

Introduction to Business & Information Systems Research

Course Profile

Туре	Lecture + Tutorial	
Lecturer	Dr. Anna Maria Oberländer, Peter Hofmann	
Hours per Week	2 + 1 SWS	
ECTS	6	
Language	English	
Start date	April 13th, 2021	

Course Description

The lecture "Introduction to Business & Information Systems Research" is designed to provide students with an opportunity to build up basic theoretical and methodological skills needed to conceptualize, conduct, and communicate their own research. To do so, the lecture will familiarize students with the essential triad consisting of topic, methods, and theories. While selecting an exciting topic is a fundamental anchor for research's relevance, a research's ability to provide rigorous results depends on a sound command of theories and methods.

In this context, theories provide the researcher a sound basis by summarizing current knowledge and allowing for a precise investigation and definition of their topic's underlying phenomenon. They also provide the students with a theoretical lens to investigate their topics from the perspective they are most interested in. Complementary to this, methods afford the student with the ability to produce reliable results which allow her/him to derive both meaningful and trustworthy conclusion. This way they can make sure that their results are not only interesting, but also scientifically valid.

To support students in their preparation for their master theses, the course will introduce the most common methods used in business research by looking at examples from the Information Systems (IS) discipline. This includes how to carry out a literature review as well as qualitative (e.g., case study research) and quantitative (e.g., survey-based research) methods of empirical research. Furthermore, the design science paradigm will be discussed.

Learning Objectives

- Ability to understand the relevance of methods and theories in meaningful research
- Overview of most common methods and theories used in business and IS research
- Basic understanding of the core phenomena in IS
- Ability to prepare and execute own research project (e.g., master thesis)
- Knowledge of the basic quality criteria for scientific research



Course Outline

Section	Week	Topics	Readings / Textbook
#01	Tuesday,	Welcome and Introduction	
ļ	13.04.2021,	Administration	
	14:15 - 15:45		
#02	Tuesday,	The What, How and Why	Bhattacherjee (2012), ch. 1
	20.04.2021,	Scientific Thinking	Bhattacherjee (2012), ch. 3
	14:15 - 15:45	Research Process	Bhattacherjee (2012), ch. 16
		Philosophy of Science	
#03	Tuesday,	Scientific Writing and Publishing	Feldman (2004)
	27.04.2021,	Paper Structures	Lee (1995)
	14:15 - 15:45	Publishing Process	Lepak (2009)
		Reviews	Perneger and Hudelson (2004)
			Straub (2009)
	Monday,		
	03.05.2021,	Tutorial #1: Research Foundations	
	12:15 - 13:45		
#04	Tuesday,	Research Design I & II – Topics	Bacharach (1989)
	04.05.2021,	and Theories	Gregor (2006)
	14:15 - 15:45	• Domains of IS	Banker and Kauffman (2004)
		Fundamentals	Colquitt and George (2011)
		Basic Research Design	Bhattacherjee (2012), ch. 2
		• Definition and Concepts	Bhattacherjee (2012), ch. 4
		• Building on Theory	Bhattacherjee (2012), ch. 5
			Bhattacherjee (2012), ch. 6
			Bhattacherjee (2012), ch. 7
			Bhattacherjee (2012), ch. 8
#05	Tuesday,	Research Design III – Methods	Mingers (2001)
	11.05.2021,	Research Design Revisited	Palvia et al. (2004)
	14:15 - 15:45	Data Collection	Wilde and Hess (2007)
		Data Analysis	Bhattacherjee (2012), ch. 10
			Bhattacherjee (2012), ch. 12
	Monday,		
	17.05.2021,	Tutorial #2: Research Design	
	12:15 - 13:45		
#06	Tuesday,	Literature Review	Fettke (2006)
	18.05.2021,	Introduction	Kitchenham (2004)
	14:15 - 15:45	Research Process	Vom Brocke et al. (2009)
		Literature Administration	Webster and Watson (2002)



#07	Tuesday,	Survey	Boudreau et al. (2001)		
- /	01.06.2021,	Introduction	Pinsonneault and Kraemer (1993)		
	14:15 - 15:45	Research Process	Straub et al. (2004)		
		Quality Criteria	Urbach and Ahlemann (2010)		
		Examples	Bhattacherjee (2012), ch. 9		
		• Examples	Bhattacherjee (2012), ch. 14		
			Bhattacherjee (2012), ch. 15		
	Monday,				
	07.06.2021,	Tutorial #	3: Literature Review		
	12:15 - 13:45				
#08	Tuesday,	Case Study	Dubé and Paré (2003)		
	08.06.2021,	Introduction	Eisenhardt (1989)		
	14:15 - 15:45	Research Process	Gibbert et al. (2008)		
		Quality Criteria	Klein and Myers (1999)		
		Examples	Bhattacherjee (2012), ch. 11		
		L	Bhattacherjee (2012), ch. 13		
	Monday,				
	14.06.2021,	Tutorial #4: Survey-based Research			
	12:15 - 13:45				
#09	Tuesday,				
	15.06.2021,	G	Guest Lecture		
	14:15 - 15:45				
	Monday,				
	21.06.2021,	Tutorial #5	: Case Study Research		
	12:15 - 13:45				
#10	Tuesday,	Design Science Research	Gregor and Jones (2007)		
	22.06.2021,	Introduction	Hevner (2007)		
	14:15 - 15:45	Research Process	Hevner et al. (2004)		
		Quality Criteria	Walls et al. (1993)		
		• Examples	Winter (2008)		
	Monday,				
	28.06.2021,	Tutorial #6: .	Design Science Research		
	12:15 - 13:45				
#11	Tuesday,	Taxonomy Research	Gimpel et al. (2018)		
	29.06.2021,	Introduction	Nickerson et al. (2013)		
	14:15 - 15:45	Research Process	Oberländer et al. (2018)		
		Quality Criteria	Oberländer et al. (2019)		
		• Examples	Szopinski et al. (2019)		
	Monday,				
	05.07.2021,	Tutorial #7: Taxonomy Research			
	12:15 - 13:45				
#12	Tuesday,	Summary			
	06.07.2021,	Questions and Answers Session			
	14:15 - 15:45	Exam Preparation			



Teaching Mode

Most of the lectures will be provided in live sessions, which make extensive use of video conferencing to allow for discussion of topics and answering of open questions. We will also have selected self-study units, where students will be provided with appropriate lecture materials, video recordings, screencasts, and readings.

Reading Material

The reading material to be used in this class provides students with both content and background for the topics introduced and discussed in the course. Students have to prepare for sessions by reading and summarizing the mandatory material in order to allow for an efficient learning experience. Optional readings are introduced as part of the lecture and provide students with the opportunity to extend their understanding beyond the material discussed in class. These readings are also important references that can be used to justify methodological and theoretical choices in the students' research projects (e.g., Master thesis). Further details for preparation will be provided to students in class.

Tutorials

The tutorials will be used to discuss review questions and clarify students' questions on the course content as well as to discuss suggested readings in more depth or additional readings on the same topic.

Course Requirements

This course is offered to all Master students enrolled in the Business Administration (BWL) program of the University of Bayreuth as part of the B1-6 module (Research Methods) or the supplementary module ("Ergänzungsmodul"). There are no prerequisites for attending this course. Exchange students are welcome.

Course Grading

The course will be graded on the basis of a written exam (English or German, duration 60 minutes) covering the learning objectives of the lecture.

Course Materials

Students will be provided with all necessary materials at the beginning of each session. Readings are available through the university's electronic library resources (Elektronische Zeitschriftenbibliothek): http://www.ub.uni-bayreuth.de/de/digitale_bibliothek/e-journals/index.html



Workload

180h total student's workload, thereof:

- Self-study with lecture materials 30h
- Active participation in tutorials
 15h
- Preparation, revision and exam preparation 135h

References

- Bacharach, S.B. 1989. "Organizational Theories: Some Criteria for Evaluation," Academy of Management Review (14:4), pp. 496-515.
- Banker, R.D., and Kauffman, R.J. 2004. "The Evolution of Research on Information Systems: A Fiftieth-Year Survey of the Literature in Management Science," Management Science (50:3), pp. 281-298.
- Bhattacherjee, A. 2012. Social Science Research: Principles, Methods, and Practices, (2. ed.). Tampa, FL, USA: Open Access Textbooks.
- Boudreau, M.-C., Gefen, D., and Straub, D.W. 2001. "Validation in Information Systems Research: A State-of-the-Art Assessment," MIS Quarterly (25:1), pp. 1-16.
- Colquitt, J.A., and George, G. 2011. "From the Editors: Publishing in AMJ Part 1: Topic Choice," Academy of Management Journal (54:3), pp. 432-435.
- Dubé, L., and Paré, G. 2003. "Rigor in Information Systems Positivist Case Research: Current Practices, Trends, and Recommendations," MIS Quarterly (27:4), pp. 597-635.
- Eisenhardt, K.M. 1989. "Building Theories from Case Study Research," Academy of Management Review (14:4), pp. 532-550.
- Feldman, D.C. 2004. "Being a Developmental Reviewer: Easier Said Than Done," Journal of Management (30:2), pp. 161-164.
- Fettke, P. 2006. "State-of-the-Art Des State-of-the-Art: Eine Untersuchung der Forschungsmethode "Review" Innerhalb der Wirtschaftsinformatik," Wirtschaftsinformatik (48:4), pp. 257-266.
- Gibbert, M., Ruigrok, W., and Wicki, B. 2008. "What Passes as a Rigorous Case Study?," Strategic Management Journal (29:13), pp. 1465-1474.
- Gimpel H, Rau D, Röglinger M (2018) Understanding FinTech start-ups: A taxonomy of consumeroriented service offerings. Electronic Markets 28:245–264.
- Gregor, S. 2006. "The Nature of Theory in Information Systems," MIS Quarterly (30:3), pp. 611-642.
- Gregor, S., and Jones, D. 2007. "The Anatomy of a Design Theory," Journal of the Association of Information Systems (8:5), pp. 312-335.
- Hevner, A.R. 2007. "A Three Cycle View of Design Science Research," Scandinavian Journal of IS (19:2), pp. 87-92.
- Hevner, A.R., March, S.T., Park, J., and Ram, S. 2004. "Design Science in Information Systems Research," MIS Quarterly (28:1), pp. 75-105.



- Kitchenham, B. 2004. "Procedures for Performing Systematic Reviews," Keele University, Department of Computer Science, Keele, UK.
- Klein, H.K., and Myers, M.D. 1999. "A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems," MIS Quarterly (23:1), pp. 67-93.
- Lapointe, L., and Rivard, S. 2007. "A Triple Take on Information System Implementation," Organization Science (18:1), pp. 89-107.
- Lee, A.S. 1995. "Reviewing a Manuscript for Publication," Journal of Operations Management (13:1), pp. 87-92.
- Lee, G., and Xia, W. 2010. "Toward Agile: An Integrated Analysis of Quantitative and Qualitative Field Data on Software Development Agility," MIS Quarterly (34:1), pp. 87-114.
- Leidner, D.E., and Kayworth, T. 2006. "Review: A Review of Culture in Information Systems Research: Toward a Theory of Information Technology Culture Conflict," MIS Quarterly (30:2), pp. 357-399.
- Lepak, D. 2009. "Editor's Comments: What IS Good Reviewing?," Academy of Management Review (34:3), pp. 375-381.
- Levina, N., and Vaast, E. 2008. "Innovating or Doing as Told? Status Differences and Overlapping Boundaries in Offshore Collaboration," MIS Quarterly (32:2), pp. 307-332.
- Morris, M.G., and Venkatesh, V. 2010. "Job Characteristics and Job Satisfaction: Understanding the Role of Enterprise Resource Planning System Implementation," MIS Quarterly (34:1), pp. 143-161.
- Mingers, J. 2001. "Combining IS Research Methods: Towards a Pluralist Methodology," Information Systems Research (12:3), pp. 240-259.
- Müller, B., and Urbach, N. 2013. "The Why, What and How of Theories in Information Systems Research", Proceedings of the 34th International Conference on Information Systems (ICIS 2013), December 15-18, Milano, Italy.
- Nickerson R.C., Varshney U, Muntermann J (2013) A method for taxonomy development and its application in information systems. European Journal of Information Systems 22:336–359
- Oberländer A.M., Röglinger M, Rosemann M, Kees A (2018) Conceptualizing business-to-thing interactions: A sociomaterial perspective on the internet of things. European Journal of Information Systems 27:486–502.
- Oberländer A.M., Benedict Lösser, Daniel Rau (2019) Taxonomy Research in Information Systems: A Systematic Assessment. Proceedings of the 27th European Conference on Information Systems (ECIS 2019).
- Orlikowski, W.J., and Baroudi, J.J. 1991. "Studying Information Technology in Organizations: Research Approaches and Assumptions," Information Systems Research (2:1), pp. 1-28.
- Palvia, P., Leary, D., Mao, E., Midha, V., Pinjani, P., and Salam, A.F. 2004. Research Methodologies in MIS: An Update, Communications of the Association for Information Systems (14:24), pp. 526-542.
- Perneger, T.V. and Hudelson, P.M. 2004. "Writing a research article: advice to beginners," International Journal for Quality in Health Care (16), pp. 191-192.



- Piccoli, G., and Ives, B. 2005. "IT-Dependent Strategic Initiatives and Sustained Competitive Advantage: A Review and Synthesis of the Literature," MIS Quarterly (29:4), pp. 747-776.
- Pinsonneault, A., and Kraemer, K.L. 1993. "Survey Research Methodology in Management Information Systems: An Assessment," Journal of Management Information Systems (10:2), pp. 75-105.
- Straub, D., Boudreau, M.-C., and Gefen, D. 2004. "Validation Guidelines for IS Positivist Research," Communications of the Association for Information Systems (13:24), pp. 380-427.
- Straub, D.W. 2009. "Editor's Comments: Why Top Journals Accept Your Paper," MIS Quarterly (33:3), pp. iii-x.
- Sutton, R.I., and Staw, B.M. 1995. "What Theory Is Not," Administrative Science Quarterly (40:3), pp. 371-384.
- Szopinski, Daniel; Schoormann, Thorsten; and Kundisch, Dennis, (2019). "Because Your Taxonomy Is Worth It: Towards a Framework for Taxonomy Evaluation". In Proceedings of the 27th European Conference on Information Systems (ECIS), Stockholm & Uppsala, Sweden, June 8-14, 2019.
- Urbach, N., and Ahlemann, F. 2010. "Structural Equation Modeling in Information Systems Research Using Partial Least Squares," Journal of Information Technology Theory and Application (11:2), pp. 5-40.
- Urbach, N., Smolnik, S., and Riempp, G. 2009. "The State of Research on Information Systems Success," Business & Information Systems Engineering (1:4), pp. 315-325.
- Vom Brocke, J., Simons, A., Niehaves, B., Riemer, K., Plattfaut, R., and Cleven, A. 2009. "Reconstructing the Giant: On the Importance of Rigour in Documenting the Literature Search Process, "Proceedings of the 17th European Conference on Information Systems, Verona, Italy.
- Walls, J.G., Widmeyer, G.R., and Sawy, O.A.E. 1992. "Building an Infomiarion System Design Theory for Vigilant EIS," Information Systems Research (3:1), pp. 36-59.
- Webster, J., and Watson, R.T. 2002. "Analyzing the Past to Prepare for the Future: Writing a Literature Review," MIS Quarterly (26:2), pp. xiii-xxiii.
- Wilde, T., and Hess, T. 2007. "Forschungsmethoden der Wirtschaftsinformatik Eine Empirische Untersuchung," Wirtschaftsinformatik (49:4), pp. 280-287.
- Winter, R. 2008. "Design Science Research in Europe," European Journal of Information Systems (17:5), pp. 470–475.