Project Value: A literature review

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Abstract

In the last years, the idea that project value is made by sum of tangible and intangible elements (PMBok Guide, 2017) became commonly accepted; the need for an holistic approach supplementing value creation with value capture have been also recently highlighted (Laursen & Svejvig, 2016); nevertheless there is still not a clear and exhaustive definition in literature that clarifies which are the elements whose sum would constitute project value and what factors drive them.
In order to identify and report the state-of-the-art regarding project value concept, the present study consists in a systematic review of literature that aims to provide a definition of project value and to define the project value driving factors.
This research not only contribute to academic research in the field of benefit and portfolio management but also lays the foundations for a multidimensional model that would take in account the multitude of aspects identified, providing a practical way to custom, esteem and compare project values.

Keywords: Systematic Review, Project Value, Benefit Management, Portfolio Management.

Introduction and aim of the research
In the last decades, "value management" has been proposed as an appropriate way to enhance the benefits of the project, especially when the involvement of several stakeholders with their different expectations causes complexity (Thiry M, 2001).
At the same time, "success management" has also been developed: the success of a project is substantially linked to the objectives or motivations for which the project exists (economic, strategic and tactical objectives, etc.). Very often, these terms are used in an improper, almost univocal way, referring to different areas, but there is something that they have in common: creation of value.
How is it possible to create value for a project? Is value just an economic concept? What are the factors that most affect project value?

In order to identify and report the state-of-the-art regarding project value concept, we conducted a systematic review of literature that aims answering the following research questions (RQs):

RQ1: How is project value defined?

RQ2: What are the main factors that drive project value?

Methodology

The methodology adopted is a systematic review (Collins and Fauser, 2005; Macpherson and Holt, 2007; Pittaway et al., 2004).

The advantages deriving from this research approach are linked to the scientific and transparent research process which is divided in three phases: (1) planning the review, (2) conducting the review, (3) reporting and dissemination. During the first phase of the analysis, we identified the main objects of the research, this allowed us to choose, in the phase of planning, the research keywords. Considering the research focus, we decide to look for only those articles that explicitly use the term "Project Value".

During the second phase, we looked for "(Project) AND (Value)" in Title and Abstract and we decided to adopt Ebsco and Scopus online databases for the research. The following step consisted in refining research boundaries with selection/exclusion criteria, and we focused only on papers published on peer-reviewed journals, in English. Further, papers were examined in a double selection process, first based on title and abstract, and then on a full-text analysis.

Moreover, we adopted strict criteria to screen papers: according to research aims, we searched exclusively for papers dealing with project value definition and driving factors. This selective need brought us to exclude a considerable number of papers from initial search results.

We structured our review following the above guideline and considering articles published from 2002 to 2017 obtaining 3003 articles. A selection based on title and abstract leaded us to a restricted set of 125 articles, which became 55 after a selection based on full text analysis; then, employing citation analysis, we retrieved another 14 articles, achieving a final set of 69 dealing with project value concept.

Table 1: Leading criteria for the search

Electronic Database	Scopus and EBSCO
Search string	Project AND Value
Manual filters: criteria	• Only papers in English with title, author, publication year, source. • Exclusion: editorials, books review, books, conference papers, essays.

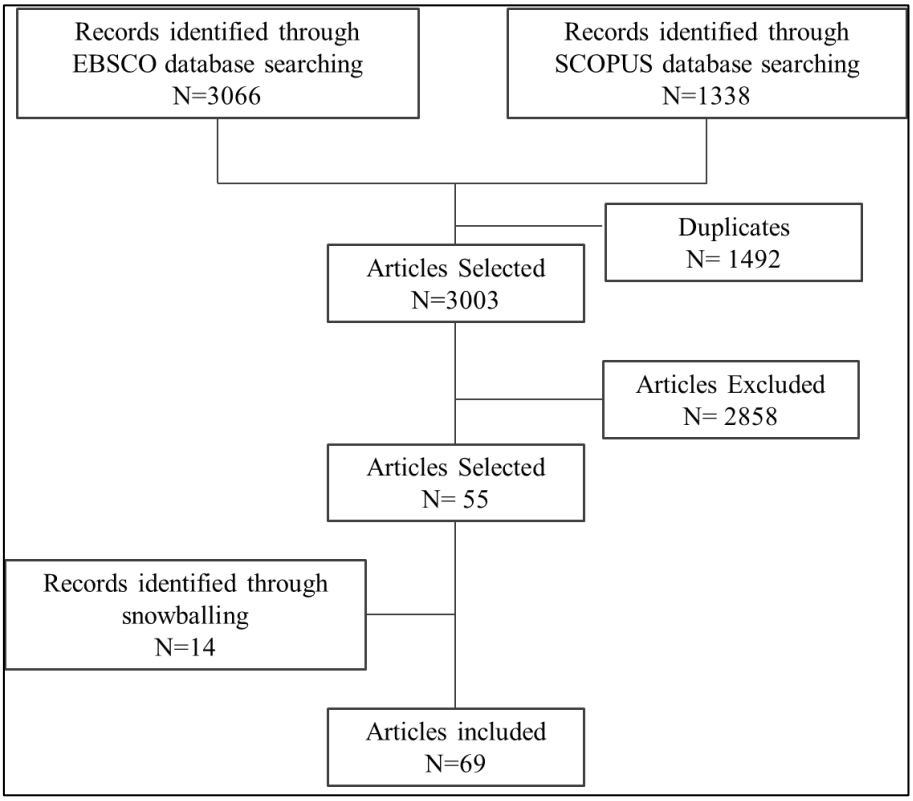

Figure 1- Selection process of articles

Findings

The set of papers included in the analysis, published from 2002 to 2017, follow the time trend shown in figure 2.

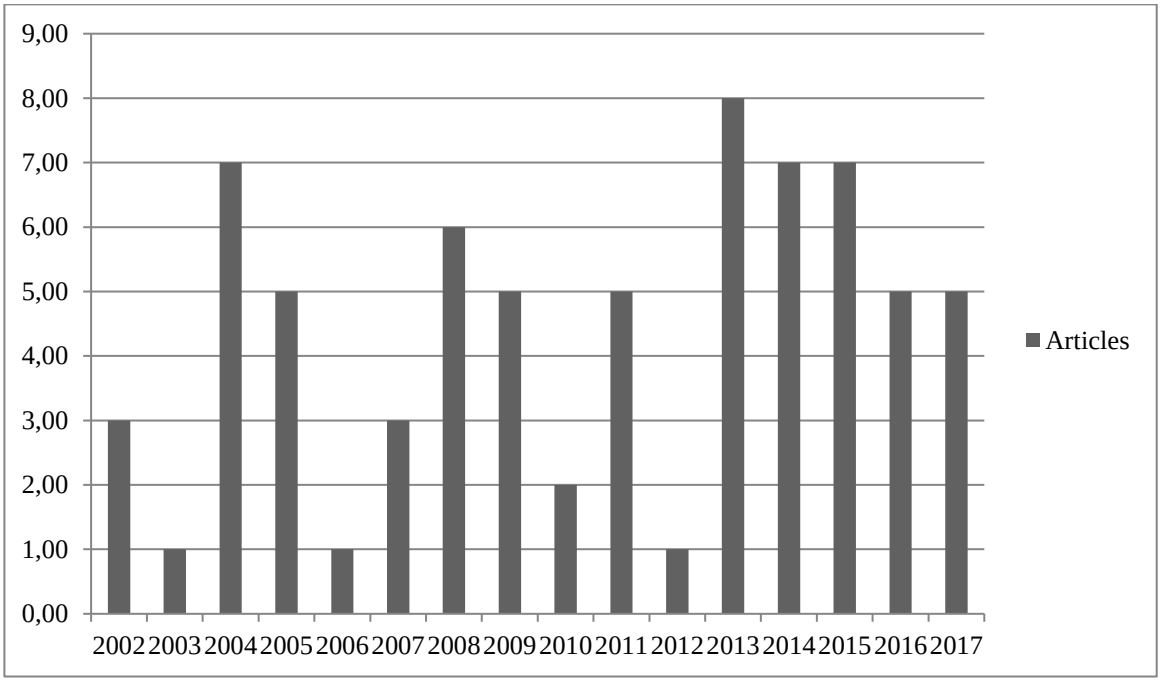

Figure 2 – Time trend of published papers on project value

As can be seen, there is a slight increasing trend, proving that the topic is still at an underdeveloped stage for what concerns academic production and there seems to be a seasonality; the years with high number of contributions often matches with the years of Project Management Body of Knowledge (PMBOK) new edition publications, occurred in 2004, 2008, 2013 and 2017.
The journal with the highest number of publications appeared on it is the International Journal of Project Management (28 contributions) followed by the Project Management Journal (6 contributions) and Construction Management and Economics (5) while all the other publications (30) appeared on different journals (see Table 2).

Table 2 – Journals in which the selected articles have been published

Journal	**No.**
Administrative Sciences	1
Business Systems Research	1
Construction Management and Economics	5
Cost Engineering	2
European Journal of Engineering Education	1
European Journal of Operational Research	1
Expert Systems with Applications	2
Health Environments Research & Design Journal	1
IEEE Transactions on Engineering Management	3
Information and Software Technology	1
Informatica Economica	1
Information Technology and Management	1
International Journal of Energy Sector Management	1
International Journal of Managing Projects in Business	1
International Journal of Production Economics	2
International Journal of Production Research	1
International Journal of Project Management	28
Journal of Construction Engineering and Management	4
Journal of Consumer Behaviour	1
Journal of Defense Resources Management	1
Journal of Financial Management of Property and Construction	1
Journal of Information Technology and Economic Development	1
Journal of Management in Engineering	1
Project Management Journal	6
World Review of Entrepreneurship, Management and Sustainable Development	1
Total	**69**

It is impressive how many different sectors practice project management and define project value: there are, in fact, magazines related to the fields of sustainable development, the energy sector, operational research, production and information technology, health, etc. The following graphs, show the answers to the first research question, which is "How is project value defined?" In (figure 3) the percentage of articles is reported in relation to the meaning attributed to the term project value

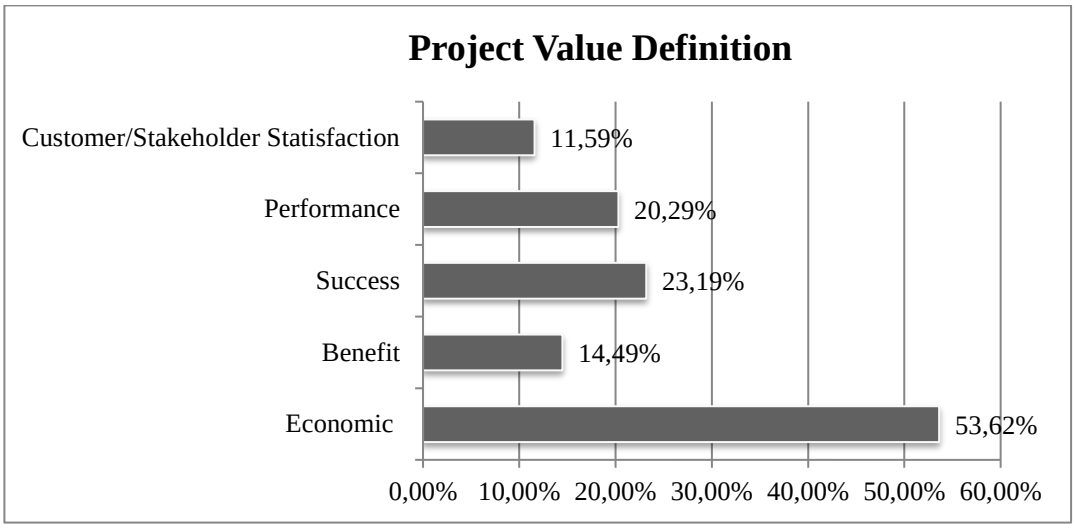

Figure 3 –Project Value Definition

As we can deduce, the term project value is commonly used as synonymous of "economic value" (53%), measured with economic return and profit. Project Value can be defined also as success of the project (23.19%) that is the ability to meet client's requests and as project's performance (20,29%).
Less numerous are the articles that describe project value in terms of the benefits brought by the project (14,49%) and customer/stakeholder satisfaction for the project (11,59%).
In figure 4 we can see driving factors that emerged from the selected articles and the related percentage:

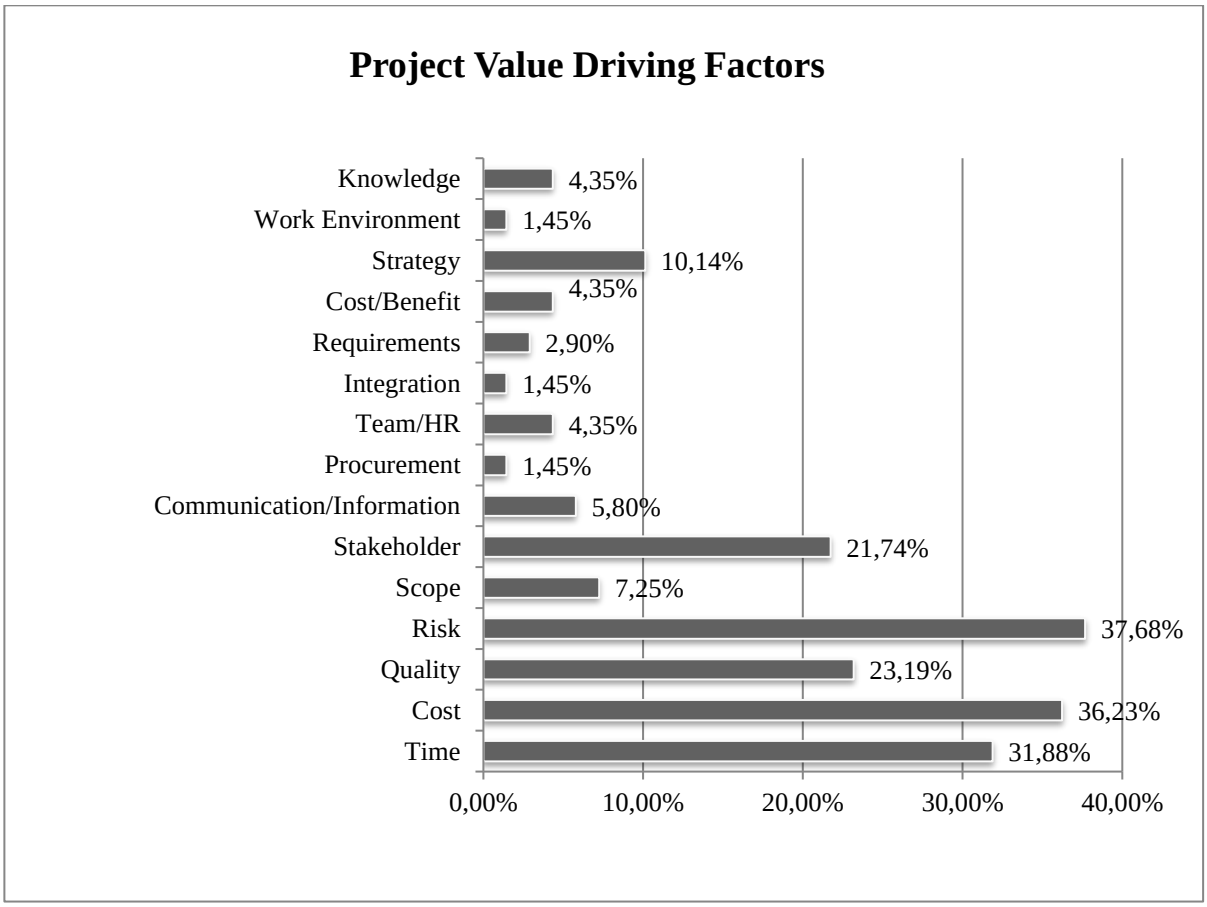

Figure 4 –Project Value Driving Factors

As for the previous research question, the articles do not always respond with a single factor, indeed it is more probable that there are different elements that contribute to the determination of project value. Analyzing the table, we note that among the most numerous factors there is risk, but also time, cost and quality. Other driving factors are strategy, stakeholder management, communication and team management, knowledge management and working environment.

Conclusions

Literature provides several definitions of project value; in particular five main thematic areas emerged: *economics, benefit, success, performance* and *customers/stakeholders satisfaction.* In fact, in addition to the tangible and directly calculable benefits, including generated cash flows, revenue, profit and cost minimization, there are a number of intangible benefits, which concern reputation, increased skills and lessons learned (Zhai *et al.*, 2009). Also from customer's point of view, project value can be seen in two dimensions: the economic dimension, linked to the price of benefits obtained, and the psychological dimension, that is the combination of those cognitive and affective influences on the purchase of a product/service or the choice of a particular brand (Gallarza *et al.*, 2011). The most cited factors that drive project value have been clustered in fifteen factors that are: risk, requirements, costs/benefits, time, quality, scope, team/human resources, stakeholder, procurement, strategy, work environment, knowledge, communication, integration, and communication/information. In particular, risk management is a transversal activity that can cause deterioration in operating performance. Information, communication and team preparation are important supports for risk management, as they avoid going out of project scope and they allow being more ready and flexible to mitigate the effects caused by uncertainty through a better understanding of customer and stakeholders requirements. This research present and summarize literature dealing with project value concept, thanks to the identification of the above concepts it will be possible to build a multidimensional model. A further research could be focused in providing a smart index that would take in account the multitude of aspects suggested by literature; it would constitute an instrument useful to custom, esteem and compare project values and improve benefit and portfolio management.

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