

Succeeding in Academia – Conducting and Writing Literature Reviews

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Today

- Reasons to review literature
- Reading a research article
 - Aspects of active reading
 - Five step reading process
- Result of the literature review
 - State meaningful research questions
- Research question suggestions
- Writing the literature review
 - Literature review components
- Organizing the literature review

What is a Literature Review?

- A literature review is a systematic examination and synthesis of research on a topic of interest
- Purpose is to evaluate a body of literature with the goal of identifying *what is known and what is still unknown* regarding the topic of interest
- Its nearly impossible to conduct significant research without understanding the literature (and language) in a field



Reviewing the Literature

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Reasons to Review Literature

- Distinguish what has been done from what needs to be done
- Discover important variables relevant to the topic
- Synthesize and gaining a new perspective
- Identify relationships between ideas and practices
- Establish the context of the topic or problem
- Rationalize the significance of the problem
- Enhance and acquire subject vocabulary
- Understand the structure of the subject
- Relate ideas and theory to applications



Reviews Assist In...

- Delimiting the research problem
- Seeking new lines of inquiry
- Avoiding fruitless approaches
- Gaining methodological insights
 - Identify methodological strengths and weaknesses
- Identifying recommendations for further research
- Seeking support for grounded theory



Aspects of Active Reading

- Read to understand question(s) and thesis, not just content
- Search for and critique each thesis
- Use five step reading process to assess the question, thesis, and key evidence
- Identify, if possible, the author's larger aim
- Use titles, subtitles, and subheadings as clues to identify the thesis
- Write down the important statements, results, and primary evidence in your literature log
- Skip paragraphs that repeat or elaborate on ideas already discussed



Literature Log Example

#	A	D	L	C	F	S
1	Authors McBride, W.D., Greene, C., Foreman, L., & Ali, M. (2015).	Aims Estimate the difference in cost of production attributed to producing certified organic crops, examine profitability of corn, wheat and soybean products produced organically vs. conventionally	Data Observational data obtained from samples of US field crop producers from USDA's 2010, 2009 and 2006 Agricultural Resource Management Survey (ARMS)	Conclusions Significant economic returns are possible from organic production of these crops and the main reason is the price premium for organic products. However, the adoption of organic production has been slower due to achieving effective weed control and processes involved with organic certification. Also, additional cost of organic vs. conventional production were more than offset for soybeans and corn but not for wheat.	Citation McBride, W.D., Greene, C., Foreman, L., & Ali, M. (2015). The Profit Potential of Certified Organic Field Crop Production. Economic Research Report 188, U.S. Department of Agriculture	
2	Wurriehausen, N., Lakner, S., & Ihle, R. (2012)	Examine price interdependencies of organic and conventional wheat.	Monthly producer prices of conventional and organic soft wheat used to make bread, obtained from the German Agricultural Data Service from 1997 to 2011.	Prices of the conventional market play a considerable role in price formation of organic products while the opposite case does not hold as a result of the sizes of organic and conventional wheat market. However, due to the asymmetric substitutability between the organic and conventional wheat varieties, an asymmetric relationship seems to be plausible. Furthermore, tests and market context hint towards a nonlinear data generation process.	Wurriehausen, N., Lakner, S., & Ihle, R. (2012). Market integration of conventional and organic wheat in Germany (No. 1204). Diskussionspapiere, Department für Agrarökonomie und Rurale Entwicklung.	
3	Naspetti, S., Lampkin, N., Nicolas, P., Stolze, M., & Zanoli, R. (2009).	Contribute to a better understanding of the supply chain performance and the collaboration system of the different organic supply chains and investigate the effect of supply chain relationships on quality and safety performance	Data were obtained from 1) in-depth personal interviews and semi-structured questionnaires, 2) web-based reduced questionnaire in order to validate the survey	Collaborative efforts along the organic supply chain enables the chain members to attain better performance. Nevertheless, the level of trust and collaboration is still too low. There is no evidence that collaboration actually improves product quality and safety.	Naspetti, S., Lampkin, N., Nicolas, P., Stolze, M., & Zanoli, R. (2011). Organic supply chain collaboration: a case study in eight EU countries. Journal of Food Products Marketing, 17(2-3), 141-162.	
4	Rodríguez, E., Lacaze, V., & Lupin, B. (2008).	Estimate consumers' willingness to pay (WTP) for organic food products (including whole wheat flour) available in the Argentinean domestic market.	Data was collected in a food consumption survey conducted in Buenos Aires, Argentina, in April 2005, by applying a semi-structured questionnaire (n=301).	Average WTP estimated for whole wheat flour was 7.5%/kg based on data collected from respondents with higher income level (greater than US\$500/month). This WTP is below the organic whole wheat flour market price in as much as 3%. Main explanatory factors for WTP for organic whole wheat flour were regular label reading of goods and need to count on a quality regulatory system, but also scarcity in the market, knowledge of origin and high health risks perceptions associated to pesticides.	Rodríguez, E., Lacaze, V., & Lupin, B. (2007). Willingness to pay for organic food in Argentina: Evidence from a consumer survey. International marketing and trade of quality food products, 297.	
5	Costanigro, M., Kroll, S., Thilmany, D., & Bunning, M. (2014).	Understand how two labels with distinct but potentially complementary characteristics—local and organic—interact. Three hypotheses examined: (1) whether local and organic are substitutes or complements; (2) whether WTP for local and organic diminish once participants become aware of the weak scientific evidence documenting better environmental and nutritional outcomes; and (3) whether experience attributes (taste and visual information) dominate the ex-ante valuation of the	Participants were recruited through ads in newsletters distributed across Colorado State University students and staff. They filled out a questionnaire regarding their demographics and perceptions of local and/or organic food, they blind-tasted the apples and two auction were conducted, second after additional scientific environmental information was provided.	For both local and organic labels, which participants valued as partial substitutes, positive willingness to pay is conditional on distrusting the governmental food agencies. Information documenting the inconclusive scientific evidence in favor of organic and local production had mixed and small effects. Participants with positive valuation reacted to organoleptic characteristics when the new information favored the labeled apples. The observed behavior is more consistent with polarization against conventional products, rather than	Costanigro, M., Kroll, S., Thilmany, D., & Bunning, M. (2014). Is it love for local/organic or hate for conventional? Asymmetric effects of information and taste on label preferences in an experimental auction. Food Quality and Preference, 31, 94-105.	

Another Example

Literature Review: Consumer preferences for organic foods in general and products containing organic wheat

1.

Title: Consumers of organic foods - value segments and liking of bread

Author(s): Kihlberg, I.; Risvik, E.

Journal: Food Quality and Preference

Source: April 2007 // Volume 18 // Number 3 // Pages 471-481.

Call numbers: NAL Call Number. TX367.F66

Date: Apr 1, 2007

Web address:

<http://www.sciencedirect.com/dist.lib.usu.edu/science/article/pii/S0950329306000826>

Subject: Organic consumers; Values; Food acceptance; Liking of food; Wheat; Bread; Consumer test

Article Review: The article analyses results of a study carried out in Sweden. The aim of the study was to characterize main value segments of organic food consumers using set of the 56 Schwartz values and investigate possible differences in their sensory-specific liking of white bread. A consumer acceptance test was conducted on 184 consumers of organic products in two age groups, < 30 and > 30 years. These two age groups differed in values and they differed in their liking of bread, thus different segments of organic food consumers were revealed. Both organic and conventional breads were among breads liked the most. Majority of consumers thought that organic food tastes better than conventional and that consumption of organic bread should increase. More than 50% of the respondents expressed their unwillingness to purchase organic products if their price is significantly higher than the price of a corresponding conventional product.

Highlights/Results:

- Values of consumers of organic food above age 30 differed from values of consumers below age 30, their liking of bread and frequency of organic food consumption was different too.
- Both organic and conventional breads were among the most liked breads.
- Consumers are positive towards organic breads, but producers need to communicate specific values that the consumers can recognize as their own.
- More than 50% of the respondents claimed they would not buy organic product if its price was significantly higher than price of corresponding conventional product.

4.

Title: The Impact of Information on the Willingness-to-Pay for Labeled Organic Food Products

Author(s): Rousseau, S., Vranken, L.

Source: 2011 International Congress, August 30 – September 2, 2011, Zurich, Switzerland, 15 pages

Web address: <http://purl.umn.edu/115986>

Article Review: The aim of this paper is to investigate the impact of information related to health and environmental effects of organic food production on consumer's willingness to pay for organic labels. The authors set up a choice experiment where 226 respondents in Belgium were asked to choose between two apple varieties differing in price, shape, taste, origin and label. Then they would get additional information about positive environmental and neutral health benefits of organic apple production and would have an option to review and change their choices. After the provision of information on the actual environmental and health effects of organic apple production, consumers were willing to pay approximately 23 eurocent more for kilogram of labeled organic apples.

Highlights/Results:

- Consumers are willing to pay higher premium for labeled organic apples after they receive information on positive environmental and neutral health benefits of organic apples production (33 eurocent for kilogram of labeled organic apples before and 56 eurocent for kilogram after providing the information).
- The data indicated that age and gender does not affect WTP for organic apples, however there is some effect of education and respondent's membership in a nature conservation organization.

Five Step Reading Process

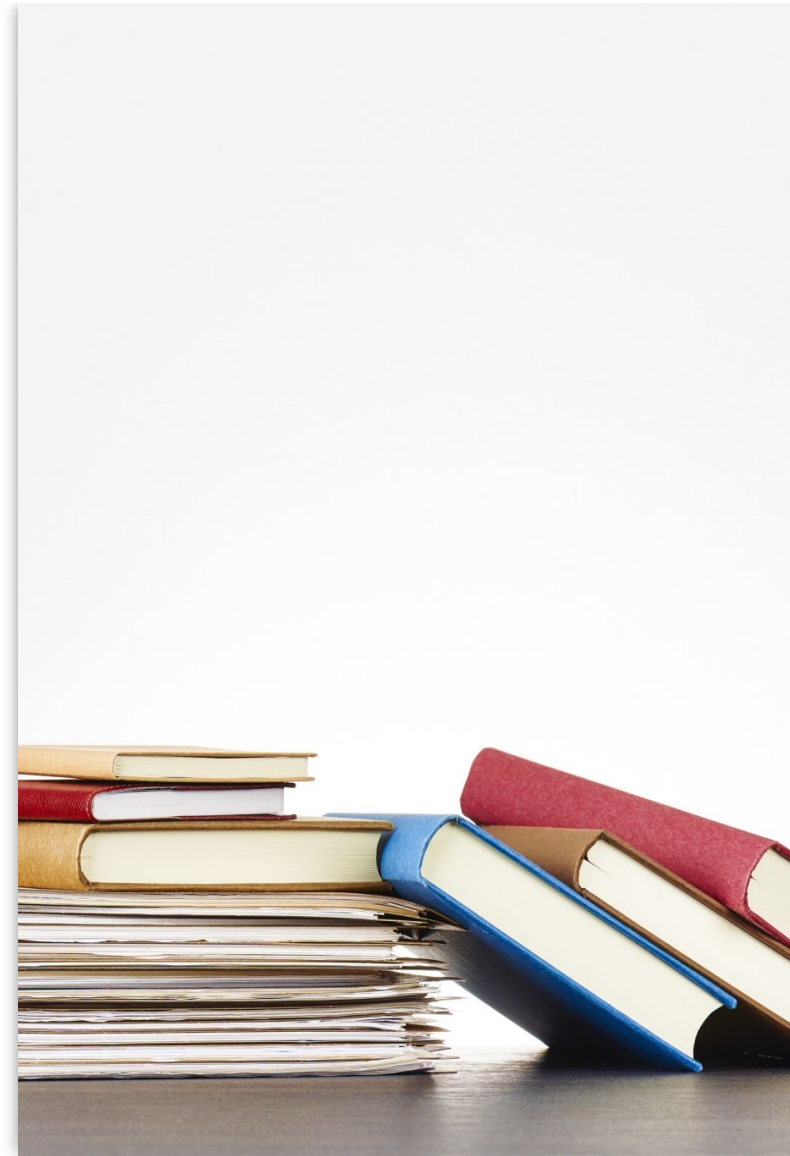
- Target articles most relevant to the topic at hand
 - Analyze the title and subtitle
 - Scrutinize the table of contents
 - Read the introduction
 - Read the conclusion
 - Read other identified important sections
- Goal is to target articles that will provide the most benefit
 - Reduce time required to read each article
 - Active skimming



Five Questions for Effective Reading

- What was the research need or knowledge gap?
- What did they do?
- What did they find?
- What do those findings mean?
- Why should I care? (or the scientific community or broader community)

- Keep these notes in your *literature management system* or within the article PDF
- When you need to refer to the paper again, use the notes to recall key information quickly



Result of Literature Review

- State a meaningful question(s) you will address in your research
- Firmly describe the....
 - Topic
 - Question(s)
 - Thesis/answer (after research)
 - Hypothesis can be set forth prior to research completion
- One short sentence for each when discussing with advisors or colleagues
- A paper or dissertation proposal outlining in depth



Selecting Research Questions

- Marc Bellemare....
 - “My best research ideas have come from asking "Is this true?" when reading something online, in a newspaper or magazine, or in a journal article”
- Keep a running list of the research questions that come to your mind (e.g., in your smartphone’s notebook app, or anywhere else that is readily accessible when you have an idea)
- If you write down every research idea you have, generally, 8 out of 10 will not be good
 - One out of 10 may or may not be worth your time
 - Good news: 1 out of 10 may be an idea clearly worth pursuing



Research Suggestions

- Know the difference between your topic, your question, and your answer/thesis
- Articulate each in a single clear sentence
- Know what questions are meant to fill gaps in our understanding
- Compress your question into a few words (<8)
- Link your question to a larger problem/issue in the world
- Never draw conclusions before completing the research
 - Drawing hypothesis which can be supported or negated in advance is common, but not required
- Let your questions guide your sources/references



Writing the Literature Review

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Literature Review (or Background) Section

- Literature review section
 - Required as part of an M.S. thesis or Ph.D. dissertation
 - Demonstrate the student is familiar with the literature she/he is working with
 - Some journals require this section but not all
 - Discuss the most applicable articles
 - Provide a compelling story
- Background section
 - Useful when a topic requires a significant amount of background knowledge
 - Details of legislation the reader needs to keep in mind
 - Industry descriptions
 - Describe only what the reader needs to know



Literature Review Components

- Introductory paragraph(s)
 - Explains the working topic and thesis or research question(s)
 - Provides a forecast of key topics or texts that will appear in the review



Literature Review Components

- Primary body paragraphs
 - Summarize and synthesize
 - Give an overview of the main points of each source and combine them into a coherent whole
 - Analyze and interpret
 - Paraphrase the research and add your own interpretations where possible, discussing the significance of findings in relation to the literature as a whole
 - Critically evaluate
 - Mention the strengths and weaknesses of each source
 - Write in well-structured paragraphs
 - Use transition words and topic sentence to draw connections, comparisons, and contrasts
- Concluding paragraph
 - Summarize the key findings you have taken from the literature and emphasize their significance
 - Connect it back to your primary research question(s)



Transition Words

For the beginning

First	As a rule	Accordingly	In the first place
As well as	Nearly	Here	Opposite
Yet	Beyond	Moreover	Generally
Besides	To start	To begin	One important

For the middle

Therefore	That is	In short	At the same time
Particularly	Including	That is	Correspondingly
Moreover	In addition	Secondly	Suddenly
Along with	After	Later	In fact

For the end

In brief	Obviously	The final	The last
The worst	Ultimately	To sum up	To conclude
Clearly	Last of all	Undoubtedly	On the whole
In fact	Thus	Since	Hence

Organizing a Literature Review

- 1. Chronological
 - The simplest approach is to trace the development of the topic over time
 - Avoid simply listing and summarizing sources in order
 - Analyze the patterns, turning points, and key debates that have shaped the direction of the field
 - Give your interpretation of how and why certain developments occurred
- 2. Thematic
 - Used to discuss recurring central themes
 - Organize your literature review into subsections that address different aspects of the topic
 - Most common in applied economics



Organizing a Literature Review

- 3. Methodological
 - If sources are from different disciplines or fields that use a variety of research methods
 - Compare the results and conclusions that emerge from different approaches
 - Qualitative versus quantitative research
 - Empirical versus theoretical scholarship
 - Divide the research by sociological, historical, or cultural sources
- 4. Theoretical
 - The literature review is the foundation for the theoretical framework
 - Discuss various theories, models, and definitions of key concepts
 - Argue for the relevance of a specific theoretical approach or combine various theoretical concepts to create a framework for your research



For Applied Research

- Literature review might discuss the results of other applied research studies on your topic
 - Compare and contrast results
 - Discuss common methodologies
 - Discuss common modeling techniques
- Last paragraph usually discusses how the current study (your research)
 - Expands on previous research
 - Provides more evidence to a body of literature with contrasting results
 - Uses more complex, creative or appropriate methods/models
 - Stated vs. revealed preferences
 - Machine learning vs conventional logit/probit models
 - Lab vs. field experiments



Example Lit Review Sub-Sections

- Paper Title
 - DO EXTRA LABELS PAY? THE IMPACT OF NON-GMO AND HEALTH RELATED LABELS ON CONSUMER WILLINGNESS TO PAY FOR ORGANIC WHEAT PRODUCTS
- Background and Literature Review
 - The Complexity of the Organic Label: Consumer Preferences for Components of Organic and Associations with Other Labels
 - Organic Food Perceived as Healthier by Consumers
 - Increasing Importance of Gluten-Free Foods
 - Increasing Importance of Food with No or Reduced Sugar
 - Impact of Knowledge of Organic Label on Organic Food Choice
 - WTP for Organic Wheat Products



Resources

- Books

- Chapters 1, 2, and 5 in “Grad School Essentials: A Crash Course in Scholarly Skills” by Zachary Shore (2016)

- Online Resources

- Randolph, J. (2009). A Guide to Writing the Dissertation Literature Review. In Practical Assessment, Research and Evaluation, 14(13). Online at: <https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1219&context=pare>
- Torraco, R. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. In Human Resource Development Review, 4(3). Online at: <https://journals.sagepub.com/doi/10.1177/153448430527828>
- YouTube Video on performing a literature review: <https://www.youtube.com/watch?v=v5EMEnlUhac>





Next

- February 28: Writing successful academic papers
- March 13: Submitting academic papers and responding to editorial decisions

Questions?

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