

PROTOCOL FOR SYSTEMATIC REVIEW OF THE RELATIONSHIP BETWEEN SUSTAINABLE PROJECT MANAGEMENT AND FIRM PERFORMANCE

Jacques Alexis, PMP

Senior Consultant & Portfolio Manager
Belmont Management Consulting LLC.

Abstract

The topic of sustainability in project management (SPM) has been receiving considerable attention from both scholars and practitioners. Many organizations have claimed to adopt SPM as a competitive strategy. However, the impact of SPM on firm performance is unknown. This paper creates a methodological roadmap for a systematic review on the topic. The paper explains to stakeholders the processes, tools, and techniques that will be involved in the systematic review. Aspects of the review discussed include search strategy, selection criteria, quality assessment tools, data extraction, synthesis, study limitations, and significance.

Keywords: *systematic review protocol, systematic review methodology, review plan*

Introduction

Since the formal creation of the World Business Council for Sustainable Development (WBCSD) in 1995, the concept of sustainability has made a giant leap from the field of economic development to the fields of organizational strategy and management, and has been the focus of both scholars and practitioners. In the field of economic development, the term sustainability is defined to mean processes and policies that integrate “economic and social development that meets the needs of the current generation without undermining the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p. 16).

Elkington (1994, 1998) argued that to assure the perennity of both organizations and society as a whole, organizational decisions makers must integrate the so called triple-bottom line - that is societal, environmental, and economic measures in their decision making process. Hopkins, Townend, Khayat, Balagopal, Reeves, and Berns (2009) went further in their argument for sustainability. They maintained that there is a direct relationship between sustainability practices and long-term competitive advantage. In fact, many sub-fields of sustainable management have emerged over the past two decades to include sustainable leadership (Gupta, & Benson, 2011; Baumgartner, 2009, Montgomery, 2014), sustainable operations management (Kleindorfer, Singhal, & Wassenhove, 2009), sustainable supply chain management (Carter & Rogers, 2008; Golicic & Smith, 2013; Seuring & Müller, 2008), and sustainable project management (Brones, de Carvalho, & de Senzi Zancul, 2014; Sánchez, 2015, Silvius & Schipper, 2014).

Despite renewed effort to integrate sustainability practices into organizational processes, the impact of sustainability practices on firm performance is not fully understood. Golicic and Smith (2013) conducted a meta-analysis to examine the impact of sustainable supply chain practices on firm performance. However, there is no collective body of evidence pertaining to the impact of sustainable project management practices on firm performance. This is surprising considering the importance of project management in connecting firms’ long-term strategies to

operations. This study examines the impact of sustainable project management practices on organizational performance using systematic review as a research methodology (Gough, Oliver, & Thomas, 2012; Briner, Denyer, & Rousseau, 2009). The processes involved in a systematic review are defined in section 3 of this paper.

Research Question

To study the impact of sustainable project management practices on firm performance, the author posited a single and unbiased research question:

RQ: What is the impact of sustainable project management practices on firm performance?

To avoid scope creep or scope gap in this study, the key terms from the research question are defined based on the current literature on sustainability and sustainable project management. In an organizational context, the term sustainability is defined as the integration of economic viability, environmental protection, and social responsibility into project and operations processes of the organization (Elkington, 1998; Hopkins et al., 2009). Sustainability is therefore associated with both short and long-term objectives and competitiveness of an organization (Hopkins et al., 2009). Consistent with a definition proposed by Silvius and Schipper (2014), Sustainable project management may be defined as an integrative project management approach which seeks to meet stakeholders' existing needs and requirements including business and project requirements and at the same time addresses the future performance of the business. Project management is an umbrella term used by the project management institute (PMI) to describe "the application of knowledge, skills, tools, and techniques to project activities to meet project requirements" (Project Management Institute, 2013, p.5). A project is any "temporary endeavor undertaken to create a unique product, service, or result" (PMI, 2013, p. 1). A firm is any business organization involving in the production of goods and/or services by using a variety of processes, resources, tools, and techniques. A firm is constrained by resource availability and environmental factors and is guided by its objectives or goals. A firm's performance is measured across a variety of indicators, including financial and non-financial, short and long-term, internal and external measures (Figge, Schaltegger, Wagner, 2002; Kaplan & Norton, 2007; Möller, & Schaltegger, 2005; Hansen, & Schaltegger, 2016).

The structure of this systematic review follows a process proposed by Gough et al (2012) as shown in Figure 1, and integrates the variables of the study according to the CIMO framework to answer the research question (Briner, Denyer, & Rousseau, 2009; Denyer & Tranfield, 2009). The review question is framed as follows: Context: Organizational settings at a global level Intervention: Sustainable project management (SPM) practices (independent variable) Mechanism (s): The actions, agents, processes, or conditions (e.g., social, environmental, and cultural) that activate the relationship between sustainable project management practices and firm performance. Outcome (s): Performance (dependent variable) – performance may be financial and/or non-financial.

The Systematic Review Process

For the past three decades, research synthesis, also known as systematic review, has evolved to become an established research methodology (Cooper & Koenka, 2012; Thomas & Harden, 2008). Emerging from the field of medicine and having been adopted in the social sciences, organizational decision making, and policy making (Tranfield, Denyer, & Smart, 2003), research synthesis allows researchers and practitioners to evaluate, configure, and aggregate findings from separate primary studies into a coherent framework to answer a research question or make evidence-informed decisions (Centre for Reviews and Dissemination, 2009; Gough, Oliver, & Thomas, 2012). This information gathering and knowledge production process allows researchers to close the gap between research and practice across disciplines and enables the application of multiple sources of evidence in the decision making process (Briner, Denyer, & Rousseau, 2009). In many ways, research synthesis as a research methodology is similar to primary research methods in the sense that it requires structure and rigour to produce valid, trustworthy, unbiased, and credible evidence. Its uniqueness and superiority, however, reside in the fact that research syntheses produce findings that are based on a collective body of evidence using explicit, transparent, and pre-set criteria; this facilitates replicability and fosters accountability (Briner, Denyer, & Rousseau, 2009; Gough, Oliver, & Thomas, 2012). As Rousseau (2012) argued "any single study has limitations; the best evidence comes from multiple studies with different kinds of designs and conducted by different scientists, thus providing independent corroboration that a finding is real" (p. 31). This study uses systematic review as a research methodology to investigate the impact of

sustainable project management (SPM) practices on firm performance. The aim is to configure a collective body of evidence to better understand what is known and not known about the practice of sustainable project management (Rousseau, Manning, & Denyer, 2008). Synthesizing the evidence of the impact of SPM practices on firm performance can create a pathway for further action research and may help practitioners gain access to reliable scientific evidence to make informed decisions. Conducting a systematic review as an integral part of the organizational decision making process improves the quality of information, which is essential in making quality decision. This management practice is commonly known as evidence-based management (Rousseau, 2005). Systematic reviews are the link between evidence-based research and evidence-based practice.

Conducting a systematic review is a process (Tranfield, Denyer, & Smart, 2003). The process of conducting a systematic review is an attempt to methodically identify, assess, and synthesize all available and relevant evidence on a research topic (Gough, Oliver, & Thomas, 2012; Petticrew & Roberts, 2006). The systematic review process is shown in Figure 1.

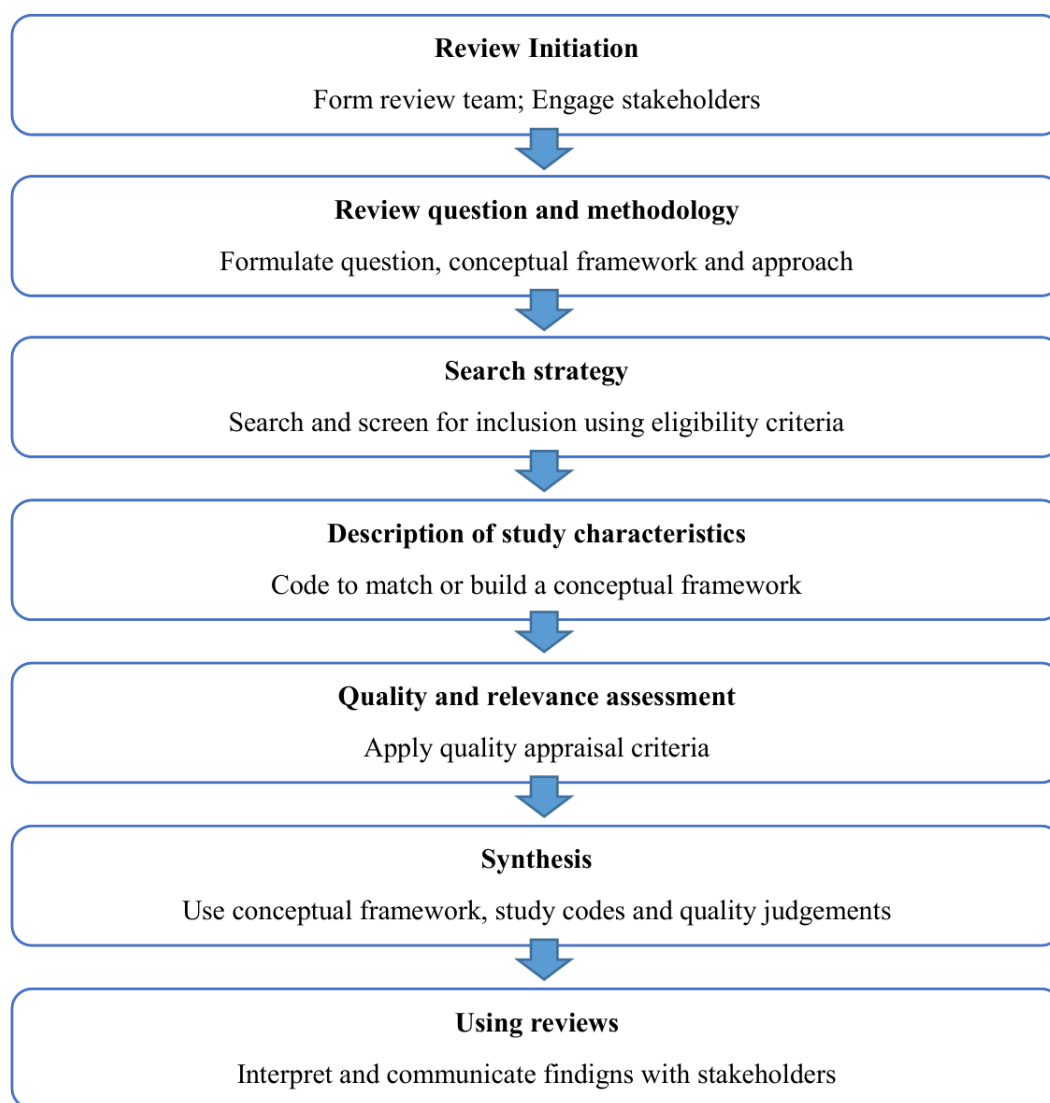


Figure 1. The systematic review process. Adapted from “An Introduction to Systematic Reviews” (p. 8), by D. Gough, S. Oliver, and J. Thomas, 2012, Thousand Oaks, CA: SAGE Publications Inc. Copyright 2012 by Sage Publications Inc. Adapted with permission.

Search Strategy

The “building blocks” bibliographic search approach was utilized to develop search strings or query formulations for electronic databases (Goodman, Gary, & Wood, 2014). The review question served as the basis for identifying the

facets of the strings that retrieved primary studies and research reports from the databases. Search strings were adapted according to the preferred coding language of each database. To promote transparency and replicability of this study, the author used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram to create an audit trail of the primary documents (PD) retrieved and retained for this research (Moher, Liberati, Tetzlaff, & Altman, 2009). Boolean operators (e.g., AND & OR) enabled the fine-tuning of search strings. Truncation was used to ensure that alternative spelling and synonyms for major terms relating to the review question were included in the search results. The English language filter option was not used in the search process to avoid language bias. Table 1 shows a list of the articles included for full text screening. A detailed search activity, including all databases searched, can be found in Appendix C. The search string at the bottom of Table 1 was developed and used in 8 databases to retrieve the articles used in this study. The PRISMA diagram located in Appendix A explains the three-phase process used to arrive at the final studies included in the review. Phase 1: Identified primary studies through appropriate electronic databases and search of relevant management journals and professional associations' websites. This search was carried out using the search string shown in Table 1.

Phase 2: This phase involved the screening of titles and abstracts of primary studies identified in phase 1 for relevance. This phase can be automated depending on the number of results or hits produced by the search string in phase 1. Automation was possible by searching the titles and abstracts of search results electronically using key terms from the search string or the review question.

Phase 3: Primary studies that were relevant to the research question were recorded in a spreadsheet for full text analysis using a pre-set list of quality assessment criteria for inclusion.

Table 1			
<i>List of Studies included in this Systematic Review by Alphabetical Order</i>			
Author	Date	Database	Journal
Ahmad et al.	2016	Academic Search Complete	AIP Conference Proceedings
Ameer et al.	2011	Business Source Complete	Journal of Business Ethics
Bryson et al.	2009	Business Source Complete	Business Strategy & the Environment
de Jesus et al.	2013	Business Source Complete	Revista Brasileira de Gestão de Negócios
Eilers et al.	2016	Emerald Insight	World Journal of Entrepreneurship, Mgmt. & SD
Maletičet et al.	2016	Business Source Complete	Total Quality Management and Business Excellence
Maletičet et al.	2016	Business Source Complete	Journal of Cleaner Production
Renard et al.	2013	ABI/INFORM	Smart and Sustainable Built Environment
Renukappa et al.	2013	ABI/INFORM	Journal of International Real Estate and CS
Szabó, L.	2016	Academic Search Complete	Budapest Management Review
Tan et al.	2011	Business Source Complete	Habitat International
Weidner, K. L.	2012	ProQuest Dissertations	ProQuest Dissertation Publishing
Search String for "Sustainable Practices & Firm Performance"			
("Sustainable practice*"OR"sustainability practice*")AND("organi*performance"OR"firm performance"OR"business performance"OR"enterprise performance"OR"organi*effectiveness"OR"firm effectiveness"OR"business effectiveness"OR"enterprise effectiveness"OR"organi*success"OR"business success"OR"enterprise success")			

Legend: Mgmt. = Management; SD = Sustainable Development; CS = Construction Studies; N/A = Not Available; et al. = listed first author and colleagues.

Selection Criteria

Selection criteria included both inclusion and exclusion criteria and were informed by the review question (Gough, Oliver, & Thomas, 2012). Study selection was performed as an iterative multi-step process and was documented here for transparency purposes (Booth, Papaioannou, & Sutton, 2016).

Inclusion Criteria

To avoid selection and publication biases, the primary criterion for inclusion of a study in the data sources was relevance. Only studies and research reports that were relevant to the review question were selected for further assessment and inclusion. Relevance means that primary studies, conference proceedings, and research reports examined the effect of sustainability practices at a project level on firm performance. Other criteria for inclusion included the following:

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- The context of the study is a business/organization
- Authors and date of publication are available
- Sustainable project management is examined as a triple bottom line concept: social, environment, and economic
- The studies passed the quality assessment test

Exclusion criteria

Studies that did not examine sustainable project management practices on firm performance were excluded. Search results on corporate sustainability that did not study the effect of sustainability practices at a project level were excluded. Greening practices or green management that did not examine sustainability as an integrative process were also excluded. By definition, sustainable project management (SPM) practices must take all three factors of the triple bottom line into consideration: planet or environmental impact, people or social impact (e.g., impact on employees, investors, and all other stakeholders), and economic viability (i.e., both short and long-term profitability).

eration: planet or environmental impact, people or social impact (e.g., impact on employees, investors, and all other stakeholders), and economic viability (i.e., both short and long-term profitability).

Quality Appraisal of Evidence

Quality assessment in research synthesis has been a common practice in the field of medicine for the last three decades (Gough, Oliver, & Thomas, 2012). As a consequence, many tools have been developed for appraising the quality of primary studies which serve as inputs for systematic reviews (Denyer & Tranfield, 2009). Such tools include the HoE (hierarchy of evidence) framework (Canadian Task Force on the Periodic Health Examination, 1979); the TAPUPAS (transparency, accuracy, purposivity, utility, propriety, accessibility, specificity) framework (Pawson, Boaz, Grayson, Long, & Barnes, 2003); and the WoE (weight of evidence) framework (Gough, 2007). However, Petticrew and Roberts (2006) pointed out that most of these tools, developed in the medical field for assessing the effectiveness of interventions, are difficult to apply in the social sciences (p. 57). A major constraint in that regard is the lack of consensus in management research (Barends, ten Have, Huisman, 2012) and practice (Tranfield, Denyer, & Smart, 2009). Similarly, Gough (2007) argued that reviewers must decide whether their quality assessment will be generic or specific to the review question. The point is that the nature of the review question, the context of the study, and the level of heterogeneity of available evidence play a significant role in selecting a quality assessment tool (Gough et al., 2012).

This review takes a fit for purpose approach (Boaz & Ashby, 2003) to assessing the quality of evidence and integrates both qualitative and quantitative primary studies in the review process. This quality assessment approach recognizes the value of qualitative research in the management field and takes a broader perspective into consideration (Thomas & Harden, 2008). Primary studies are appraised using a scheme developed by Pittaway, Robertson, Munir, Denyer, & Neely (2004). Studies are assessed on a scale of 0 to 3, 0 being absent and 3 being high. Not applicable (N/A) was used to indicate when a criterion could not be applied to the study being evaluated (see Appendix B). Criteria for quantitative studies include theory robustness, implication for practice, (methodology, data and supporting arguments), generalizability/transferability, and contribution to theory and/or practice. For assessing the quality of qualitative primary studies, the quality assessment scheme was adapted to replace the concept of generalizability with transferability. Generalizability or external validity is an epistemic concept associated with positivism. Positivists hold the belief that their research findings and/or conclusions can be inferred to the broader population; that is, the findings are valid in other contexts and may be applied to other people or groups of people. Although qualitative researchers

sometimes believe that their findings are generalizable (Patton, 2014), many argue that generalization is not a major goal of qualitative research (Pyrzczak, 2008; Trochim, Donnelly, & Arora, 2016). Evaluating qualitative research studies with the same criteria used for quantitative research may create a systematic bias in the research synthesis (Gough, Oliver, & Thomas, 2012).

Data Extraction and Thematic Analysis

Thematic data analysis will be used to integrate the findings of the primary studies of various types (e.g., qualitative, quantitative, and mixed-method studies) by identifying and coding key themes that emerge during the analysis (Thomas & Harden, 2008). Thematic data analysis includes three overlapping stages: 1) line-by-line coding of the findings of primary studies; 2) organization of free-codes into related areas to construct descriptive themes; and 3) the generation of analytical themes (Thomas & Harden, 2008, p. 4). The thematic data analysis process is shown in Figure D1 in Appendix D.

Thematic data analysis is the most appropriate qualitative data analysis technique when the aim of the review is the configuration of the primary data into a cohesive whole (Gough, Oliver, & Thomas, 2012; Thomas & Harden, 2008), and when the reviewer is dealing with a small number of primary studies (Gough et al., 2012). These features accurately represent the condition of this study. Analytic coding will be utilized to translate the content of the primary studies into a framework that goes beyond each primary study (Rousseau, 2012). In this study, the reviewer will take an inductive approach to data analysis (Charmaz, 2011; Denzin & Lincoln, 2011).

Primary studies will be imported into Atlas.ti 7.5 software package. This software package facilitates the coding process and triangulation of data sources. Data triangulation and constant comparison of data sources are necessary steps in qualitative data analysis (Corbin & Strauss, 2016; Miles, Huberman, & Saldana, 2013; Saldana, 2016). Using multiple data sources to compare and contrast findings has the potential to increase qualitative research validity (Elliot, 2007; Johnson, 1997).

Synthesis

Rousseau, Manning and Denyer (2008) identified many methods for synthesising research evidence. These include synthesis by aggregation in which reviewers extract and statistically aggregate findings from primary studies to calculate an effect size. The goal is usually to study the effectiveness of programs and interventions. Synthesis by integration involves method triangulation of available evidence. This approach seeks to identify patterns across primary studies to address their weaknesses (method and design) and improve both their internal and external validity. Synthesis by interpretation is a synthesis methodology which concerns with the interpretation of primary studies. This method does not usually assess the validity of primary studies, but rather seeks to understand the experience of those involved in the primary study. Explanatory synthesis or configurative synthesis aims to identify causal mechanisms between dependent and independent variables and seeks to understand how these mechanisms operate and under what conditions (Rousseau, Manning, & Denyer, 2008, p. 498).

Each of these methods has both advantages and drawbacks. The only sensible approach when selecting a method is “fit-for-purpose.” This study adopts the configurative synthesis approach to make sense of the relationship between sustainable project management practices and firm performance and potentially generate a new theory about these two variables and the mechanisms that activate this relationship (Gough et al., 2012; Tranfield & Denyer, 2009). According to Gough, Oliver, and Thomas (2012), “Configurative reviews are seeking to include studies that will provide richness in terms of making distinctions, developing and exploring theory” (p. 60). The effect of sustainable project management practices on firm performance is not known, and therefore, is in an exploration phase.

Study Limitations

This study has several limitations, which pave the way for future research on sustainable project management. This systematic review is based on a set of primary research studies which served as data for integrating and configuring a collective body of evidence on the relationship between sustainable project management and firm performance. As one may imagine, the quality of these primary studies cannot be fully ascertained as not all data involved in the primary studies were made available by the primary researchers. This limitation stems from the fact

that publishers provide only so much space to researchers in terms of what they can and cannot make available to consumers of research. A second limitation was that the study was conducted under time and scope constraints, which may have influenced the quantity of the data included in the review. In other words, the number of primary studies and research reports included may not have been exhaustive. However, this study may serve as a starting point for an understanding of the body of evidence on the value (economic, social, and environmental) of sustainable project management practices in organizations.

Significance of the Study

Evidence-based management (EBMgt) and evidence synthesis offer a golden opportunity to the field of management in the sense that they enable both scholars and practitioners to make evidence-informed decisions (Briner, Denyer, & Rousseau, 2009; Denyer, Tranfield, & Smart, 2003; Rousseau, 2012). Evidence-based management requires a structured approach to translating scientific knowledge into management best practices and guidelines (Rousseau, 2012). This can be accomplished through evidence-syntheses or systematic reviews. From this perspective, systematic reviews or evidence-syntheses serve as the bridge that links evidence-based management research (EBR) to evidence-based practice (EBP). Proponents of the evidence-based movement agree that its value lies in its purposivity; that is, management research syntheses must address a real management problem.

This systematic review is a unique contribution to the field of sustainable management. It is the first and only collective body of evidence on the relationship between sustainable project management (SPM) practices and firm performance. It configures a set of primary research studies on the topic and offers the first theoretical framework on SPM practices and their impact at an organizational level.

Summary

This paper serves as a methodological roadmap for a systematic review of the evidence on sustainable project management (SPM) practices on firm performance. The importance of the topic and the research question were introduced. The search strategy, process and selection criteria, including criteria for inclusion and exclusion, were also defined. In addition, the role of evidence synthesis in management research and the process for developing an evidence synthesis were explained. Furthermore, the reviewer presented a previously published quality assessment tool adapted for assessing both qualitative and quantitative research studies. Finally, data extraction method and analysis, synthesis, study limitations and significance were explained.

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Appendix A

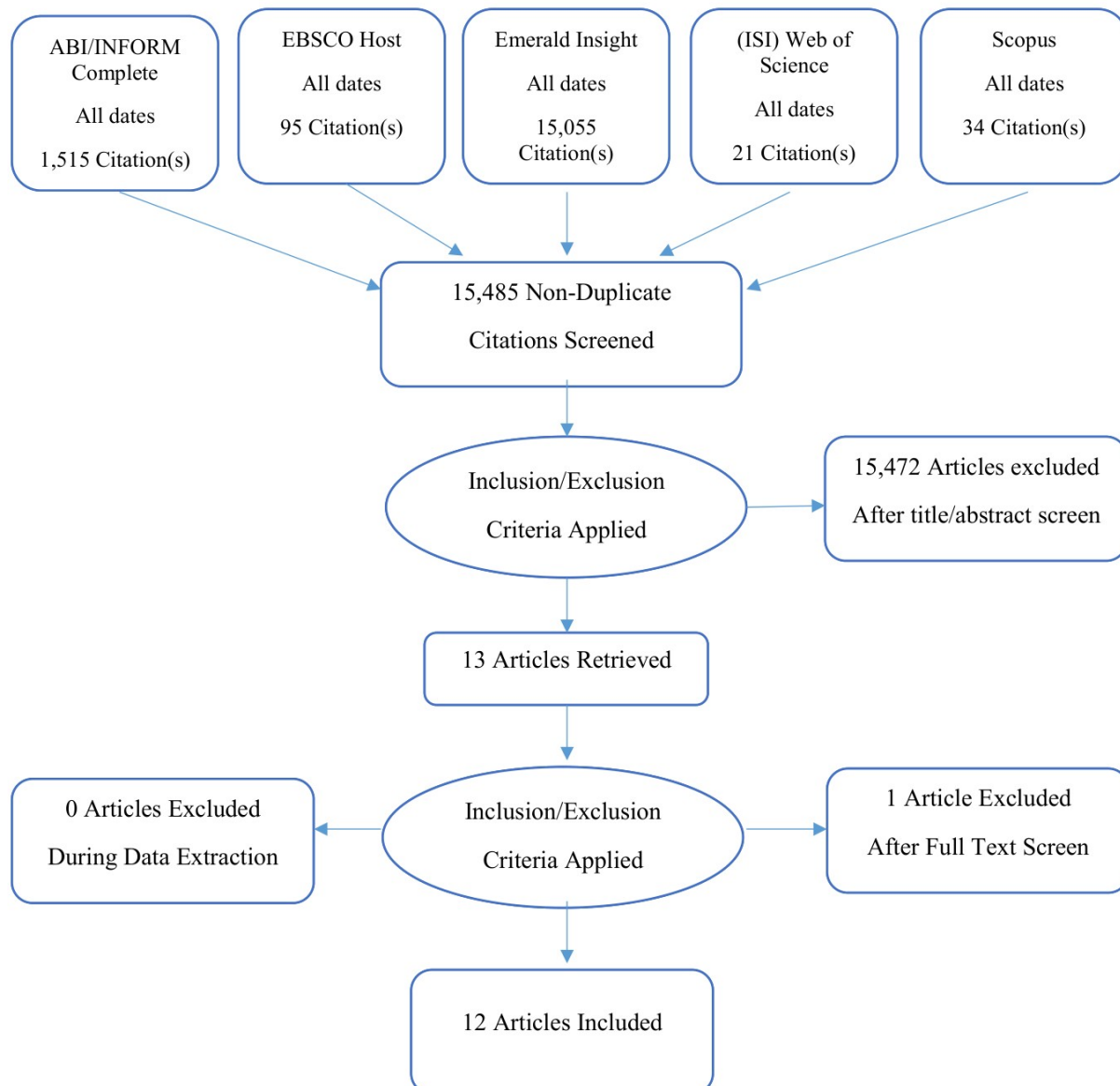


Figure A1. PRISMA diagram for search strategy on SPM and firm performance.

Appendix B

Table B1: Quality Criteria for Quantitative Studies					
<i>Quality assessment criteria</i>					
Element	Level				
	0 Absence	1 Low	2 Medium	3 High	Not applicable
1. Theory robustness	The article does not provide enough information to assess this criterion	Poor awareness of existing literature and debates. Under- or over-referenced. Low validity of theory.	Basic understanding of the issue around the topic being discussed. The theory weakly is related to data.	Deep and broad knowledge of relevant literature and theory relevant for addressing the research. Good relation to theory-data.	This element is not applicable to the document or study.
2. Implication for practice	The article does not provide enough information to assess this criterion	Very difficult to implement the concepts and ideas presented. Not relevant for practitioners or professionals.	There is a potential for implementing the proposed ideas, with minor revisions or adjustments.	Significant benefit may be obtained if the ideas being discussed are put into practice.	This element is not applicable to the document or study.
3. Methodology, data and supporting arguments	The article does not provide enough information to assess this criterion	Data inaccuracy and not related to theory. Flawed research design.	Data are related to the arguments, though there are some gaps. Research design may be improved.	Data strongly supports arguments. Besides, the research design is robust: sampling, data gathering, data analysis is rigorous.	This element is not applicable to the document or study.
4. Generalizability	The article does not provide enough information to assess this criterion	Only the population studied	Generalizable to organizations of similar characteristics	High level of generalizability.	This element is not applicable to the document or study.
5. Summary of contribution to theory & Practice	The article does not provide enough information to assess this criterion	Does not make any important contribution. It is not clear the advances it makes.	Although using others' ideas, builds upon the existing theory.	Further develops existing knowledge, expanding the way the issue was explained so far.	This element is not applicable to the document or study.

Note: Quality Assessment Tool. Adapted from “Networking and Innovation: a Systematic Review of the Evidence” by L. Pittaway, M. Robertson, K. Munir, D. Denyer, & A. Neely, 2004, International Journal of Management Reviews, 5/6, p.168. Copyright 2004 by International Journal of Management Reviews.

Table B2: Quality Criteria for Quantitative Studies					
<i>Quality assessment criteria</i>					
Element	Level				
	0 Absence	1 Low	2 Medium	3 High	Not applicable
1. Theory robustness	The article does not provide enough information to assess this criterion	Poor awareness of existing literature and debates. Under- or over-referenced. Low validity of theory.	Basic understanding of the issue around the topic being discussed. The theory weakly is related to data.	Deep and broad knowledge of relevant literature and theory relevant for addressing the research. Good relation to theory-data.	This element is not applicable to the document or study.
2. Implication for practice	The article does not provide enough information to assess this criterion	Very difficult to implement the concepts and ideas presented. Not relevant for practitioners or professionals.	There is a potential for implementing the proposed ideas, with minor revisions or adjustments.	Significant benefit may be obtained if the ideas being discussed are put into practice.	This element is not applicable to the document or study.
3. Methodology, data and supporting arguments	The article does not provide enough information to assess this criterion	Data inaccuracy and not related to theory. Flawed research design.	Data are related to the arguments, though there are some gaps. Research design may be improved.	Data strongly supports arguments. Besides, the research design is robust: sampling, data gathering, data analysis is rigorous.	This element is not applicable to the document or study.
4. Transferability	The article does not provide enough information to assess this criterion	Only the population studied	Transferable to organizations of similar characteristics	High level of transferability.	This element is not applicable to the document or study.
5. Summary of contribution to theory & Practice	The article does not provide enough information to assess this criterion	Does not make any important contribution. It is not clear the advances it makes.	Although using others' ideas, builds upon the existing theory.	Further develops existing knowledge, expanding the way the issue was explained so far.	This element is not applicable to the document or study.

Note: Quality Assessment Tool. Adapted from "Networking and Innovation: a Systematic Review of the Evidence" by L. Pittaway, M. Robertson, K. Munir, D. Denyer, & A. Neely, 2004, International Journal of Management Reviews, 5/6, p.168. Copyright 2004 by International Journal of Management Reviews.

Replaced "generalizability" with transferability.

Appendix C

Table C1				
<i>Search Results for Sustainable Practices and Firm Performance.</i>				
Database	Date of search	Search strings	Total Hits	Comments
ABI/INFORM Complete	11.1.2016	(“Sustainable practice*” OR “sustainability prac- tice*”) AND (“organi* performance” OR “firm performance” OR “busi- ness performance” OR “enterprise performance” OR “organi* effective- ness” OR “firm effec- tiveness” OR “business effectiveness” OR “en- terprise effectiveness” OR “organi* success” OR “firm success” OR “business success” OR “enterprise success”)	1515	Publication date: 1996- 2016 Scholarly journals: 584 (including 519 peer- reviewed) Reports: 493 Dissertations & Theses: 111 Wire Feeds: 109 Magazines: 27 Conference papers & Proceedings: 25 Newspapers: 14 Blogs, Podcasts, & Websites: 7 Working Papers: 6 Other Sources: 1
EBSCO ▪ Academic Search Com- plete ▪ Academic Search Ultimate ▪ Business Source Complete ▪ Business Source Ultimate ▪ PsycINFO ▪ SocINDEX with full text	11.1.2016	Same as above	95	Publication date: 2002-2016 Academic journals: 65 Trade publications: 2 Magazines: 2 Books: 1 Dissertations: 1 Conference materials: 1

Emerald Insight - Emerald Fulltext and Management Reviews	11.1.2016	Same as above	15055	Research paper: 5902 General review: 1862 Case study: 1100 Conceptual paper: 1067 Chapter item: 1016 Literature review: 455 Viewpoint: 280 Full length article: 190 Secondary article: 149 Technical paper : 117 Editorial: 26 Review: 26 Discussion: 11 Personal report: 4 Miscellaneous: 3
(ISI) Web of Science	11.5.2016	Same as above	21	Publication date: 2011 – 2016 Journal articles: 19 Conference Proceedings: 1 Review: 1
Scopus	11.6.2016	Same as above	34	Publication date: 1995-2016 Journals: 27 Conference Proceedings: 5 Books: 1 Trade Publications: 1

Appendix D

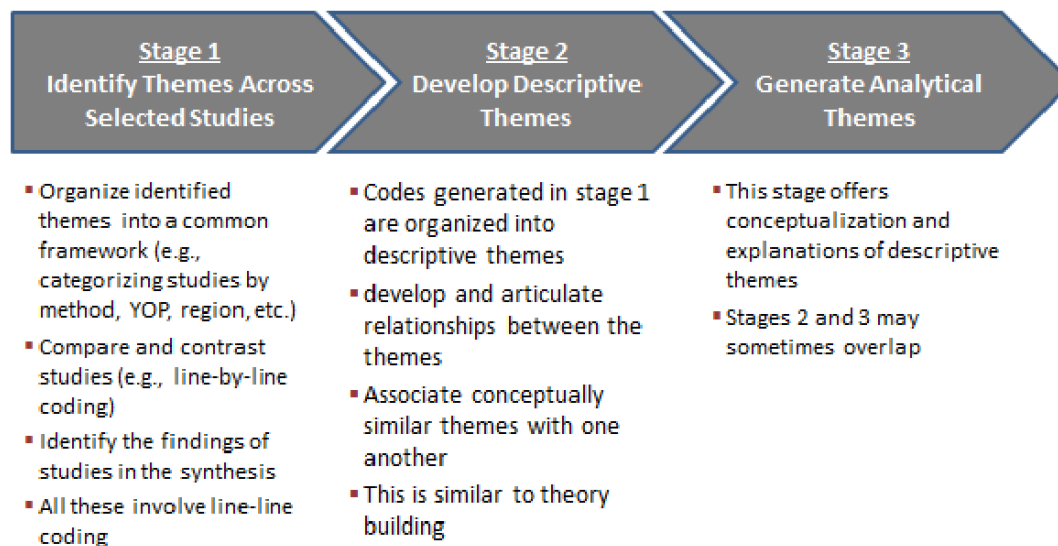


Figure D1: Stages of thematic data analysis. Created from “An Introduction to Systematic Reviews” by D. Gough, S. Oliver, & J. Thomas, 2012, Thousand Oaks, CA: SAGE Publications.