#### **Syllabus**

QMB 7565: Introduction to Research Methods<sup>1</sup>

Fall 2023; Sec 901; CRN 80697

Meeting time/ dates: Mondays 5-845 pm; Meets: Meets: 8/21-11/9/23 (12 weeks)

Venue: CIS 2074

School of Information Systems and Management (SISM) Muma College of Business, University of South Florida

Professor: Dr. Sunil Mithas E-mail: smithas@usf.edu

Website: https://www.usf.edu/business/about/bios/mithas-sunil.aspx

Office: CIS 2061

Office Hours: By appointment

University Course Description (Verbatim from USF's course inventory): A course in research strategies,

design, analysis, and measurement for business research.

(Source: http://ugs.usf.edu/course-inventory/).

Course Prerequisites (Verbatim from the catalog): None

(Source: https://academicplanning.usf.edu/course-inventory/?output=detail&subj=QMB&num=7565)

#### **COURSE OBJECTIVE**

The purpose of this course is to introduce doctoral students to the philosophy of science and methods for conducting business research. Many business disciplines follow social science research paradigms that include surveys, case/ qualitative studies, experiments, and the analysis of secondary data. This course is appropriate for all doctoral students who want to develop a basic understanding of these fundamental business research techniques and when it is appropriate to use them. Given time constraints, we will only be able to provide an introduction and overview of each topic. Students will need to take other courses to appropriately use one or more of these approaches in their own research. Upon completing the course the student should be able to make an informed choice of the most appropriate methodology to explore a given research question.

After taking this course, students should be able to:

- Describe current academic discourse and empirical research in selected domains to critically evaluate theoretical arguments, use or critique these arguments in their research, and evaluate the links between theoretical arguments and empirical methods
- Explore and develop research ideas to internalize what they learn through readings and discussions and to make progress towards publishing the most promising ideas

# **COURSE MATERIALS**

I have selected some readings to give you an exposure to research methods and related discourse that applies to business disciplines. Most of the required readings should be available through the course website or library, you should try to locate them and contact for any readings or other working papers that you are unable to locate after you have exhausted your efforts. I strongly recommend that you subscribe to a newspaper like Wall Street Journal (or Financial Times) and a magazine like "The Economist" to stay on top of current events in business and society to inform your work.

<sup>&</sup>lt;sup>1</sup> The syllabus is tentative and subject to change. Any changes will be announced in class and/or documented via Canvas/email. We will discuss any changes to schedule if there are any scheduling conflicts that the instructor may run into over the semester. Some sessions may be conducted using Teams.

#### **Required Book**

• None, any required materials can be read by borrowing from USF library, or via elibrary.

#### **Recommended Books**

- Singleton, R.A., and Straits, B.C., *Approaches to social research (Sixth Edition)*, Oxford University Press, New York, 2018. (We will draw quite a lot on this book and it is a good idea for you to own a copy of a book like this for your reference) [A pdf version of the 6<sup>th</sup> edition is available for about \$30 at this website: <a href="https://ebookplan.com/product/ebook-pdf-approaches-to-social-research-6th-edition-by-royce-a-singleton/">https://ebookplan.com/product/ebook-pdf-approaches-to-social-research-6th-edition-by-royce-a-singleton/</a>
- Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. Experimental and Quasi-Experimental Designs for Generalized Causal Inference Belmont, CA: Wadsworth Cengage Learning (This is another good book to have and read for any serious student)

#### **COURSE STRUCTURE**

The class will be highly interactive and discussion-oriented. It is required that all participants complete all required readings *prior* to coming to class. Absent a legitimate reason, failure to do the readings will result in the participant being excused from the class meeting and docked one letter grade each time. To achieve our goal, it is not sufficient to simply read the articles but to think about them and make sense of them critically, often this requires reading the articles several times.

As part of the course, students will develop a research proposal examining a topic that is potentially important, interesting and relevant to their own discipline. Students will present their research ideas and proposed methods for studying them several times during the course, and will receive feedback from other students as well as the instructor. The course is as much about "consuming" the content covered in the course, as much it is about "producing" new knowledge leveraging that consumption.

## **GRADING**

The final grade will be based on instructor's evaluation of your performance on summary of papers assigned to you, your performance as a paper/session discussant, class participation, and term paper. Late assignments are not accepted.

• 30% : Session summaries and class participation

While all students are expected to read all papers and contribute to discussion in each class, each student will lead the discussion for his or her assigned papers. In the lead role, the student in charge of a particular paper will prepare a 2 page summary of the assigned paper(s) to class. In general, such a summary should provide a brief overview of the research questions, theoretical underpinning, hypotheses, what authors found, contributions, relationship of the paper with other papers and findings, and potential extensions (or future research that can overcome the limitations of that paper). Talk about both positives and negatives of the paper and offer your conjectures on why the paper was published, why it should not have been published, and/or what may make this paper publishable or unpublishable (if it is a working paper). I certainly want to see a section on some "doable" future research projects that will extend or improve what this paper was trying to do. Just a summary and "copy and paste" of paper's tables and figures is not acceptable--we are looking for your critique and critical value added comments. Students will post a soft copy of the summary on course website before the session and bring hard copies of their summary for everyone to the class (if there is a face-to-face class).

You are expected to have a healthy skepticism in critiquing a paper, progress in science depends on "dissatisfaction" with current and received wisdom. I also encourage you to be "constructive" and always have a remedial and reasonable suggestion accompanying your critique that will make a paper better or how future research can overcome the limitations of the paper that you will be discussing. Being positive does not, however, mean that we will shy away from discussing what may be considered as flaws in theoretical justifications, empirical aspects or writing. But whenever you point to those, tell us how you would have approached those issues given the same research question and the data to which authors had access.

Beyond leading the discussion of the paper assigned to you, each of you should identify the unifying themes of that week's readings to develop a mental map of the "state of the art" in that area to identify potential dissertation topics that will significantly advance that stream of work.

# • 70% : Term Paper

Develop an original research proposal or paper (not more than 20 pages double spaced, professionally formatted with Tables, Figures and References) on any phenomenon of your liking in your discipline or a related business discipline. Your paper must address the following issues:

- 1. What is the research question? Why is it important and interesting? How will an answer to this question change how we think about that issue theoretically or how we may like to manage that particular issue in a better way than we otherwise would? Discuss your contributions, and research and managerial relevance very briefly. [Introduction]
- 2. How has this or related phenomenon been studied in the prior literature? What new theories you are developing or what extensions are you proposing? What is your research model and how do your hypotheses make new theoretical or empirical contributions? [Literature Review, Research Model]
- 3. How will you test your hypotheses using state-of-the-art methods? [Research Method or Design]
- 4. What results do you expect to find or have found? [Results]
- 5. What are your main findings? What are the key contributions? What are the research and managerial implications arising out of your new findings? What are the limitations of your proposed study? How will you extend your research further? [Discussion, Limitations and Suggestions for Future Research]

Please be prepared to report your progress every week in class, and incorporate the feedback from instructor and classmates to continuously improve your work. The incremental progress of your work over the semester will be taken into consideration for grading purposes. Papers with initial and rough data and preliminary results will be graded more favorably than those that just make promises for future data collection/analyses.

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Grading scale: A+: Over 97%, A: 94-97%, A-: 90-93%, B+: 87-89%, B: 84-86%, B-: 80-83%, C+: 77-79%, C: 74-76%, C-: 70-73%, D+: 67-69%, D: 64-66%, D-: 60-63%, F: Below 60%
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Students typically earn B letter grades for good performance and for meeting all expectations; the A grades are for extraordinarily excellent performance when students exceed expectations. The final letter grades will be based on the distribution of course points at the end of the semester and instructor's overall assessment of your performance relative to your classmates.

#### **About the Instructor**

Sunil Mithas is a World Class Scholar and Professor at the Muma College of Business at the University of South Florida. He also serves as Director (Rankings and Reputation) at the Muma College of Business. Previously, Sunil was the Ralph J. Tyser Professor of Information Systems at the Robert H. Smith School of Business at the University of Maryland, where he served as Associate Chair, and co-directed two Centers namely Center for Digital Innovation, Technology and Strategy and the Center for Excellence in Service. He is a Visiting Professorial Fellow at the UNSW Business School, Sydney, and has held visiting positions at the University of California, Davis, UNSW, University of Mannheim, and HKUST, Hong Kong. Identified as an MSI Young Scholar by the Marketing Science Institute, Sunil is a Distinguished Fellow of the Information Systems Society of INFORMS, and ranks among the foremost information systems scholars in the world. He is the author of two books, and his research published in top journals and conferences have won multiple bestpaper awards, and featured in practice-oriented publications such as the MIT Sloan Management Review, Management Business Review, and Bloomberg. Mithas serves as a Senior Editor of MIS Quarterly and Department Editor of Production and Operations Management, and an Editorial Board member at the Journal of Management Information Systems. Earlier he served on the Editorial Board of Information Systems Research. He has consulted and conducted research with a range of organizations including A. T. Kearney, EY, Johnson & Johnson, the Social Security Administration, U.S. Census Bureau, and the Tata Group. He is a frequent keynote speaker in corporate and academic settings. Mithas had a decade-long successful career in the corporate world in engineering, marketing, and general management positions before he dedicated himself to an academic career. He earned his PhD from the Ross School of Business at the University of Michigan and an engineering degree from IIT, Roorkee.

More details are at https://www.usf.edu/business/about/bios/mithas-sunil.aspx

## **Session-wise Meeting Plan**

We will only discuss the readings marked with an asterisk in this course, other papers are listed for your contextual awareness and convenience and we may discuss them briefly if time permits. If you have read any of the assigned papers (those with asterisk) in some other seminar then let me know promptly and depending on the composition of the class and in what context you may have read that paper, I will decide whether to still discuss that paper or some other paper (feel free to suggest a better substitute). I may add/delete/modify some readings as the course progresses, or change the sequence of sessions as I get a better sense of your interests and needs. I encourage you to share and point to other readings that you think add to this course or reinforce or provide an alternative perspective.

#### 1. Introduction to Seminar and Philosophy of Science

Read syllabus, and the readings marked with asterisk for class 1. Please post a copy of your CV and any other deliverable to course website under Assignments.

- \*Chapter 1 (Introduction) of Singleton and Straits 2018
- \*Chapter 2 (Nature of Science) of Singleton and Straits 2018
- \*Klemke, E.D. "Introduction," in: *Introductory Readings in the Philosophy of Science*, E.D. Klemke, R. Hollinger, D.W. Rudge and A.D. Kline (eds.), Prometheus Books, New York, 1998, pp. 29-37
- \*Popper, K.R. "Science: Conjectures and refutations," in: *Introductory Readings in the Philosophy of Science*, E.D. Klemke, R. Hollinger, D.W. Rudge and A.D. Kline (eds.), Prometheus Books, New York, 1998, pp. 38-47
- \*Ziman, J. "What is science?," in: *Introductory Readings in the Philosophy of Science*, E.D. Klemke, R. Hollinger, D.W. Rudge and A.D. Kline (eds.), Prometheus Books, New York, 1998b, pp. 48-53
- \*Thagard, P.R. 1998. "Why astrology is a pseudoscience," in *Introductory Readings in the Philosophy of Science*, E.D. Klemke, R. Hollinger, D.W. Rudge and A.D. Kline (eds.). New York: Prometheus Books, pp. 66-75
- Stephan, P. E. 1996. "The economics of science," *Journal of Economic Literature* (XXXIV:Sept), pp. 1199-1235

# 2. How to find interesting research questions? What criteria should we use when we evaluate research problems? How to create a compelling motivation for our research?

Come to class with at least three "interesting" research topics, write these three topics in three separate paragraphs explaining your key idea.

Share one paper that you found "interesting" – be prepared to discuss how it meets any of Davis's suggestions for interesting research.

- \*Webb, W. B. 1961. "The choice of the problem," American Psychologist (16:5), pp. 223-227
- \*Kinney, W. R. 2019. "The Kinney three paragraphs (and more) for accounting Ph.D. students," *Accounting Horizons* (33:4), pp. 1-14
- \*Rai, A. 2017. "Avoiding type III errors: Formulating IS research problems that matter," *MIS Quarterly* (41:2), pp. iii-vii
- \*Rai, A. 2018. "The first few pages," MIS Quarterly (42:2), pp. iii-vi.

- \*Murray S. Davis, "That's Interesting!" Philosophy of the Social Sciences, Vol. 1, 1971, pg. 309-344 (also at
  - http://www.mang.canterbury.ac.nz/courseinfo/AcademicWriting/Interesting.htm).
- \*Davis, M. 1986. ""That's Classic!" The phenomenology and rhetoric of successful social theories," *Philosophy of the Social Sciences* (16), pp. 285-301
- Shugan, S.M. "Editorial: Defining interesting research problems," *Marketing Science* (22:1) 2003, pp 1-15
- Weber, Ron, "The Problem of the Problem," MISQ, Vol. 27, No. 1 (March 2003), pp. iii-ix.
- Leidner, D. E. 2020. "What's in a contribution?," *Journal of the Association for Information Systems* (21:1), pp. 238-245
- Palmer, D. "Taking stock of the criteria we use to evaluate one another's work: ASQ 50 years out," *Administrative Science Quarterly* (51) 2006, pp 535-559

## 3. Research Design, Mediation, Moderation, Shoe Leather:

Come to class to discuss any new methods in your area that are currently in fashion or "hot." Develop the most promising research idea from the last class, and present the revised research question. Submit front end of the paper with an interesting title, Abstract, Introduction, and Conceptual Model section with research model, and 2-3 tentative hypotheses (2-3 pages).

- \*Chapter 4 (Elements of Research Design) of Singleton and Straits 2018
- Chapter 5 (Measurement) of Singleton and Straits 2018
- Chapter 6 (Sampling) of Singleton and Straits 2018
- \*Freedman, D.A. "Statistical models and shoe leather," *Sociological Methodology* (21) 1991, pp 291-313
- \*Baron, R. M., and Kenny, D. A. 1986. "The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations," *Journal of Personality and Social Psychology* (51:6), pp. 1173-1182
- \*Zhao, Xinshu, John G. Lynch, Jr. and Qimei Chen (2010), Reconsidering Baron and Kenny: Myths and Truths About Mediation Analysis," *Journal of Consumer Research*, 37 (August), 197-206.
- Haans, R. F. J., Pieters, C., and He, Z.-L. 2016. "Thinking about U: Theorizing and testing U-and inverted U--shaped relationships in strategy research," *Strategic Management Journal* (37), pp. 1177-1195.
- Edwards, J.R., and Lambert, L.S. "Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis," *Psychological Methods* (12:1) 2007, pp 1-22
- Ch 2 ("Statistical conclusion validity and internal validity") and Ch 3 ("Construct validity and external validity") of Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. Experimental and Quasi-Experimental Designs for Generalized Causal Inference Belmont, CA: Wadsworth Cengage Learning

# 4. What is Theory and How to theorize?

Come to class to discuss the theories or theory that inform your work.

Do a brief literature review on the most promising idea from the last class to make a case why your idea, if pursued, will make an important contribution. Also identify at least one background/exemplar paper that relates to your idea in some way. Develop a Table that contrasts your study with 3-4 prior studies explaining your novel/incremental contribution.

Submit front end of the paper with an interesting title, Abstract, Introduction, Background and Theory section with research model, and 2-3 formal hypotheses (3-5 pages).

- \*Stinchcombe, A. L. 1982. "Should sociologists forget their mothers and fathers?," *The American Sociologist* (17), pp. 2-11
- \*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
- \*Mintzberg, H. 2005. "Developing theory about the development of theory," in *Great minds in management: The process of theory development*, K.G. Smith and M.A. Hitt (eds.). Oxford: Oxford University Press, pp. 355-372
- \*Mueller, B., and Urbach, N. 2017. "Understanding the Why, What, and How of Theories in IS Research,: <a href="https://aisel.aisnet.org/cais/vol41/iss1/17">https://aisel.aisnet.org/cais/vol41/iss1/17</a>," Communications of the Association for Information Systems (41), pp. 349-388
- Rivard, S. 2014. "The Ions of Theory Construction," MIS Quarterly (38:2), pp. iii-xiii.
- Eisenhardt, K. M., and Graebner, M. E. 2007. "Theory building from cases: Opportunities and challenges," *Academy of Management Journal* (50:1), pp. 25-32
- Hambrick, D. C. 2007. "The field of management's devotion to theory: Too much of a good thing," *Academy of Management Journal* (50:6), pp. 1346-1352
- Weber, R. 2003. "Theoretically speaking," MIS Quarterly (27:3), pp. iii-xii
- Rindova, V. 2008. "Editor's Comments: Publishing theory when you are new to the game," Academy of Management Review (33:2), pp. 300-303
- Card, D., DeaaVigna, S., and Malmendier, U. 2011. "The role of theory in field experiments," *Journal of Economic Perspectives* (25:3), pp. 1-25
- Bacharach, S.B. "Organizational Theories: Some Criteria for Evaluation," *Academy of Management Journal* (14:4) 1989, pp 496-515.
- Shepherd, D. A., and Suddaby, R. 2017. "Theory building: A review and integration," *Journal of Management* (43:1), pp. 59-86
- Corley, K. G., & Gioia, D. A. (2011). "Building theory about theory building: What constitutes a theoretical contribution?" Academy Of Management Review, 36(1), 12-32.
- Colquitt, J. A., and Zapata-Phelan, C. P. 2007. "Trends in theory building and theory testing: A five-decade study of the Academy of Management Journal," *Academy of Management Journal* (50), pp. 1281-1303

## 5. An Overview of Selected Theories:

Come to class to discuss the theories or theory that inform your work.

Revise and Refine the front end of the paper with an interesting title, Abstract, Introduction, Background and Theory section with research model, and 2-3 formal hypotheses. Add a more detailed justification of hypotheses, at least 2-3 mechanisms for each hypothesis, about 1 page per hypothesis (4-5 pages).

- \*Davis, G. F. 2010. "Do theories of organizations progress?" *Organizational Research Methods* (13:4), pp. 690-709
- \*Barney, J. B. 2005. "Where does inequality come from? The personal and intellectual roots of resource-based theory," in *Great minds in management: The process of theory development*, K.G. Smith and M.A. Hitt (eds.). Oxford: Oxford University Press, pp. 280-303
- \*Priem, R. L., and Butler, J. E. 2001. "Is the Resource-Based 'View' a Useful Perspective for Strategic Management Research?," *Academy of Management Review* (26:1), pp. 22-40
- \*David, R.J., and Han, S.-K. "A systematic assessment of the empirical support for transaction cost economics," *Strategic Management Journal* (25) 2003, pp 39-58

- Poppo, L., and Zenger, T. 1998. "Testing Alternative Theories of the Firm: Transaction Cost, Knowledge-Based and Measurement Explanations for Make-or-Buy Decisions in Information Services.," *Strategic Management Journal* (19:9), pp. 853-877
- Levine, D. I. 1993. "What do wages buy?," *Administrative Science Quarterly* (38), pp. 462-483.
- Williamson, O. E. 1999. "Strategy Research: Governance and Competence Perspectives," *Strategic Management Journal* (20:12), pp. 1087 1108
- Freeman, R. E. 2005. "The development of stakeholder theory: An idiosyncratic approach," in *Great minds in management: The process of theory development*, K.G. Smith and M.A. Hitt (eds.). Oxford: Oxford University Press, pp. 417-435
- Eisenhardt, K.M. "Agency Theory: An Assessment and Review," *Academy of Management Review* (14:1) 1989, pp 57-74.
- O'Reilly III, C. A., and Tushman, M. L. 2013. "Organizational Ambidexterity: Past, Present, Future," *Academy of Management Perspectives* (27:4), pp. 324-338
- Wischnevsky, J. D., and Damanpour, F. 2006. "Organizational transformation and performance: An examination of three perspectives," *Journal of Managerial Issues* (XVIII:1), pp. 104-128
- Teece, D. J., Pisano, G., and Shuen, A. 1997. "Dynamic Capabilities and Strategic Management," *Strategic Management Journal* (18:7), pp. 509 533
- Bingham, C. B., Eisenhardt, K. M., and Furr, N. R. 2011. "Which strategy when?," *MIT Sloan Management Review* (53:1), pp. 71-78
- King, A. A., and Baatartogtokh, B. 2015. "How useful is the theory of disruptive innovation? available at http://sloanreview.mit.edu/article/how-useful-is-the-theory-of-disruptive-innovation/," *MIT Sloan Management Review* (Fall), pp. 77-90
- Fama, E. F., and French, K. R. 2004. "The capital asset pricing model: Theory and evidence," *Journal of Economic Perspectives* (18:3), pp. 25-46

#### 6. Preliminary Research Proposal Presentations:

Each student will have 10-15 minutes to present his or her preliminary research proposals to the class so far. As a class, we will discuss each research idea and provide feedback and suggestions.

Begin to identify and collect some preliminary data or think about research design/ econometric issues.

#### 7. Survey Research:

Improve your term-paper write-up and research design continually. Instructor may call on you to discuss and show your progress in class.

- Chapter 3 (Ethics) of Singleton and Straits 2018
- \*Chapter 9 (Survey Research) of Singleton and Straits 2018
- \*Chapter 10 (Survey Instrumentation) of Singleton and Straits 2018
- \*Diamantopoulos, A., and Winklhofer, H. M. 2001. "Index construction with formative indicators: An alternative to scale development," *Journal of Marketing Research* (38:2), pp. 269-278
- \*Rindfleisch, A., Malter, A.J., Ganesan, S., and Moorman, C. 2008. "Cross-sectional surveys versus longitudinal survey research: Concepts, findings, and guidelines," *Journal of Marketing Research* (XLV:June), pp. 261-279
- \*Hulland, J., Baumgartner, H., and Smith, K. M. 2018. "Marketing survey research best practices: evidence and recommendations from a review of JAMS articles," *Journal of the Academy of Marketing Science* (46), pp. 92-108.
- Shah, R., and Goldstein, S. M. 2006. "Use of structural equation modeling in operations management

- research: Looking back and forward. ," Journal of Operations Management (24:2), pp. 148-169
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., and Podsakoff, N. N. 2003. "Common method biases in behavioral research: A critical review of the literature and recommended remedies," *Journal of Applied Psychology* (88:5), pp. 879-903
- Van Riel, A. C. R., Andreassen, T. W., Lervik-Olsen, L., Zhang, L., Mithas, S., and Heinonen, K. 2021. "A customer-centric five actor model for sustainability and service innovation," *Journal of Business Research* (136:November), pp. 389-401
- Hult, G. T. M., Morgeson, F. V., Morgan, N., Mithas, S., and Fornell, C. 2017. "Do managers know what their customers think and why?," *Journal of the Academy of Marketing Science* (45:1), pp. 37-54
- Rossiter, J.R. "The C-OAR-SE procedure for scale development in marketing," *International Journal of Research in Marketing* (19) 2002, pp 305-335
- Parasuraman, A., and Colby, C. L. 2015. "An Updated and Streamlined Technology Readiness Index: TRI 2.0," *Journal of Service Research* (18:1), pp. 59-74
- Tourangeau, R., Conrad, F. G., and Couper, M. P. 2013. *The science of web surveys*. New York: Oxford University Press

## **Session 8: Experiments**

Improve your term-paper write-up and research design continually. Instructor may call on you to discuss and show your progress in class.

- \*Chapter 7 (Experimentation) of Singleton and Straits 2018
- \*Chapter 8 (Experimental Designs) of Singleton and Straits 2018
- \*Preface and Ch 1 ("Experiments and generalized causal inference") of Shadish, W. R., Cook,
  T. D., and Campbell, D. T. 2002. Experimental and Quasi-Experimental Designs for
  Generalized Causal Inference Belmont, CA: Wadsworth Cengage Learning
- \*Chapter 14 ("A Critical Assessment of Our Assumptions") of Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. Experimental and Quasi-Experimental Designs for Generalized Causal Inference Belmont, CA: Wadsworth Cengage Learing
- Bandiera, O., Brankay, I., and Rasul, I. 2011. "Field experiments with Firms," *Journal of Economic Perspectives* (25:3), pp. 63-82
- Dunning, T. 2008. "Improving causal inference: Strengths and limitations of natural experiments," *Political Research Quarterly* (61:2), pp. 282-293
- Foerderer, J., Kude, T., Mithas, S., and Heinzl, A. 2018. "Does Platform Owner's Entry Crowd Out Innovation? Evidence from Google Photos," *Information Systems Research* (29:2), pp. 444-460
- Ch 2 ("Statistical conclusion validity and internal validity") of Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* Belmont, CA: Wadsworth Cengage Learning
- Ch 3 ("Construct validity and external validity") of Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* Belmont, CA: Wadsworth Cengage Learning
- Ch 5 of Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. Experimental and Quasi-Experimental Designs for Generalized Causal Inference Belmont, CA: Wadsworth Cengage Learning
- Ch 8 ("Randomized experiments: Rationale, designs, and conditions conducive to doing them") of Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. Experimental and Quasi-Experimental Designs for Generalized Causal Inference Belmont, CA: Wadsworth Cengage Learning
- Harrison, G. W., and List, J. A. 2004. "Field experiments," *Journal of Economic Literature* (42:4), pp. 1009-1055
- Meyer, B. D. 1995. "Natural and quasi-experiments in economics," *Journal of Business &*

- Economic Statistics (13:2), pp. 151-161
- Campbell, D. T. 1957. "Factors relevant to the validity of experiments in social settings," *Psychological Bulletin* (54), pp. 297-312

#### **Session 9: Notions of Causality**

Improve your term-paper write-up and research design continually. Instructor may call on you to discuss and show your progress in class.

- \*Barringer, S. N., Eliason, S. R., and Leahey, E. 2013. "A history of causal analysis in the social sciences," in *Handbook of Causal Analysis for Social Research*, S.L. Morgan (ed.). Springer, pp. 9-26
- \*Mahoney, J., Goertz, G., and Ragin, C. C. 2013. "Causal models and counterfactuals," in *Handbook of Causal Analysis for Social Research*, S.L. Morgan (ed.). Springer, pp. 75-90
- \*Mithas, S., Xue, L., Huang, N., and Burton-Jones, A. 2022. "Editor's Comments: Causality Meets Diversity in Information Systems Research," *MIS Quarterly* (46:3), pp. iii-xviii
- Bollen KA, Pearl J. (2013) Eight Myths About Causality and Structural Equation Models in *Handbook of Causal Analysis for Social Research*, SL Morgan (ed.). Springer, 301-328.
- Goldthorpe, J.H. "Causation, statistics and sociology," *European Sociological Review* (17:1) 2001, pp 1-20
- Mithas, S., Almirall, D., & Krishnan, M. S. (2014). A potential outcomes approach to assess causality in information systems research. In R. J. Kauffman & P. P. Tallon (Eds.), *Economics, Information Systems and Electronic Commerce Research II: Advanced Empirical Methodologies* (Vol. 2, pp. 63-85). Armonk, New York: ME Sharpe
- Holland, P. 1986. "Statistics and Causal Inference (with discussion)," *Journal of American Statistical Association* (81:396), pp. 945-970
- Ch 1 of Angrist, J. D., and Pischke, J.-S. 2014. *Mastering 'Metrics: The Path from Cause to Effect*. Princeton: Princeton University Press
- Greenland, S., Pearl, J., and Robins, J. M. 1999. "Causal diagrams for epidemiologic research," *Epidemiology* (10:1), pp. 37-48
- Mackie, J. L. 1965. "Causes and conditions," American Philosophical Quarterly (2:4), pp. 245-264

#### Session 10: Archival Data/ Econometric Approaches for Causal Inference

Improve your term-paper write-up and research design continually. Instructor may call on you to discuss and show your progress in class.

- \*Chapter 12 (Research Using Available Data) of Singleton and Straits 2018
- \*Chapter 14 (Evaluation Research) of Singleton and Straits 2018
- \*Nobel Prize. 2021. "Answering causal questions using observational data," in: *Royal Swedish Academy of Sciences*, R.S.A.o. Sciences (ed.). pp. 1-46
- \*Mithas, S., and Krishnan, M.S. "From association to causation via a potential outcomes approach," *Information Systems Research* (20:2) 2009, pp 295-313.
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- Gow, I. D., Larcker, D. F., and Reiss, P. C. 2016. "Causal inference in accounting research," *Journal of Accounting Research* (54:2), pp. 477-523
- Roberts, M. R., and Whited, T. M. 2013. "Endogeneity in empirical corporate finance," in *Handbook of the Economics of Finance*, G.M. Constantinides, M. Harris and R.M. Stulz (eds.). Elsevier, pp. 493-572
- Angrist, J. D., and Krueger, A. B. 1999. "Empirical strategies in labor economics," in *Handbook of labor economics*, O. Ashenfelter and D. Card (eds.). Amsterdam: Elsevier, pp. 1277-1366.
- Leamer, E. E. 1983. "Let's take the con out of Econometrics," *American Economic Review* (73:1), pp. 31-43.
- Appendix 5.1 of Ch 5 of Shadish, W. R., Cook, T. D., and Campbell, D. T. 2002. Experimental and Quasi-Experimental Designs for Generalized Causal Inference Belmont, CA: Wadsworth Cengage Learning
- Angrist, JD and J Pischke. 2010. "The Credibility Revolution in Empirical Economics: How Better Research Design is Taking the Con out of Econometrics." The Journal of Economic Perspectives 24(2): 3-30
- Angrist, J.D., and Krueger, A.B. "Instrumental variables and the search for Identification: From supply and demand to natural experiments," *Journal of Economic Perspectives* (15:4) 2001, pp 69-85
- Larcker, D. F., and Rusticus, T. O. 2010. "On the use of instrumental variables in accounting research," *Journal of Accounting and Economics* (49:3), pp. 186-205
- Crown, W. H., Henk, H. J., and Vanness, D. J. 2011. "Some Cautions on the Use of Instrumental Variables Estimators in Outcomes Research: How Bias in Instrumental Variables Estimators Is Affected by Instrument Strength, Instrument Contamination, and Sample Size," *Value in Health* (14:8), pp. 1078-1084

#### Session 11: Field (Qualitative) Research

- \*Chapter 11 (Field Research) of Singleton and Straits 2018
- \*Guba, E. G., and Lincoln, Y. S. 1982. "Epistemological and methodological bases of naturalistic inquiry," *Educational Communication and Technology Journal* (30), pp. 233-252
- \*Langley, A., and Abdallah, C. 2011. "Templates and turns in qualitative studies of strategy and management," in *Building methodological bridges: Research methodology in strategy and management*, D. Bergh and D. Ketchen (eds.). Bingley, UK: Emerlad Group, pp. 201-235
- \*Misangyi, V. F., Greckhamer, T., Furnari, S., Fiss, P. C., Crilly, D., and Aguilera, R. 2017.
  "Embracing causal complexity: The emergence of a neo-configurational perspective," *Journal of Management* (43:1), pp. 255-282
- \*Park, Y., and Mithas, S. 2020. "Organized Complexity of Digital Business Strategy: A Configurational Perspective," *MIS Quarterly* (44:1), pp. 85-127
- Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification Strategies for Establishing Reliability and Validity in Qualitative Research. *International Journal of Qualitative Methods*, 1(2), 13-22
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- Eisenhardt, K. M. 2021. "What is the Eisenhardt method, really?," *Strategic Organization* (19:1), pp. 147-160
- Eisenhardt, K. M. 1989. Building theories from case study research", Academy of Management Review, Vol. 14(4), p. 532-550.
- Pratt, M. G., Kaplan, S., and Whittington, R. 2020. "Editorial Essay: The Tumult over Transparency: Decoupling Transparency from Replication in Establishing Trustworthy Qualitative Research,"

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- Gibbert, M., and Ruigrok, W. 2010. "The "What" and "How" of case study rigor: Three strategies based on published work," *Organizational Research Methods* (13:4), pp. 710-737
- Pratt, M. G. 2008. Fitting oval pegs into round holes: Tensions in evaluating and publishing qualitative research in top-tier North American journals. Organizational Research Methods, 11: 481–509
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- Kellogg, K. C., Orlikowski, W. J., & Yates, J. (2006). Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. Organization Science, 17(1), 22-44.
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- Fiss, P. C. 2011. "Building better causal theories: A fuzzy set approach to typologies in organization research," *Academy of Management Journal* (54:2), pp. 393-420
- Chapters 6-8 of Ragin, C. C. 2014. *The comparative method: Moving beyond qualitative and quantitative strategies*. Oakland, California: University of California Press.
- Kude, T., Lazic, M., Heinzl, A., and Neff, A. 2018. "Achieving IT-based synergies through regulationoriented and consensus-oriented IT governance capabilities," *Information Systems Journal* (28:5), pp. 765-795
- Kozinets, R. V. 2002. The field behind the screen: using netnography for marketing research in online communities. Journal of Marketing Research, 61-72.
- Eisenhardt, K.M., "Making Fast Strategic Decisions In High-Velocity Environments," Academy of Management Journal (32:3), 1989, pp. 543-577
- Misangyi, V. F., and Acharya, A. G. 2014. "Substitutes or complements? A configurational examination of corporate governance mechanisms," *Academy of Management Journal* (57:6), pp. 1681-1705

# 12. Discussion of the Pros and Cons of Different Methodologies, Combining Methodologies and Student Presentations

**Draft final paper and presentation in class**Final paper due 1-2 weeks from the last session or as announced in class.

- \*Chapter 13 (Multiple Methods) of Singleton and Straits 2018
- \*Wandersee, J. H. 1990. "Guest editorial: Imprecise thinking: A Baconian checklist," *Journal of Research in Science Teaching* (27:2), pp. 95-96
- \*Mills, C. W. 1959. "On Intellectual Craftsmanship (Appendix of the Book "The Sociological Imagination")," in *The Sociological Imagination*. New York: Grove Press, pp. 195-224.
- Schneider, B. 1995. "Some propositions about getting research published," in *Publishing in the organizational sciences*, L.L. Cummings and P.J. Frost (eds.). Thousand Oaks: Sage
- Ashford, S. 1996. "The publishing process: The struggle for success and meaning," in *Rhythms of an Academic Life*, P.J. Frost and S. Taylor (eds.). Sage
- Daft, R. L. 1995. "Why I recommended that your manuscript be rejected," in *Publishing in the organization sciences*, L.L. Cummings and P.J. Frost (eds.). Thousand Oaks: Sage, pp. 164-182
- Weick, K. E. 2007. "Drop your tools: On reconfiguring management education," *Journal of Management Education* (31:1), pp. 5-16
- Perrow, C. 1985. "Journaling careers," in *Publishing in the organizational sciences*, L.L. Cummings and P.J. Frost (eds.). Thousand Oaks: Sage

- Daft, R. L. 1983. "Learning the Craft of Organizational Research," *Academy of Management Review* (8:4), pp. 539-546
- Dixit, A. 1994. "My system of work (not!)," American Economist (38:1), pp. 10-16
- Berk, J. B., Harvey, C. R., & Hirshleifer, D. (2017). How to write an effective referee report and improve the scientific review process. *Journal of Economic Perspectives*, 31(1), 231-244

#### Here are some policies documented in the syllabus as suggested or required by USF.

#### **Class Policies:**

Communication: Please check course website frequently for updated postings and course related communications. If you have any appropriate and course-related question, first check syllabus or course website to ensure that you are not asking something that is already mentioned in the syllabus or website. If you are not able to find answer to your question, then **post your question under Discussions at Canvas** (Canvas>Discussions>"General Questions") so that TA and/or I can answer your question appropriately via that channel or in the next class meeting. If you need to send me an email then please mention your cell phone number in the message of your email so that I can call you if necessary (if the question pertains to your group work, please copy all your teammates so that I can reply to all).

Class Attendance and Etiquette: I do not take formal attendance in class but I do keep track of who is coming to class and who is not. Skipping classes means that you will miss valuable content that we cover in class and you will do poorly in the exams. Also, please do not disrupt the class by coming to class late or leaving early, arrive 5 minutes early rather than 5 minutes late. If you skip classes or engage in disruptive side conversations, don't expect much sympathy from me at the end of the semester.

*Cell Phones:* While in class, turn your cell phones, iPods etc to silent mode, and step out of the class if you must take or make an important phone call. See USF's official policy on class disruption at <a href="http://www.ugs.usf.edu/policy/DisruptionOfAcademicProcess.pdf">http://www.ugs.usf.edu/policy/DisruptionOfAcademicProcess.pdf</a>.

Free Riders in Teamwork (if applicable): Team members who do not come to team meetings or contribute satisfactorily to their assigned team work in a timely manner will receive at least one letter grade lower than the rest of their team. There will be no make-ups for free riders.

Your Suggestions: Administration will request you to provide comments regarding various aspects of the course toward the conclusion of the course, but those comments come too late to make any mid-course corrections. Hence, please discuss with me any ideas that can potentially improve your learning experience during the semester. Because the instructor also has responsibility for learning experience of the entire class and to ensure that course objectives are met while maintaining rigor, it may not be feasible to accept all suggestions. Even if your suggestions are not accepted, they can still help us to design other courses or activities in future so feel free to suggest from your side.

Please understand that this syllabus constitutes a **CONTRACT** between you and me. By registering for this class, you are agreeing to the terms and conditions as stated in this contract. These terms will be strictly enforced, without exceptions. If you find these terms unreasonable, you can drop the class and take it in a different semester with a different professor.

# Other Policies Required or Suggested by USF for All Courses<sup>2</sup>

**Academic Integrity:** Academic integrity is the foundation of the University of South Florida System's commitment to the academic honesty and personal integrity of its university community. Academic integrity is grounded in certain fundamental values, which include honesty, respect, and fairness. Broadly defined, academic honesty is the completion of all academic endeavors and claims of scholarly knowledge as representative of one's own efforts. The final decision on an academic integrity violation and related academic sanction at any USF System institution shall affect and be applied to the academic status of the student throughout the USF System, unless otherwise determined by the independently accredited institution. The process for faculty reporting of academic misconduct, as well as the student's options for appeal, are outlined in detail in USF System Regulation 3.027.

I have a *zero-tolerance policy* for plagiarism or cheating. Plagiarism includes claiming/editing others' work and presenting it as your own, lifting materials from the Internet or other sources without attribution, and many others. Per USF policy, any such behavior will result in a zero grade for that grade component for the first offense, F grade in the class and report to the Dean's Office for the second offense, and dismissal from the program for third offense. There will be no make up for any plagiarized work. See USF's academic integrity policy at <a href="http://www.ugs.usf.edu/policy/AcademicIntegrityOfStudents.pdf">http://www.ugs.usf.edu/policy/AcademicIntegrityOfStudents.pdf</a>.

**Disruption to Academic Progress:** Disruptive students in the academic setting hinder the educational process. Disruption of the academic process is defined as the act, words, or general conduct of a student in a classroom or other academic environment which in the reasonable estimation of the instructor: (a) directs attention away from the academic matters at hand, such as noisy distractions, persistent, disrespectful or abusive interruption of lecture, exam, academic discussion, or general University operations, or (b) presents a danger to the health, safety, or well-being of self or other persons.

**Academic Grievance Procedure:** The purpose of these procedures is to provide all undergraduate and graduate students taking courses within the University of South Florida System an opportunity for objective review of facts and events pertinent to the cause of the academic grievance. An "academic grievance" is a claim that a specific academic decision or action that affects that student's academic record or status has violated published policies and procedures, or has been applied to the grievant in a manner different from that used for other students.

**Disability Access:** Students with disabilities are responsible for registering with Students with Disabilities Services (SDS) (SVC 1133) in order to receive academic accommodations. SDS encourages students to notify instructors of accommodation needs at least five (5) business days prior to needing the accommodation. A letter from SDS must accompany this request.

Sexual Misconduct / Sexual Harassment: USF is committed to providing an environment free from sex discrimination, including sexual harassment and sexual violence (<u>USF System Policy 0-004</u>). The USF Center for Victim is a confidential resource where you can talk about incidents of sexual harassment and gender-based crimes including sexual assault, stalking, and domestic/relationship violence. This confidential resource can help you without having to report your situation to either the <u>Office of Student Rights and Responsibilities</u> (OSSR) or the <u>Office of Diversity, Inclusion, and Equal Opportunity</u> (DIEO), unless you request that they make a report. Please be aware that in compliance with Title IX and under the USF System Policy, educators must report incidents of sexual harassment and gender-based crimes including sexual assault, stalking, and domestic/relationship violence. If you disclose any of these situations in class, in papers, or to me personally, I am required to report it to OSSR or DIEO for investigation. Contact the <u>USF Center for Victim Advocacy and</u> Violence Prevention: (813) 974-5757.

<sup>&</sup>lt;sup>2</sup> Not all USF policies are listed in the syllabus to save space, students should refer to this link for current or updated policies in effect: <a href="https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx">https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx</a>

Religious Observances: All students have a right to expect that the University will reasonably accommodate their religious observances, practices and beliefs (<u>USF System Policy 10-045</u>). The USF System, through its faculty, will make every attempt to schedule required classes and examinations in view of customarily observed religious holidays of those religious groups or communities comprising the USF System's constituency. Students are expected to attend classes and take examinations as determined by the USF System. No student shall be compelled to attend class or sit for an examination at a day or time prohibited by his or her religious belief. However, students should review the course requirements and meeting days and times to avoid foreseeable conflicts, as excessive absences in a given term may prevent a student from completing the academic requirements of a specific course. Students are expected to notify their instructors at the beginning of each academic term if they intend to be absent for a class or announced examination, in accordance with this Policy.

Statement of Academic Continuity: In the event of an emergency, it may be necessary for USF to suspend normal operations. During this time, USF may opt to continue delivery of instruction through methods that include, but are not limited to: Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor the Learning Management System for each class for course-specific communication, and the main USF, College, and Department websites, emails, and MoBull messages for important general information (<u>USF System Policy 6-010</u>). For additional guidance on emergency protective actions and hazards that affect the University, please visit <u>www.usf.edu/em</u>

End of Semester Student Evaluations: All classes at USF make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued.

Campus Free Expression (As of Fall 2022): The following statement was crafted as a suggested statement to include for courses that engage in discussions and instruction which students may find uncomfortable, unwelcome, disagreeable, or even offensive. These discussions are intended to be objective. Additional guidance related to HB 7 "Individual Freedom Act" can be found online.

It is fundamental to the University of South Florida's mission to support an environment where divergent ideas, theories, and philosophies can be openly exchanged and critically evaluated. Consistent with these principles, this course may involve discussion of ideas that you find uncomfortable, disagreeable, or even offensive.

In the instructional setting, ideas are intended to be presented in an objective manner and not as an endorsement of what you should personally believe. Objective means that the idea(s) presented can be tested by critical peer review and rigorous debate, and that the idea(s) is supported by credible research.

Not all ideas can be supported by objective methods or criteria. Regardless, you may decide that certain ideas are worthy of your personal belief. In this course, however, you may be asked to engage with complex ideas and to demonstrate an understanding of the ideas. Understanding an idea does not mean that you are required to believe it or agree with it.

**Use of Generative AI Tools (Fall 2023 addition):** You are free to explore use of generative AI tools, such as (but not limited to) ChatGPT, Bard, and Bing for learning purposes but any assignments must be based on your own ideas, and work. If you use any outputs from such tools in any assignment, you must quote verbatim (within quotes) and/or cite appropriately any texts or other outputs produced by such software including providing more details related to any specific prompts that you used to generate the output or text. You must take responsibility for

validating and checking accuracy of any outputs generated by any generative AI tools critically and adhere to standards of scholarship related to citing sources.

## **COVID Addendum**

All students must comply with university policies and posted signs regarding COVID-19 mitigation measures, including wearing face coverings and maintaining social distancing. Failure to do so may result in dismissal from class, referral to the Student Conduct Office, and possible removal from campus.

Students must follow USF's policies in effect at all times and refer to the following websites for updates and latest information:

https://www.usf.edu/coronavirus/index.aspx

 $\underline{https://www.usf.edu/general-counsel/documents/resources/conduct-expected-to-support-usf-health-and-safety-standards.pdf}$ 

Note that we may record live class lectures and discussions, and these recordings will be made available to students enrolled in the class, to assist those who cannot attend the live session or to serve as a resource for those who would like to review content that was presented. Some activities may require you to turn on your video camera, and/or your audio as directed by the instructor. The instructor may use online proctoring for online exams and quizzes. Therefore, you will be required to have a computer and a webcam (USB or internal) with a microphone when taking an exam or quiz. If you do not have access to a computer or webcam, you are required to notify your instructor. Students understand that this remote recording device is purchased and controlled by the student and that recordings from any private residence must be done with the permission of any person residing in the residence. To avoid any concerns in this regard, you should select private spaces for the testing, ensure that any recordings do not invade any third party privacy rights, and accept all responsibility and liability for violations of any third party privacy concerns. You are strictly responsible for ensuring that you take all exams from a computer (not mobile device) with a high speed internet connection and camera.