



**UNIVERSITÀ
DEGLI STUDI
DI UDINE**



Università
Ca' Foscari
Venezia

On the Shoulder of Giants. Undertaking an SLR

Maurizio Massaro, Ph. D.

Agenda

- Few words about my region, my University and myself
- Introducing different types of Literature Reviews
- Presenting the SLR
- Focusing on the process
- Focusing on the tools. The role of technology

Few words about Italy and my region



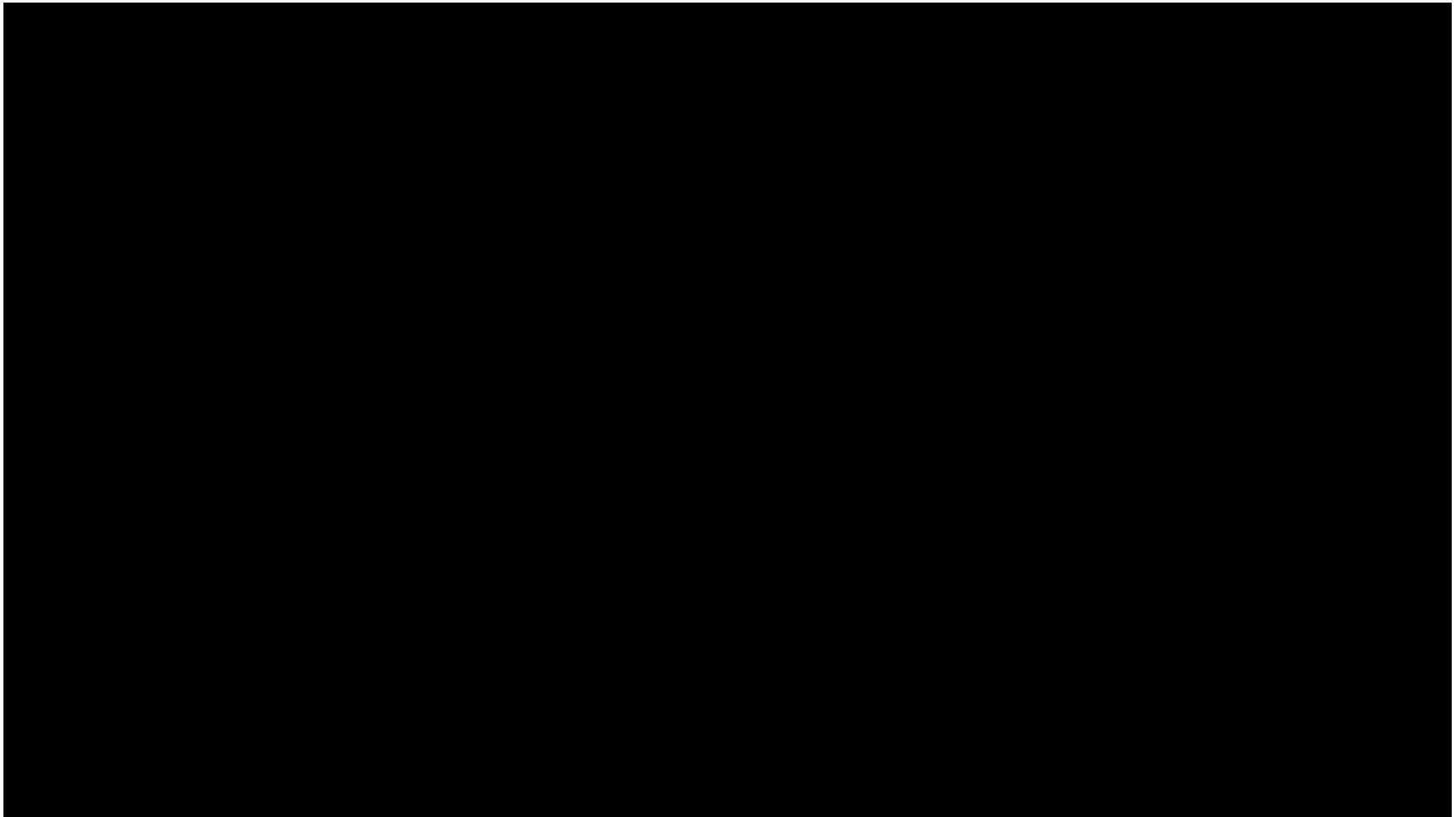
Even though Italy is a single country with one common language differences among Regions are huge.

Please, find below some statistics of the Italian situation in 2014

	GDP per person	Unemployment rate
Northeast Italy	31.400 €	7,7%
Northwest Italy	32.500 €	9,3%
Center of Italy	29.400 €	11,4%
Southern Italy	17.600 €	20,7%

Source: Italian National Statistic Office


Few words about Ca' Foscari University



Few words about me



- Maurizio Massaro, PhD
- Aggregate Professor of accounting at Udine University and Associate Professor of accounting at Ca' Foscari University (Venice)
- Joined academia in 2008 after 15 years as a consultant.
- Emerald Literati Award Winner in 2016
- Member of the international committee for the Most Innovative Knowledge Enterprise (MIKE) Award for the period 2016-2019
- My last book got the endorsement of US Ambassador Andrew Young and Prof. Hafiz Mirza Chief, Investment Issues Research Section, UNCTAD and was presented at the UN in Geneva in 2014



Knowledge production and different types of Literature Reviews

Definition of knowledge

Wisdom

Knowledge

Information

Data

Strategy, heuristics

Concepts, algorithm

Organized facts, simple rules

Raw & isolated facts

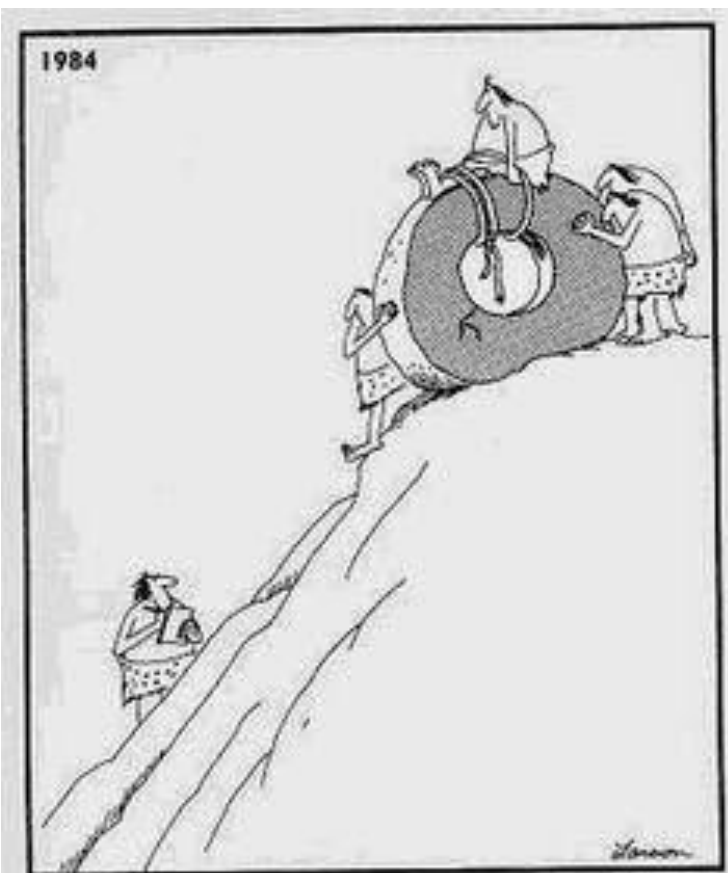


MILANO 2015
1 MAY • 31 OCTOBER

FEEDING THE PLANET
ENERGY FOR LIFE



Knowledge and previous studies



Early experiments in transportation

- Previous studies are the basis of our knowledge, the shoulder on which we rely to see further

- Business workers are flooded with data and drowning in information
- Volume of technical literature is overwhelming
- To read one year of chemistry publication will take 700 yrs.
- Biomedical literature will take 2200 yrs.

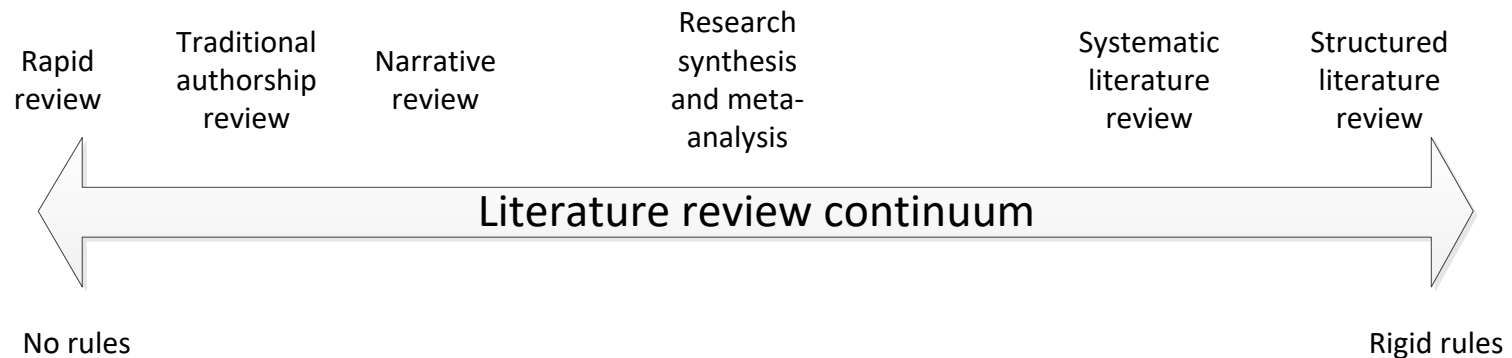
Overload = Noise:



Knowledge production and Literature Reviews

- LR can contribute to understanding the development of knowledge dialogue since they involve a focus and a perspective on what authors write (Silverman, 2013, pp. 345-348).
- LR can be used to examine old theories or provide a basis for interventions, a guide for future studies or summaries of a particular issue

Different approaches to LR



According to Denyer and Tranfield (2006, p. 216), “the most common technique in management research is the traditional literature review in which the researcher summarises and interprets previous contributions in a subjective and narrative fashion”.

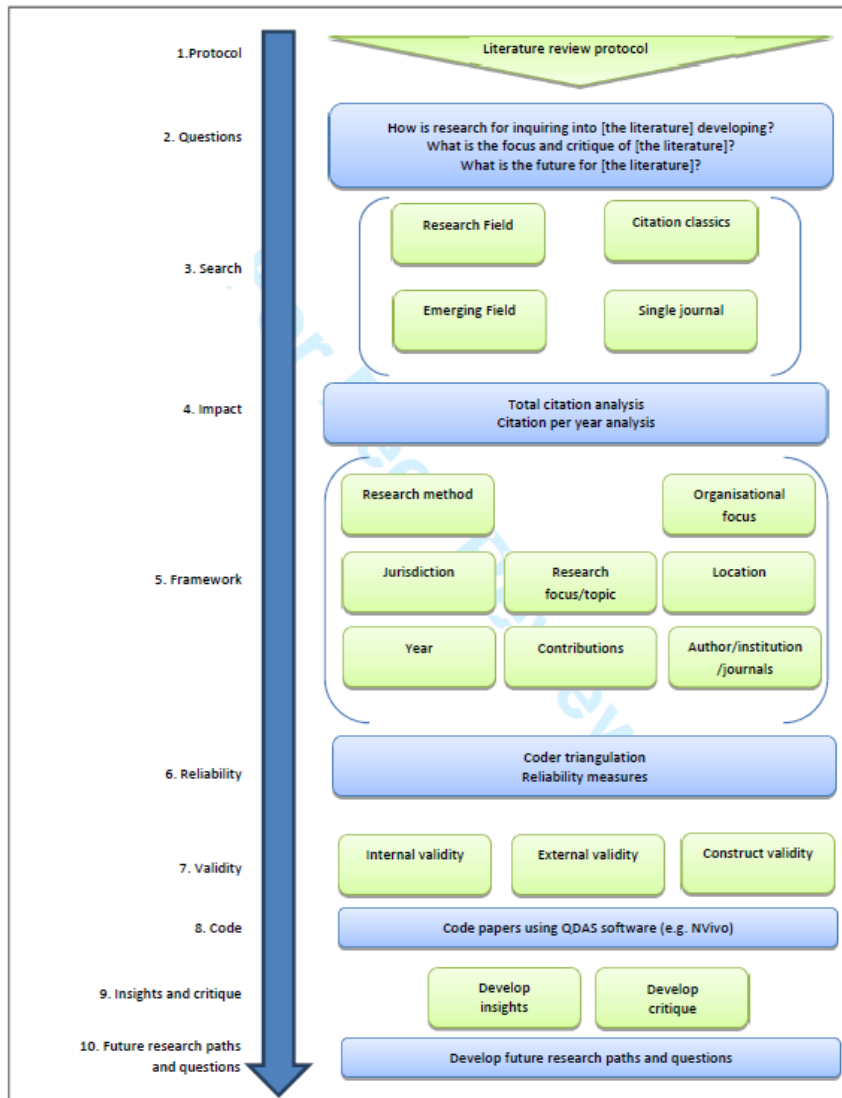
Problems of traditional LR

- The value of traditional reviews “lies in the fact that they are written by someone with a detailed and well-grounded knowledge of the issue” (Petticrew and Roberts, 2008, p. 10).
- However, literature review authors “may not be comprehensive or balanced in their selection and use of discussion material” (Petticrew and Roberts, 2008, p. 10).
- Furthermore, as Petticrew and Roberts (2008, p. 5) observe, in a “traditional literature review general expertise and the high profile of the reviewer can be a poor indicator of the ability to produce an unbiased and reliable summary of the evidence”.
- Therefore, traditional literature reviews can provide interesting insights based on the researcher’s skills.



Structured Literature Reviews

SLR. An introduction



1. Protocol

- First, the methodology suggests to develop a written protocol where all the steps are clearly described.
- Literature review protocols have the aim of documenting the procedure followed, which is widely connected with the aim of increasing research reliability in many kinds of qualitative research (Yin, 2014). Indeed, as Yin (2014, pp. 48-49) states “without such documentation [literature review protocol] you could not even repeat your own work – which is another way of dealing with reliability”.

2. Research Questions

- **Insight – How is research for inquiring into [the literature] developing?**
- **Critique – ‘What is the focus and critique of [the literature]?’**
- **Transformative redefinitions – ‘What is the future for [the literature]?’**

3. Search

- **A keyword search in a particular field [e.g. Massaro et al. 2016, Massaro et al. 2015, Guthrie et al. 2012]**
- **Citation classics [e.g. Serenko and Dumay 2015]**
- **A single journal [e.g. Dumay 2015]**

4. Impact

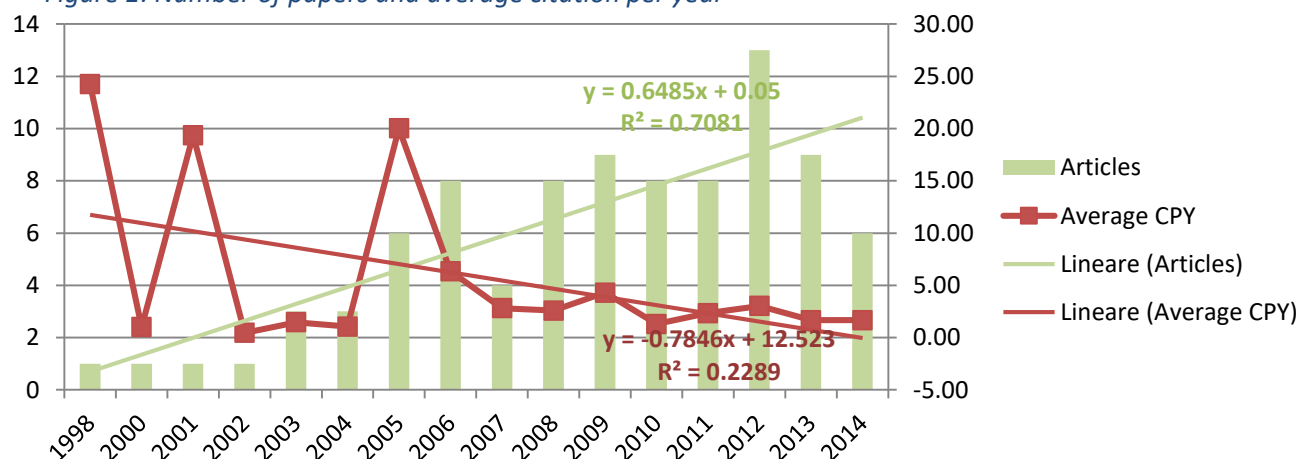
- There are several measures for recognising article impact. As Schimel (2011, p. 3) states “we all understand that publish or perish is real and dominates our professional lives. But publish or perish is about surviving not succeeding. You succeed as a scientist by getting them cited”.

The screenshot displays a web browser with two main windows. The background window shows the Google Scholar profile of Dr. John Dumay, an Associate Professor of Accounting at Macquarie University. His profile lists several publications, including 'The qualitative research interview', 'Reflections and projections: a decade of intellectual capital accounting research', 'Intellectual capital measurement: a critical approach', 'GRI sustainability reporting guidelines for public and third sector organizations', 'Intellectual capital research: a critical examination of the third stage', 'Grand theories as barriers to using IC concepts', 'Intellectual capital disclosure and price-sensitive Australian Stock Exchange announcements', 'Reflective discourse about intellectual capital: research and practice', and 'A critical reflective discourse of an interventionist research project'.

The foreground window is 'Harzing's Publish or Perish', a citation analysis tool. It shows the 'Journal impact analysis' section with fields for 'Journal title', 'Journal ISSN', and 'Exclude these words'. The 'Data source' is set to 'Google Scholar'. The 'Results' section displays a table with columns: Cites, Per year, Rank, Authors, Title, Year, Publication, Publisher, and Type. The table is currently empty. The right sidebar contains buttons for 'Copy results', 'Copy >', 'Check all', 'Check selection', 'Uncheck all', 'Uncheck Q cites', 'Uncheck CITATION', 'Uncheck selection', and 'Help'.

4. Impact. Examples

Figure 1: Number of papers and average citation per year



From Massaro et al. 2016, Journal of Knowledge Management

5. Framework

- An SLR is an empirical study that analyses literature development within a field to answer specific research questions. As for any empirical study, researchers must decide “what is to be observed as well as how observations are to be recorded and thereafter considered data” (Krippendorff, 2013, p. 98).

5. Framework. Examples

Category	Variables	Results	Krippendorff's Alpha
Journals, authors, Year	Journals	10	1.000
	Authors	399	1.000
	Institution	330	1.000
	Years	2002–2014	1.000
Government Jurisdiction	Super-national (e.g. E.U.)	2	2%
	National government	28	15%
	State-regional	3	2%
	Local government	12	7%
	Public Business Enterprise	6	3%
	Public Service Entity	119	66%
	Other	10	6%
	Total	180	100%
			0.903
Public Service	Health	27	15%
	Education and research centers	96	53%
	Defense	5	3%
	Police and safety services	9	5%
	Welfare	1	1%
	Infrastructure	5	3%
	Energy, water and correlated	2	1%
	Finance and related services	5	3%
	Other	30	17%
	Total	180	100%
			0.875
Location	Europe	29	16%
	UK	18	10%
	Australia	12	7%
	Asia	49	27%
	North America	28	16%
	South America	3	2%
	Central America	0	0%
	Caribbean	2	1%
	Africa	4	2%
	International	15	8%
	Other	20	11%
	Total	180	100%
			0.980
Research method	Quantitative cross sectional	50	28%
	Case study	41	23%
	Literature review - Normative	21	12%
	Action research	19	11%
	Other qualitative	15	8%
	Viewpoint	14	8%
	Mixed methods	12	7%
	Interviews	7	4%
	Modelling tools	1	1%
	Other	0	0%
	Total	180	100%
			0.900
Framework	No framework-model used	26	14%
	Applies or considers previous framework-model	112	62%
	Proposes a new framework-model	42	23%
	Total	180	100%
			0.873
Theme	Communities of practice	8	4%
	Information technology	23	13%
	KM strategy	27	15%
	Knowledge innovation	19	11%
	Management elements and process	65	36%
	Personal and organizational Learning	18	10%
	Organizational culture	13	7%
	Scientometrics	0	0%
	Other	7	4%
	Total	180	100%
			0.911

6. Reliability

- In essence we are performing a 'content analysis' with the unit of analysis being the entire paper.
- Important to establish reliability which means the study is replicable using different coders.
- Commonly use inter-coder reliability agreement
 - Code five papers independently (3 people)
 - Check agreements and resolve disagreements
 - Finalise framework

6. Reliability. Krippendorff's Alpha

- Statistical measure of inter-coder reliability for content analysis
- Arguably the 'only' reliability measure
- Sparsely used at all in content analysis studies
- Without it research can be critiqued for lack of reliability

7. Validity

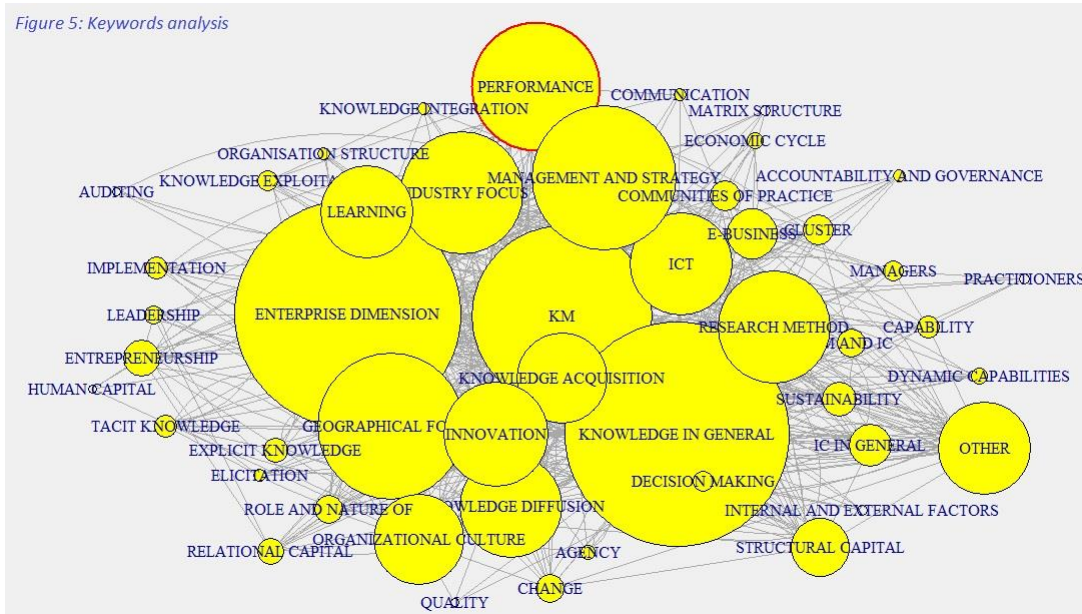
Tests	Tactics	Description	Examples
Internal validity	Pattern matching	Starting with a small sample of papers and enlarging the sample to test first conclusions	Broadbent and Guthrie (2008, p.140) Guthrie and Murthy (2009, p.130)
	Rival theory	Addressing rival explanations for findings	Guthrie et al. (2012, p.78)
	Time series analysis	Analysing evolution over time of literature	Serenko and Dumay (2015) Guthrie and Murthy (2009, p.78) Hoque (2014, p. 38)
External validity	Logic models, matrix and other data displays	Using charts, diagrams and matrices to contribute to making knowledge visible	Dumay (2014, pp. 14-15) Broadbent and Guthrie (1992, p. 7) Broadbent and Guthrie (2008, p. 135) Harrison and McKinnon (1999 p. 486) Englund and Gerdin (2014, p. 172) McMann and Nanni (1995, p.316)
	Theory explanation	Using theory and previous studies to explain results	Serenko and Dumay (forthcoming) Hoque (2014, p. 49) Goddard (2010,p. 84-85)
	Sensitivity indexes	Measuring the proportion of all studies retrieved by researchers	Guthrie and Murthy (2009, pp.132-133)
	Specificity indexes	Measuring the proportions of the relevant retrieved studies	Guthrie and Murthy (2009, pp.132-133)
	Multiple sources of evidence	Using multiple sources to support results	Guthrie and Parker (2011, p.19)
	Key informants	Getting useful insights into the matter from experts	Dumay (2014b, pp.5-6) Harrison and McKinnon (1999 p. 504)

8. Code the data

- Researchers have to decide between manual or computer-aided coding.
- Manual coding has an advantage when words with similar meaning are encountered.
- At a minimum we expect researchers to use a spread sheet to record article coding and develop tables and/or graphs.
- Qualitative data analysis software (QDAS) such as NVivo is useful.
- QDAS incorporates features such as aggregating codes, auto-coding based on set criteria and developing common word counts, all of which are not possible using spread sheets.
- coding is traceable back to the source document and can be easily changed without having to update data in a spread sheet as QDAS utilises as database technology

9 and 10. Insights, critique and transformative ridefinition

Figure 5: Keywords analysis



From Massaro et al. 2016, Journal of Knowledge Management

4.5 Implication 5: sometimes literature produces conflicting results, while other results reveal untapped knowledge that helps us to see further

According to Massaro *et al.* (2016), “to see further researchers need to understand previous research studies”. The findings show a high concentration of articles covering a limited group of topics. KM with a focus on knowledge as a process seems to be the most investigated research topic in the field of KM (almost 40 per cent of the articles). The authors believe that the results of this study highlight both the need to develop more research for under-investigated topics as well as the need to realise research synthesis for more mature research fields.

Futher details

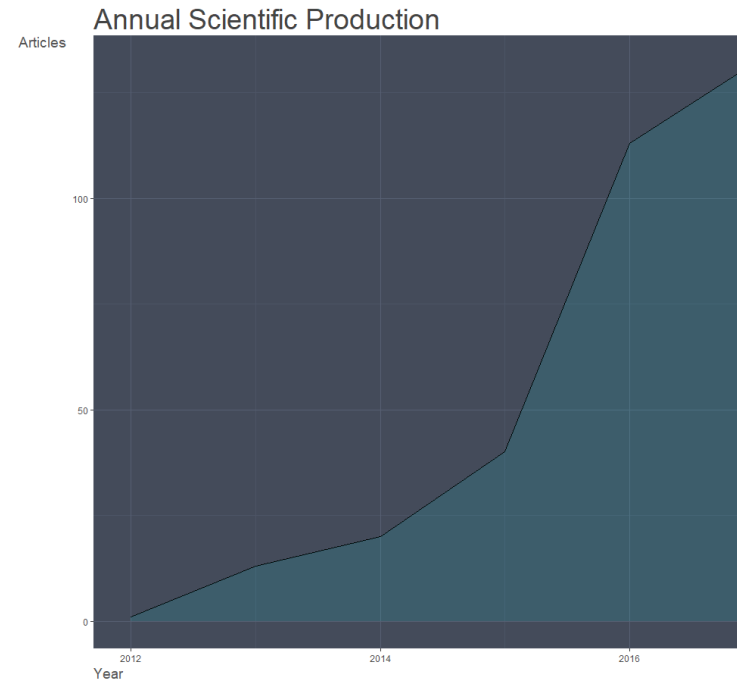
Technology can help you

A first look at your dataset

An example for the topic of Industry 4.0 using R and Bibliometrix package

Main Information about data

Articles	390
Sources (Journals, Books, etc.)	113
Keywords Plus (ID)	1479
Author's Keywords (DE)	791
Period	2012 - 2018
Average citations per article	1.531
Authors	898
Author Appearances	1037
Authors of single authored articles	83
Authors of multi authored articles	815
Articles per Author	0.434
Authors per Article	2.3
Co-Authors per Articles	2.66
Collaboration Index	2.96



Most Relevant Sources

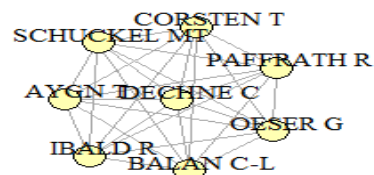
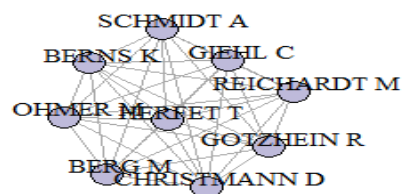
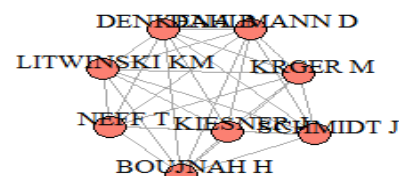
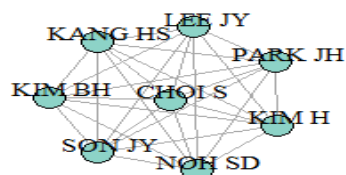
	Sources	Articles
1	ZWF ZEITSCHRIFT FUER WIRTSCHAFTLICHEN FABRIKBETRIEB	107
2	PRODUCTIVITY MANAGEMENT	40
3	INTERNATIONAL JOURNAL OF PRODUCTION RESEARCH	22
4	ADVANCES IN TRANSDISCIPLINARY ENGINEERING	17
5	LECTURE NOTES IN BUSINESS INFORMATION PROCESSING	16
6	IEEE INTERNATIONAL CONFERENCE ON INDUSTRIAL ENGINEERING AND ENGINEERING MANAGEMENT	15
7	TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE	9
8	PROCEEDINGS OF THE SUMMER SCHOOL FRANCESCO TURCO	6
9	INDUSTRIA	5
10	JOURNAL OF INDUSTRIAL ENGINEERING AND MANAGEMENT	5

A first look at your dataset

3

ENTERPRISE RESOURCE PLANNING

Authors' Coupling



cluster
1
2
3

PROD. MANUFACTURING
MANUFACTURING SECT

Computer aided-coding

- The use of a computer is not intended to supplant time-honored ways of learning from data, but to increase the effectiveness and efficiency of such learning.
- Several software can be chosen. Some of them are:

- 
- [Nvivo](#)
 - [Atlas.ti](#)
 - [MAXQDA](#)
 - [Dedoose](#)
 - [...](#)

Starting out with Nvivo

01_ArticlesKM-PS_2014.08.30.nvp - NVivo

Folders

- Internals
- Externals
- Memos
- Framework Matrices
- Nodes
- Relationships
- Node Matrices
- Source Classifications
- Node Classifications
- Relationship Types
- Sets
- Search Folders
- Memo Links
- See Also Links
- Annotations
- Queries
- Results
- Reports
- Extracts
- Models

Internals

Name	Nodes	References	Created On	Created By	Modified On	Modified By
Sources						
In NVivo, 'sources' is the collective term for your research materials—anything from 'primary' materials such as documents, videos or survey results, to memos that record your ideas and insights.						
Nodes						
A node is a collection of references about a specific theme, place, person or other area of interest. You gather the references by 'coding' sources such as interviews, focus groups, articles or survey results.						
Classifications						
Classifications provide a way to record descriptive information about the sources, nodes and relationships in your project. E.g. you can use classifications to store attributes of a paper in a literature review (year, journal, CPY.)						
Queries						
NVivo queries offer a flexible approach to exploring your data—you can create quick and simple queries to get a sense of what is happening in the data or you can build detailed queries for a more focused perspective.						

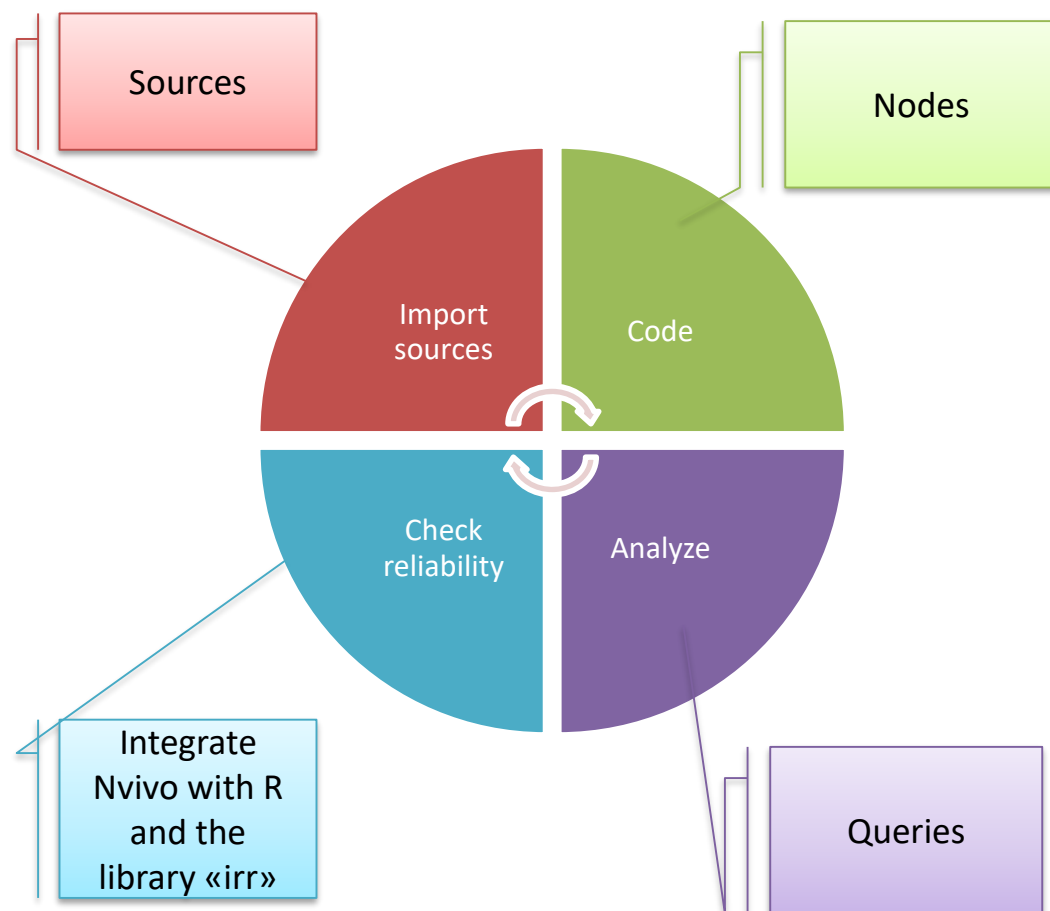
- Nvivo offers other tools like [collections](#), [reports](#) and [models](#) but due to the basic nature of this seminar I will not go through these elements
- For some important function Nvivo does not provide all the tools that a researcher needs. Therefore it is important to integrate Nvivo with other software

How does Nvivo Work

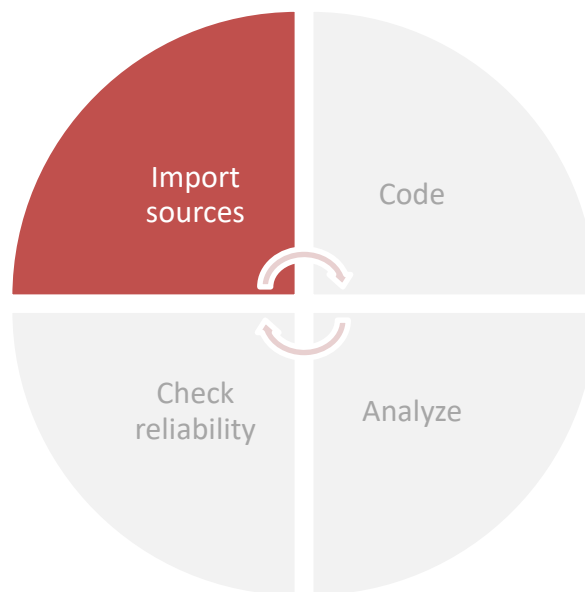
Several approaches can be taken to develop a qualitative study.

Because of the basic nature of this seminar I will provide an easy 4 steps approach.

1. Import your sources from external data (e.g. documents, audio file, pictures, etc.)
2. Code your sources in order to gather information you need (e.g. in a literature review you can be interested in extracting results from a research, main hypothesis, etc.)
3. Analyze your data with queries
4. Check reliability of your findings computing reliability measures like: Percentage of agreement, krippendorff's Alpha, etc.



Sources



Sources

File

Home

Create

External Data

Analyze

Query

Explore

Layout

View

Advanced Find

Query Wizard

Text Search

Word Frequency

Coding

Matrix Coding

Group

Coding Comparison

Compound

Group

Last Run Query

Add to Stop Words List

Other Actions

Run Query

Store Query Results

Other Actions

Create

Look for:

Search In

01_JKM

Find Now

Clear

Advanced Find

Internals

01_KM_Articles

01_JKM

03_LO

04_KMRP

05_KPM

06_UJKM

07_UJKM

08_UJKM

09_UJKM

10_UJKM

99_Deleted Papers

99_Material

Externals

Memos

Framework Matrices

Sources

Nodes

Classifications

Collections

Queries

Reports

Models

Folders

01_JKM

Name

Amayah, Angela Titi (2013)

Batra, S (2009)

Behrend, F D; Ervee, R (2009)

Blackman, D; Kennedy, M (2009)

Chong, S C; Salleh, K; Ahmad, S N S; Sharifuddin, S-I.S.O. (2011)

Edge, K (2005)

Fullwood, R; Rowley, J; Delbridge, R (2013)

Garcia, B C (2007)

Gertner, D; Roberts, J; Charles, D (2011)

Hautala, J (2011)

Iacono, M P; Martinez, M; Mangia, G; Galdiero, C (2012)

Ismail, S; Ahmad, M S; Hassan, Z (2013)

Jain, A K; Jeppesen, H J (2013)

Jones, Nory B.; Mahon, John F. (2012)

Kim, Y.-M.; Newby-Bennett, D; Song, H.-J. (2012)

Korres, M P; Garcia-Barriocanal, E (2008)

Mabery, Mamie Jennings; Gibbs-Scharf, Lynn; Bara, Debra (2013)

Massingham, P R; Massingham, R K (2014)

Mercer, D; Leschine, T; Drew, C H; Griffith, W; Nyerges, T (2005)

Metaxiotis, Kostas; Ergazakis, Kostas (2008)

Nordin, M; Pauleen, D J; Gorman, G E (2009)

Oluikpe, P (2012)

Petrucelli, A M (2008)

Petrucelli, A M; Albino, V; Carbonara, N; Rotolo, D (2010)

Riege, Andreas; Lindsay, Nicholas (2006)

Ringel-Bickelmaier, C; Ringel, M (2010)

Rodriguez, B M; Marti, J M V (2006)

Schulte, William D.; Sample, Travis (2006)

Seba, Ibrahim; Rowley, Jennifer (2010)

Seba, Ibrahim; Rowley, Jennifer; Delbridge, Rachel (2012)

Swart, J A; Henneberg, S C (2007)


Syed-Ikhsan, Syed Omar Sharifuddin; Rowland, Fytton (2004)

Tian, J; Nakamori, Y; Wierzbicki, A P (2009)

Tresman, Mimi; Pácher, Edna; Molinari, Francesco (2007)

Wfiig, Karl M. (2002)

Amayah, Angela Titi (2013)



Angela Titi Amayah is based at SUNY Empire State College, Rochester, New York, USA.

Determinants of knowledge sharing in a public sector organization

Angela Titi Amayah

Abstract
Purpose – The purpose of this paper is to investigate the factors that affect knowledge sharing in a public sector organization.
Design/methodology/approach – The paper is based on quantitative research. The data were gathered through questionnaires and analyzed using multiple regression.
Findings – Community-related considerations, normative considerations and personal benefits were three motivators found to have a unique contribution to the variance in knowledge sharing. The following enablers had a significant main effect on knowledge sharing: social interaction, rewards, and organizational support. Two barriers, degree of courage and degree of empathy, which measured organizational climate, were found to have a significant main effect on knowledge sharing. The interaction of normative consideration with social interaction, personal benefit with organizational support, and normative considerations with degree of courage, had a moderating effect on the relationship between motivating factors and knowledge sharing.
Research limitations/implications – The study was conducted in a single public sector organization, which limits the generalizability of the findings to other settings. Another limitation is that attitudes toward knowledge sharing, and knowledge-sharing behaviors, vary across cultures. Finally, self-reported data are subject to response bias.
Practical implications – Identifying factors that influence knowledge sharing could help practitioners create a knowledge-sharing culture that is needed to support knowledge sharing and knowledge management within public sector organizations.
Originality/value – This empirical study will contribute to the theoretical knowledge on knowledge sharing in the public sector, which has been neglected in knowledge-sharing research.
Keywords Public sector organizations, Knowledge management, Knowledge sharing, Motivational factors, Enablers, Barriers
Paper type Research paper

In

Nodes

Code At

MM

35 Items

Linked

Nodes: 54

References: 151

Read-Only

Page: 1

90%

Import sources

To import sources just use the menu «External Data» on the top bar.

Researchers can import data from:

Documents, pdf, dataset, audio, video, etc.

Researchers can also import data from other data sources: e.g. Mendeley, Endnote, SurveyMonkey, etc.

Importing data from External sources can automatically generate a classification sheet

01_ArticlesKM-PS-2014.08.30.nvp - NVivo

Project Documents PDFs Dataset Audios Videos Pictures Memos

From Other Sources

Search in: 01_JKM Find Now Clear Advanced Find

Amayah, Angela Titi (2013)

Abstract

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PDF Properties

General Attribute Values

Classification Reference

Attribute	Value
Reference Type	Journal Article
Author	Amayah, Angela Titi
Year	2013
Title	Determinants of knowledge sharing in a publi
Secondary Author	Unassigned
Secondary Title	Journal of Knowledge Management
Place Published	Unassigned
Publisher	Unassigned
Volume	13

OK Cancel

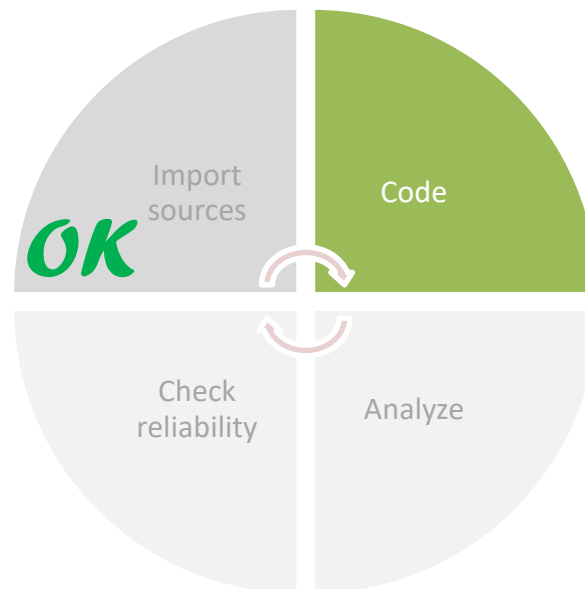
From Other Sources

Documents PDFs Dataset Audios Videos Pictures Memos

Let's have a look

Using Nvivo, practical examples

Code



Code

In document sources, researchers can select and code text or images and then check what they have coded.

If there are paragraph styles in documents researchers can use them to code (automatically) the content (e.g. questions and answers in interviews, etc.).

Pattern-based auto coding is an experimental feature. This feature is designed to speed up the coding process for large volumes of textual content. Pattern-based coding was introduced in NVivo 10 for Windows Service Pack 4 and updated in Service Pack 5 and 6. Within this feature, NVivo compares each text passage—for example, sentence or paragraph—to the content already coded to existing nodes. If the content of the text passage is similar in wording to content already coded to a node, then the text passage will be coded to that node.

The screenshot displays the NVivo 10 software interface. On the left, the 'Nodes' list is visible, with a red circle highlighting the 'Nodes' tab and the list of nodes. The main window shows a document source titled '01_ArticlesKM-PS_2014.08.30.nvp'. The document text is displayed on the right, with a red circle highlighting the title 'Digital preservation cost: a cost accounting approach' and the abstract. The abstract text is highlighted with a yellow background. The 'Keywords' section is also highlighted with a yellow background. The 'Practical implications' section is highlighted with a yellow background. The 'Originality/value' section is highlighted with a yellow background. The 'Introduction' section is highlighted with a yellow background.

Some suggestions for the coding process

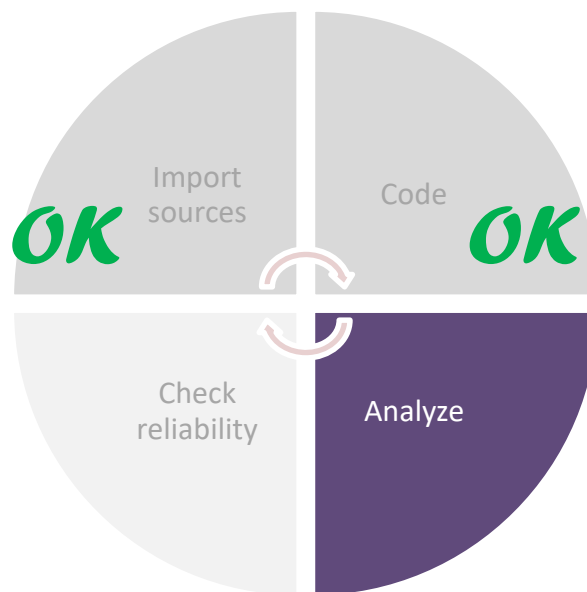
1. **General ledger approach.** Use numbers and levels to keep order in nodes leaving enough space between nodes if you need to add something in between
2. **Systematically Check.** After a while check consistency of your coding. Double click on a node and read what you have coded
3. **Unicode and recode.** If something is wrong unicode and recode using the specific menu

Nodes		Items	Collections	Classifications		
Look for:	<input type="text"/>	Search In	<input type="text" value="Nodes"/>	Find Now	Clear	Advanced
Nodes						
	Name	Sources	References			
(+) 010_Author Names		180	401			
(+) 011_Affiliation name		180	331			
(+) 030_Jurisdiction		180	235			
005_Super-national (e.g. E.U.)		2	2			
010_National government		28	47			
020_State-regional		3	9			
030_Local government		12	20			
040_Public Business Enterprise		6	7			
045_Public Service Entity		119	139			
050_Other		10	11			
060_Not Sure		0	0			
(+) 040_Public services		180	224			
(+) 050_Location		180	209			
(+) 060_Research method		180	304			
(+) 070_ICPS frameworks and model		180	315			
(+) 080_Focus of article		180	404			
(+) 090_Dependent variables		12	18			
(+) 100_Independent variables		12	39			
(+) 105_Other quantitative approaches without a clear dependent-independent v		51	78			
(+) 110_Other elements		180	819			

Let's have a look

Using Nvivo, practical examples

Analyze



Ways to analyze data

Query	Description	Examples
<u>Text Search</u>	Find all occurrences of a word, phrase, or concept.	<ul style="list-style-type: none"> Find and analyze all occurrences of the phrase alternative energy. Find the words policy or legislation and code them at the new node government. Find content where the terms rising sea level and property occur within 20 words of each other. Find all references to river, and find similar words such as stream, Nile, watercourse.
<u>Word Frequency</u>	Find the most frequently occurring words or concepts.	<ul style="list-style-type: none"> Look for the most frequently occurring words in a set of interviews. Find the most frequently occurring themes in a document—where similar words are grouped into concepts.
<u>Coding</u>	Find all content coded at selected nodes, a combination of nodes, or a combination of nodes and attributes.	<ul style="list-style-type: none"> What do property developers say about rising sea levels?—run a query to gather content that has been coded at rising sea levels and at nodes with the attribute property developer. Show me where content coded at coral bleaching is near content coded at rising sea temperatures.
<u>Matrix Coding</u>	Find a combination of items (usually nodes and attributes) and display the results in a table.	<ul style="list-style-type: none"> Compare what small, medium and large businesses say about alternative energy. Compare how the terms sustainable, conservation and global warming are used by different lobby groups—run text searches and create a node for each term and then use the nodes in the matrix criteria.
<u>Compound</u>	Use a compound query to Combine a text search query with a coding query Search for two words that occur in the same paragraph (or other specified context).	<ul style="list-style-type: none"> Find content where the term rising sea temperature precedes content coded at coral. Find content where the words habitat and sustainable occur in the same paragraph.
<u>Coding comparison</u>	Compare coding done by two users or two groups of users. This query measures the 'inter-rater reliability' or the degree of agreement for coding done by selected users.	<ul style="list-style-type: none"> Compare coding between users in different locations or from different disciplines.
<u>Group</u>	Find items that are associated in a particular way with other items. The items could be associated by coding, attribute value, relationships, 'see also' links or models.	<ul style="list-style-type: none"> Find the nodes that I've used to code Interview with Franz and Interview with Vikram. Which interviews have been coded at wind power and solar power? Which sources or nodes have a certain set of attribute values—for example, who are the survey participants from Riverside and Mountain View? List any 'relationship' nodes that include water purification. Find any models that include homeowners or farmers.

To analyze data use the menu Query

The screenshot shows the NVivo software interface. The 'Query' menu is highlighted in the top toolbar. Below it, a list of sources is displayed, including '01_KJM' and various articles. The 'Query' menu options are: Advanced Find, Query Wizard, Text Search, Word Frequency, Coding, Matrix Coding, and Group. The 'Query' menu is also highlighted in the bottom toolbar.

The diagram shows the 'Query' menu options in NVivo:

- Query Wizard
- Text Search
- Word Frequency
- Coding
- Matrix Coding
- Group
- Create

Determinants of knowledge sharing in a public sector organization

Angela Titi Amayah



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Abstract

Purpose – The purpose of this paper is to investigate the factors that affect knowledge sharing in a public sector organization.

Design/methodology/approach – The paper is based on quantitative research. The data were gathered through questionnaires and analyzed using multiple regression.

Findings – Community-related considerations, normative considerations and personal benefits were three motivators found to have a unique contribution to the variance in knowledge sharing. The following enablers had a significant main effect on knowledge sharing: social interaction, rewards, and organizational support. Two barriers, degree of courage and degree of empathy, which measured organizational climate, were found to have a significant main effect on knowledge sharing. The interaction of normative consideration with social interaction, personal benefit with organizational support, and normative considerations with degree of courage, had a moderating effect on the relationship between motivating factors and knowledge sharing.

Research limitations/implications – The study was conducted in a single public sector organization, which limits the generalizability of the findings to other settings. Another limitation is that attitudes toward knowledge sharing, and knowledge-sharing behaviors, vary across cultures. Finally, self-reported data are subject to response bias.

Practical implications – Identifying factors that influence knowledge sharing could help practitioners create a knowledge-sharing culture that is needed to support knowledge sharing and knowledge management within public sector organizations.

Originality/value – This empirical study will contribute to the theoretical knowledge on knowledge sharing in the public sector, which has been neglected in knowledge-sharing research.

Keywords Public sector organizations, Knowledge management, Knowledge sharing, Motivational factors, Enablers, Barriers

Paper type Research paper

Text Search Query

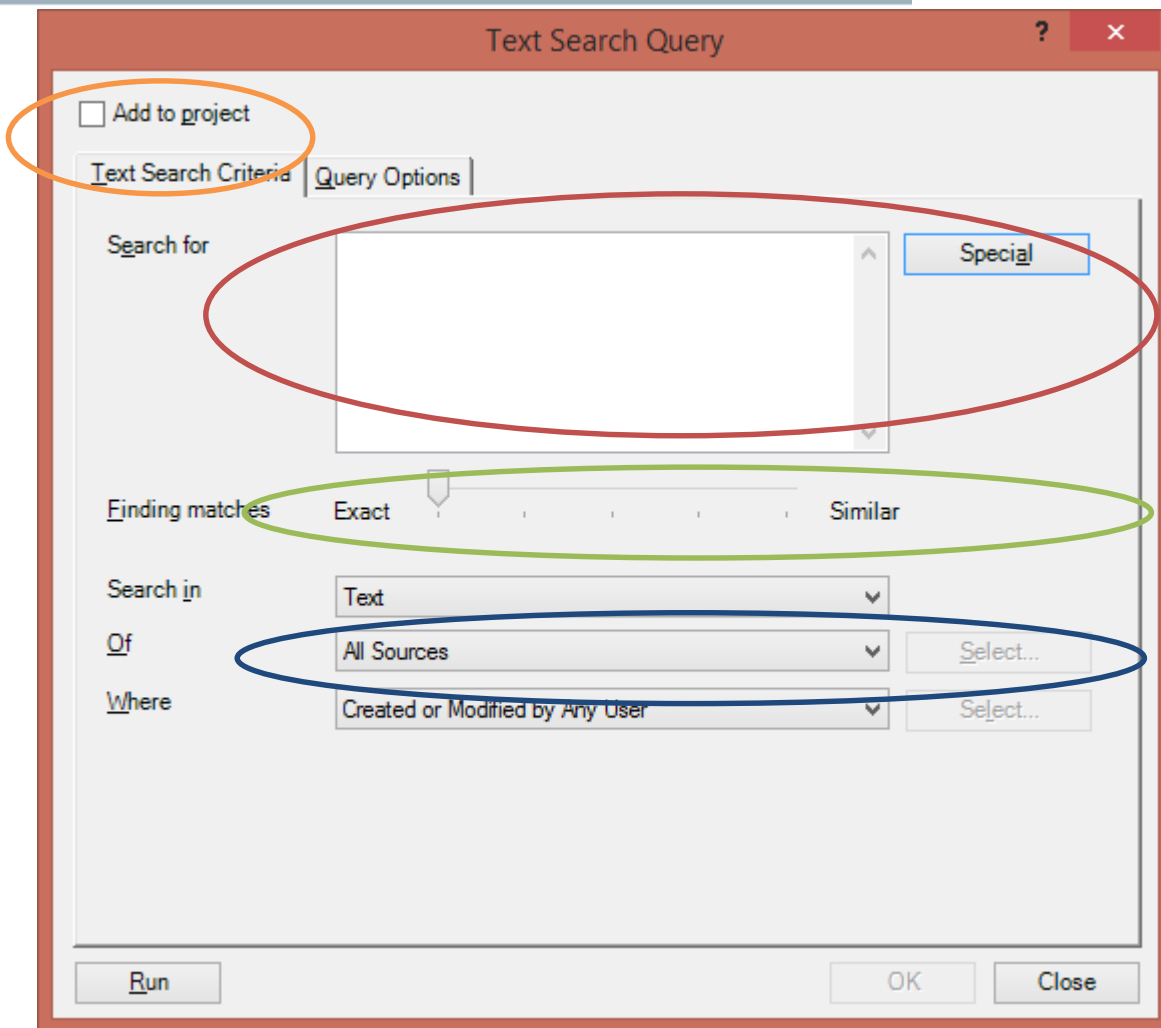
Text search queries let you search for words or phrases in your sources. You can choose to search only the textual content of your sources, only in annotations or both.

The query can be saved in the project

You can search for single words: (e.g. "Knowledge Management" or much more complicated search. For example "Knowledge" and "Strategy" when they are within a specific number of words ("knowledge strategy" ~20)

You can search for similar words

You can within specific sources



The screenshot shows the "Text Search Query" dialog box. It has a title bar with a question mark and a close button. The dialog is divided into two tabs: "Text Search Criteria" and "Query Options". The "Text Search Criteria" tab is active. It contains the following elements:

- A checkbox labeled "Add to project" is circled in orange.
- A "Search for" text input field is circled in red, with a "Special" button to its right.
- A "Finding matches" section with a slider between "Exact" and "Similar" is circled in green.
- A "Search in" dropdown menu set to "Text" is circled in blue.
- An "Of" dropdown menu set to "All Sources" is circled in blue, with a "Select..." button to its right.
- A "Where" dropdown menu set to "Created or Modified by Any User" is circled in blue, with a "Select..." button to its right.
- At the bottom, there are "Run", "OK", and "Close" buttons.

Coding Query

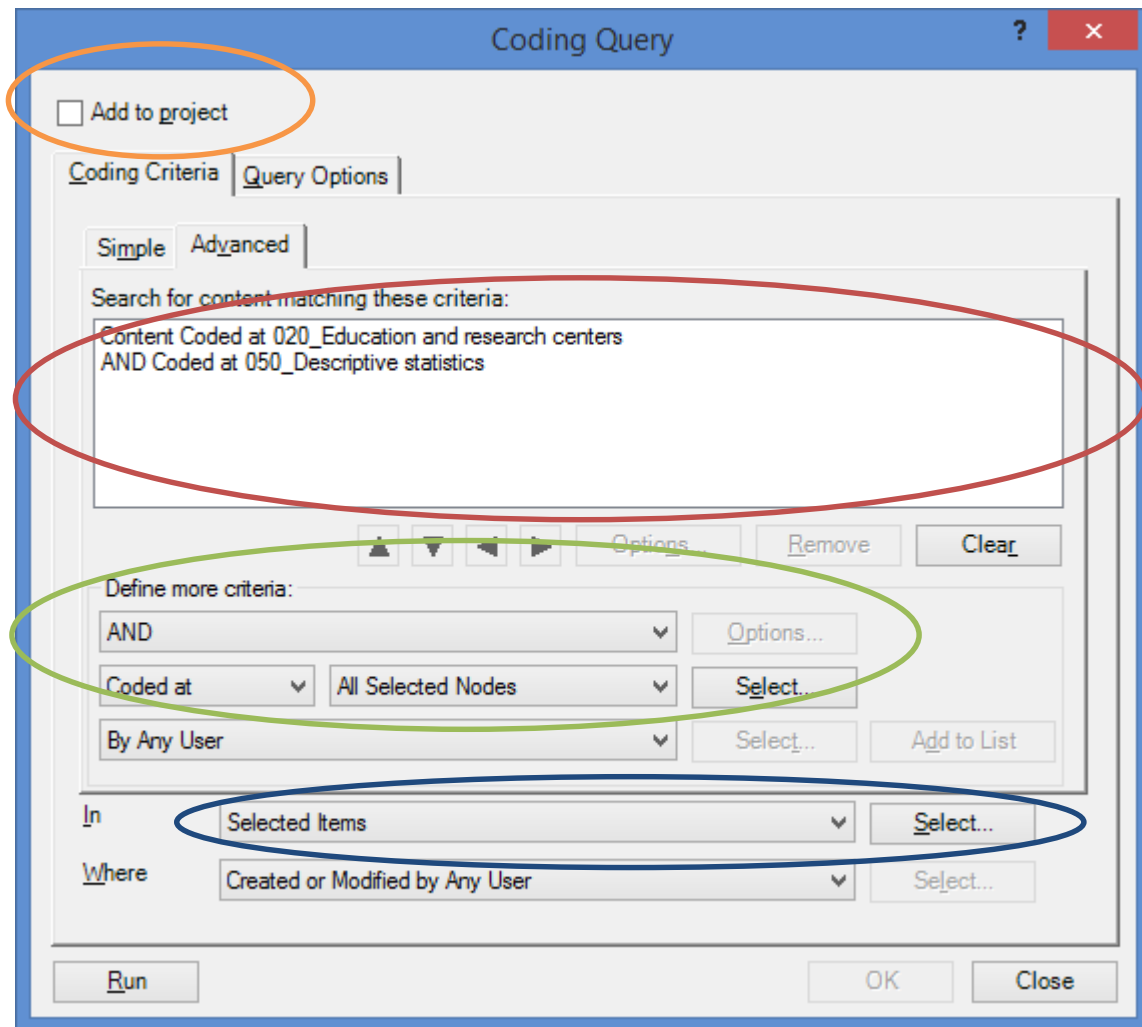
Coding queries can help you to test ideas, explore patterns and see the connections between the themes, topics, people and places in your project.

The query can be saved in the project

You can check the query command while you are working on it

You can set the criteria of your research

You can search within specific sources



The screenshot shows the 'Coding Query' dialog box with several annotations:

- An orange oval highlights the 'Add to project' checkbox at the top left.
- A red oval highlights the 'Search for content matching these criteria:' section, which contains the text: 'Content Coded at 020_Education and research centers AND Coded at 050_Descriptive statistics'.
- A green oval highlights the 'Define more criteria:' section, which includes dropdown menus for 'AND', 'Coded at', and 'By Any User', along with 'Options...', 'Select...', and 'Add to List' buttons.
- A blue oval highlights the 'In' dropdown menu, which is set to 'Selected Items', and the 'Select...' button next to it.

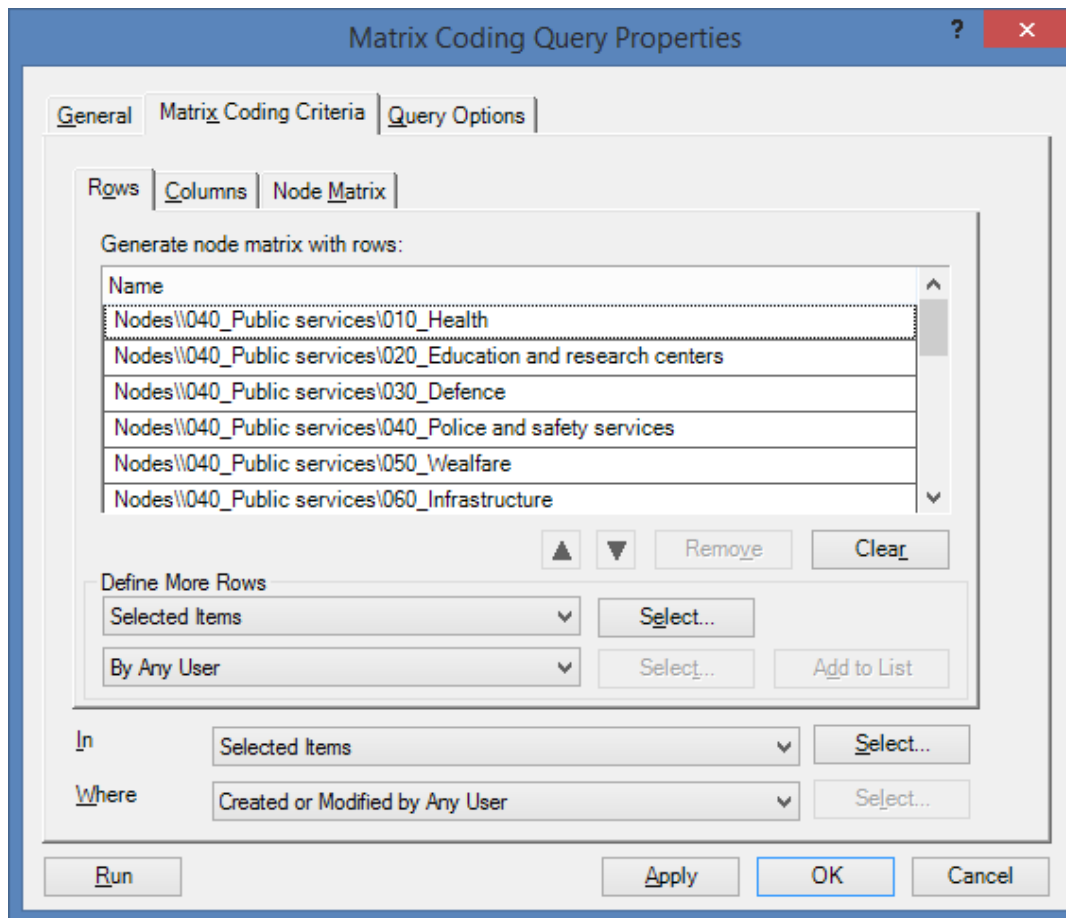
The dialog box also features a 'Query Options' tab, a 'Run' button at the bottom left, and 'OK' and 'Close' buttons at the bottom right.

Matrix Query

Matrix coding queries enable you to cross-tabulate how content is coded.

Matrix query requires to set several parameters:

1. Name and description of the query (optional)
2. Rows of the query
3. Columns of the query
4. Sources of the research
5. Several other options



The screenshot shows the "Matrix Coding Query Properties" dialog box with the "Matrix Coding Criteria" tab selected. The "Rows" sub-tab is active, displaying a list of nodes for the "Generate node matrix with rows:" section. The nodes are: "Nodes\\040_Public services\\010_Health", "Nodes\\040_Public services\\020_Education and research centers", "Nodes\\040_Public services\\030_Defence", "Nodes\\040_Public services\\040_Police and safety services", "Nodes\\040_Public services\\050_Welfare", and "Nodes\\040_Public services\\060_Infrastructure". Below the list are "Define More Rows" options, including "Selected Items" and "By Any User", each with a "Select..." button. At the bottom, there are "In" and "Where" dropdowns, each with a "Select..." button. The "Run" button is highlighted in blue.

Matrix Coding Query Properties

General Matrix Coding Criteria Query Options

Rows Columns Node Matrix

Generate node matrix with rows:

Name

Nodes\\040_Public services\\010_Health

Nodes\\040_Public services\\020_Education and research centers

Nodes\\040_Public services\\030_Defence

Nodes\\040_Public services\\040_Police and safety services

Nodes\\040_Public services\\050_Welfare

Nodes\\040_Public services\\060_Infrastructure

Define More Rows

Selected Items Select...

By Any User Select... Add to List

In Selected Items Select...

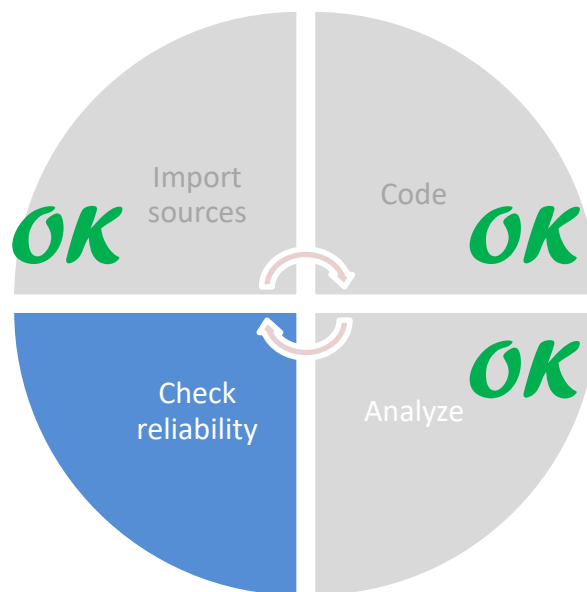
Where Created or Modified by Any User Select...

Run Apply OK Cancel

Let's have a look

Using Nvivo, practical examples

Analyze



Reliability tests

Nvivo Offers several reliability measures:

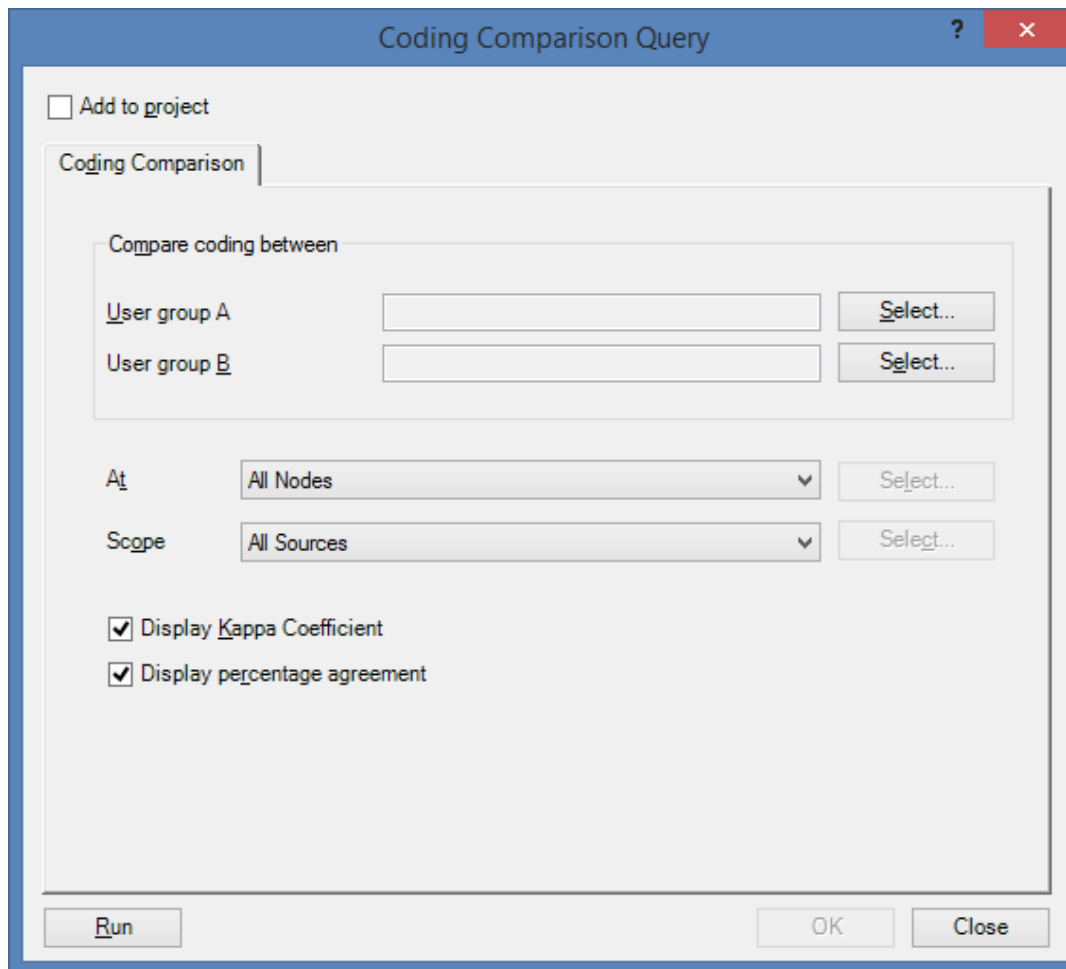
- Percentage of Agreement
- Cohen's Alpha

Even though these are interesting measures several reasons suggest exporting data and use external software to calculate reliability:

1. Measures of reliability provided by Nvivo are limited (no Krippendorff's Alpha)
2. Options to limit comparisons to specific nodes are available only in the last version of Nvivo
3. No options for ordinal or ratio data

Several external solutions could be used to test reliability:

- [Agree](#)
- [Dfrelon](#)
- [Spss and Stata Macros](#)
- R



From Nvivo To R

To run reliability test in R follow these steps:

1. Create a matrix query where items are in the rows and nodes in the columns
2. Set cell content of the query to source coded -> all classification
3. Export data in excel
4. Use the function “sumproduct” in Excel to obtain an array of answers
5. Create a matrix where columns are raters and rows are items
6. Open R and install the library irr if not available
7. Copy in the clipboard the matrix in excel
8. Run the code in the box on the left
9. Check Krippendorff's Alpha and Percentage of Agreement in R

```
#Copy data from Excel and import in Rstudio as table (import:  
name of the item, rater1, rater2, ...)
```

```
read.excel <- function(header=TRUE,...) {  
  read.table("clipboard",sep="\t",header=header,...)  
}
```

```
RawData.t=read.excel()
```

```
#Convert table in matrix deleting name of the item column
```

```
RawMatrix <- as.matrix(RawData.t[,-1])
```

```
#Switch rows and columns in order to have raters on rows and  
items on columns to perform Krippendorff
```

```
RawMatrix.ta <- t(RawMatrix)
```

```
#call the library
```

```
library("irr")
```

```
#run Krippendorff f test on the inverted matrix RawMatrix.ta.  
Set the type of data: nominal, ordinal, ratio
```

```
kripp.alpha(RawMatrix.ta, "nominal")
```

```
#Run agreement test on the regular matrix RawMatrix.ta  
agree(RawMatrix)
```

```
#Delete matrix to free memory
```

```
rm(RawMatrix, RawMatrix.ta)
```

Further readings

Some examples you can use

Accounting, Auditing Accountability Journal

The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/0951-3574.htm

On the shoulders of giants: undertaking a structured literature review in accounting

Structured
literature
review in
accounting

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Journal of Knowledge Management

Knowledge management in small and medium enterprises: a structured literature review

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Abstract

Purpose – This paper aims to review and critique the knowledge management (KM) literature within small and medium enterprises (SMEs), offers an overview of the state of research and outline a future research agenda.

Design/methodology/approach – Papers published in KM journals are analysed using a structured literature review methodology. The paper analyses 89 papers published in ten journals specialising in the field of KM.

Findings – KM within SMEs is a research area of growing importance. Findings show that literature on KM in SMEs is fragmented and dominated by unrelated research, with few comparative studies between countries and several countries receiving little attention. Additionally, different definitions of SMEs are used and different kinds of SMEs (e.g. micro, small and medium) are often treated as equivalent, making comparison almost impossible. The results show a failure to address the implications of findings for practitioners and policymakers, which risks relegating the KM research on SMEs to irrelevance.

Originality/value – The paper presents a comprehensive structured literature review of the articles published in KM journals. The paper's findings can offer insights into future research avenues.

Keywords Small and medium enterprises, Knowledge management, Structured literature review, Research relevance

Paper type Literature review

1. Introduction

Several studies argue that small and medium enterprises (SMEs) are the engine of economic growth in the industrialised world. Indeed, less than 1 per cent of the companies within the European Union (EU) are classified as large enterprises in comparison to the remaining 99 per cent categorised as SMEs, with the latter accounting for the employment of 66 per cent of the workforce and for 58 per cent of the value added in the EU (Patrice *et al.*, 2014, p. 6). Similarly, according to Clark *et al.* (2011, p. 3), in Australia, SMEs contribute over a third of industry value added. Additionally, in the Asia-Pacific Economic Area, SMEs employ over half of the workforce (Asia-Pacific Economic Cooperation, 2014, p. 4). According to Pedersen *et al.* (2014, p. 6), "SMEs are a bulwark against the degradation

Journal of knowledge management

Public sector knowledge management: a structured literature review

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Abstract

Purpose – This paper aims to review and critique the public sector knowledge management (KM) literature, offers an overview of the state of public sector KM research and outlines a future research agenda.

Design/methodology/approach – Articles published in KM journals are analyzed using a structured literature review methodology. The paper analyzes 180 papers published within ten journals specializing in the field of KM.

Findings – Public sector KM is a research area of growing importance. Findings show that few authors specialize in the field and there are several obstacles to developing a cohesive body of literature. Low levels of international cooperation among authors and international comparisons mean that the literature is fragmented. Some research topics and some geographical areas within the public sector theme are over-analyzed, while others are under-investigated. Additionally, academic researchers should re-think their methodological approach if they wish to make significant contributions to the literature and work toward developing research which impacts practice in conjunction with practitioners.

Originality/value – The paper presents a comprehensive structured literature review of the articles published in KM journals. The paper's findings can offer insights into future research needs.

Keywords Public sector, Knowledge management, Structured literature review

Paper type Literature review

1. Knowledge management in the public sector

Within knowledge management (KM), the public sector is an important and specific research context. According to Edge (2005, p. 45), KM “has the potential to influence greatly and improve the public sector renewal processes”. Indeed, within the public sector, KM “is a powerful enabler in the current drive for increased efficiency in all areas” (McAdam and Reid, 2000, p. 328). However, Edge (2005, p. 45) argues that developing a KM culture within the public sector is more challenging than in the private sector. Amayah (2013, p. 456) supports this argument outlining “organizational goals in public organizations are typically more difficult to measure and more conflicting than in private organizations, and they are affected differently by political influences”. Additionally, the public sector has specific labor divisions that are a disincentive for knowledge sharing and “this situation makes knowledge delivery in the public sector more difficult than that in the private sector” (Gau, 2011, p. 2). Therefore, studying public sector KM requires a separate research agenda.

Further details

Your work does not finish when you published your work

Use multiple sources to spread your research

- If we use citations to measure other works, others will use citations to measure your work
- Thus, spread results of your research
- Conferences, social media and other communications tools can be used to spread results of your research

An example



Summarizing what we
have learned

At a glance

- Knowledge is more than knowing and LR contribute to the knowledge creation process
- There are different types of LR
- SLRs represent a new and structured approach to develop a LR
- 10 steps help researchers in developing the LR
- Technology can help you
- Spread results of your research

Thank you so much

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