Quantitative Business Research Methods – Day 1

Spring 2023 Sami Kajalo





Introduction and Practicalities



Learning outcomes

Upon completion of the course students will be able to carry out quantitative empirical research. More specifically, they will be able to:

- 1. Define research problems and research designs
- 2. Understand the role of theory and concepts in empirical research
- 3. Choose appropriate samples and empirical material for particular research problems
- 4. Analyze empirical material
- 5. Report empirical research
- 6. Define appropriate evaluative criteria for empirical research



Practicalities

- All course information is at MyCourses (mycourses.aalto.fi).
- There is no compulsory attendance on our online meetings.
- For best learning results use your own laptop during online meetings and Install SPSS software from download.aalto.fi
- If you cannot do that you find the software at Aalto in e.g. Väre R102 classroom. Or you can use the Aalto VDI for SPSS: <u>https://www.aalto.fi/en/services/vdiaaltofi-how-to-use-aalto-virtualdesktop-infrastructure</u>



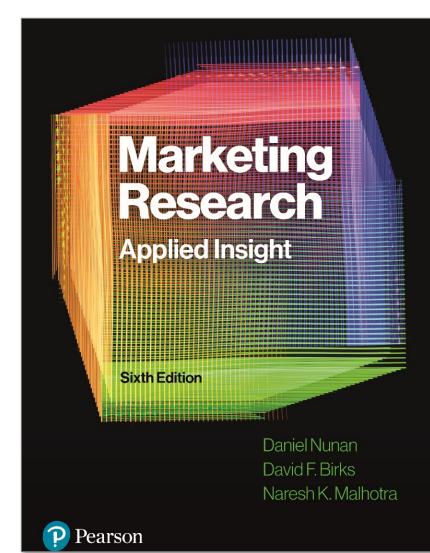
How to complete this course?

- See MyCourses-website for all instructions.
- Important dates:
 - Deadline for assignments
 - Two exam dates

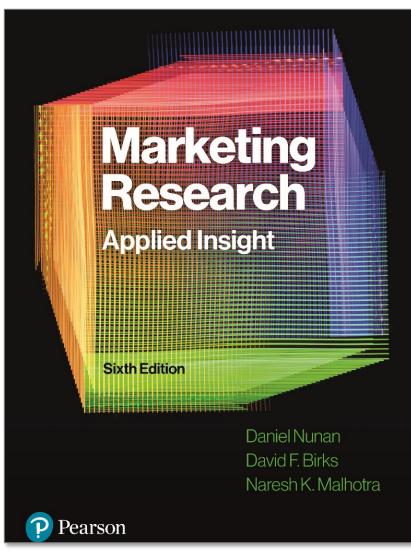


Practicalities: Coursebook

- Coursebook: 2020-edition: Nunan, D., Birks, D.F. and Malhotra, K. (2020). Marketing Research: Applied Insight, 6. Edition, Pearson, Print ISBN: 9781292308722, 1292308729, e-Text ISBN: 9781292308760, 1292308761. Chapters 1-5 and 10-30.
- The exam is based on 2020-edition.
- In practice students also use:
 - 2017-edition: Malhotra, N.K., Birks, D.F. and Nunan, D. (2017). Marketing Research: An Applied Approach, 5. Edition, Pearson, ISBN-10: 1292103124, ISBN-13: 9781292103129, Chapters 1-5 and 10-30.
 - 2012-edition: Malhotra, N. K., Birks, D. F. and Wills, P. (2012) Marketing research: An Applied Approach, 4. Edition, Harlow: Financial Times Prentice Hall., ISBN 0273725858. No need to read Chapters 6-9 (Qualitative research).
- A limited number of course textbooks are available at the library.



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Why this course is important for You?

- After this course you much better at reading academic research (not only in the field of business but among many fields of science).
 - Data analysis using big data is also a huge social and political guestion. E.g. watch 'The Great Hack' which is a 2019 documentary film about the Facebook–Cambridge Analytica data scandal.
- All this is needed for conducting quantitative master's thesis.
- You are much better at your future work when there are things related to quantitative research.
 - Companies do mostly quantitative market research. Quantitative research methods 78% in 2018; while the share of qualitative research at 14%. (ESOMAR Global Market Research Report 2019).
 - Quantitative research is more important as there is more data available and analyzing that data can be a competitive advantage.



Why are we here?

- 1. To learn quantitative research methods for studies, work and life in general.
- 2. To help you to do a <u>better</u> Master's thesis more <u>easily</u>. Whether it is quantitative or qualitative does not matter, even though mostly this is about quantitative research.
- 3. To provide tools and ideas for life-long learning. So that you are anytime ready to find top quality knowledge from any subject.



What is Special in this course?

There are some great things in this this course:

- We take a holistic view to quantitative research. You do not learn some mathematical equations related to quantitative methods but you learn how to do quantitative research from the beginning until the end.
- 2. We have the best tools that there are. Aalto library services are top class in the world and IBM SPSS is great software for data analysis.
- 3. Our textbook is the best in the world and used in leading universities. By reading it you get great knowledge of in practice all methods used in the field of marketing.



Practicalities: Lectures

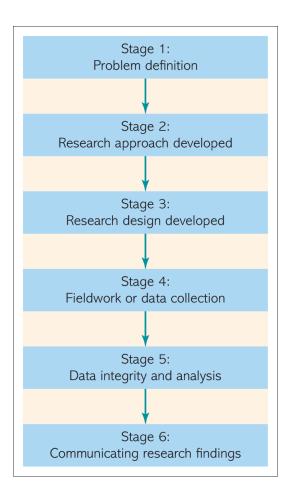
- We have 5 days and each day we start at 16:15 and finish at 19:45.
- We have breaks so that sessions are 30-60 minutes (one longer break and 2-3 short breaks).
- First part of each day is recorded, and videos will be available in the website.
- Second part is not recorded, and it will be examples and discussion.
- This system is based on my experiences and student feedback from online teaching. All suggestions for improvements are highly appreciated.



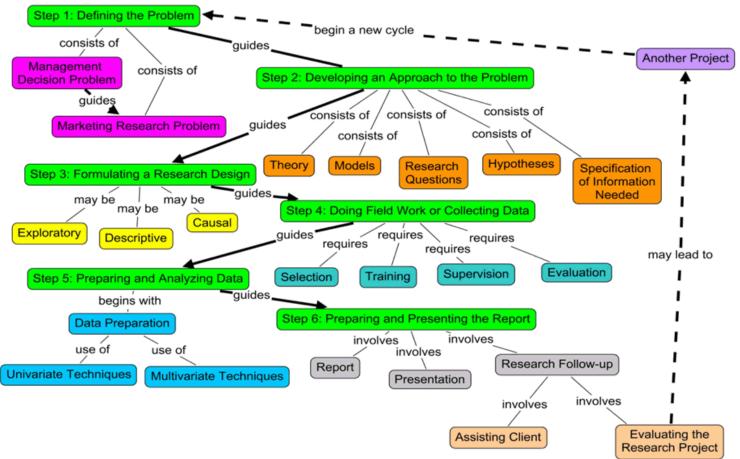
Research Process: Theory and Practise



Research Process



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The Role of Theory

Research task	Role of theory
Conceptualising and identifying key variables	Provides a conceptual foundation and understanding of the basic processes underlying the problem situation; these processes will suggest key dependent and independent variables
Operationalising key variables	Provides guidance for the practical means to measure or encapsulate the concepts or key variables identified
Selecting a research design	Causal or associative relationships suggested by the theory may indicate whether a causal, descriptive or exploratory research design should be adopted (see Chapter 3)
Selecting a sample	Helps in defining the nature of a population, characteristics that may be used to stratify populations or to validate samples (see Chapter 14)
Analysing and interpreting data	The theoretical framework and the models, research questions and hypotheses based on it guide the selection of a data analysis strategy and the interpretation of results (see Chapter 19)
Integrating findings	The findings obtained in the research project can be interpreted in the light of previous research and integrated with the existing body of knowledge

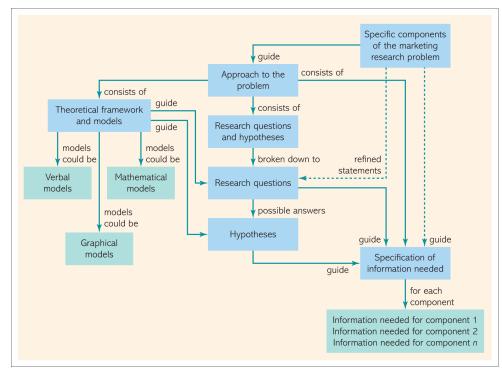


Research questions and hypotheses

- Research questions (RQs) are refined statements of the specific components of the problem.
- A hypothesis (H) is an unproven statement or proposition about a factor or phenomenon that is of interest to the researcher. Often, a hypothesis is a possible answer to the research question.



A conceptual map for approach to the problem



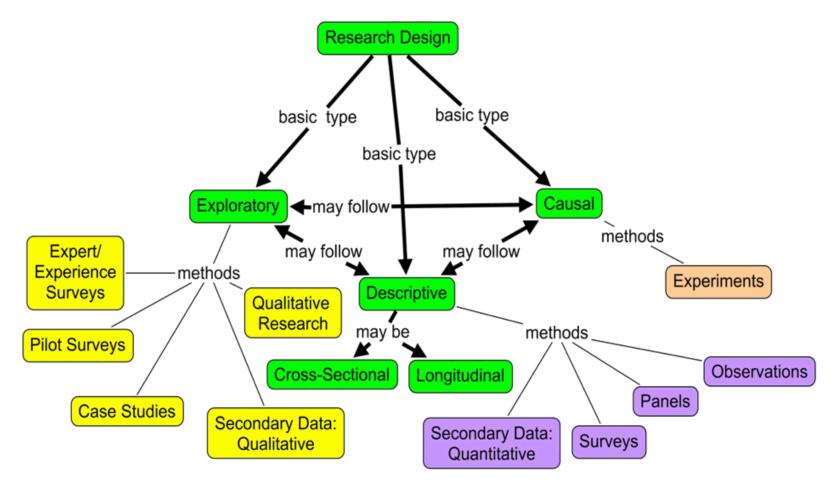
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Exploratory vs. Conclusive Research

	Exploratory	Conclusive
Objectives	To provide insights and understanding of the nature of marketing phenomena	To test specific hypotheses and examir relationships
	To understand	To measure
Characteristics	Information needed may be loosely	Information needed is clearly defined
	defined	Research process is formal and
	Research process is flexible,	structured
	unstructured and may evolve	Sample is large and aims to be
	Samples are small	representative
	Data analysis can be qualitative or quantitative	Data analysis is quantitative
Findings/results	Can be used in their own right	Can be used in their own right
	May feed into conclusive research	May feed into exploratory research
	May illuminate specific conclusive findings	May set a context to exploratory findings
Methods	Expert surveys	Surveys
	Pilot surveys	Secondary data
	Secondary data	Databases
	Qualitative interviews	Panels
	Unstructured observations	Structured observations
	Quantitative exploratory multivariate methods	Experiments



A Concept Map for Research Design



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Systematic Literature Review: Finding the Most Important Journal Articles



Secret to Successful Research

- If there is one secret to successful research it is finding the most important previous research in the subject.
- All academic research is based on previous research.
- You need to find out what is known and what is not known on the subject you want to study.
- And, finally, you want to do research that is based on theory i.e. previous research and knowledge about the subject.



What Are the Best Academic Journals?

- There are about 30 000 academic journals publishing over 2 millions journal articles every year.
- So, first you have to find our what are the the best journals in your field (after that what are the best articles).
- Financial Times keeps a list of 50 most important journals in business sciences -> google "Financial Times Top 50 Journals".





Financial Times Top 50 Journals

- From this list you can choose a couple of journals you want to follow: check a couple of times a year what they have published.
- For example, if you are a marketing scholar you might want to follow 5 marketing journals, 3 management journals, 1 business ethics journal and one managerial journal like Harvard Business Review.

27. Journal of Marketing
28. Journal of Marketing Research
29. Journal of Operations Management
30. Journal of Political Economy
31. Journal of the Academy of Marketing Science
32. Management Science



ABS Journal Quality Guide

- Chartered Association of Business Schools' have in their website 'Academic Journal Guide'.
- Their website is free but requires registration.
 <u>https://charteredabs.org/</u>
- You can also google 'ABS Academic Journal Guide pdf'. But the most recent guide in pdf-form is from 2015.
- It ranks journals by discipline, e.g. Marketing, Finance, Strategy.





ABS Journal Quality Guide

- The best journals get a "4*"-ranking.
- Lowest ranking is "1".
- Even the journals with ranking "1" are decent. There are lots of journals below that.
- This guide is the easiest way to check how good a specific journal is.

			Profi	le Links	
Field	Journal Title 🔺	Publisher Name 🔺	Scopus	Web of Science™	AJG 2021
МКТ	Journal of Consumer Psychology	Wiley-Blackwell	Scopus*	¢	4*
MKT	Journal of Consumer Research	Oxford University Press	Scopus*	0	4*
MKT	Journal of Marketing	SAGE	Scopus*	¢	4*
MKT	Journal of Marketing Research	American Marketing Association	Scopus*	¢	4*
MKT	Journal of the Academy of Marketing Science	Springer Nature	Scopus*	0	4*
МКТ	Marketing Science	Institute for Operations Research and the Management Sciences	Scopus*	0	4*



ABS Journal Quality Guide:4*, 4 and 3

			Profile Links					art art
Field	Journal Title 🔺	Publisher Name 🔺	Scopus	Web of Science™	AJG 2021	AJG 2018	AJG 2015	ABS 2010
МКТ	Journal of Consumer Psychology	Wiley-Blackwell	Scopus [®]	0	4*	4*	4*	4
MKT	Journal of Consumer Research	Oxford University Press	Scopus [®]	0	4*	4*	4*	4
MKT	Journal of Marketing	SAGE	Scopus*	0	4*	4*	4*	4
МКТ	Journal of Marketing Research	American Marketing Association	Scopus [®]	0	4*	4*	4*	4
MKT	Journal of the Academy of Marketing Science	Springer Nature	Scopus [®]	0	4*	4*	4	3
MKT	Marketing Science	Institute for Operations Research and the Management Sciences	Scopus*	0	4*	4*	4*	4
MKT	International Journal of Research in Marketing	Elsevier	Scopus [®]	0	4	4	4	3
MKT	Journal of Retailing	Elsevier	Scopus*	0	4	4	4	4
MKT	European Journal of Marketing	Emerald	Scopus [®]	0	3	3	3	3
MKT	Industrial Marketing Management	Elsevier	Scopus [®]	0	3	3	3	3
MKT	International Marketing Review	Emerald	Scopus [®]	0	3	3	3	3
МКТ	Journal of Advertising	Taylor & Francis	Scopus*	0	3	3	3	3
MKT	Journal of Advertising Research	The Advertising Research Foundation	Scopus [®]	0	3	3	3	3
MKT	Journal of Interactive Marketing	Elsevier	Scopus*	0	3	3	3	2
MKT	Journal of International Marketing	American Marketing Association	Scopus*	0	3	3	3	3
MKT	Journal of Public Policy and Marketing	American Marketing Association	Scopus [*]		3	3	3	
MKT	Marketing Letters	Springer Nature	Scopus [®]	0	3	3	3	3
MKT	Marketing Theory	SAGE	Scopus [®]	0	3	3	3	2
MKT	Psychology and Marketing	Wiley-Blackwell	Scopus [®]	0	3	3	3	3
MKT	Quantitative Marketing and Economics	Springer Nature	Scopus [®]	0	3	3	3	2

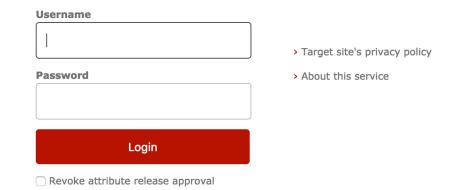


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Getting Access to Journal Articles

- Most articles you can read and download by just having Aalto account and password.
- For some articles you need VPN (=Virtual Private Network) connection to Aalto.
- Almost all articles are available these ways for free.
- In practice, students do <u>not</u> buy articles.







Simple Way to Search and Download Articles: Google Scholar

- You can search articles with Google Scholar: <u>http://scholar.google.com/</u>
- In order to read and download articles go to Google Scholar settings and add Aalto University to the list of libraries.
- Instructions are available at: <u>http://libguides.aalto.fi/e-</u> <u>resourcelinking/google-scholar</u>
- Following instructions you get SFX-link next to journal articles and clicking it takes you to PDFfile.



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Q

Google Scholar has also information and statistics about researchers

Google Scholar

	Eric Arnould		Follow	Cited by		VIEW ALI
	Aalto University Verified email at aalto.fi consumer culture cultural marketing strategy services	economic development		Citations h-index i10-index	All 35672 60 111	Since 201 1434 50 7
ITLE		CITED BY	YEAR			270
J Arnould, CJ Thomps	theory (CCT): Twenty years of research son search 31 (4), 868-882	5388	2005			202
River magic: Extra J Arnould, LL Price ournal of consumer R	ordinary experience and the extended service encounter esearch 20 (1), 24-45	4011	1993			67
How brand commu HJ Schau, AM Muñiz J Journal of marketing 73		3292	2009	2015 2016 2017 2	018 2019 2020 20	21 2022



Virtual Private Network (VPN)

- Some library services require use of Virtual Private Network (VPN).
- Cisco AnyConnect VPN software can be downloaded from: <u>http://download.aalto.fi</u>
- There you find also instructions how to install it.
- When using the VPN, all traffic goes through the Aalto University IT services and you have access to all library services.





All Library Databases: primo.aalto.fi

- All library databases are at: <u>http://primo.aalto.fi</u> (there is also special business research site: <u>https://libguides.aalto.fi/business</u>
- From both of these you can find and read e-books, search and download journal articles, and read newspapers such as Financial Times and Kauppalehti.
- Two most important things there are: 1) accessing specific journal and 2) searching many journals with Web of Science.





Library: Accessing Specific Journal

- 1. Go to: http://primo.aalto.fi
- 2. Search the journal you want to access, e.g. "Harvard Business Review".
- 3. Choose database (usually the first one is ok, sometimes you have to try others)
- 4. Now you should see all issues from 1922.

HARVARD BUSINESS REVIEW



ESSENTIAL GROUNDWORK FOR A BROAD EXECUTIVE THEORY

By WALLACE B. DONHAM

"The gipsy in Asia Minor makes iron nails one at a time with a hammer on an anvil, just as his ancestors did before him for hundreds of years. I have seen him doing it; but I also observed that his small children were stark naked and that his larger ones had only one garment In industry and commerce all things are become new." CHARLES W. ELIOT

NLESS we admit that rules of thumb, the limited experience of the executives in each individual No amount of theory can be a substitute for energy, enthusiasm, initiative, creative ability, and personality, nor will



Harvard Business Review

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Database: Business Source Complete -- Publications

Publications

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Publication Detai	ls For "Harvard Business Review"	+ 2022
		+ 2021
	Harvard Business Review	+ 2020
	0017-8012	+ 2019
Publisher Information:	Harvard Business School Publication Corp. 60 Harvard Way	+ 2018
	Boston M 02163	+ 2017
	United States of America	+ 2016
Bibliographic Records:	10/01/1922 to present	+ 2015
Full Text:	10/01/1922 to present	+ 2014
Publication Type:	Periodical	+ 2013
Subjects:	Strategic Planning; Management	+ 2012
Description:	Written for upper level management. Presents analysis of management problems and helpful commentary on advanced thinking and practice in all fields of management and administration.	+ 2011
Publisher URL:	https://hbr.org	+ 2010
Frequency:	8	+ 2009
Peer Reviewed:	No	+ 2008
		+ 2007
	₩.	+ 2006
	HARVARD BUSINESS	+ 2005
	SCHOOL PUBLISHING	+ 2004



Library: Searching Multiple Journals with Web of Science

1. Go to: http://primo.aalto.fi

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- 2. Database Search: "Web of Science"
- 3. Choose and go to "Web of Science Cross Search"
- 4. Now you can search a topic, e.g. "Sharing Economy".
- 5. The database is like Google Scholar but includes mostly journal articles from good journals. That makes searching relevant articles easier.
- 6. You get the article as pdf-file by clicking Viewit@aalto.
- 7. Clicking journal's name gives also 'impact factor' of the journal. The higher the impact factor the better the journal (rule of thumb: greater than 1.5 is a very good journal).

How retail entrepreneurs perceive the link between surveillance, feeling of security, and competitiveness of the retail store? A structural model approach

Kajalo, Sami and Lindblom, Arto

Published 2010 JOURNAL OF RETAILING AND CONSUMER SERVICES

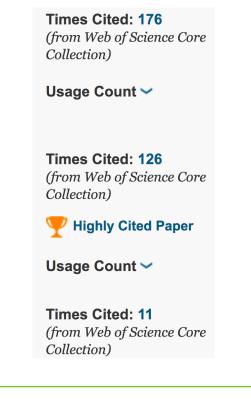
Journal Of Retailing And Consumer Services

Impact factor 4.219 2019	-		at
JCR Category	Rank in Category	Quartile in Category	
BUSINESS	39/152	Q2	
S	ource: Journal Cita	tion Reports 2019	

Close

Checklist for Deciding What to Read

- 1. Is the topic of your interest?
- 2. What is the quality of the journal?
- 3. How many times the article has been cited? You see that in Google Scholar or Web of Science.
- 4. Is the article new or still relevant?





Thank you!



Day 1 - Part 2

Examples and discussion. This part is not recorded.



Example: Systematic literature review in practice (my research with Dr. Song)

- We want to do the literature review in straightforward way without putting too much of our energy to it.
- Our target is to find 20 most journal articles that are most relevant to us.
- We have 4 criteria for relevance:
 - Title (is this relevant for us)
 - Quality of the journal (we want overall good journals and we appreciate more journals from our own discipline, e.g. marketing and management)
 - Number of citations (we love relatively new articles which have many citations)
 - Year of publishing (we want very new articles even though they might not yet have that many citations).
- During the process we list to Excel-file about 30-50 articles.
- The final decision of the 20 journal articles is qualitative and based on our own judgement.



Systematic literature review in practice: keywords

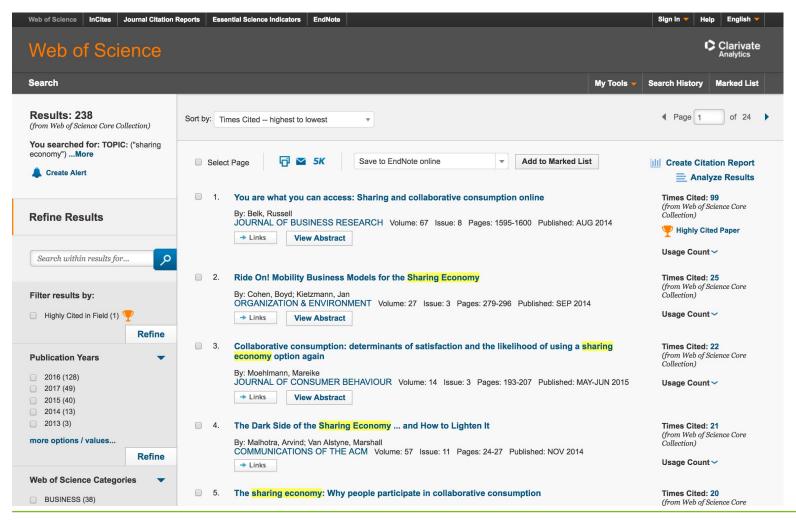
- Our topic is collaborative consumption / sharing economy. We pick up our initial keywords from the articles we had found with our non-systematic literature searches:
 - Sharing economy
 - Shared consumption
 - Sharenomy
 - Collaborative consumption
 - Access based services
- Now we systematically search articles using these keywords.
- During the process of searching articles we look what keywords new articles have and add more keywords to our searches.



Systematic literature review in practice: databases

- As we want to be efficient and not spend too much time we do the literature review by using first just the Web of Science-database.
- Based on that database we fill an Excel-file with 30-50 articles, of which we finally choose 20 to be the most important for us (by our own judgement).
- After doing all this in the Web of Science-database we do the same briefly with Google Scholar.
- Google Scholar provides us possibility to find articles not published in very good journals (Web of Science includes basically only very good journals). These can be articles from other journals of books or other publications.





Example: Excel-file of a systematic literature review (not same style as in learning exercise 1)

Full citation (from Mendeley)		Impact factor	Citations (Web of science)	New keyw	ords		
Albinsson, P. A., & Yasanthi Perera, B. (2012). Alternative marketplac	es in the 21st century: Building community throug	1,481	43	no			
Bardhi, F., & Eckhardt, G. M. (2012). Access-Based Consumption: The	Case of Car Sharing: Table 1. Journal of Consume	3,8	C) no			
Barnes, S. J., & Mattsson, J. (2016). Understanding current and future	e issues in collaborative consumption: A four-stage	2,625	6	i Delphi; Su	stainability		
Barnes, S. J., & Mattsson, J. (2017). Understanding collaborative cons	sumption: Test of a theoretical model. Technologic	2,625	C	PLS-PM; ca	r sharing; con	sumer beha	vior
Belk, R. (2014). You are what you can access: Sharing and collaborati	ve consumption online. Journal of Business Resea	3,354	121	. Ownership	, Access, Shari	ing, Commu	nity
Benoit, S., Baker, T. L., Bolton, R. N., Gruber, T., & Kandampully, J. (20	017). A triadic framework for collaborative consun	3,354	C	Consumer	behavior; Sha	reconomy; P	'eer to p
Breidbach, C. F., & Brodie, R. J. (2017). Engagement platforms in the	sharing economy: conceptual foundations and res	1,098	1	Engageme	nt platform; Pl	latform busi	ness; Se
Böcker, L., & Meelen, T. (2017). Sharing for people, planet or profit?	Analysing motivations for intended sharing econo		C) no			
Chatterjee, S. (2017). Impact of actual service provider failure on the	satisfaction with aggregator. Journal of Strategic	1,118	C) no			
Cohen, B., & Kietzmann, J. (2014). Ride On! Mobility Business Models	s for the Sharing Economy. Organization & Enviror	3,875	33	business m	nodels, sustain	ability, carsh	naring, r
Corciolani, M., & Dalli, D. (2014). Gift-giving, sharing and commodity	exchange at Bookcrossing.com: new insights from	1,396	5	Qualitative	e methods; Ne	etnography;	Gift-giv
Delre, S. A., Broekhuizen, T. L. J., & Bijmolt, T. H. A. (2016). The Effect	s of Shared Consumption on Product Life Cycles a	3,654	C	social influ	ence; advertis	ing; motion	picture
Frenken, K., & Schor, J. (2017). Putting the sharing economy into per-	spective. Environmental Innovation and Societal T	1,148	2	Platform,S	ustainability, F	Reverse tech	nology
Godelnik, R. (2017). Millennials and the sharing economy: Lessons fro	om a "buy nothing new, share everything month"		C	Millennials	, Experiential	learning, Stu	dents, (
Habibi, M. R., Davidson, A., & Laroche, M. (2017). What managers sh	ould know about the sharing economy. Business H	2,157	C	Economic	continuum; Re	eciprocal bu	siness; §
Hamari, J., Sjöklint, M., & Ukkonen, A. (2016). The sharing economy:	Why people participate in collaborative consumption	2,322	35	i no			
Huber, A. (2017). Theorising the dynamics of collaborative consumpt	ion practices: A comparison of peer-to-peer accor		C	Cohousing	, P2P accomm	odation, Soc	ial prac
Hwang, J., & Griffiths, M. A. (2017). Share more, drive less: Millennia	Is value perception and behavioral intent in using		C	Value; Em	pathy; Innova	tiveness; Mil	llennials



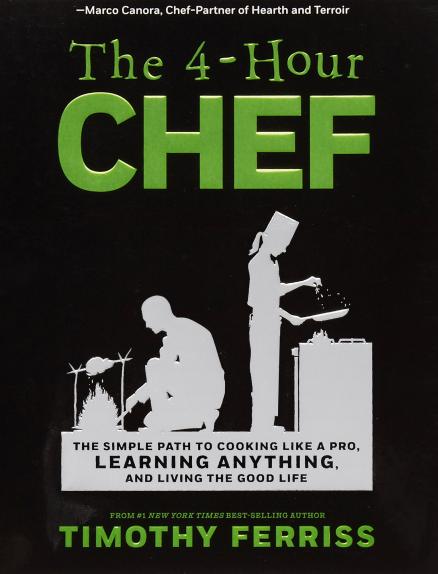
Quantitative Research – Master's Thesis



Learning anything?

In the case of Master's thesis we need to:

- 1. Understand how they are evaluated.
- 2. Know what they are like in practise (especially the good ones).



"IF YOU CROSSED JASON BOURNE WITH JULIA CHILD, YOU'D END UP WITH TIM FERRISS."



Key to Success: Study the evaluation form carefully

Assessment scale 0 1 2 3 4 5 I Problem setting of the study 1. Explication of how the study relates to a phenomenon or area of interest 2. Specification of the research problem, objectives and/or questions Il Contribution and the use of scientific methods Positioning of the research problem, objectives and/or guestions Review of literature Development of a theory-based framework, model and/or hypothesis 6. Selection and justification of research methods Selection and justification of research material or data 8. Application of research methods 9. Analysis and presentation of data/findings III Presentation and integration of the study 10. Discussion and interpretation of findings 11. Development of practical, societal, and/or theoretical implications and discussion of avenues for future studies 12. Knowledge of ethics in academic research 13. Academic style, language use and readability

14. Consistency and coherence of the thesis

Grading scale: 0 = failed, 1 = sufficient, 2 = satisfactory, 3 = good, 4 = very good, 5 = excellent

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	-	_	_	_	
		_		_	



Key to Success: Learn what the very good master's thesis are like

- Next we look briefly what very good Master's thesis are like. You find these two thesis from Aalto Learning Centre databases as Pdf-files (you can simply google the name of the thesis).
 - Ainomaria Parikka. Building the dream online: Does participation in luxury brand's social media affect brand experience, brand affect, brand trust, and brand loyalty?
 - Aino Kymäläinen. Exploring motivations to engage in collaborative consumption Case: Facebook recycling groups.



First step in doing research: Systematic literature review

- Now we know what Master' thesis are like, what is expected from them and how they are evaluated.
- If you are doing Master's Thesis the next step would be to select the area/topic, then do a thing called systematic literature review and learn what is known about the subject.
- Based on what is already known, you can find a thing called "research gap" (=what is not known but possible for you to study).
- After that decide what you want to study, write your research questions and you are ready to write the theoretical part of your thesis.



Thank you!

