

The Manifold Fruits of Digitalization – Total Reference List

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Table 2. Categorization of Digitalization Benefits

<i>Customer</i>			
relevance among customer	[20]	product and service quality	[2, 5, 21]
innovative products and services	[2–4, 7, 8, 11–13, 15, 17, 18, 20–22, 24, 27, 40, 43, 55, 58]	customer experience	[1–7, 11, 15, 17, 18, 20–24, 28, 39, 50–53]
customer interaction convenience	[1–3, 5–8, 11, 14, 18, 20, 23, 26, 27, 43, 46]	customer tailored solution	[2, 7, 17, 26]
drive customer behavior	[2, 21]	customer conversion	[20]
<i>Business Model</i>			
enlarge customer pool	[1, 5, 8, 9, 12, 20, 24, 28]	advance to new business fields	[3, 9, 14, 25, 27, 28, 39, 60]
profitability	[1, 3, 6, 7, 9, 15, 21]	increased sales	[7, 11, 21, 42, 28]
increase returns	[1, 14]	risk mitigation	[1, 6, 17, 21]
expand to digital channels	[7, 12]	cost reduction	[1, 4–7, 9, 10, 12–15, 21, 17, 44, 58]
competitive advantage	[1–3, 5, 6, 9, 11–13, 16, 20, 22, 24, 29, 30]	enable innovations	[3, 5, 9, 11, 20, 24, 25, 40, 47, 48]
enhanced promotion	[1, 3, 5, 7, 18, 21, 28]	efficiency	[1, 2, 6, 10, 13–16, 19–21, 24, 27, 28, 32, 39, 44, 51–53]
new competitive business models	[1–3, 9, 10, 11, 14–17, 21, 24, 27–30, 49]		

<i>Business Processes</i>			
incr. productivity	[11, 13, 14, 43, 58]	process flexibility	[1, 5, 12, 25, 41]
reduced product	[4, 14, 25]	speed of service	[1, 6, 7, 14]
time-to market		proposition	
oper. excellence	[1–5, 7, 9, 24, 28]	process automation	[6, 7, 11, 13, 14]
smart workflow	[7, 10, 12, 14, 15, 22,	process	[1–3, 6, 7, 10–16, 18,
integration	28]	improvement	20–22, 24, 25, 48]
gain external	[1, 20, 22]		
network synergies			
<i>Appl. Sys & Services</i>			
improved	[1, 6, 7, 14, 18, 20,	use of customer	[2, 7, 12, 17, 18, 20,
information base	21, 56, 28, 60]	data	26, 27]
new delivery model	[8]	use of internal data	[14]
knowledge	[3, 46, 47]	customer insights	[3–7, 10, 14, 17, 20–
management			22, 26, 54]
real-time	[7, 13, 17, 28]		
information			
<i>Infrastructure</i>			
smart technologies	[2, 7, 13–15]		

Practitioner Studies:

1. Hirt, M. and Willmott, P.: Strategic Principles for Competing in the Digital Age, http://www.mckinsey.com/insights/strategy/strategic_principles_for_competing_in_the_digital_age (2014) (Accessed: 18.08.2016)
2. Gimpel, H., Röglinger, M.: Digital Transformation: Changes and Chances. Project Group Business and Information Systems Engineering (BISE) of the Fraunhofer Institute for Applied Information Technology (FIT), Augsburg / Bayreuth (2015)
3. Bloching, B. and Wege, E.: Wer teilt, gewinnt - Zehn Thesen, wie Digitalisierung und Social Media unsere Unternehmen verändern, http://www.rolandberger.de/media/pdf/Roland_Berger_TAB_Wer_teilt_gewinnt_20140718.pdf (2014) (Accessed: 17.07.2016)
4. Jaubert, M., Marcu, S., Ullrich, M., Malbate, J.-B. and Dela, R.: Going Digital: The Banking Transformation Roadmap, https://www.atkearney.com/digital-business/ideas-insights/featured-article/-/asset_publisher/Su8nWSQIHtbB/content/going-digital-the-banking-transformation-road-map/10192 (2014) (Accessed: 17.07.2016)
5. Gutsche, R.: Survival of the Smartest - Which Companies Will Survive the Digital Revolution?, <https://www.kpmg.com/DE/de/Documents/survival-of-the-smartest-2014-kpmg-en.pdf> (2014) (Accessed: 01.08.2016)
6. Markovitch, S. and Willmott, P.: Accelerating the Digitalization of Business Processes,

- http://www.mckinsey.com/insights/business_technology/accelerating_the_digitization_of_business_processes (2014) (Accessed: 16.08.2016)
7. Olanrewaju, T. and Willmott, P.: Finding your digital sweet spot, http://www.mckinsey.com/insights/business_technology/finding_your_digital_sweet_spot (2013) (Accessed: 10.08.2016)
 8. Gartner: The Nexus of Forces, <http://www.gartner.com/technology/research/nexus-of-forces/> (2013) (Accessed: 22.08.2016)
 9. Gottlieb, J. and Willmott, P.: McKinsey Global Survey Results - The Digital Tipping Point, http://www.mckinsey.com/insights/business_technology/the_digital_tipping_point_mckinsey_global_survey_results (2014) (Accessed: 03.08.2016)
 10. Reker, J.: Digitalisierung im Mittelstand, <http://www2.deloitte.com/content/dam/Deloitte/de/Documents/Mittelstand/Digitalisierung-im-Mittelstand.pdf> (2013) (Accessed: 12.08.2016)
 11. Schlotböller, D.: Wirtschaft 4.0 - Große Chancen, viel zu tun, <http://www.dihk.de/presse/meldungen/2015-02-05-unternehmensbarometer-digitalisierung> (2015) (Accessed: 16.07.2016)
 12. GfK: Umfrage in mittelständischen Unternehmen zum Thema Digitalisierung -Bedeutung für den Mittelstand, https://www.dzbank.de/content/dam/dzbank_de/de/library/presselibrary/pdf_dokumente/DZ_Bank_Digitalisierung_Grafiken.pdf (2014) (Accessed: 19.07.2016)
 13. IHK: Digitalisierung - Neue Ökonomische Ära, <https://www.muenchen.ihk.de/de/WirUeberUns/Publikationen/Magazin-wirtschaft-/Aktuelle-Ausgabe-und-Archiv2/magazin-01-2015/Titelthema/digitalisierung-neue-oekonomische-aera> (2015) (Accessed: 10.07.2016)
 14. Wee, D., Kelly, R., Cattell, J. and Breunig, M.: Industry 4.0 - How to Navigate Digitalization of the Manufacturing Sector, https://www.mckinsey.de/sites/mck_files/files/mck_industry_40_report.pdf (2015) (Accessed: 18.07.2016)
 15. Stern, R. and Ziegler, M.: High Performance durch die Digitalisierung der Wertschöpfungskette, <http://docplayer.org/4048807-High-performance-durch-die-digitalisierung-der-wertschoepfungskette.html> (2013) (Accessed: 18.07.2016)
 16. Nanterme, P. and Daugherty, P.: From Digitally Disrupted to Digital Disrupter, https://www.accenture.com/us-en/_acnmedia/Accenture/next-gen/reassembling-industry/pdf/Accenture-Technology-Vision-2014.pdf (2014) (Accessed: 20.07.2016)
 17. Reifel, J., Hales, M., Pei, A., Blanter, A., Lala, S. and Bharadwaj, N.: The Internet of Things: Opportunities for Insurers, https://www.atkearney.com/digital-business/ideas-insights/featured-article/-/asset_publisher/Su8nWSQIHtbB/content/internet-of-things-opportunity-for-insurers/10192 (2014) (Accessed: 10.08.2016)

18. Eul, M., Röder, H., Chua, S.G., Hagen, C., Meyer, K. and Ciobo, M.: IT 2020: Preparing for the Digital Future, https://www.atkearney.com/strategic-it/featured-article/-/asset_publisher/BqWak3NLsZIU/content/it-2020-preparing-for-the-future/10192 (2013) (Accessed: 16.08.2016)
19. Guest, M.: Building your digital DNA - Lessons from digital leaders, <https://www2.deloitte.com/content/dam/Deloitte/br/Documents/technology/deloitte-uk-building-your-digital-dna.pdf> (2014) (Accessed: 02.08.2016)
20. Solis, B., Li, C. and Szymanski, J.: Digital Transformation - Why and How Companies are Investing in New Business Models to Lead Digital Customer Experience, <http://www.altimetergroup.com/2014/04/new-research-understanding-the-digital-customer-experience-drives-investment-in-digital-transformation/> (2014) (Accessed: 10.07.2016)
21. Westerman, G., Calmejan, C., Bonnet, D., Ferraris, P. and McAfee, A.: Digital Transformation: A Roadmap for Billion Dollar Companies, <https://www.capgemini.com/resources/digital-transformation-a-roadmap-for-billion-dollar-organizations> (2011) (Accessed: 10.07.2016)
22. Vaske, H.: Digitale Transformation: Die IT-Abteilung gibt die Richtung vor. Computerwoche, 14–22 (2015)
23. Büst, R., Hille, M. and Schestakow, J.: Digital Business Readiness - Wie deutsche Unternehmen die Digitale Transformation angehen, <https://www.crisp-research.com/report/digital-business-readiness-wie-deutsche-unternehmen-die-digitale-transformation-angehen/> (2015) (Accessed: 02.08.2016)
24. Fitzgerald, M., Kruschwitz, N., Bonnet, D., Welch, M.: Embracing Digital Technology: A New Imperative. Findings From the 2013 Digital Transformation Global Executive Study and Research Project by MIT Sloan Management Review & Capgemini Consulting. MIT Sloan Management Review, 1–12 (2013)
25. Kneip, C. and Spangler, K.: Sind Familienunternehmen fit für die digitale Revolution?, https://www.kpmg.com/DE/de/Documents/fu-thesenpapier-sots-06-14_copy_sec.pdf (2014) (Accessed: 12.08.2016)
26. Ferreri, J.-C., Colin, J. and Leutiger, P.: Media 2020 - A Universe of Digital Opportunities, http://www.rolandberger.de/medien/publikationen/2014-07-15-rbsc-pub-Media_2020_A_universe_of_digital_opportunities.html (2014) (Accessed: 20.07.2016)
27. Riemensperger, F., Hagemeier, W., Pfannes, P., Warendorff, M. and Feldmann, M.: Mut, anders zu denken: Digitalisierungsstrategien der deutschen Top500, <https://www.accenture.com/de-de/service-deutschlands-top-500.aspx> (2015) (Accessed: 12.08.2016)
28. Westerman, G., Tannou, M., Bonnet, D., Ferraris, P., McAfee, A.: The Digital Advantage: How Digital Leaders Outperform their Peers in Every Industry. MIT Sloan Management and Capgemini Consulting, MA, 2–23 (2012)
29. Bloching, B., Leutiger, P., Oltmanns, T., Rossbach, C., Schlick, T., Remane, G., Quick, P. and Shafranyuk, O.: The digital transformation of industry,

http://bdi.eu/media/user_upload/Digital_Transformation.pdf (2015)
(Accessed: 30.10.2016)

Scientific Literature:

30. Bharadwaj, A., El Sawy, O.A., Pavlou, P.A., Venkatraman, N.: Digital Business Strategy: Toward a Next Generation of Insights. *Management Information Systems Quarterly* 37, 471–482 (2013)
31. Keen, P., Williams, R.: Value Architectures for Digital Business: Beyond the Business Model. *Management Information Systems Quarterly* 37, 642–647 (2013)
32. Markus, M.L., Loebbecke, C.: Commoditized Digital Processes and Business Community Platforms: New Opportunities and Challenges for Digital Business Strategies. *Management Information Systems Quarterly* 37, 649–654 (2013)
33. Pagani, M.: Digital Business Strategy and Value Creation: Framing the Dynamic Cycle of Control Points. *Management Information Systems Quarterly* 37, 617–632 (2013)
34. Grover, V., Kohli, R.: Revealing your Hand: Caveats in Implementing Digital Business Strategy. *Management Information Systems Quarterly* 37 (2013)
35. Zimmermann, A., Schmidt, R., Sandkuhl, K., Wißotzki, M., Jugel, D., Mohring, M.: Digital Enterprise Architecture-Transformation for the Internet of Things. In: 2015 IEEE 19th International Enterprise Distributed Object Computing Workshop (EDOCW), pp. 130–138. IEEE (2015)
36. Oestreicher-Singer, G., Zalmanson, L.: Content or Community? A Digital Business Strategy for Content Providers in the Social Age. *Management Information Systems Quarterly* 37, 591–616 (2013)
37. Yoo, Y., Henfridsson, O., Lyytinen, K.: The New Organizing Logic of Digital Innovation: An Agenda for Information Systems Research. *Information Systems Research* 21, 724–735 (2010)
38. Barrett, M., Davidson, E., Fayard, A.-L., Vargo, S., Yoo, Y.: Being Innovative about Service Innovation: Service, Design and Digitalization. In: Proceedings of the 2012 International Conference on Information Systems (ICIS 2012), Panel Statement (2012)
39. Lusch, R.F., Nambisan, S.: Service Innovation: A Service-Dominant Logic Perspective. *Management Information Systems Quarterly* 39, 155–175 (2015)
40. Hylving, L., Henfridsson, O., Selander, L.: The Role of Dominant Design in a Product Developing Firm's Digital Innovation. *Journal of Information Technology Theory and Application* 13, 5 (2012)
41. Hylving, L., Schultze, U.: Evolving the Modular Layered Architecture in Digital Innovation: The Case of the Car's Instrument Cluster. In: Proceedings of the 2013 International Conference on Information Systems (ICIS 2013) (2013)

42. Chowdhury, S., Akesson, M.: A Proposed Conceptual Framework For Identifying The Logic Of Digital Services. In: Proceedings of the 15th Pacific Asia Conference on Information Systems (PACIS 2011), Paper 47 (2011)
43. Matt, C., Hess, T., Benlian, A.: Digital Transformation Strategies. *Business & Information Systems Engineering* 57, 339–343 (2015)
44. Gaskin, J., Thummadi, V., Lyytinen, K., Yoo, Y.: Digital Technology and the Variation in Design Routines: A Sequence Analysis of Four Design Processes. In: Proceedings of the 2011 International Conference on Information Systems (ICIS 2011), Paper 14 (2011)
45. Kuehne, K., Kosch, L., Cuylen, A.: Will XML-based Electronic Invoice Standards Succeed?-An Explorative Study. In: Proceedings of the 2015 European Conference on Information Systems (ECIS 2015), Paper 113 (2015)
46. Lu, B., Guo, X., Luo, N., Chen, G.: Corporate Blogging and Job Performance: Effects of Work-related and Nonwork-related Participation. *Journal of Management Information Systems* 32, 285–314 (2015)
47. Ceccagnoli, M., Forman, C., Huang, P., Wu, D.J.: Digital Platforms: When is Participation Valuable? *Communications of the ACM* 57, 38–39 (2014)
48. Dahl, A., Lawrence, J., Pierce, J.: Building an Innovation Community. *Research-Technology Management* 54, 19–27 (2011)
49. Hanelt, A., Piccinini, E., Gregory, R.W., Hildebrandt, B., Kolbe, L.M.: Digital Transformation of Primarily Physical Industries-Exploring the Impact of Digital Trends on Business Models of Automobile Manufacturers. In: Proceedings of the 12. International Conference on Wirtschaftsinformatik, pp. 1313–1327 (2015)
50. Mädche, A.: Interview with Wolfgang Gaertner on “Digitalization in Retail Banking: Differentiation and Standardization Through IT”. *Business & Information Systems Engineering* 57, 83–85 (2015)
51. Lekakos, G., Kourouthanassis, P., Mantzari, E.: Re-Engineering Citizen-to-Public Payments: A Case Study of the Greek Certificate of Payments Method. *Proceedings of MCIS 2011*, Paper 104 (2011)
52. Greve, C.: Ideas in Public Management Reform for the 2010s. Digitalization, Value Creation and Involvement. *Public Organization Review* 15, 49–65 (2013)
53. Qian, H.: Global Perspectives on e-Governance: from Government-Driven to Citizen-Centric Public Service Delivery. In: Proceedings of the 4th International Conference on Theory and Practice of Electronic Governance, pp. 1–8. ACM, New York, NY, USA (2010)
54. Spann, M.: Interview with Jörg Lübcke on “Digitalization of Business Models in the Media Industry”. *Business & Information Systems Engineering* 5, 199–201 (2013)
55. Akram, A., Akesson, M.: Value Network Transformation By Digital Service Innovation In The Vehicle Industry. In: Proceedings of the 15th Pacific Asia Conference on Information Systems (PACIS 2011), vol. Paper 12vol. (2011)

56. Solidoro, A., Viscusi, G.: Convergence of Digital Media and Information Growth in Newspapers: A Case Study. In: Proceedings of the MCIS, Paper 82 (2010)
57. Salmon, P.M., Stanton, N.A., Jenkins, D.P., Walker, G.H., Rafferty, L.: Decisions, Decisions ... and Even More Decisions: Evaluation of a Digitized Mission Support System in the Land Warfare Domain. *International Journal of Human-Computer Interaction* 26, 206–227 (2010)
58. Giannoutakis, K.N., Li, F.: Making a Business Case for Intelligent Transport Systems: A Holistic Business Model Framework. *Transport Reviews* 32, 781–804 (2012)
59. Aiello, L., Dulskaja, I., Ferri, M.A., Menshikova, M.: Use of E-tools Opportunities by Italian Hospitality SMEs. WHICEB 2015 Proceedings, Paper 32 (2015)
60. Lang, K., Shang, R., Vragov, R.: Consumer Co-creation of Digital Culture Products: Business Threat or New Opportunity? *Journal of the Association for Information Systems* 16, 766 (2015)