



Online-Appendix

„Big Data Analytics Capabilities: A Systematic
Literature Review on Necessary Skills to Succeed in
Big Data Analytics“

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Appendix

Authors	Year	Theoretical Framework			Nature of Capabilities discussed	Capabilities Framework
		Resource-based view	Dynamic Capabilities	Other		
Seddon, Peter B. Constantinidis, Dora Tamm, Toomas Dod, Harjot	2017	NA			Analytics capabilities	Business Analytics: DELTA (Data Quality Enterprise-wide Integrated Business-Intelligence Platform Leadership, not just from the top Well-chosen targets Analytical People)
Akter, Shahriar Wamba, Samuel Fosso Gunasekaran, Angappa Dubey, Rameshwar Childe, Stephen J	2016	x		Sociomaterialism theory	IT and BDA capabilities	Typology suggested: BDA management capability BDA technology capability BDA talent capability
Barton, Dominic Court, David	2012	NA			Indirect BDA capabilities	Management (ensuring data and models work together) Data (as standard, control, data model) Talent
Davenport, Thomas H Harris, Jeanne G Morison, Robert	2010	NA			Analytics capabilities	Business Analytics: DELTA (Data Quality Enterprise-wide Integrated Business-Intelligence Platform Leadership, not just from the top Well-chosen targets Analytical People)
Gupta, Manjul George, Joey F.	2016	x			BDA capabilities	Tangible (basic resource and data), human skills (technical and managerial skills), and intangible (organizational learning and data-driven culture).
LaValle, Steve Lesser, Eric Shockley, Rebecca Hopkins, Michael S. Kruschwitz, S.	2011	NA			Level of capabilities	Three level of how far an organization has developed BDA: Aspirational Experienced Transformed
McAfee, Andrew Brynjolfsson, Erik Davenport, Thomas H Patil, DJ Barton, Dominic	2012	NA			BDA capabilities	Corporate Strategy IT infrastructure Skills and knowledge of data scientists

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Mikalef, Patrick Pappas, Ilias O. Krogstie, John Giannakos, Michail	2018	x	x		BDA capabilities	Tangible (basic resource and data), human skills (technical and managerial skills), and intangible (organizational learning and data-driven culture).
Ransbotham, Sam Kiron, David Prentice, Pamela Kirk	2015	NA			BDA capabilities	Management Infrastructure Talent
Wamba, Samuel Fosso Gunasekaran, Angappa Akter, Shahriar Ren, Steven Ji-Fan Dubey, Rameshwar	2017	x	x	Sociomaterialism theory	BDA capabilities	BDA infrastructure capability, management capability, and personnel capability
Wang, Yichuan Kung, LeeAnn Byrd, Terry Anthony	2018	x		Configuration theory	BDA capabilities	analytical capability for patterns of care, unstructured data analytical capability, decision support capability, predictive capability, and traceability
Yasmina, Mariam Tatoglua, Ekrem Kilicb, Huseyin Selcuk Zaimc, Selim Delen, Dursun	2020	x	x		IT and BDA capabilities	Infrastructure Capabilities, Human Resource Capabilities, Management Capabilities
Fadler, Martin Legner, Christine	2020			Work system theory (WST) lens (Alter 2013)	4 prevalent capabilities in the BI&A context	reporting, data exploration, analytics experimentation, and analytics production
Mikalef, Patrick Boura, Maria Lekakos, George Krogstie, John	2019		x		BDA capabilities (as rebottle from Gupta/Mikalef paper)	Tangible (basic resource and data), human skills (technical and managerial skills), and intangible (organizational learning and data-driven culture).

Tab. A-1: Concept matrix, based on Webster and Watson (2002)