

# Methodology Selection in Strategic Management: A Review and an Agenda

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**Abstract**— This study aims to explain the different methodologies that were employed in strategic management research. Therefore, the methodology choices in previous strategic management research were examined, and the quantitative and qualitative methods along with the mixed-methods approach including qualitative and quantitative methods used in the same study were explained. A detailed review about the investigation of methodological choices on previous strategy work revealed that qualitative methods were moderately employed while the quantitative methodology was the prevalent methodological choice in the strategy field. With respect to mixed-methods approach, it was that observed only a few studies that incorporated both quantitative and qualitative approaches in the same study were existent in previous strategy research. However, the author concluded that the mixed-methods approach which offsets the disadvantages that certain of the methods have by themselves can be a suitable methodology for the strategy research.

**Keywords**— Methodology, strategic management, qualitative research, quantitative research, mixed-methods research.

## I. INTRODUCTION

The selection of a research methodology is crucial since it guides the conduct of the research and affects the quality and the accuracy of research results [1]. The research methods literature provides two major research paradigms: positivism and phenomenology [2]. Nonetheless, different labels for these paradigms are frequently used in the methodology literature. While rationalist, normative and quantitative terms are interchangeably used to describe the positivism paradigm, phenomenology is often termed as social constructivism, interpretivism and qualitative research. Methodology selection has always been a critical decision in management and strategy research and there is still an ongoing argument among the defenders of positivist and phenomenological paradigms about the usability of these research methods. So, this study examines the methodology choices along with their pros and cons in previous strategic management research and explains the mixed-method approach as a midway to overcome the weaknesses of any single research methods.

## II. POSITIVISTS VERSUS PHENOMENOLOGISTS

The main principle of the positivism paradigm underlies the

separation of the researcher (subject) and the research object to increase the chance of getting impartial results. Positivists suggest that “exploration can only be based upon observed and captured facts using direct data or information” because of the concrete and external nature of the world [3]. In order to prevent (or at least minimise) any subjective effect that can be exerted by the researcher, standard procedures must be used in conducting research. The rationale behind this separation lies in the facilitation endeavours of the research process coherence through hypotheses testing. Hypotheses connect two disjointed parts of the research process and the aim of a research activity is to refute them. In contrast to the positivism paradigm, the phenomenology paradigm posits that “the real world is determined by people rather than by objective and external observable facts” [3].

Truth and reality are deemed as social phenomena that do not act independently from social actors. Dynamics of social events along with the human activity make the social world too complex to be explained in simple positivist terms. Two different approaches generally prefer different types of data collection methods that are: quantitative and qualitative data collection methods. Quantitative methods which emphasise quantification in the collection and data analysis, aim to make predictions and explanations that are general to other circumstances and settings.

Based on rigid sampling, quantitative methods obtain data through questionnaire surveys, on-site observations and secondary data sources and use statistics tools to analyse the data and draw meaningful conclusions. In quantitative analysis, measurable relationships between identifiable constructs are explored and established hypotheses are tested [4].

In comparison, qualitative methods neither seek to test or measure the relationships between the constructs nor offer any predictions for the phenomena examined. Unlike quantitative methods, qualitative methods do not intend to explore representative samples. Mainly, the qualitative research methods aim to investigate and understand a phenomenon through describing a scenario that uses words rather than numbers in the collection and analysis of data [5]. Theory building is at the heart of qualitative research. Several researchers [6], [4] consider qualitative methods more insightful and holistic than quantitative methods. Examples of qualitative analysis methods include case study, grounded theory, ethnography, and action research.

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### A. Triangulation

In order to resolve the ongoing debate on the supremacy of one method over another one, Patton [7] proposes that different methods can be employed through an approach of “triangulation” which refers to the combination of several research methods to study the same phenomenon. The weaknesses, problems and intrinsic biases that may emerge from single method or single theory research can be overcome by triangulation [7], [8]. The process of triangulation also provides an ample opportunity to increase the validity and the reliability of the explanation and the findings of social phenomena through convergence of different perspectives (i.e., quantitative testing). Therefore, in order to have a rich understanding of social phenomena and to test the relevant hypotheses that aim to measure cause effect relationships, triangulation can be employed. The triangulation of the literature, qualitative and quantitative research is hypothetically schematised in figure 1. In the first phase of the

methodological triangulation procedure, after a general literature review, the research area is defined and the themes pertinent to research objectives and questions may be investigated by a multiple case-based qualitative study. Hence, a mutual relation between the literature and the qualitative investigation is established in the first side of the triangle. In the second phase of the procedure, qualitative findings are used to establish a quantitative measurement instrument and important qualitative data are substantially integrated with the quantitative investigation. With the qualitative and quantitative research interaction, the second side of the triangle was formed.

Lastly, triangulation procedure of the research is completed by comparing the findings of the study with previous empirical research. In doing so, it is aimed to eliminate the possibility of making radical theoretical mistakes and assess the theoretical and practical contribution of the study to previous literature.

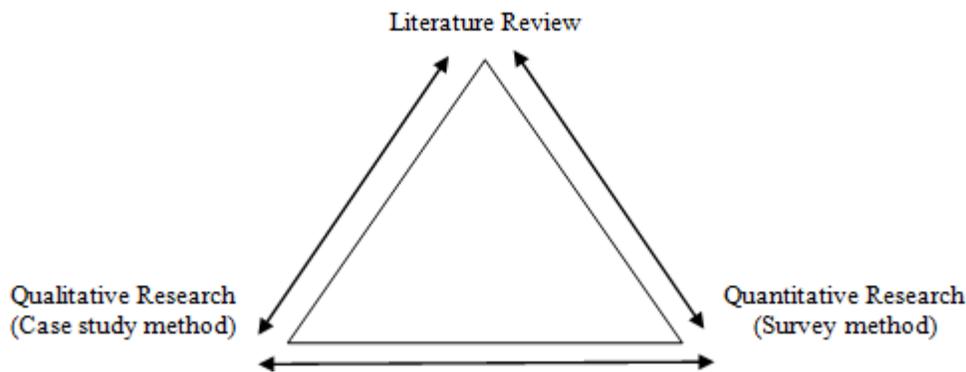


Fig. 1: The Methodological Triangulation

### III. RESEARCH METHODOLOGY IN STRATEGIC MANAGEMENT

In the field of strategic management, a variety of methodologies that depend on the issue under examination were employed. As an overall investigation regarding the use of research approaches in strategy research, [8] studied the research methods as represented in articles from all issues of the *Strategic Management Journal* from 1997 to 2006. The review of 570 empirical articles revealed that of these empirical articles over three quarters were quantitative 77% (n=441) and only 23% (n=129) of articles were qualitative and mixed-methods [8]. This study illustrates that there is a high level of usage and acceptance of quantitative methods within the strategic management field. In a similar line, Molloy et al. [9] and Molina-Azorin [10] state that quantitative methodology is very prevalent in strategy research.

When examined historically, among early strategic management researchers, Ansoff [11] and Andrews [12] focused on the practical aspect of strategy and did not pursue purely for deductive advancement. The main consensus was that the deductive approach to strategy research was unsuitable

and the generalisation of findings was neither feasible nor desirable because of the complexities of each firm studied and the uncontrollable nature of variables used in research [13]. Hence, the preferred research approach was induction especially focusing on qualitative methods such as detailed case studies of single firms or industries. In the years that followed, many strategy researchers [14], [15], [16] conducted their studies with the emphasis on qualitative methods and inductive reasoning approaches.

However, the heavy emphasis on qualitative approaches in strategy research has been criticised by other academic disciplines (i.e., economics) as well as from management scholars [17], [18]. Since the criticisms about the scientific nature of the strategic management field have increased, the methodological choice has shifted from qualitative, inductive based studies to quantitative, deductive approaches in order to elevate the area to a more scientific academic discipline. A number of researchers [19], [20], [13] have empirically tested the resource – firm performance relationship based on various financial and market measures such as market share, profitability, stock price increases, market-to-book ratios and sales growth.

Particularly, with the use of secondary data sources (i.e., COMPUSTAT, PIMS, CRSP, FTC), quantitative methods became rather attractive to RBV researchers and the number of studies that includes quantitative testing with respect to resource – performance effect has increased. This approach is considered appropriate to assess the influence of resources on firm performance that was necessary for validation and generalisation of the RBV. However, since there were no generally accepted accounting standards to report the value of intangibles, researchers employed “proxy measures such as investment in advertising or research and development” to use in their analysis [13].

Therefore, the unobservable nature of intangibles has created difficulty in measuring resource constructs and made secondary data difficult to use and assess with sufficient validity [21], [9]. Moreover, resources are organisational in origin and complex, and neither their identification nor their role in creating competitive advantage can be assessed by large scale industry studies [22]. So, alternative methods including a combination of different approaches that capture data for construct development and measurement along with empirical testing are required [23]. One approach is the use of mixed-methodology including quantitative and qualitative methods together.

#### IV. MIXED-METHODS RESEARCH

Mixed-methods research is found in the strategy and RBV literature but it is rarely used [23], [10]. In his RBV specific study, Molina-Azorin [8] found nearly 30 research articles using mixed-methods that have been published in all the issues of Strategic Management Journal between 1984 and 2006.

As an illustrative example of mixed-methods research, Sharma and Vredenburg [24] conducted a two phase qualitative – quantitative (QUAL → QUAN) sequential research design in the Canadian oil and gas industry which aims to ground the RBV of the firm within the domain of corporate environmental responsiveness. In the first phase (exploratory), the linkages between environmental strategies and the development of capabilities along with the nature of any emergent capabilities and their competitive outcomes were examined through in-depth interviews in seven firms in the Canadian oil and gas industry. The first phase ended with a qualitative content analysis and two hypotheses based on previous literature and the findings of qualitative study. In the second phase (confirmatory), the relationship between emergent linkages and competitive outcomes was empirically tested through a mail survey-based study. Whilst the qualitative phase helps to get to know the industry, and develop theory, hypotheses and the measurement instrument, the quantitative phase empirically examines the relationships for generalisation and verification purposes.

In another RBV study which examines the role of network knowledge resources in influencing firm performance in the American automotive suppliers industry, Dyer and Hatch [25] employed a mixed-methods research that consists of a

quantitative – qualitative (QUAN → QUAL) sequential design. In the first phase of the study, the relationship between customer-to-supplier knowledge-sharing activities and the rate of improvement in supplier network performance was empirically examined by the quantitative part. Based on the empirical findings, 13 interviews (in the qualitative part) were conducted to explore why the supplier performs better as a member of one network (i.e., Toyota’s) than another network (i.e., GM, Ford, or Chrysler) in the second phase. Therefore, mixed-methods research as “a midway between the fineness of detail of case studies and the large-sample empirical studies using data analysis techniques” [23] was used by researchers in the RBV and strategy literature to assess different facets of a phenomenon.

The design of mixed-methods research can be elaborated through an example. Assuming that there is a research with the following objectives: (1) To identify the key resources and capabilities which demonstrate contribution to firm success (2) To explore how and why these resources and capabilities lead to firm performance (the role of processes and managers) (3) To test empirically which resources and/or capabilities (if intangible resources and capabilities contribute more than tangible resources) are the most important determinants of firm performance. Hence, this research seeks to explain a variety of complex issues and an organizational phenomena and attempts to generate empirically robust results through the data obtained from a large population of firms in a business context.

In order to address the first and second aims of this research, a qualitative research strategy in the form of a multiple case study method that takes an inductive approach to forming links between the literature and empirical research can be employed. By using inductive approach, the researcher may create several subjective meanings as they interact with the world and attempted to understand phenomena through assessing the meanings that participants assign to them. Apart from defining the resources and capabilities in a coherent manner, the research aims to develop an existing theory with regard to complex interaction and interconnections of different sets of resources and capabilities on the way of performance creation in firms. Hence, generation of a completely new theory is not the main focus.

For this reason, the literature review should guide researcher in developing seed interview questions and the critically important resources for firm performance that were identified in previous RBV studies can be used as discussion points in the interview process. To generalise the qualitative findings, the research process continues with a sequential quantitative study. A number of hypotheses derived from the qualitative components can be tested empirically through the data collected from a broader sample. A brief representation of the research methodology adopted for this research is depicted in figure 2.

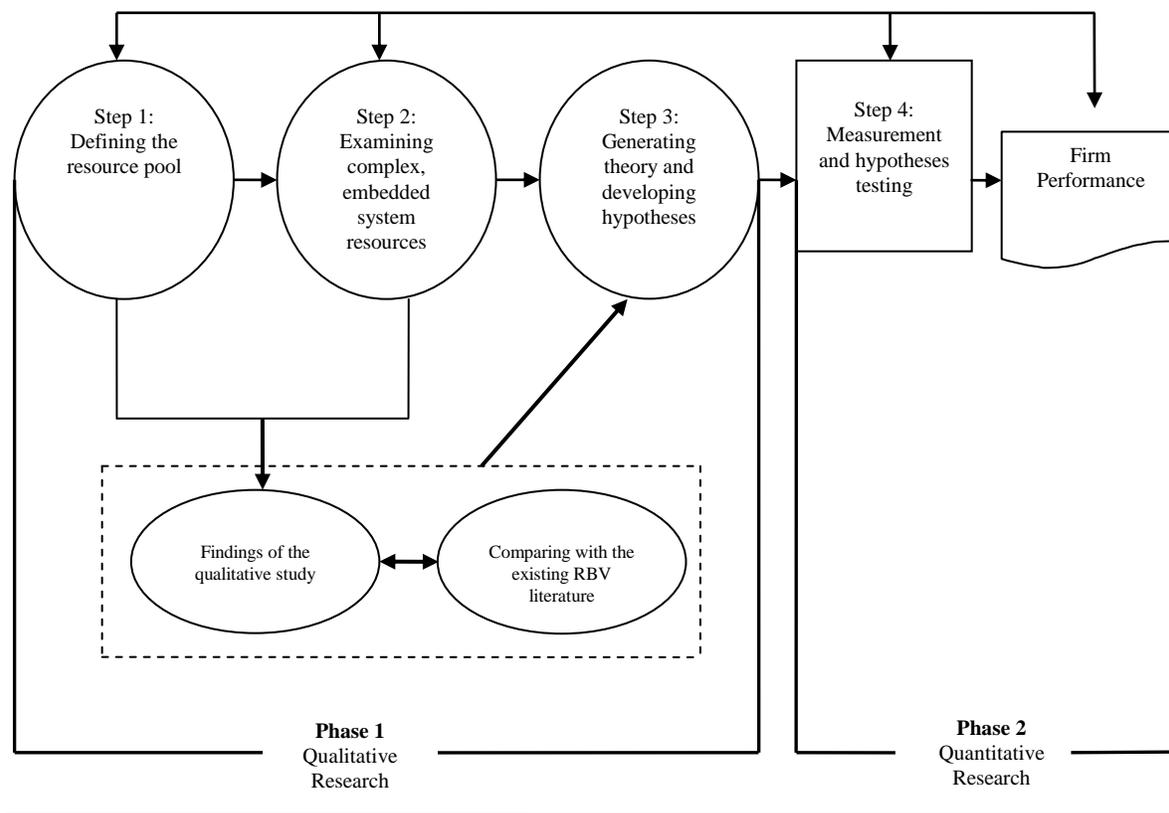


Fig. 2: Brief representation of the Research Methodology Adopted for the Study  
(Adapted from Molloy et al., 2011, p. 1508)

## V. CONCLUSION

Looking back at more than forty years of strategy research, one of the major contributions of the strategic management field is the finding that the drivers of firm success lay inside the firm. The mechanisms between resource, capability, industry and environmental interactions in performance creation are dynamic and more than just complex, therefore the embedded nature of the drivers of performance may compel researchers to employ more sophisticated research designs unlike single methods. Obviously, methodologies should be chosen according to the research objectives and the nature of the investigation. However, mono-method designs may not be found applicable to all strategy research. In this sense, mixed-methods approach can be a good option for strategy researchers. Mixed-methods research does not only provide more comprehensive findings, increased confidence and validity in results, and more insightful understanding of the underlying phenomenon but it also offsets the disadvantages that certain of the methods have by themselves. But it should be once more noted that the methodology choice should be based on its suitability not popularity.

## REFERENCES

- [1] J. W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*, 2nd ed. Thousand Oaks, CA: Sage Publications, 2003.
- [2] D. J. Collis, and R. Hussey, *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*, 2nd ed. Basingstoke, UK: Palgrave Macmillan, 2003.
- [3] M. Easterby-Smith, R. Thorpe, and A. Lowe, *Management Research*. London, UK: Sage Publications, 2002.
- [4] P. Corbetta, *Social Research: Theory, Methods and Techniques*. London, UK: Sage Publications, 2003.
- [5] <https://doi.org/10.4135/9781849209922>
- [6] R. K. Yin, *Case Study Research: Design and Methods*. London, UK: Sage Publications, 2003.
- [7] B. G. Glaser, *Basics of Grounded Theory Analysis*. Mill Valley, CA: Sociology Press, 1992.
- [8] M. Q. Patton, *Qualitative Evaluation and Research Methods*. London, UK: Sage Publications, 1990.
- [9] J. F. Molina-Azorin, "Understanding how mixed-methods research is undertaken within a specific research community: The case of business studies", *International Journal of Multiple Research Approaches*, vol. 3, pp. 47-57, 2009.
- [10] <https://doi.org/10.5172/mra.455.3.1.47>
- [11] J. C. Molloy, C. Chadwick, R. E. Ployhart, and S. J. Golden, "Making intangibles 'tangible' in tests of resource-based theory: A multidisciplinary construct validation approach", *Journal of Management*, vol. 37, pp. 1496-1518, 2011.
- [12] <https://doi.org/10.1177/0149206310394185>
- [13] J. F. Molina-Azorin, "Mixed-methods research in strategic management: Impact and applications", *Organizational Research Methods*, vol. 15, pp. 33-56, 2012.
- [14] <https://doi.org/10.1177/1094428110393023>

- [15] H. I. Ansoff, *Corporate Strategy*. New York, NY: McGraw-Hill, 1965.
- [16] K. R. Andrews, *The Concept of Corporate Strategy*. Homewood, IL: Irwin, 1971.
- [17] J. Galbreath and P. Galvin, “Firm factors, industry structure and performance variation: New empirical evidence to a classic debate”, *Journal of Business Research*, vol. 61, pp. 109-117, 2008.
- [18] <https://doi.org/10.1016/j.jbusres.2007.06.009>
- [19] R. Hall, “A framework linking intangible resources and capabilities to sustainable competitive advantage”, *Strategic Management Journal*, vol. 14, pp. 607-618, 1993.
- [20] <https://doi.org/10.1002/smj.4250140804>
- [21] A. Carmeli, “High and low-performance firms: Do they have different profits of perceived core intangible resources and business environment?”, *Technovation*, vol. 21, pp. 661-671, 2001.
- [22] [https://doi.org/10.1016/S0166-4972\(01\)00050-5](https://doi.org/10.1016/S0166-4972(01)00050-5)
- [23] J. Fahy, “A resource-based analysis of sustainable competitive advantage in a global environment”, *International Business Review*, vol. 11, pp. 57-78, 2002.
- [24] [https://doi.org/10.1016/S0969-5931\(01\)00047-6](https://doi.org/10.1016/S0969-5931(01)00047-6)
- [25] E. Levitas and T. Chi, “Rethinking Rouse and Daellenbach’s rethinking: Isolating vs. testing for sources of sustainable competitive advantage”, *Strategic Management Journal*, vol. 23, pp. 957-962, 2001.
- [26] <https://doi.org/10.1002/smj.255>
- [27] C. E. Armstrong and K. Shimizu, “A review of approaches to empirical research on the resource-based view of the firm”, *Journal of Management*, vol. 33, pp. 959-986, 2007.
- [28] <https://doi.org/10.1177/0149206307307645>
- [29] T. C. Powell and A. Dent-Micallef, “Information technology as competitive advantage: The role of human, business and technology resources”, *Strategic Management Journal*, vol. 18, pp. 375-405, 1997.
- [30] [https://doi.org/10.1002/\(SICI\)1097-0266\(199705\)18:5<375::AID-SMJ876>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1097-0266(199705)18:5<375::AID-SMJ876>3.0.CO;2-7)
- [31] Y. E. Spanos and S. Lioukas, “An examination of the causal logic of rent generation: Contrasting Porter’s competitive strategy framework and the resource-based perspective”, *Strategic Management Journal*, vol. 22, pp. 907-934, 2001.
- [32] <https://doi.org/10.1002/smj.174>.
- [33] T. R. Crook, D. J. Ketchen, J. G. Combs, and S. Y. Todd, “Strategic resources and performance: A meta-analysis”, *Strategic Management Journal*, vol. 29, pp. 1141-1154, 2008.
- [34] <https://doi.org/10.1002/smj.703>
- [35] M. J. Rouse and U. S. Daellenbach, “Rethinking research methods for the resource-based perspective: Isolating sources of sustainable competitive advantage”. *Strategic Management Journal*, vol. 20, pp. 487-497, 1999.
- [36] [https://doi.org/10.1002/\(SICI\)1097-0266\(199905\)20:5<487::AID-SMJ26>3.0.CO;2-K](https://doi.org/10.1002/(SICI)1097-0266(199905)20:5<487::AID-SMJ26>3.0.CO;2-K)
- [37] K. R. Harrigan, “Using hybrid research methodologies for testing contingency theories of strategy” in *Research Methodology in Strategy and Management*, D. Bergh, and D. Ketchen, Eds. Bingley, UK: Emerald Group Publishing Limited, 2009, vol. 5, pp. 121-136.
- [38] S. Sharma and H. Vredenburg, “Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities”, *Strategic Management Journal*, vol. 19, pp. 729-753, 1998.
- [39] [https://doi.org/10.1002/\(SICI\)1097-0266\(199808\)19:8<729::AID-SMJ967>3.0.CO;2-4](https://doi.org/10.1002/(SICI)1097-0266(199808)19:8<729::AID-SMJ967>3.0.CO;2-4)
- [40] J. H. Dyer and N. Hatch, “Relation-specific capabilities and barriers to knowledge transfers: Creating advantage through network relationships”, *Strategic Management Journal*, vol. 27, pp. 701–719, 2006.  
<https://doi.org/10.1002/smj.543>