



Hamburgisches
WeltWirtschaftsinstitut

Hamburgisches WeltWirtschaftsinstitut (HWWI) gGmbH

Wirtschaftsforschung seit über 100 Jahren
in der Welthandelsstadt Hamburg

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INDICATORS THAT
DETERMINE THE DEGREE
OF INNOVATION IN LARGE
ENTERPRISES AS WELL AS
IN SMEs

Focus on the Human as a Resource through Communication Culture and Transparency



- The human as driver of innovation should be the main focus in SMEs as well as in larger enterprises
- Good corporate governance requires employees to constantly develop and make progress
- To achieve this, it is essential to create a culture of communication and transparency to promote discussions, regular feedback through employees as well as rewarding employees performances
- Employees with high diversity of perspectives should be inspired
- Inspiration ensures employees to actively broaden their horizons and gain new insights to inspire new solution principles

Overall Economic Contribution of AI in Innovation and Business Performance

Calculation of the overall economic contribution of AI of innovations by number of companies with world market innovations:

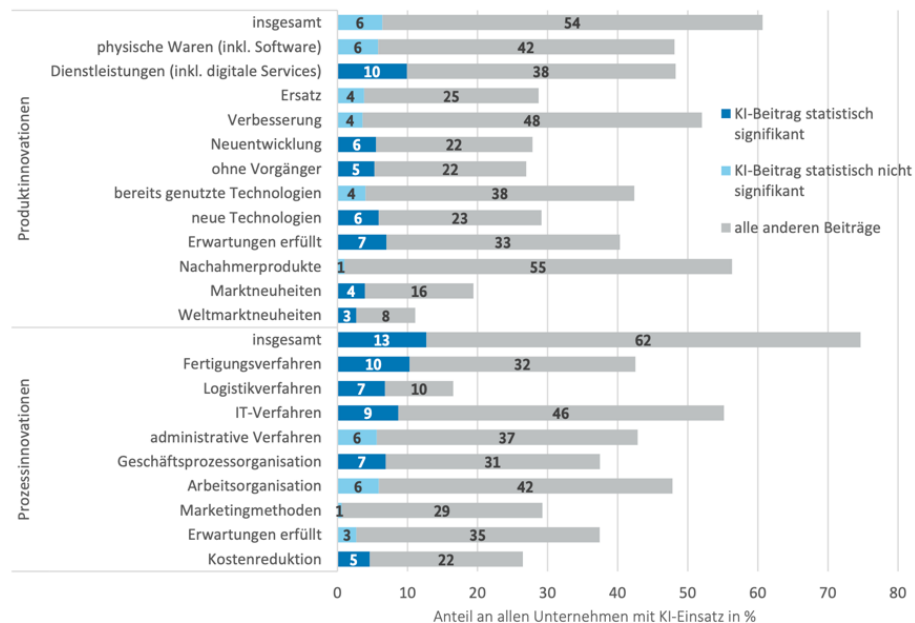
	Anzahl	Anteil in %	
Unternehmen mit KI-Einsatz	17.500	100,0	
Unternehmen mit KI-Einsatz, die Weltmarktneuheiten eingeführt haben	1.950	11,1	100,0
Unternehmen mit KI-Einsatz, die aufgrund des KI-Einsatzes Weltmarktneuheiten eingeführt haben	470	2,7	24,3
Unternehmen in Deutschland (im Berichtskreis der Innovationserhebung)	299.600	100,0	
Unternehmen in Deutschland mit Weltmarktneuheiten insgesamt	12.900	4,2	100,0
Unternehmen mit KI-Einsatz, die aufgrund des KI-Einsatzes Weltmarktneuheiten eingeführt haben	470	0,2	3,7

Alle Angaben beziehen sich auf den Berichtskreis der Innovationserhebung (Unternehmen mit 5 oder mehr Beschäftigten in Industrie und überwiegend unternehmensorientierten Dienstleistungen).

Quelle: ZEW - Mannheimer Innovationspanel, Befragung 2019

Overall Economic Contribution of AI in Innovation and Business Performance

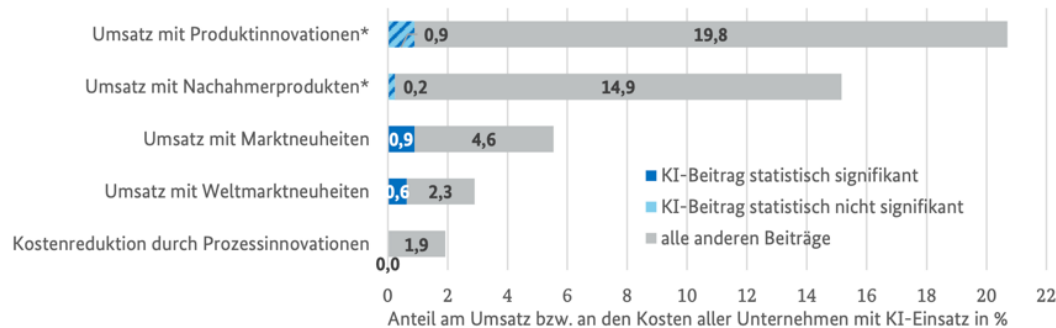
Contribution of AI for the introduction of innovations by companies using AI (reference year 2018):



- Companies that use AI, are introducing innovations significantly more often
- The contribution of AI is higher for process-innovations than for product-innovations
- In the case of product-innovations, statistically significant contributions can be seen, especially in those with a higher novelty level
- In the case of process-innovations, the strongest effects can be seen in logistics, manufacturing- and IT-processes

Overall Economic Contribution of AI in Innovation and Business Performance

Contribution of AI to the direct economic success rate of companies using AI (reference year 2018):



- The importance of the use of AI for the success of innovation can vary strongly between SMEs and large companies
- It is more common in SMEs than in large enterprises, that the use of AI might achieve sales that account for a large share of total sales → This is because large companies usually pursue different innovation paths and use different technology



WHAT OPTIONS DO
COMPANIES HAVE TO
INCORPORATE CUSTOMER-
CENTRIC INNOVATIONS?

Customer-Centric Innovations

1. Encouraging overall cooperation

- Companies, especially SMEs, should encourage collaboration and participation
- Stakeholders should be involved in the innovation process at an early stage in order to develop products that are as customer-oriented as possible and thus reduce undesirable developments
- The people involved should either be the customers themselves or sales or support staff who are closer to the end user and can therefore better assess which functionalities should be focused on
- Participation requires the cooperation and sharing of information between colleagues of different departments

Customer-Centric Innovations

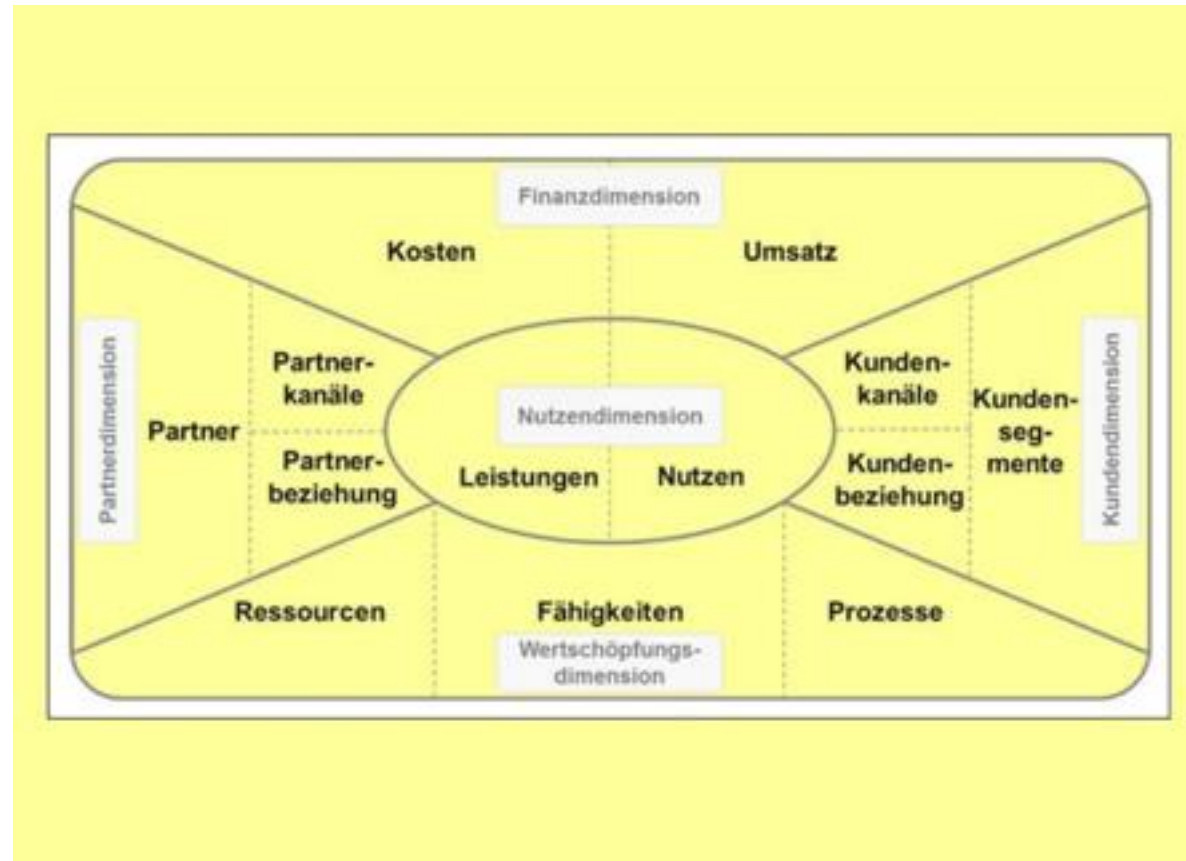
2. Business-Model-Innovation

- A business model is the basic logic of a company, that shows, which benefits are created in which way for customers and partners → Adaptation of business models to new market conditions
- The focus of business-model-innovations lies on customer needs, combined with the different elements of a company and therefore causes customer benefits → Allows strong customer loyalty
- **Examples of Business-Model-Innovations:**
 - **Nespresso:** Equipping coffee machines with a SIM card that measures coffee consumption and enables automatic replenishment if the quantity falls below a critical level; in addition, the condition of the coffee machine is monitored and a replacement machine is supplied if necessary
 - **Motel One and Easyjet:** Focus on basic services (airlines, hotel chains) in order to remain competitive and still create value for customers
 - **Schindler:** Provision of lifts with 99.5% availability, including maintenance/repair and payment depending on the distance travelled and the weight transported

Customer-Centric Innovations

Business-Model grid for describing companies

- **Customer Dimension:** Which customer segments are reached with the business model? How are the customer segments reached? How is the relationship with customer segments structured?
- **Benefit Dimension:** Which benefits are created by which services for customer segments?
- **Value-Creation Dimension:** What resources and skills are needed to create the services and operate the business model? Which processes are executed?
- **Partner Dimension:** Which partners are necessary for the business model? How are the partners communicated with and how are the services provided? What is the relationship with the respective partners?
- **Financial Dimension:** What revenues are generated with the services? What costs are caused by the business model? Which mechanisms are used for sales and costs?



Source: Schallmo, 2012

Customer-Centric Innovations

3. Personalization

- „80% of individuals claim that companies don't customize the products or services according to their preferences or needs" (*Accept Mission, 2020*)
- "Brands like Amazon and Netflix are leveraging personalization and so, smaller businesses must learn from their strategies to capitalize on the current market trends" (*Accept Mission, 2020*)
- "For example, Alexa has data collected on its customer's needs – The more it learns, the simpler it is for customers to purchase their choice" (*Accept Mission, 2020*)

4. Surveys for Customers

- "Surveys can be a massive tool to comprehend data and execute necessary changes" (*Accept Mission, 2020*)
- Enterprises should go for short online surveys, as customers might get put off by filling up a long survey
- Surveys on social media e.g. polls → help to make good business decisions and make a better understanding of the target market

Thank you for
your attention



References

- <https://www.aumentoo.com/de/innovate-or-die/>
- <https://www.springerprofessional.de/innovationsmanagement/produktentwicklung/innovationsfaehigkeit-von-unternehmen-messen/15310110>
- <https://digitalleadership.com/blog/how-to-measure-innovation/>
- https://www.de.digital/DIGITAL/Redaktion/DE/Digitalisierungsindex/Publikationen/publikation-download-kuenstliche-intelligenz-2.pdf?__blob=publicationFile&v=4
- <https://www.acceptmission.com/blog/10-ways-to-engage-customers-with-innovation/>



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