOPMENT COCKPIT AS A METHOD FOR AI AND DIGITAL SKILLS & COMPETENCIES

Systematic personnel development for the "new world" is not a patchwork of seminars, but a 360-degree program. The focal points can first be differentiated according to target group, i.e. development topics for employees, managers, business areas, functions, regions, new employees, trainees, owners, and company supervision (Fig. 1). The respective content is then broken down into professional, leadership, social, and methodological skills & competencies. Change management, communication and work methodology skills are just as important as the actual AI and digitalization topics. Comprehensive and effective personnel development is not just about purely operational topics, but also about the entire consideration of work-life balance and thus individualization. This is something that continues to be underestimated in the context of AI and digitalization.

Fig. 1: HR development cockpit for AI and digitalization - core topics	
1. Development topics for all employees	1. Insight into and awareness of AI and digitalization 2. Increasing skills & competencies in systems, processes and projects 3. Improving self-management and the management of colleagues and bosses through the possibilities of AI and digitalization
2. Development topics for managers	1. Increasing the ability to leverage the full potential of AI and digitalization 2. Expansion of own skills & competencies for the development of employees for AI and digitalization (incl. change management) 3. Development of skills & competencies for managing interfaces and projects
3. Development topics for business areas, functions, regions ...	1. Increasing expertise in AI and digital topics in business areas, functions, regions... 2. Usage of AI and digitalization to increase competitiveness 3. Developing organizational skills & competencies to overcome structural silos
4. Development topics for new employees and trainees	1. Setting up an introduction and training agenda based on AI and digitalization skills & competencies 2. Faster deployment and effectiveness through AI and digitalization 3. Targeted use in AI and digitalization projects and implementation topics
5. Development issues for the owners and company supervision	1. Skills development for understanding AI and digitalization in general 2. Basic understanding of key AI and digital topics in the company 3. Increasing skills in the usage of AI and digitalization for supervisory functions or personally

The HR development cockpit for AI and digitalization (Fig. 2) can be used to systematically and quickly derive the most important HR requirements and consequences[5] . Based on the target groups and the corresponding core topics, the central initiatives for HR development are identified so that there are no gaps between the AI or digitalization strategy and human resources. The number of levels at which such an agenda is developed and implemented depends on the size of the company. In many cases, a single program will be sufficient for SMEs, while larger SMEs and large companies will need to formulate different HR development agendas. Ultimately, the HR development cockpit will lead to an overarching HR strategy, as these are usually fundamental and longer-term issues.

[5] See Stöger, R., Implementing digitalization, Stuttgart 2019, p. 185 ff.

Fig. 2: HR development cockpit for AI and digitalization: tool and example (chemistry)			
Background: A chemical company is implementing an AI and digitalization program. The personnel development cockpit for the "new world" is a central component of this program.			
Target group	**Development priorities**	**Conclusion**	**Responsible**
1. Development topics for all employees	1.1 Participation in the AI/digitalization camp: AI/digitalization basics, digital agenda of the company, AI key projects...	30.6.	PE/Roder
	1.2 Preparation and implementation of AI/digitalization development plans per employee (level L2-L5)	31.12.	Every manager
	1.3 Training program for AI/digital project management (for all project managers and PL deputies)	31.03.	PE/Ebers
2. Development topics for managers	2.1 Participation in the management development program "Management of AI and digitalization"	30.06.	Grohl
	2.2 Preparation and implementation of individual development plans for each manager	31.12.	Every manager
	2.3 Especially for managers as change mentors: Training program in mentoring	31.03.	SGF management
3. Development topics for business areas, functions, regions ...	3.1 Per business area: Development and implementation of specific AI and digitalization programs	31.12.	Nowak
	3.2 Per function: Development and implementation of interface agreements including corresponding skills / competencies topics (especially including AI / digital projects)	30.04.	SGF management
	3.3. ...	...	...
4. Development topics for new employees and trainees	4.1. ...		
5. Development topics for the owners and company supervision	5.1. ...		

3. THE PERSONAL AI OR DIGITALIZATION AGENDA AS AN INDIVIDUAL METHODOLOGY

The object of the HR development cockpit is the company or a part of the company. Derived from this, or in addition, a personal AI or digitalization agenda can be developed at an individual level (Fig. 3). Essentially, the following topics are covered[6]: In the case of management skills & competencies, leadership issues are specified - even if the person concerned is not a manager but has to manage projects, for example. The second field is self-management and work methodology, which is about optimizing time,

[6] Cf. Harvard Business Manager (editorial team), From zero to one hundred, in: HBM 05/2023, p 14.

productivity, and effectiveness. Thirdly, specialist topics must be addressed, which are becoming increasingly important, especially in the AI and digital world. Point four is the so-called work-life balance, which is about balancing or reconciling professional and private life. The personal AI or digitalization agenda can take place within an official, company-related framework or be applied in a highly personal and confidential manner. What is important is the corresponding openness and willingness to change.

Fig. 3: Personal AI and digitalization agenda: tool and example (sales manager)

Background: A regional sales manager of an international company is developing a personal AI and digitalization agenda in order to be properly positioned for the new business model.

Field of Competence	Development Priorities	Conclusion	Support
1. Management skills & competencies	1.1 Participation in the management development program "AI and Digital Management" (change and project management, employee management)	24./25.02., 07./08.05.	Rainer
	1.2 Semi-annual development meeting with sales CEO with focus on "New World"	30.05., 24.11.	Leiss
	1.3. ...		
2. Self-management and work methodology	2.1 Deepening the topics of self-management and working methods through AI and digitalization (especially communication and filing processes)	30.06.	-
	2.2 Increased competence and more consistency in delegation: better usage of AI and digital media in delegation (resubmissions...)	31.12.	Hofner, Lehner
	2.3. ...		
3. Specialist topics	3.1 Participation in the "AMID-Pro" and "LeanLab 3.0" training programs	31.12.	PE / Technology
	3.2 Participation in the IHK Congress "AI in Marketing & Sales"	03./04.09.	-
	3.3. ...		
4. Work-Life balance	4.1 Increase in productivity through digital processes: max. 50 hours per week in 90% of all working weeks	31.12.	Höfner
	4.2 Implementation of the digital office	31.03.	Lutz
	4.3. ...		

AI and digitalization can only succeed with professional HR development.

Research into AI and digitalization has been going on for years and there are now many positive examples from corporate practice. The findings can be summarized simply: AI and digitalization will only succeed if employees and managers engage with them and implement them individually. With the personnel development cockpit and the personal agenda, a company has two effective methods at its disposal to ensure that AI and digitalization are aligned with human resources. At the same time, this is an important driver for a culture of change capability so that AI and digitalization become effective in the "new world".

Summary: Application and benefits

1. Raising awareness of AI and digitalization among employees and managers
2. Consistent support of AI and digitalization through personnel development
3. Central component of an AI and digitalization strategy
4. Important driver for a culture of changeability

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COCKPIT FOR THE DIGITAL TRANSFORMATION

Prof. (FH) Dr. Roman Stöger

ISSUE #46 | JULY 2023

COCKPIT FOR THE DIGITAL TRANSFORMATION

DEVELOPING A COMMON UNDERSTANDING OF DIGITALIZATION

Digitalization is one of the key topics of the 21st century. Many companies have identified digitalization as a strategic challenge and are working on solutions. In recent years, thousands of books, articles, and specialist publications have been published that examine the topic from different angles and show where opportunities and potential lie. What is still overlooked in research and publications is the question of how to implement digitalization.

By Prof. (FH) Dr. Roman Stöger

I. THE NEED FOR THE RIGHT UNDERSTANDING OF DIGITALIZATION

Many companies identify digitalization exclusively with IT, big data, and system solutions. On the one hand, this perspective is problematic because employees and managers do not participate in the discussion due to a perceived lack of IT expertise. On the other hand, there is a risk of organizational silo formation because the topic is delegated to technology or IT. The Internet, IT, and technology are not new. They have all been around for decades. What is new is intelligence, individualization, decentralization, networking, speed, sustainability, and the transformation in business models.[7]

Particularly in times of crisis, inflation, and labor shortages, digitalization should be seen as an opportunity to fundamentally review the business once again. The key question for management is: "How can we turn the potential of digitalization into real benefits and tangible results?" This does not necessarily mean completely revolutionizing the business logic. Digitalization often means further development in small steps. In all cases, a professional approach and proven methods are required. There are now many excellent examples of digital practice from which we can learn and which show an astonishing similarity in their procedures. This also applies in the same way to artificial intelligence.

[7] See Hoffmeister, C., Digital Business Modeling, Munich 2015, p. 320 ff.

Digitization means
thoroughly putting the business to the test.

A shared understanding of digitalization within management is the starting point for any digitalization program. The basis for this is the willingness to question one's own business openly and self-critically: What do we understand by "digitalization" - and what don't we? What business are we really in? Where is the actual customer benefit? Why have we been successful so far? What are the foundations of tomorrow's success? Do we recognize new developments in time? Are we perhaps even ahead of change? Are we making the necessary decisions in time? Are we quick enough in implementing them? By asking these questions, we can make an entrepreneurial and market-focused start to digitalization. Technical questions are important, but should only be asked on this basis. And without the answers to these questions, a move into artificial intelligence would not be possible.

2. CUSTOMER BENEFITS AND AREAS OF TENSION IN DIGITALIZATION

There is one central point of orientation for understanding digitalization - and that is customer value, i.e. where a company is different and better. At the end of the day, the question is whether a customer is willing to pay a fee for a digital solution. This is the key to transformation. Customer value is the source of competitive advantage, market share, and the driver of innovation. Every company needs suitable "radars and sensors" in the markets perceive change and transformation. High profits, a successful past, rigid structures, and a hierarchical understanding of leadership can be dangerous because they may fail to detect these signals from the market and the future.

The challenge for management is not data warehousing, response systems, or cloud solutions. The art of management is to combine all of these and achieve real results. The focus is therefore not on "big data", but on "big results". Even though it is often said that data is the gold of the 21st century, digital practice shows that this is not true. Data in itself does nothing, creates no value, only creates costs, and increases complexity. Data only becomes gold when it is transformed into real solutions for customers and for the company. This is exactly what the examples of Babolat, Schindler, Bose, Diebold, John Deere, Daimler Truck Fleetboard, Philips Lighting, Medtronic, and others demonstrate.

The focus is on "big results" rather than "big data".

An empirical study at[8] (see Fig. 1) clearly shows the areas of tension in digitalization. Over ninety percent of the managers surveyed confirmed the great importance of the topic. This is well within the expected range and demonstrates the relevance of the topic. However, it is astonishing that less than fifty percent of managers have a common

[8] See Stöger, R., Implementing digitalization, Stuttgart 2019, p. 29.

understanding of digitalization. A similar area of tension is evident when it comes to the question of organization and business model: while almost two thirds of managers state that both will change, only a third are clear about how structures and processes need to be adapted. The corresponding digitalization structure is at least as important as the digitalization strategy.

It is not surprising that over eighty per cent believe that personnel and management development plays a key role in digitalization. However, when asked whether management processes support digitalization, only around thirty percent respond in the affirmative. This proves once again that many planning, target and personnel processes come from the old world and are not a good basis for a new, digital world. The result of these empirical phenomena is the finding that only twenty-eight percent of managers are satisfied with the speed and impact of the digitalization initiatives launched to date. In many cases, the digital practice of company management is marked by disillusionment

Fig. 1: Digital practice in companies - statements from managers...		
"Digitalization is a key strategic issue for the future."	>>	**91 %**
"We have a common understanding of digitalization in the management team."	>>	**47 %**
"The business model and organization will change as a result of digitalization."	>>	**63 %**
"We know how we need to adapt structures and processes to digitalization."	>>	**34 %**
"Personnel and management development plays a key role in digitalization."	>>	**81 %**
"Our management processes in particular enable the digital transformation."	>>	**31 %**
"I am satisfied with the speed and effect of the measures taken so far."	>>	**28 %**

3. THE COCKPIT FOR DIGITAL TRANSFORMATION

A key issue in the digital transformation is effectiveness. Companies with a strong implementation capability will only launch corresponding projects, initiatives and programs if there is a common understanding of digitalization within the management team. This applies to the initial situation, the challenges, and the company-specific definition. It is also advisable to assess the status, i.e. digital solutions that have already been implemented and ongoing or planned key measures. It is always surprising how many companies have little or no overview of digitalization: What has already been achieved? Where do they have experience or skills & competencies? What can already be used? Which topics have been initiated or still need to be decided? (see Fig. 2) To put it bluntly: How can big data succeed if there is not even a "big overview"?

Fig. 2: Core topics for a common understanding of digitalization	
1. **Assessment of the current situation regarding digitalization**	1. Current status of digitization in the company (measures, projects, "construction sites"...) 2. Understanding in the company regarding digitalization (applications...) 3. Digitalization skills available or to be expanded
2. **Business challenges with regard to digitalization**	1. Drivers for digitalization from within the market, especially customers, competitors, suppliers, substitution, ... 2. Digitization potential for products, service providers, ... 3. Necessary productivity, process, and quality optimization through digitalization
3. **Company-specific definition of digitalization**	1. Presentation of what is understood by digitization - and what is not 2. Explicit statements on affected digitalization topics: Market position, customer benefits, quality, innovation, productivity, profitability, corporate culture, ... 3. Clarity about the necessary communication requirements so that there is a common understanding of digitalization
4. **Digital solutions implemented**	1. Presentation of which digitization topics have already been implemented 2. Inclusion of topics that do not fall under "digitalization" but have a de facto digitalization effect 3. Creation of an overview of the implemented measures, projects, strategies, ...
5. **Ongoing digitalization initiatives and projects**	1. Inclusion of all discussed, planned, or initiated topics related to digitalization 2. Presentation of all ongoing projects or measures with a digitalization effect that are not designated as "digitalization" 3. Summary of all relevant digitalization topics

The "Cockpit for Digital Transformation" tool (Fig. 3) can be used to support the digitalization process. A new digitalization program can be launched or an existing one strengthened based on the most important core topics for a common understanding of digitalization. In addition to the assessment of the current situation, the business challenges for digitalization are presented there. The company-specific definition of digitalization and the implemented or ongoing projects, completes the overall picture. It also shows where adjustments or improvements still need to be made. Management

then has a unified opinion, an overview, orientation, and the basis for the subsequent development of new priorities for the digital world.

Digitalization is changing many things - but not the laws of business.

In today's zeitgeist, people like to talk about the digital revolution or disruption through artificial intelligence. However, it is clear that digitalization does not change the fundamental laws of business. The central question is still: is the customer prepared to pay a fee for a digital solution? What digitalization is changing, however, is our willingness to change[9] . The bottleneck is not the proposals, potential, opportunities or ideas. The decisive factor is the implementation strength of our companies. And this does not require a cloud or Silicon Valley, but competent management. The prerequisite for any transformation is clarity about the starting point from which the change is to be brought about. This is precisely the aim of the digital transformation cockpit.

Summary: Application and benefits
1. Systematic diagnosis of the current situation regarding digitalization in the company, i.e. what is available and what is not 2. Clarity about the challenges as justification for digitization 3. Overview of the digitalization initiatives that have been launched or are planned 4. Development or review of the definition of digitalization by management

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[9] Cf. Kotter, J., Accelerate, Munich 2015, esp. chapter 5.

Fig. 3: Cockpit for Digital Transformation: tool and example (Engineering & Construction)

Background: An international engineering and construction firm is developing a digitalization program for the entire company. The cockpit provides the basis for systematic discussion and decision-making.

A. Status, challenge and definition of digitalization

1. Assessment of the current situation regarding digitalization	1. Numerous digitization-relevant projects or key measures in planning or implementation (e.g. procurement...) - but no overall picture 2. No strategy or common objectives for major digitalization initiatives 3. Skills / competencies regarding digitalization available in various places, but lack of overview and no corresponding control of knowledge or personnel development
2. Business challenges with regard to digitalization	1. Increasing digitalization pressure from customers and suppliers (process integration, digital interfaces, digital communication, etc.) 2. New digital business models, especially for industrial service providers in the market (service, maintenance, training, etc.) 3. More intensive cooperation with outsourced value-added activities, especially with regard to logistics and R&D partnerships
3. Company-specific definition of digitalization	1. Customer benefits: Digitalization refers to all electronic and automated services that create customer benefits, give us a competitive edge and for which the customer is prepared to pay a service fee. 2. Productivity: Digitalization relates to increasing productivity in all processes and all stages of value creation. This also applies to all interfaces with customers, suppliers and business partners. 3. Business model: Digitalization can be based on the existing business model or also apply to new business models. The main driver for this is the development of knowledge regarding digitalization.

B. Digitization in the functions / areas

Function / Area	Digital solution implemented	Ongoing market projects	Ongoing productivity projects
1. Sales and customer service	• Web store for standard spare parts • Digital customer portal (conferences, trade fairs...) • ...	• Servicing app • Expansion of interactivity via the portal or existing apps • ...	• Structure of the customer process workflow • Full changeover to electronic deployment control • ...
2. Procurement and inbound logistics	• Digital tracking: Logistics status • Automated interfaces to warehouse and merchandise management • ...	• Development of GPS solution for advance delivery notification • Development of digital delivery window • ...	• Further development of supplier portal • Further development of existing EDI solution • ...
3. Engineering	• ...		
...			

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CUSTOMER ORIENTATION WITH DIGITALIZATION

Prof. (FH) Dr. Roman Stöger

ISSUE #42| NOVEMBER 2022

CUSTOMER ORIENTATION WITH DIGITALIZATION

CREATING BENEFITS AND INCREASING COMPETITIVENESS

Why does a company exist? This question can be discussed at length, but at the end of the day it always comes down to one thing: creating satisfied customers who are willing to pay a bill for a service and are happy to come back. As simple and old-fashioned as this principle may seem, it is highly topical. There is a lot of talk about revolutionary topics in the digital world: Artificial intelligence, augmented reality, networking, blockchain, platform models, etc. Of course, these are exciting discussions and every company has to face up to these topics of the future. However, customers are being mentioned less and less in this debate, and if they are, then only in very abstract terms. This is precisely why it is necessary to "calibrate" digitalization discussions again and again and focus on one thing: Customer benefit.

By Prof. (FH) Dr. Roman Stöger

Customer orientation is neither new nor disruptive - and is given, especially for experienced entrepreneurs and managers. Peter Drucker stated decades ago that "The purpose of a business is to create a customer." The purpose of every company or organization is therefore to create a satisfied customer or customer value. Almost all other aspects of corporate management are derived from this principle. This fundamental understanding is necessary in order to conduct the digitalization discussion correctly. If we talk about technology, IT, data, and processes without thinking in customer terms, there will be no competitiveness and no turnover.

Purchase criteria are different from quality criteria.

The definition of customer benefit is very simple: it refers to all product, service provider, and image features that the customer perceives as decisive for the purchase decision relative to the competition[10] . The term purchase decision is a better business term than quality because it focuses on the essential momentum: the customer's actual decision in favor of the product or service provider. Quality and price or the price-performance ratio are of course important components, but must always be examined with regard to their effect on the actual purchase decision. This is the basis for marketing, acquisition, sales, customer loyalty, continuous improvement, and innovation.

[10] Belz, C., Value Selling, Stuttgart 2016, p. 153.

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Digitization must be measured against this, whether customer benefits are created.

Four levers for increasing customer benefit through digitalization can be identified from the numerous examples of success that have now emerged[11] (see Fig. 1). The first is increasing quality. This involves the targeted improvement of product and service criteria that are decisive for purchasing by digital means. It also involves influencing the image and integrating additional services and benefits. The second lever is the optimization of the relative price through digitalization. On the one hand, digitalization offers the prerequisite for price reductions, for example through automation. On the other hand - and more importantly - the same or higher prices can be justified with more customer benefits. This can be combined with value pricing approaches, and digitalization also facilitates pricing tools such as competitive pricing, best prices, discounts, and more.

The third lever for increasing customer benefit is the influence on the customer's processes and employees. This involves the digital integration of customer processes and the usage of digital tools by customers, such as online training. Digitalization also offers the opportunity to let customers themselves be part of the value creation process, for example, in development. As a fourth lever, digitalization can be used to make switching providers more difficult, or even to prevent it. This includes, for example, digital incompatibility with other interfaces or systems, the use of digitalization for customer loyalty and increased process and usage correlations of market performance. Digital solutions and artificial intelligence (AI) in particular can also support long-term contract design, e.g. for maintenance, service, and warranties. These four levers show that digitalization is much more than just technology, big data or IT. It is the comprehensive questioning and improvement of customer benefits through digitalization.

Digitalization programs and digitalization strategies should always, and consistently, be based on customer benefits. Customer benefits are at the center of all key questions regarding customers (groups), products, service providers or marketing. An example: Autodesk, a 3D design, engineering and entertainment software company, has developed a digital solution for the creative process for designers. In the "old world", this was the exclusive domain of creative workers. For the "new world", Autodesk developed the Dreamcatcher system, which actively makes design suggestions based on input from designers. This software supports the creative process in terms of content and at the same time ensures greater productivity. The software is part of the customer's process world and increases customer loyalty through its performance.

[11] Stöger, R., Implementing digitalization, Stuttgart 2019, p. 92 ff.

The discussion on digitalization is being driven by customer benefits. Market-related.

Fig. 1: Levers for increasing customer benefit through digitalization	
1. Improving quality through digitization	1. Improvement of the product features that are decisive for purchasing (value, product benefits...) 2. Expansion of service features that are decisive for purchasing (processes, consulting, etc.) 3. Influencing the image in the sense of the purchase decision (brand, exclusivity...) 4. Integration of additional services and benefits
2. Optimization of the relative price through digitization	1. Realization of higher prices through even greater customer benefits 2. Implementation of "Digital Value Pricing" credible presentation of digital added value and division between customer and provider 3. Usage of price reduction through digital possibilities (automation, avoidance of processes...) 4. Adaptation of classic pricing tools to digital solutions: competitive pricing, best prices, discounts, purchase incentives...
3. Influencing the client's processes and employees	1. Integration of customer processes into your own company through digitalization (structure, logic, data, control...) 2. Introduction of digital tools at the customer incl. training, involvement of employees... 3. Customer integration in success-critical processes, e.g. development, production, sales, service 4. Targeted influence on customer decisions in the direction of digitalization
4. Preventing or making it more difficult to switch providers	1. Use of digitalization for retention measures, e.g. temporary contracts or incentives for follow-up purchases 2. Increased process and usage relationships such as services, components, replacements 3. Digital incompatibility with other interfaces, data logics, systems, and services 4. Usage of digitalization for long-term contracts, e.g. maintenance, service, warranties

Digitalization can be used for customer loyalty. This leads to lower acquisition costs and supports the most credible form of market communication by far - the recommendation of a satisfied customer. Customer loyalty refers to all services and activities that lead to customers remaining loyal after a purchase and making their next purchase decision in our favor. Improved customer information, faster processing, and integration into a digital community are examples of customer loyalty measures that are significantly more effective through digitalization than in the analog world.

The methodology for identifying and increasing customer benefits is the so-called digital customer benefit cockpit (see Fig. 2). This can be used to systematically develop opportunities for digitalization. First, the most important products and service providers are noted. This is done according to segments or customer groups and depends on the scope of the object under consideration. The purchase-deciding criteria, i.e. all those factors that are important to the customer and trigger a purchase, are recorded along

these market services. Innovation and improvement opportunities through digitalization are then developed based on the products, service providers and purchase-deciding factors. These are then concretized in the form of measures, deadlines and responsibilities.

It's not about "Big Data",
but about "Big Customer Value".

The Digital Customer Benefit Cockpit can be used universally. Existing market services can be systematically optimized. At the same time, it provides impetus for innovation. In particular, by identifying the criteria that determine the purchase, clarity is created as to what the customer is actually paying an invoice for. Implicitly, this can also be used to work on positioning against the competition. The procedure ensures that digitalization has a consistent market orientation and that customer benefit is at the heart of all considerations and initiatives[12] . In this sense, it is not about "big data", but about "big customer value".

Summary: Application and benefits
1. Aligning the digitization discussion with customer benefits and thus the market
2. Clarity about purchasing criteria and competitive positioning
3. Basis for continuous improvement and systematic innovation
4. Core element in a digitalization strategy and in implementation controlling

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[12] See Schallmo, D., et al, Digital Transformation of Business Models, Wiesbaden 2017, p. 33 ff.

Fig. 2: Digital customer benefit cockpit: tool and example (logistics)

Background: As part of a digitalization programme, a logistics company is systematically working on increasing customer benefits.

Project	Decisive purchasing criteria	Improvement through digitization	Measure	Date	Responsible
1. Inter-media solutions worldwide	• Range of service providers • Punctuality • Reliability • Contact person on site • Understanding the process • Price system	• Real-time information on delivery status • Forecasting tool • Integrated process solution for merchandise management	1.1 Development: real-time information system and testing with three reference customers	28.02.	Light
			1.2 Implementation of the integrated WaWi process solution according to plan	30.06.	Miller
2. Out-sourcing package "Warehouse & Logistics"	• Productivity benefits • Optimization of logistics balance sheet • Reliability • Process transparency • Process integration • Contact person on site	• Digital expansion to purchasing and procurement processes • Transfer and integration capability of all customer and supplier data	2.1 Integration of purchasing and procurement processes in "Outsource2.0" plus implementation at A-customers and definition of an action program	31.03.	Small
			2.2 Preliminary project and decision proposal to GF regarding integration of the complete procurement data landscape	30.11.	Kutic
3. Industries package for LEH	...				
4. ...					

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CHANGE MANAGEMENT FOR DIGITALIZATION

Prof. (FH) Dr. Roman Stöger

ISSUE #37| JANUARY 2022

CHANGE MANAGEMENT FOR DIGITALIZATION

MANAGING AND IMPLEMENTING CHANGE CORRECTLY

The media usually cite prominent examples of digitalization such as Google, Uber, or AirBnB, which are not only changing business models but entire industries. These examples are impressive, but are still the exception. The normal case is that existing companies continue to develop themselves and their market services digitally, i.e. business evolution rather than revolution. For established companies in particular, the challenge is to build up and maintain the ability to change and to use it for change.

By Prof. (FH) Dr. Roman Stöger

The importance of change management has been recognized and systematically researched since the 1990s. In the meantime, the realization has also become established in management theory that, at its core, it is always about transformation, i.e. from an actual state A to a target state B, from an "old world" to a "new world." Anyone who still sees leadership today as the defense of existing conditions and business models will have difficulty keeping pace with change.

THE THREE DIMENSIONS OF CHANGE MANAGEMENT

The term "change management" refers to methods, procedures, and initiatives to ensure a company's ability to change[13] . Particularly in the context of digitalization, the aim is to keep pace with change and make the most of opportunities. There are three dimensions that need to be managed if the digital transformation is to succeed: the factual-rational, the process-related, and the emotional-behavioral.

Change management can only be understood in three dimensions.

"Objective Rational" refers to the entrepreneurial goals of digitalization, e.g. new digital solutions or increasing market share through digital sales channels. Managers think almost exclusively in this first dimension. This is positive in that the focus is on the result. This focus becomes negative if the other two aspects are not taken into account. The result: the objective is not achieved or is only achieved with significantly greater effort. There are still many managers who believe that just because a goal is right, it will automatically be accepted and implemented.

[13] Vahs, D. / Weiand, A., Workbook Change Management, Stuttgart 2020, p. 18 ff.

In change management, "process orientation" means that change must be systematically planned and implemented. This includes professional project management, communication, documentation, meeting management, implementation controlling, and so on. In other words, the focus here is on methods and tools. This technical dimension is not new or complicated. However, many examples of failed changes show that an unprofessional approach was taken here in particular.

Fig. 1: Success factors in change management for digitalization	
1. Consistent understanding of digitalization in management	• **Establishing** a common opinion on digitalization: products, service providers, business model, processes, productivity... • Further development of the mission statement, strategy, or organization in the event of major changes due to digitalization
2. Communicating the necessity of digitization	• Making the transformation from the Old World to the New World understandable: reasons, benefits, perspectives... • Active involvement of employees and managers, especially as drivers of the process
3. Clear orientation through a digitization program	• Development of a digitalization strategy as the basis for goals, implementation, review and communication • Creation of a digitalization radar, i.e. real-time information on changes (markets, customers, competitors, networks, technologies...)
4. Noticeable improvement in customer benefits and productivity	• Increasing customer benefit by further developing strengths, market services, and competitive advantages • Usage of all digital possibilities for the (permanent) expansion of productivity and process performance
5. Adaptation of structures, development and management processes	• Adaptation of the organization to the requirements of the New World, i.e. business, support and management processes • Ensuring digital fitness through personnel and management development
6. Establishing a culture of adaptability and implementation strength	• Impulses for the corporate culture to support the change programs • A professional corporate culture as a result and driver of the digital world

A real goal does not necessarily mean it will be implemented.

The "Emotional-Behavioural" dimension is the most underestimated and at the same time most difficult topic: digitalization often means significant changes of a company from an "old world" to a "new world." People are typically security-, habit-, and past-oriented. A digitalization initiative is therefore often met with doubt, skepticism, or resistance. Behavioral patterns and reactions of employees, managers, customers, suppliers... must therefore be taken into account. For example, clear messages, the involvement of those affected, or the right way to deal with resistance.

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THE SIX SUCCESS FACTORS OF CHANGE MANAGEMENT

These three dimensions of change management influence each other, overlap, reinforce, or contradict each other. Those responsible for digitalization programs should therefore gain clarity about these topics and, above all, the dynamics from the very beginning. Based on decades of experience with change management, six factors can be identified that have a significant influence on success and provide a framework for transformation[14] (see Fig. 1). These factors are not complicated and do not require lengthy explanations. They can be easily applied to diagnose strengths and weaknesses in change management and to develop a change program. Precisely because digitalization poses even greater challenges for people and organizations, these success factors must be managed professionally.

1. A uniform understanding of digitalization in management: Every change process begins with establishing a shared understanding of digitalization within the management team, because change is heavily influenced by leadership. There must be clarity about what is being changed and what the consequences are. In the case of a real transformation, this can lead to the adaptation of a mission statement, a strategy, an entire organization, etc. The unified opinion of the management is the basis for planning, communicating, and implementing corresponding initiatives.

2. Communicating the necessity of digitalization: The implementation of the "new digital world" is fundamentally dependent on the necessity of digital change being made clear. This justification can only come from the market, e.g. different customer expectations, new competition, or substitutive technologies. Especially if the operating figures are good (sales, liquidity, profit), there is a great risk that the company will remain stuck in the "old world." The fact that figures are positive today leads to the false conclusion that the future path is the right one. Communicating the "need for change" is best achieved by actively involving and challenging employees and managers.

Good operating figures are dangerous for change.

3. Clear orientation through a digitalization program: Change always needs a factual basis, i.e. a digitalization strategy with concrete goals, key measures, and corresponding resources. It is not about presentation shows, but about technical professionalism. Wherever possible, personal contributions should be defined so that digitalization does not remain abstract and non-committal. A "radar" should be installed during and after implementation: It is about real-time information on what is happening

[14] Cf. part I in: Kotter, J., Change, New York 2021.

in the markets, whether the measures are effective, what new competitors are emerging, etc.

4. Tangible improvement in customer benefits and productivity: When change is tangible, it is more likely to be accepted, internalized, and implemented. On the one hand, this can relate to the market or customers: a better product, a different service provider, or a new business model. On the other hand, tangible changes can also take place in productivity: faster processes, greater agility, more flexibility, and self-control. This is where there is a connection to another key current issue, namely the shortage of skilled workers: good people like to work in a successful company, where something is being done, where something is moving and can be felt.

Good people work where things are moved and changed.

5. Adaptation of structures, development and management processes: For digital changes to be effective, the organization must always be adapted - especially in terms of clearly defining tasks, decision-making authority, and areas of responsibility. Any digitalization strategy in the "new world" will fail if it is to be implemented with the organization of the "old world." The focus is on adapting business, support and management processes. At the same time, personnel and management development must also be reviewed and aligned with the "new world."

6. Establishing a culture of change capability and implementation strength: The question of whether the corporate culture supports or hinders digital change projects is also critical to success[15] . This is about the ability to network, solution orientation, self-organization and a focus on results. A corporate culture that is primarily based on the "old world", i.e. the past, will not be able to take the step towards digitalization. In such cases, management is called upon to develop appropriate impulses and measures, to further develop the culture. Culture is therefore both a driver and a product of major change.

The Change Cockpit makes change processes manageable.

The six success factors of change management mentioned above can be applied in practice as a "Digitalization Change Cockpit" (see Fig. 2). The first step is to carry out a self-critical assessment of the success factors for change management. The aim is to recognize patterns and identify potential obstacles or "blind spots" at an early stage. Secondly, the change drivers for the digitalization project are identified. These can be facilitating or hindering factors and also result from the discussion of success factors. Thirdly, change measures are then developed so that the digitalization project has a real chance of implementation and does not get stuck in the "old world." This is precisely

[15] Stöger, R., Implementing digitalization, Stuttgart 2019, p. 153 ff.

where professional change management comes in and accompanies the digital transformation to ensure that a project produces real results.

Summary: Application and benefits
1. Active change management as the key to digital transformation 2. Regular diagnosis of the company's ability to change 3. Shared view of change drivers and their design 4. Targeted intervention, impetus and measures to support the respective digitalization initiative

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Fig. 2: Change cockpit for digitalization - tool and example (bank)

Background: A bank manages the digital change process with the Change Cockpit. Regular reporting and reflection takes place at the two-weekly management meetings.

A. Assessment of the success factors for change management

Success factors	Assessment
1. Uniform understanding of digitalization in management	• Uniform understanding in top management, but not in the other management levels • No "master plan" for digitization
2. Communicating the necessity of digitalization	• No broad-based development of the "digital world" and lack of communication • Prejudice and uncertainty in the team
3. Clear orientation through a digitization program	• Many ongoing but uncoordinated initiatives (business areas, functions) • Lack of process methodology or tools
4. Noticeable improvement in customer benefits and productivity	• Objective Great opportunities through digitalization both in the market and in process efficiency • Many proposals and some measures initiated
5. Adaptation of structures, development and management processes	• No further development of structures or personnel/management development based on digitalization • No management processes for digitalization
6. Establishing a culture of adaptability and implementation strength	• Existing culture of performance, results orientation and trust • No explicit cultural development

B. Identifying the drivers of change

Factors that promote change:	Obstacles to change:
1. Uniform understanding in top management **2.** Objective Great opportunities through digitalization: new business areas and process efficiency **3.** Many proposals and numerous measures initiated in the direction of "digitizing the business model" **4.** Great dynamism and implementation strength in the company **5.** Culture of performance, results orientation and trust **6.** ...	**1.** Different opinions at the management levels **2.** Lack of a "master plan" for digitization **3.** Prejudice and uncertainty in the team **4.** Lack of methods and tools for developing, deciding on and implementing digitalization **5.** No organizational, personnel and management development in the direction of the new, digital world **6.** ...

C. Change measures to support digitalization			
No.	**Change measures**	**Date**	**Responsible**
1	Joint development of a "master plan for the digital world" in the management team ("change camp" for the company and subsequently for business areas and functions)	31.03.	Stüber
2	Adaptation of the most important company processes to the overall digitization strategy (clearly defined tasks, decision-making authority, and responsibilities.)	30.09.	Cellar
3	Clarification of the necessary changes or adjustments in the management processes (target agreement, corporate planning) or in the management bodies	30.09.	...
4	...		

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DIGITAL CONTENT MARKETING

Dr. André Haller

ISSUE #30| NOVEMBER 2020

DIGITAL CONTENT MARKETING

ATTRACTING THE CUSTOMER'S ATTENTION

Traditional media such as radio and print, streaming services, and other online offerings are competing for the most valuable commodity in the media society: human attention. In the digital world in particular, the challenge of drawing the attention of internet users, interested parties and customers to your own products and service providers is becoming ever greater. This is exactly what digital content marketing is all about.

By Dr. André Haller

"ATTENTION" AS A SUCCESS FACTOR FOR MARKETING AND SALES

The flood of advertising stimuli, whether analog or digital, overwhelms most people and leads to frustration with marketing measures. Customers see through traditional advertising and PR campaigns and are also distracted by competing (media) offers, such as video or music streaming or other entertainment media on the Internet. One solution strategy for companies is "content marketing".

Digital content marketing distinguishes itself from traditional online marketing and focuses on specific content that is designed to inspire users. This puts the focus back on a principle that is often overlooked in digital times and due to an unreflective enthusiasm for technology: Customer benefits[16] and thus the company's ability to be different and better. The content is designed to add value and offer internet users the information or entertainment that actually interests them. Attention-grabbing content is a good way to direct users to your own offers and increase customer loyalty.

At the center is the question:
Where are we different and better?

Communication measures in marketing and sales only make sense if the specific content is designed to attract human attention. Science speaks of an age of the "attention economy"[17]: an increasing flood of stimuli, especially from entertainment media, is streaming onto recipients. This is particularly true of the Internet: For example, the number of domains with .de domain extensions has grown to over 16 million since 1994. This leads to an increasingly difficult situation for marketing and sales managers, who can no longer get through with their communication offers. Attention has become a

[16] Cf. the classic on the subject of customer benefit: Drucker, P., Managing for results, Oxford 1964, p. 85.
[17] Cf. Franck, G., Ökonomie der Aufmerksamkeit: Ein Entwurf, Munich 1998 and Barth, P., Aufmerksamkeit, Bonn 2017, p. 11 ff.

scarce resource, and is therefore central to all forms of advertising, PR, sales, customer service, and support.

"WHAT DO WE STAND FOR?" AS THE DECISIVE QUESTION

Many companies and agencies react to this fact in different ways and rely on a quantitative increase in advertising messages in the hope of overcoming the attention thresholds of message recipients. Others try the opposite strategy targeting people more precisely, for example through sponsored content on social media platforms, a practice known as "targeting." Both approaches can be helpful, but are only effective if the specific advertising content meets the target group's tastes and attracts attention. After all, it is of no use to potential or existing customers if they are inundated with numerous online advertising messages on the one hand, but there is no real benefit for them to respond to the offers and make a purchase decision.

High advertising budgets are not enough,
the content must appeal to the target group.

This is exactly where content marketing comes in. This form of marketing focuses on the production and provision of content that is relevant to specific target groups and offers them real added value. Content marketing is not about showing that a company is very creative and wants to express itself through videos, texts, and images. Content marketing is specifically geared towards corporate goals. Examples include increasing sales, increasing market share, increasing the number of likes for your own social media pages, acquiring new customers, intensifying customer loyalty, increasing the number of subscribers to a newsletter, and so on. Against this backdrop, content marketing is nothing more than the question of what the company stands for and why customers or certain customer groups should opt for an offer. These questions (still) have nothing to do with the Internet, online, digitalization, but touch the core of corporate management, asking the question: What are we there for and what benefits do we provide? High advertising budgets and sophisticated web concepts cannot answer these questions. Management must first have clarity themselves - and then create clarity for others. (See Fig. 1).

A common mistake when creating content for offers is that companies focus on products or service providers and not on the benefits or the question of why customers are buying something. The result is digital advertising that is recognized as such and rejected by the user. A humorous, but quite serious quote from a manager at Villeroy & Boch shows how to do it better: "You can't write much about toilet bowls. If there is, it's nothing that people are interested in. But you can write great stories about the Orient Express. And it has toilet bowls from Villeroy & Boch in it."[18] Now that many offers are

[18] Lammenett, E., Practical knowledge of online marketing. Affiliate, influencer, content and email marketing, Google Ads, SEO, social media, online and Facebook advertising, Wiesbaden 2019, p. 320.

comparable, aspects such as emotion, stories, brand etc. have become so important. The focus is not on the product or service, but on customer benefits and thus the question: What is the customer actually paying for?

The linchpin of digitalization is the benefit for customers.

Especially in our digital world, companies should focus on entertaining or interesting stories about their own product worlds - in the best case, both. In the sense of "storytelling", stories are told in digital content marketing that touch customers emotionally or rationally and encourage them to consume more content or make a purchase decision. A best-practice example from the B2C sector is Edeka's cooking blog, in which the supermarket chain presents recipes in a visually sophisticated way. The user moves within the Edeka brand environment and can quickly access further Edeka content if required. A "supermarket" can thus be felt and experienced in a different way.

Content offerings are also useful in the B2B environment: for example, the blog of bottling line manufacturer Krones gives business partners insights into the company and offers multimedia reception experiences through videos. The neutral, factual topic of "bottling plant" is charged with people, stories, applications, and so on. In this way, the decisive factor is once again achieved: Attention.

Fig. 1: Key business issues
1. What business are we really in?
2. What does the customer actually pay for?
3. What is the customer benefit?
4. Where are we noticeably different?
5. Where are we noticeably better?
6. What turnover or market share do we want to achieve?
7. What are our goals in terms of customer acquisition and customer retention?
8. What level of profitability do we want to achieve?
9. What does this mean for our innovation performance and our business model?

THE CONTENT PLAN AS THE HEART OF THE CONTENT MARKETING CAMPAIGN

Content marketing is not just creative work – it requires precise planning to fill blogs, social media pages, podcasts, and other offerings with valuable content (see Fig. 2). Digital marketing managers should create a content plan in which content or stories are sent out for a specific period of time (see Fig. 3). Providers such as t3n.de offer templates for such plans free of charge. The advantage: important dates and anniversaries are already saved in these templates. For example, companies can prepare content for a specific anniversary or other event.

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It is crucial that the plan is drawn up over a long period of time to ensure continuity and not - as is unfortunately very often the case - a short-term PR campaign. Professional content plans do not just consist of isolated pieces of content, but long-term stories that bind users to the respective channels. In many cases, external service providers are needed to provide high-quality content. Very few small and medium-sized companies have hired video experts or photographers, for example. Saving on the quality of the presentation is the wrong thing to do: no one would want to watch a television program that was shot with a handheld camera.

Fig. 2: Planning process for content in digital content marketing

Step	Activities	Methods
1. Workshop within the management / marketing / sales team	• Consideration of possible topics based on the corporate strategy or company information • Free brainstorming of ideas	• Group work (company-wide or in departments) • Log of all ideas • Selection of suitable content
2. Creation of the content plan	• Entry of the selected ideas in the content plan (goals, measures) • Consideration of further topics e.g. product life cycle, anniversaries...	• Table for the content plan • Calendar function in Office software • Linking with customer interfaces
3. Implementation and review of effectiveness	• Start of the implementation of the content plan • Regular review of the results	• List of measures • Integration into company-wide implementation lists • Review after a certain period of time

It's about inspiring and retaining users, prospects and customers. to inspire and retain them.

The digital marketing team must be able to be creative here and also explore new avenues. For example, joint content workshops with the individual departments can uncover previously untapped ideas: For example, the sales department of an industrial company used the soccer betting game during a World Cup as a hook for a blog story. This presented the products, the customer-oriented processes and the specific people in a completely different way. This not only has an influence on the marketing of products, but also provide valuable momentum for corporate culture.

There is a tried and tested principle in marketing: AIDA (Attention, Interest, Desire, Action). These four stages also apply in the online world and this is exactly where digital content marketing comes in. The aim is to obtain the scarce commodity of "attention" in order to achieve overarching marketing and sales goals. Content marketing has become indispensable in digital environments and is now a central pillar of corporate digitalization.

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Summary: Application and benefits
1. A clear concept for managing "attention" 2. Concrete starting points for increasing customer benefits and customer loyalty 3. Creative development of a content plan with corresponding continuous and professional implementation 4. Impulses for a market- and customer-oriented corporate culture

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Fig. 3: Digital content plan: tool and example (retail)

Background: A trading company specializing in mechanical engineering products develops a content plan to continue to position itself as the "No. 1 in customer orientation" in the industry.

Date	Occasion	Contents/messages	Channel	Responsible
02.01.	Start of the year	• New Year greetings • Useful tips for using the product	Mail	M. Blacher
03.03.	Industry Day	• Personal video message from the CEO Managing Director • Presentation of customer projects	Mail Facebook	M. Blacher
May/June	Champions League final	• "Personal and sporting greetings" from production, service and sales • Betting game for quality numbers	Mail Facebook Video	A. Janovic
15.09.	Inter-Trade" trade fair	• Innovations in the industries • "Best practice applications" of the manufacturers	Trade fair Mail Facebook	F. Zeller
07.11.	Engineers' Day	• …		
15.12.	…	• …		

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Applied Insights from the FH Kufstein Tirol

DIGITAL FIVE FORCES

Prof. (FH) Dr. Roman Stöger

ISSUE #25| JANUARY 2020

DIGITAL FIVE FORCES

ANALYZING THE NEW COMPETITION AND SEIZING OPPORTUNITIES

Customer habits, products, service providers, and business models are being changed by digitalization in many industries. Above all, the competition is also changing. In the current environment, every company should examine the extent to which existing competitive structures are changing, where opportunities and threats are arising. Gone are the days when only the same "market competitors" were on the move together for decades. Digitalization has become synonymous with change in the markets. With the "Digital Five Forces", companies have the opportunity to examine the competitive structure in a targeted manner and develop an action program for the "new world."

By Prof. (FH) Dr. Roman Stöger

THE COMPETITION OF THE DIGITAL WORLD

The concept here is the application of Michael Porter's Five Forces[19]. This identifies the competitive forces that have a significant influence on competitive relationships and, therefore, represent opportunities or threats. Porter's basic logic does not need to be changed for digitalization. This is an advantage because many managers are familiar with the model and therefore do not need to retrain. Rather, it is a matter of specifying the five forces for the "new world" and drawing the right conclusions: for existing competitors, new competitors, substitution solutions, suppliers, and customers (see Fig. 1).

[19] Porter, M., The five competitive forces that shape strategy, in: HBR 10 Must Reads, On Strategy, Harvard 2011, p. 39 ff.

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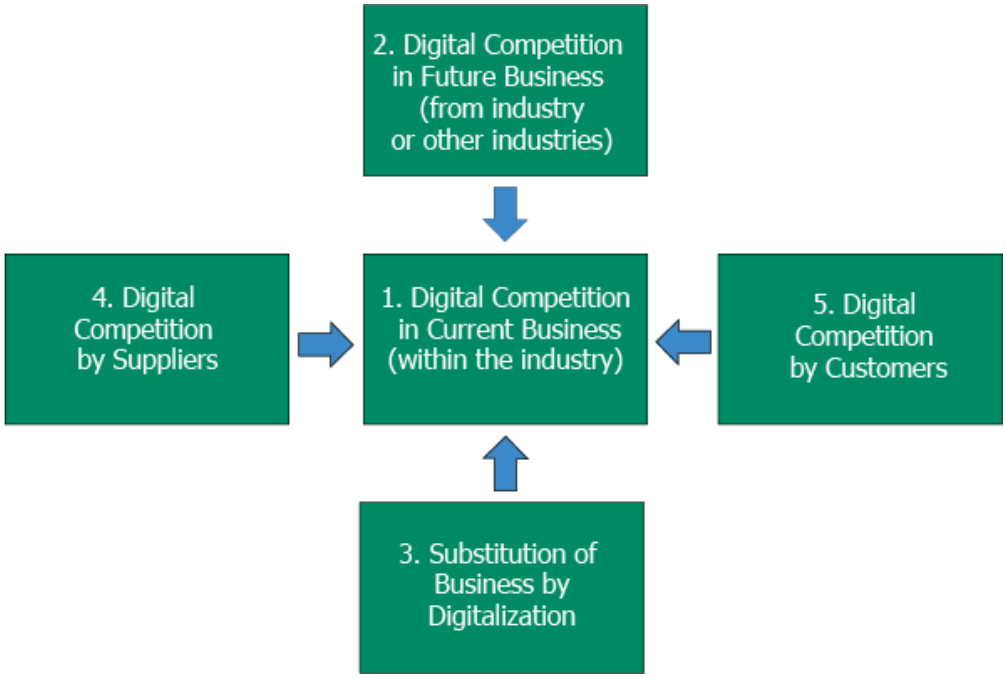
FIG. I: DIGITAL FIVE FORCES (based on M. Porter's model)



The first of the Five Forces is digital competition from the existing industries, i.e. from existing competitors. It examines the extent to which today's direct competition is affected by digital solutions and whether major changes are to be expected. In any case, it is interesting to see which digitalization initiatives are being launched and implemented by existing competitors. Management should have clarity, or at least hypotheses, about the strengths and weaknesses of competitors with regard to digitalization. This concerns market performance, know-how, personnel, and leadership.

Digitalization often means changing the rules of the competitive game.

Secondly, the digital competition in future business from the industry or from other industries is considered. Digitalization often changes existing barriers to entry and this always needs to be examined. In general, the question is where new competitors are developing - but without revolutionizing the rules and logic of the business; the business model therefore remains the same.

The third of the Digital Five Forces is the substitution of business through digitalization. Here, the extent to which digital products, service providers, and business models fundamentally attack existing solutions and industries needs to be examined. The radical variant is that existing business solutions and logics become redundant. This is essentially what the term "disruption" means - a particularly radical and rapid

substitution. In this respect, industries, industry boundaries and competitive structures will almost inevitably shift or even dissolve.[20]

The fourth of the Digital Five Forces is digital competition from suppliers. The first step is to examine whether existing suppliers are becoming more or less important as a result of digitalization - how mutual service relationships and dependencies are changing. In addition, new suppliers can emerge through digital solutions and thus new opportunities in sourcing. In any case, it must always be kept on the radar whether suppliers can become competitors in the new, digital world and to what extent the suppliers' business itself is changing as a result of digitalization.

Digitalization can change industries, products and Make service providers redundent.

Fifthly, digital competition from customers must be examined. Here, too, the initial question is to what extent customer relationships are changing as a result of digitalization, i.e. dependencies, willingness to switch, and so on. It is always exciting to analyze whether the customer's industries or customer behavior are affected by digitalization. Clearly, the question must then be raised as to whether customers themselves could become competitors in the new, digital world. And just as with suppliers, the opportunities of digitalization need to be discussed here.

THE IMPLEMENTATION OF THE DIGITAL 5 FORCES

Airbnb is a prime example of how industries and the rules of the competitive game are changing. This internet portal has developed from a supplier of booking information into the world's strongest player in the hotel industry. Airbnb has not replaced sleeping or staying in other cities - "analog" beds and bathrooms will still be needed. What has been substituted is the focus of the business. The focus is no longer on the millions of beds available, but on fast and affordable accommodation. In addition to shaking up the existing industry, industry boundaries are being opened up at the same time and "sleeping away from home" is being offered in all areas of buildings or rooms. Airbnb's next areas of activity will be the labor market and the real estate market, where digital platform solutions will also lead to changes in competition.

A Digital Competitive Cockpit can be developed using the key questions on the five forces (see Fig. 2). For each of the Digital Five Forces, the first step is to assess the impact on the competition and thus create a scenario. This basis is then used to draw conclusions and initiate measures (see Fig. 3). In practice, not all five forces are equally important for every company and every situation. It depends on the industries, the internationality, the size of the company and the business model which of the five forces are significant and which are not (yet). It will also not always be possible to have a

[20] See Porter, M. / Heppelmann, J., Wie smarte Produkte Unternehmen verändern, in: Harvard Business Manager 12/2015.

discussion based on facts and figures. As a minimum, however, management must develop hypotheses.

Fig. 2: Key questions for the Digital Five Forces	
1. Digital competition in current business (within the industry)	• To what extent is today's direct competition affected by digital solutions? • Which digitalization initiatives are being pushed by existing competitors? • Where do today's competitors have strengths and weaknesses in terms of digitalization (products, services, know-how, personnel, leadership, etc.)?
2. Digital competition in future business (from the industry or other industries)	• How good are the barriers to entry in the digital world (still)? • Where are new competitors developing - without revolutionizing the rules of competition? • How can current competitors differentiate themselves from new ones?
3. Substitution of the business through digitalization	• What completely new products, service providers or business models are attacking the existing solutions? • Where will digitalization lead to genuine substitution, i.e. existing solutions becoming superfluous (disruption)? • How are industries and industry boundaries shifting as a result of digitalization?
4. Digital competition from suppliers	• Are existing suppliers becoming more important or less important? • Will digital solutions create new suppliers? • To what extent are suppliers becoming competitors in the digital world and how is the suppliers' business itself changing as a result of digitalization?
5. Digital competition from customers	• How are customer relationships changing as a result of digitalization (dependencies, willingness to switch...)? • How are the customer's industries or customer behavior itself affected by digitalization? • To what extent can customers become competitors in the digital world?

The aim of every competitive analysis is to gain insights and measures.

The Digital Five Forces methodology and the Digital Competitive Cockpit[21] are a fundamental component of every market analysis and every digitalization strategy and should also be incorporated into benchmarking projects. The digital competitive cockpit should be updated two to four times a year so that the company can build up a "radar". This is not about in-depth analyses or "bean counting", but about further developing the scenario and drawing conclusions. This ensures that management not only talks about digitalization, but also develops findings and implements measures.

[21] Stöger, R., Implementing digitalization, Stuttgart 2019, p. 64 ff.

Summary: Application & benefits
1. Common understanding of digital competition 2. Clarity on the impact of digitalization on competition 3. Identification of risks and usage of opportunities of digitalization 4. Assessment of own positions and targeted action plans

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Fig.3: Digital competition cockpit: tool and example (hotel)

Background: As part of a digitalization strategy, a wellness hotel is developing a competitive cockpit. This forms the basis for future positioning.

Digital Five Forces	Effect of digitalization on competition	Conclusions and measures for your own company
1. Digital competition in current business (within the industry)	• Increasing digitalization in standard processes (booking, program planning...) • Relatively little cooperation with digital portals (health / selfness / wellness service providers) • Concentration and increasing digital skills & competencies	• Urgent catch-up in process digitization (planning, ERP...) • Review and decision proposal regarding cooperation with digital wellness portals • ...
2. Digital competition in future business (from the industry or other industries)	• Market split into premium and commodity segments with their own digital requirements • Entry of service providers into the stationary wellness business • Stronger networking with referrers (health insurance companies...)	• Medium-term positioning in the premium segment with adequate service providers • Positioning as a "stationary and digital partner" for referring physicians, customers • ...
3. Substitution of the business through digitalization	• Substitution of stationary wellness concepts with digital formats (online check, apps...) • Increase in integrated health, wellness and selfness offerings • Digitalization as a "wellness accelerator"	• Even stronger development and marketing of integrated offers • Intensification of networking with all marketing and referral channels • ...
4. Digital competition from suppliers	• No competition from wholesalers and traditional hotel suppliers • Alternative business models by referring physicians, especially for short stays ("app instead of short cure")	• Ongoing monitoring of the insurance and allocation model with regard to digital solutions • ...
5. Digital competition from customers	• No backward integration for private customers • Some competition from business customers, especially with regard to fitness and wellness solutions in the office (combined with digital solutions)	• Ongoing monitoring of the business customer segment with regard to new fitness and wellness solutions • Development of a new business customer strategy

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Applied Insights from the FH Kufstein Tirol

GDPR, MARKETING AND SALES

Prof. (FH) Dr. Uwe Heil

ISSUE #16| JULY 2018

GDPR, MARKETING AND SALES

SYSTEMATICALLY COLLECTING AND USING DATA TREASURES

May 25, 2018, the deadline for the GDPR (General Data Protection Regulation), is now a few weeks behind us. Before, during, and after its introduction, there was always uncertainty, resentment, and annoyance about the many formalities and provisions. Of course, there can be a fundamental discussion about how sensible such provisions are from a business perspective. But the regulation is a fact and the only question now is, what can we do to take advantage of the GDPR's opportunities for marketing and sales?

By Prof. (FH) Dr. Uwe Heil

Due to the GDPR, many companies have taken a close look at their company, market, and customer data. In doing so, they have realized how extensive the corresponding data pools are that exist within the company. Now is the right time to systematically unearth these data treasures [22]

WHAT DOES GDPR HAVE TO DO WITH MARKETING AND SALES?

With the GDPR coming into effect, there is finally a uniform set of rules on data protection across Europe. This also means that data can be used for marketing and sales purposes. This also accounts for internationalization. This is a good thing, because customers no longer just come from their own country, but from all over Europe and an efficient customer approach does not stop at national borders.
The GDPR in its current version makes it clear that personalized advertising represents a legitimate interest for the economy and in principle allows the usage of customer data for advertising campaigns. Publicly accessible data may generally be used to acquire new customers. However, the legitimate interest in this must outweigh the interests and fundamental rights of the data subjects to protect their personal data.
This is positive news for marketing and sales. The GDPR turns a previously uncertain situation into one that can be planned and used. The only restriction is to ensure that all communication activities with customers also comply with the law. This automatically improves the competitive position of companies that have previously handled market and customer information responsibly and transparently. Data protection protects personal data and also protects reputable companies.

[22] Büst, René: Data is the new oil, in: Wirtschaftsinformatik & Management (2013), Vol. 2, pp. 40-46.

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HOW SHOULD CUSTOMER DATA BE HANDLED?

The requirements of the GDPR regarding the handling of data are presented and assessed below:

1. "Opt-in" instead of "opt-out":
The provision "opt-in" instead of "opt-out" means that users must actively consent to the processing of their personal data. Obtaining this consent can be carried out in a marketing-oriented manner. This means that customers are not only asked whether they agree, but that the benefits this can bring them are emphasized.

2. Transparency:
The right to transparency can also be communicated to customers in a positive way, for example by willingly offering to provide information about the data collected and how it is currently being used.

3. Access and portability of stored data to competitors:
Here too, a proactive approach can take the wind out of the sails of critical customers. Informing customers openly about this right not only creates clarity, but also improves the company's image. Both sides benefit from such a step.

4. Rapid reporting obligation:
If a so-called data protection incident occurs, the GDPR states that a company must comply with its reporting obligation within 72 hours. This regulation can also be seen as an opportunity in terms of active communication by actively communicating to customers that this will be handled in any case and that they can rely on the company at all times.
It is therefore primarily about proactively communicating legal obligations, which exist anyway, as a service offered by the company and doing something for the image in this way. Customers do not expect 100% perfection, but they do expect 100% honesty and openness. All of this has to do with a "brand of trust" and provides opportunities for marketing and sales. Many companies make the mistake of seeing the GDPR exclusively as an IT issue. Against the background described above, this is far too short-sighted.

WHAT ARE THE CHALLENGES OF THE GROWING DATA VOLUMES OF "BIG DATA"?

If the GDPR is applied professionally, this not only leads to the legally required data protection. At the same time, this is an opportunity to carry out a "systematic waste disposal" of data inventories. The GDPR offers a unique opportunity to put data logics, structures, databases, and generators to the test. At the end of this action, data stocks have been reduced in terms of quantity, but the quality of the remaining data is still a challenge. However, it can be further improved to produce even more meaningful information that can be used for marketing and sales[23] .

According to calculations, the global volume of data doubles every two years. At the beginning of 2013 alone, more than two zettabytes of data are said to have been stored (in figures: 1 zettabyte = 1,000 exabytes = 1,000,000 petabytes = 1,000,000,000 terabytes = 1,000,000,000,000 gigabytes). The digitalization of all areas of life, the increase in mobile devices and their usage, activities on social media and normal consumer behavior (buying online, paying by credit card, etc.) mean that the amount of data is growing every day. The so-called "Internet of Things", in which machines and devices generate data, is adding to this. Managing these huge amounts of data is a huge task, but they also contain valuable information. Google, Facebook, Amazon, and others are masterfully demonstrating how this information can be used profitably.
A representative example of a medium-sized company is used to illustrate the topic of big data. It is about the fictitious Hotel AlpTirolia, located in the equally fictitious town of Bad Wiesing.
What data is available in the hotel's database? On the one hand, this is of course administrative guest data from the hotel booking system, such as the guest's name, address, email, telephone, arrival, and departure date. It is also possible that the additional services used by the guest, such as sauna, massage, golf, e-bike rental, beauty treatments, and so on, were recorded according to plan. Additional information is also generated, such as whether someone is a vegetarian or has certain food or room preferences. (Fig. 1)

[23] Möhring, Michael / Schmidt, Rainer / Koot, Christian / Walsh, Gianfranco: Big Data - new opportunities in e-commerce, in: Wirtschaftsinformatik & Managment (2013), Vol. 2, pp. 48-56

Fig. 1: Example						
Guest name	Age	Place of residence/ Federal state	Length of stay	Additional service 1	Additional service 2	Consumption Restaurant
Maier, Karl	58	Carinthia (A)	3 nights		Massage	184€
Huber, Fritz	41	Bavaria (D)	5 nights	e-bike	Hike	495€
Huber, Maria	39	Bavaria (D)	5 nights	e-bike	Hike	320€
Berger, Urs	25	St. Gallen (CH)	2 nights	Beauty	-	52€
Müller, Mandy	30	Saxony (D)	3 nights	Hike	Beauty	58€
Sattmann, Jan	31	Berlin (D)	1 night	Massage	-	10€
Krasny, Moritz	22	Salzburg (A)	2 nights	Golf	Massage	45€

At first glance, it can be seen that the guests are of different ages (from 22-58 years), four guests were visiting from Germany, two from Austria, and one from Switzerland. They stayed for different lengths of time and consumed different amounts of food in the restaurant. No uniform trend can be identified for the additional services either. An initial analysis therefore shows that there is no common pattern.

A classic newsletter, as sent out by many hotels to all guests, would cover all topics: "Hotel AlpTirolia. The hotel for young and old and for guests from all over the world. Whether you are staying for a long or short time, you will love it here. We drive you to your golf courses, rent out e-bikes, and offer hikes. But we also offer all kinds of beauty treatments and massages for rest and relaxation. The problem with this is that, at the end of the day, the hotel doesn't really reach anyone by trying to please everyone. The response rate to this mailing will be in the low single-digit percentage range. The business benefit is zero because individualized information requirements are met with a "data hammer".

WHAT CAN THE CUSTOMER DATA BE USED FOR?

A survey conducted by the FH Kufstein Tirol revealed that most hotels work with hotel software and also collect data there. However, another result was that this data is only used for simple administrative purposes, but not for individualized marketing. This is still a widespread phenomenon: data is generated in abundance but is not utilized. But data alone does not generate valuable information - neither for the company nor for the customer.
So what could be done better with the database? Every type of communication with guests should be tailored to their individual wishes and preferences. As a pioneer in the systematic use of data, Amazon has shown that this works. Customers always receive information on products that match their purchase history or search behavior.

In relation to the hotel example, groups should be formed that are inspired with offers specially tailored to them. This means that there is a special mail motif for each target group that is sent to them.

1. Golfers receive an email that is clearly focused on golf. Pictures, content, a golf weekend as an offer - everything fits the golf theme. For example, the hotel has booked golf pro Bernhard Langer for a weekend, he will give the guests coaching lessons, and play a round with them. Guests Maier and Krasny seem to be interested in golf because they have booked it once as an additional service. So they will probably open this newsletter tailored to them, read it and tell others about it. Mrs. Müller does not receive this email, as she is more interested in hiking tours and beauty treatments.

2. The Huber couple appear to be gourmets, at least according to the restaurant's turnover, which is well above average. The hotel has arranged a gourmet weekend for this group of guests, where the chef sits at a table with them and cooks them an exclusive menu. This offer is sent by e-mail or by traditional mail on high-quality stationary. As a result, the Hubers will read the mail carefully, because they are interested in good food and drink. Mr. Sattmann, on the other hand, does not receive this mail; with his restaurant turnover of 10 euros, he does not seem to attach much importance to good food and drinks.

HOW CAN COMPANIES DERIVE MEASURABLE PROFIT FROM BIG DATA?

These examples show the essence of the new, digital world. Producing or storing data is one thing: "big data"[24]. From an entrepreneurial perspective, however, something else is important - the intelligent usage of data for marketing and sales to generate profit or added value for the company.

Data or information can lead to increased sales, a larger market share or better business-related results. However, this only works if there is clarity about the creation, storage, and use of data. This is an issue for the entire company and not one for data or IT specialists, as almost all functions in the company are involved: Purchasing, Sales, Marketing, Accounting, IT, and so on. If you don't know what is stored, why and where, you may produce "big data", but not "big results".
The following must be considered in the procedure for the usage of data: First of all, clarity must be established about all processes in which data is collected, stored and made available (e.g. software, activities, but also objects and machines that generate data). It is also important to check data for completeness and plausibility. This means deleting implausible or redundant data records. This forms the basis for simple data analyses based on individual parameters, such as purchasing and search behavior, turnover or sales volumes. Special programs, such as SPSS, can be used for more complex data analyses. Targeted marketing and sales measures can be carried out

[24] Skiera, Bernd: Data, data and more data, in: GfK Marketing Intelligence Review MIR (2016), Vol 8, pp. 10-17.

based on these data analyses, e.g. advertising campaigns, special offers or direct mailings. Ultimately, it is also about raising the awareness of all people who have contact with customers or data. The keywords here are careful maintenance of the database and GDPR-compliant storage and documentation.

Company, market, and customer data is valuable. Now, immediately after the GDPR deadline, is the best time to take a closer look at their content. The data optimization cockpit provides concrete starting points for marketing and sales activities (see Fig. 2). This ensures that data is ultimately turned into contribution margins.

Summary: Application and benefits
1. Ensuring an overview and checking all relevant data for completeness, plausibility, and currency 2. Targeted analysis of data for business issues (purchasing decisions, sales figures, etc.) 3. Creation of a basis for marketing and sales activities to improve the market position and image 4. Establishing GDPR compliance in the company

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Fig.2: Data optimization cockpit: tool and example (hotel)

Background: A medium-sized hotel uses the GDPR as an opportunity to optimize its data for good marketing and sales activities.

Topic	Measure	Date	Responsible
1. Overview	The database and its parameters are visualized so that it is clear where the data comes from and how it is used.	01.08.	IT department
2. Check	Duplicate entries or incorrect entries were a problem in the past. For example, the first name was often also entered in the "Surname" field, with the result that Mr. Urs Berger was entered once as "Berger Urs" in the surname field and once as "Berger" in the surname and "Urs" in the first name field. With the hotel software, all data records are sorted alphabetically by surname, tidied up and corrected if necessary.	10.08.	Reception
3. Analysis	A simple data analysis of the revised database should separate the long-term stays (3 and more nights) from the short-term guests (1-2 nights) and the day guests. To do this, the hotel software sorts the data in descending order according to the parameter "Duration of last stay".	20.08.	Reception
4. Special programs	The hotel management assumes that guests consume more in the restaurant the longer they stay. This correlation is to be analyzed using professional software. To this end, a higher education institution is commissioned to analyze this dependency as part of a project.	30.08.	Sales management of the hotel with an external partner
5. Marketing and sales activities	The hotel management has decided to offer long-term guests a special gourmet weekend on the long weekend around the national holiday (high-quality flyer to guests who have booked at least 3 nights in the last three years and have spent at least 300 euros in the restaurant). As an incentive to book, they will receive a free bottle of wine for every meal in the restaurant. The offer is limited to 30 rooms.	10.09.	Sales / hotel management with external agency
6. Care	All hotel employees who deal with the guest before, during, and after the stay are explicitly asked once again to note any special features and wishes of the guest in the database. As a result, a new parameter called "wine connoisseur" is added. The sommelier enters how good the guest's knowledge of wine is (1 = hardly knows anything about wine; 4 = excellent at selecting wine).	20.09.	Members of staff / employees with guest contact
7. GDPR compliance	The hotel's data protection officer analyzes the admissibility of the measure and, if necessary, makes minor corrections to the text of the postcard before it is printed.	15.09.	Data protection officer of the hotel

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Applied Insights from the FH Kufstein Tirol

THE DIGITIZATION PROGRAM

Prof. (FH) Dr. Roman Stöger

ISSUE #12| NOVEMBER 2017

THE DIGITIZATION PROGRAM

SEIZING OPPORTUNITIES AND PRODUCING RESULTS

Many companies have recognized digitalization as a strategic challenge. There are also thousands of books, articles and technical papers, on this topic. What has been neglected so far is the question of how digitalization is implemented. We now know that there are enough good examples can learn from and that have shown an astonishing similarity in their procedures. The "digitization program" summarizes this experience as a tool.

By Prof. (FH) Dr. Roman Stöger

I. THE FUNDAMENTAL QUESTIONS ABOUT DIGITIZATION

Entrepreneurs and managers are paid to deliver results. This tried and tested principle also applies to digitalization. The key question is not, "Do we have to deal with digitalization?" or "What opportunities does digitalization bring?", but "How can we transform the potential of digitalization into real benefits and real results?"[25] The first step is to gain a common understanding of the changes in the business and the relevance of digitalization (see Fig. 1).

Fig. 1: Fundamental topics in digitalization

1. A coherent scenario about the change in business - from an "old world" to a "new world"
2. Clarity and uniform understanding of "digitalization" in management
3. Collection and assessment of all existing digitization experience
4. Review and adaptation of the mission statement (corporate purpose) to digitalization
5. Definition of the required strengths, market services, and customer benefits in the "new world" of digitalization
6. Clarity about technical and data-related priorities
7. Development of digitization goals with corresponding consequences for business areas, products, service providers, functions and cooperations
8. Adaptation of structure and management processes to digitalization, i.e. procedures, interfaces, responsibilities
9. Forced personnel and management development as "fitness for the digital world"
10. Freeing up internal resources for digital topics through "systematic waste collection"

The discussion of digitalization starts with the question of the extent to which business and markets are changing from an "old world" to a "new world". It is advisable to be deliberately pointed and provocative here, as this is the only way to achieve clarity. At the outset, management must develop a common understanding of the changes to the

[25] See Quinton, S. / Simkin, L., The Digital Journey: Reflected Learnings and Emerging Challenges, in: International Journal of Management Reviews, online 19.04.2016.

business and digitalization, as this is the only way to take the next steps. At this point, it is already very informative to collect and assess all existing digitalization experiences and projects. The larger the company, the fewer the people who have an overview. In many cases, it is necessary to further develop the mission statement based on digitalization. For example, if an industrial company increasingly integrates itself into customer processes, the focus is no longer on the individual product, but on the overall performance under consideration. This is precisely what defines the purpose of the company, and no longer the individual service.

Digitization means defining the company's strengths, market services, and customer benefits for the "new world"[26] The central question is "What are customers willing to pay for?" Only then does a topic come up that many companies like to discuss first: the focus in terms of IT, data, and technology. Of course, these topics need to be clarified, but it is important to ensure that the discussion is in the right order. Without the questions outlined above, there will be no sensible embedding and solution for IT, data, and technology.

It is not colorful foils that decide, but measures.
This is the step from wish to effect.

The next step is to develop concrete digitalization goals. This also includes the consequences for business areas, products, service providers, and functions (sales, purchasing, IT, HR...). This is where it becomes clear whether a company can think in terms of results and is strong in terms of implementation. In the end, it is not smart PowerPoint slides that determine the potential of digitalization, but concrete measures. This is the step from wish to effect. Once the implementation program is clear, structures and management processes need to be adapted to digitalization: Procedures, tasks, skills & competencies, responsibilities, interfaces, and so on. Digitalization will mean that work will no longer be carried out in "organizational silos", but in networked processes.

Technology, IT, or the cloud are not the key to success,
but the implementation strength of a company.

If digitalization triggers changes in the business and in the company, then the existing personnel and management development must also be adapted as a kind of "fitness for the digital world". Finally, a "systematic waste collection" should be carried out to procure the necessary resources for implementation. The question is what is no longer being done or what is being done with less effort so that the digitalization measures have a chance. It is precisely here that the value of experience becomes clear. The competent resources for implementation cannot be recruited at will on the market, they must be freed up internally.

[26] See Malik, F., Navigating in times of upheaval, Frankfurt 2015, p. 14 ff.

There are now interesting examples of how companies are further developing their business model. Daimler Commercial Vehicles no longer focuses on the individual vehicle, but on an optimized overall logistics balance sheet for its customers, for example, via the smart Fleetboard solution. Babolat sells tennis rackets as trainers, with the racket itself measuring ball contact, spin, service point, times, and other data, and developing a training program. Rewe Digital is developing the digital food retail of the future, fundamentally challenging the existing Rewe business model. Uber is legendary for inventing a business model based on a simple insight: The customer does not pay for a cab company, but for a cab ride. All these examples show that the focus is not on digitalization or IT possibilities, but on critically questioning the existing business and further developing or reinventing a business model. It is not about "i" or "e"; the focus is on the question of how markets are changing and how the business can be developed further.

2. STRUCTURE AND CONTENTS OF THE DIGITIZATION PROGRAM

The digitalization program is a compact management tool for structuring the digitalization discussion and providing a basis for implementation (see Fig. 2). The tool can be used for a digital corporate strategy, for a business area, for individual market services, regions, start-ups or projects. The choice and extent depend on the respective topic. The logic and procedure are the same in each case.

Digitization is the reason for the business to put it to the test once again.

The first step is to develop a mission statement. This defines the framework and makes it clear what the digital transformation consists of. For key projects, the digital specifications from the corporate strategy are presented in the mission statement. The digitalization goals must then be worked out in concrete terms in the form of the strategy. This involves a maximum of five to seven major goals, and therefore concentrating on just a few. This is the only way to ensure that implementation has a chance of success and to avoid getting bogged down. Once the goals are in place, the organization, management, and personnel must be developed with digitalization in mind. This may mean necessary process adjustments, changes in responsibilities, or changes to existing personnel development. Finally, the most important implementation measures are derived and specifically defined with deadlines and responsibilities. All topics are not only instructions for setting objectives but also controlling tools for implementation.

In practice and in theory, digitalization is one of the most discussed topics in the business world. It is astonishing that the definition and potential of digitalization are discussed almost exclusively - and less about concrete implementation. The

"digitalization program" tool summarizes the experiences of many companies and proves once again what management is all about: not talking about opportunities and potential, but implementation and results.[27]

Summary: Application and benefits

1. Development of a common management perspective on the topic of "digitalization"
2. Basis for implementation planning and implementation controlling
3. Accelerating the implementation of key digital topics
4. Applicability for companies, business areas, market services, start-ups, projects...

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[27] Stöger, R., Toolbox Digitalization. Vorsprung durch Vernetzung, Stuttgart 2017, p. 13.

Fig. 2: Digitization program: tool and example (retail)
Digital key project: Digital logistics (DigiLog) / Responsibility: U. Ott

Background: A retail company develops a digitalization strategy with a total of five key projects. A digitalization program is created for each one - such as the key program "Digital Logistics (DigiLog)".

1. Mission statement: digital requirements from the corporate strategy

1. Market leadership in all e, i and d solutions for customers, suppliers and industry partners
2. Significant increase in productivity in procurement in all logistics processes
3. Personnel development for the digital world and increasing the attractiveness of digital qualifications (programmers, process experts) in logistics on the labor market
4. ...

2. Strategy: digitization goals

1. Digitization platform as a new point of delivery (usage rate: over 70%)
2. End-to-end logistics management with digital solutions and 100% system coverage of all relevant management information (delivery quality, etc.)
3. Consistent realization of app and data solutions for customers and suppliers (no system breaks)
4. Realization of procurement experience effects or in the logistics chain of 5-10%
5. ...

3. structure: organization, management and personnel

1. Restructuring of the existing procurement, quality and logistics departments into networked processes, including definition of process owners
2. Mapping the new processes in the ERP and merchandise management program
3. Personnel development plan for digital skills / competencies for all relevant functions
4. ...

4. implementation: key measures	Date	Responsibility	Status
1. Implementation of digital logistics tools and interfaces internally and externally (consistency of recording, storage and system mapping)	30.10.	A. Farmer	
2. Implementation of a digital modular logistics system depending on supplier, region and business area	31.12.	...	
3. Consistent product range streamlining for the digital supply chain			
4. ...			