

STRATEGIC ALIGNMENT: MANAGEMENT MODELS AND OTHER ORGANIZATIONAL POSSIBILITIES

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Abstract

Strategic alignment is a term used since the 1940s, in recent decades it has also been used in the management area. The objective of this study was to analyze several approaches of different researchers on the strategic alignment concept and its use in companies. For this, a bibliometric research was carried out followed by bibliographical analysis, using the journal base Web Of Science. The bibliometric research provided parameters and systematized article selection related to the subject, as well as helped in organizing data. The bibliographic analysis allowed to identify strategic alignment concepts and its applications in the most diverse sectors and business situations and how they can be used by all types of companies today.

Keywords: Strategic alignment; Management; Models; Bibliometric analysis.

1. Introduction

In the last fifty years the world has had its economy globalized and technology and innovation in the productive means have become decisive factors in the survival of the companies. In order to stay alive in this increasingly competitive scenario, companies are looking to innovate and to be aware of market changes, as well as making decisions much faster and more frequently than before.

Strategic alignment is seen as a management model that seeks to align the organization's objectives with the objectives of the market. Sátyro et al. (2014) argue that strategic alignment occurs when the structure, considering all its aspects and strategies, must be aligned within an organization so that it can act coherently towards its objectives.

In this article the theme Strategic Alignment is seen through scientific articles and considered only in a conceptual way, in the sequence it is also seen through practices, mainly as how companies use strategic alignment as a management model or strategy and its impact on objectives and results of the organization. The objective of this study was initially to collect quantitative information on the subject, and then to identify and relate scientific articles with reports of application, results and techniques of management models geared towards strategic alignment with the various focuses of industry or services. For this, a bibliometric research was carried out in the Web of Science electronic database, with scientific articles in english, from 1940 to 2017, followed by a bibliographical analysis of the final selected articles.

It is considered that bibliometrics refers to publication or citation count found in scientific and academic publications (Coates et al., 2001). For Yoshida (2010, p.58) the focus of this method is on the number of times that certain terms appear in the publications or the number of publications containing the terms that are tracked. It identifies if the evolution of the subject in the academic environment allied to good management practices and research results will be used in doctoral thesis.

2. Strategic Alignment

A number of related terms or synonyms of strategic alignment have been related by Sátyro et al., (2014) in their research, being structure alignment, strategic contingency, strategic coalignment, adjustment strategic fit, strategic consistency, congruence model, and strategy alignment, all of which are terms for management. Focusing on Information Technology Henderson and Venkatraman (1993) were among the first to address strategic alignment and involve two dimensions of organizations: strategic adjustment and functional integration, with strategic adjustment recognizing the need to make choices that position the firm in a market, and also choose the best structure of the company's internal arrangements to achieve this strategic market positioning, in what they call a functional integration.

The contributions of Bergeron et al. (2004) in strategic alignment focus on the adjustment of understanding how organizations can translate their information technology (IT) deployment into real increases in performance. For these authors, organizations must adjust their IT structures and strategies. According to the authors, the notion of strategic alignment is that organizational performance is the consequence of the adjustment between two or more factors such as strategy, structure, technology, culture and environment, keeping the focus on IT.

Following the information technology research line, initiated with Henderson and Venkatraman (1993), a model of strategic alignment was created by Diaz (2011) to align economic development and sustainability in Peruvian cities in order to fill the gap in terms of objectives, competencies and culture among business and IT professionals. Diaz (2011) proposes a new framework to represent alignment so that multiple strategies and paths can be recognized, favoring dialogue and coordination, adapting the model to economic development and environmental sustainability.

Very close to information technology, Chenhall (2005) puts strategic alignment through the proposal of its Strategic Performance Measurement System - SPMS works on integrative information to help managers achieve positive strategic results. It proposes a system that encompasses three interrelated dimensions: the extent to which systems provide the integration between strategy and operations and the integration between elements of the value chain, the second attribute, customer orientation, and the third dimension, vendor orientation.

Strategic alignment is often used with focus on people or people management and leadership, Papke-Shields and Malhotra (2001) address the issue of whether or not the people involved in production are involved in the strategic planning and decision-making of the organization. For these authors the improvement of business performance is a strategic alignment between the direction of the organization, the executive sector and manufacturing operations. The authors consider that this is the alignment that really affects the performance of the business.

Combining elements of management as a motivation for mid-level managers, Decoene and Bruggeman (2006) work on strategic alignment focused on relationship, motivation and organizational performance in a balanced scorecard (BSC) - a comprehensive system of strategically aligned performance measures. Similarly, people-oriented management Souba (2001) works on leadership as a competitive advantage, pointing out that there are problems in dealing with change, responding to it rather than seeing it as an opportunity for professional and personal growth.

Another author who deals with the topic strategic alignment, people management and change, Beer (2005) states that to operate effectively, organizations need to align their environment, strategies, capabilities and leadership skills. To do this, it has developed an integrated and disciplined leadership platform that a senior management team can use to create an open conversation about adjusting your organization to strategy and the environment as well as your own leadership, allowing teams to conduct a systemic diagnosis of organizational problems based on valid data and identify the organizational and leadership barriers that prevent change.

Also considering strategic alignment and people management, and which organizations are formed by them, Kolehmainen (2010) argues that strategic alignment, job training and strategic performance measurement systems is a combination of management practices that may be required to achieve a business balance. Similarly, and addressing strategic alignment and organizational development, Joshi, Kathuria and Porth (2003) argue that the focus is on aligning organizational priorities, which is presumed to contribute, to improve performance, as well as misalignment is expected to undermine performance. For these authors, organizational performance should be part of the alignment, together with the performance of the organization as a whole, without the excessive focus on production or the financial sector.

With a different focus on strategic alignment and people management Cäker and Siverbo (2014) holistically address issues to explore the role and interaction between organizational structure, socio-ideological control, and confirms the essential role of people management in assurance strategic alignment. Decentralization and technocratic controls in a simultaneous process of supporting empowerment and monitoring of strategic alignment allow managers to follow in detail what happens at local levels. In the view of Cäker and Siverbo (2014), decentralization and empowerment have become important ideas in

contemporary management discourse.

Singh and Hu (2008) drew and organized the tacit knowledge of organizations at large events and thereby discovered major strategic alignment issues between the planning and marketing domains of destination, and proposed a conceptual system for future managers of major events. The authors describe alignment as a working partnership that reflects long-term commitment, a sense of mutual cooperation, sharing of risks and benefits.

They point out that strategic alignment is primarily concerned with inherently dynamic adjustments between the two domains of business, both internal and external, and with technology to improve organizational performance. For these authors, the concept of strategic alignment can help in understanding the nature and patterns of inter-relationships between the destination and organization marketing domains, recognizing the need for any strategy of considering external and internal environments.

Some authors work on strategic alignment in service organizations such as Schneider et al. (2003) and Silvestro and Silvestro (2003), which address the concept of alignment in service organizations and how the service strategy looks, how they feel the employees, the human side of the strategy being treated as important components of the strategy. The authors seek strategic alignment in services through an analysis of the service concept itself, the operational objectives, the design of systems and characteristics and variety in companies that provide services.

3. Methodological procedures

A bibliometric survey was carried out through a database of previously selected scientific journals. It was used the term Strategic Alignment for the survey and to verify how it has been applied in organizations. The chosen journal base was the Web of Science, since it contemplates collections in the human and social areas.

Access was through the portal of the Commission for the Improvement of Higher Education Personnel - CAPES, through a subscription of Thomson Reuters Scientific, the database allowed a bibliometric survey of the subject, as it covers approximately 12,000 periodicals, with the possibility of consultation with 5 Science Citation Index Expanded (SCI-EXPANDED), Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A & HCI), Conference Proceedings Citation Index Science (CPCI-S and Conference Proceedings Citation Index - Social Science & Humanities (CPCI-SSH), the availability of access varies from 1945 to the present.

The technological prospection was carried out between the last half of May and the first half of June 2017 and used as a search strategy the insertion of keywords in Portuguese and English in the fields related to the "Title" and "Topic" of said database. The research began with the search for the term strategic alignment in the title in Portuguese and then in the topic and in both cases nothing was found in the base of periodicals. By using the English term strategic alignment in the title were found 258 articles in Web of Science with date of publication from 1990 to 2017, being this the universe of the research.

From this raw database, we began the necessary filtering, which consists in the selection of the available articles, with more relation with the topic of research and of significant relevance. Next, other necessary filters were applied to reach the final bibliographic portfolio.

The first filter used was applied to the raw articles database with 258 initially selected. The articles were categorized, excluding articles related to non-research areas, such as: geology, information technology, agronomy, engineering, applied psychology, biology, biotechnology, telecommunications, sports, chemistry, geography, automation, pharmacology and medicine. After the application of this filter, 189 articles were excluded, only the work on business, management, planning, education, work psychology, public management, humanities, economics and social sciences. Although linked to other themes, the main focus of the articles sought was management, considered more adequate to the need and objective of the work. This filter resulted in 96 articles, with publication dates ranging from 1992 to 2017.

Table 1: First filter - Search category axes

AXLE OF CATEGORIES	
Geology, Information Technology, Agronomy, Engineering, Applied Psychology, Biology, Biotechnology, Telecommunications, Sports, Chemistry, Geography, Automation, Pharmacology, Medicine	Business, Management, Planning, Education, Work Psychology, Public Management, Humanities, Economics, Social Sciences
189	96

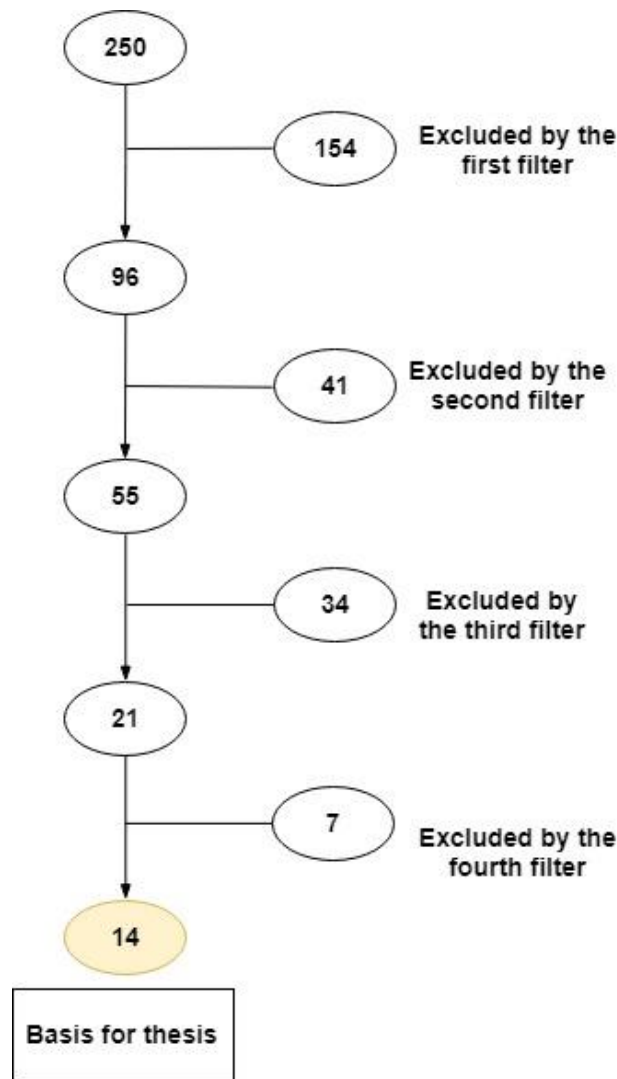
Source: Result of the research (2017), prepared by the authors.

The second filter was the removal and deletion of book files and event summaries. This filter was necessary, because only scientific articles were sought, and not all fit within this publication model. The result of this filter was the exclusion of 41 files that did not fit the search, resulting in 55 articles. Of the 55 resulting articles, the periodic impact factor was investigated.

The third filter applied was in relation to the availability of articles for reading. It was necessary to verify their availability, that is, if the documents whose access is necessary does not require acquisition and is free of fees or affiliations. In this filter articles were excluded without access to the full text of the editor or editorial material, deriving now in 21 articles.

In the final step of the process, from these 21 preselected articles, it was still applied a fourth filter, the files that were repeated, did not approach or had no relation with the area of interest of the work were observed and after a thorough reading of the articles verified, it was pointed out that only 14 articles were effectively relevant to the area of management and to the topic investigated, with publication date from 2001 to 2016. After the bibliometric survey, the results were tabulated and analyzed, a bibliographic evaluation was performed, generating statistical data that show the evolution of the publication of the articles with the analyzed topic, as well as a scale of periodicals that publish them. This research is also characterized as an exploratory research, seeking a greater familiarity with the theme of strategic alignment in organizations.

Figure 1: Methodological flow of selection of Articles on Strategic Alignment



Source: Prepared by the authors

4. Results and discussions

It was identified that strategic alignment can be understood as the ordering of the internal structures of the company as its procedural, human, organizational, information, structure, financial, among others systems in order to facilitate the achievement of organization’s objectives, or the business strategy, focusing on the market where it is inserted.

Among the selected articles, we can see a diversity of approaches and application of management models and strategic alignment, also using organizations of different sizes, foci and structures. The approaches range from people, structure and market, going through leadership, motivation, productivity, production, competition, marketing, among others.

It was noticed through the search in the article database that the theme strategic alignment is approached since 1940, initially focusing on information technology, but starting in the 1990’s the management area also started to use the theme, as well as several other areas and organizational situations, covering organizations in all their aspects and sectors. Production evolved according to Table 2.

Table 2: Number of articles produced with strategic alignment in the title.

Period	Number of articles	Cumulative total
1990 - 1995	05	05
1996 - 2000	06	11
2001 - 2005	11	22
2006 - 2010	22	44
2011 - 2015	40	84
2016 - 2017	12	96

Source: Web of Science database. Prepared by the authors.

The impact factor of the journals that published the articles ranged from 0.12 to 6.360. There is still a greater number of articles published in journals with impact factor between 0 and 1.99. However, it was observed that the subject has become relevant for many authors, also arousing the interest of researchers and journals of greater impact, not only with a focus on management, but also other segments.

Table 3: Impact Factor Table of Periodicals with Articles with strategic alignment in the title.

Order	Periodicals	Impact Factor
1	STRATEGIC MANAGEMENT JOURNAL	6,36
2	JOURNAL OF INTERNATIONAL BUSINESS STUDIES	6,04
3	JOURNAL OF ORGANIZATIONAL BEHAVIOR	5,87
4	JOURNAL OF OPERATIONS MANAGEMENT	5,67
5	INTERNATIONAL JOURNAL OF INFORMATION MANAGEMENT	5,36
6	LONG RANGE PLANNING	4,74
7	TOURISM MANGEMENT	4,70
8	JOURNAL OF INTELLECTUAL CAPITAL	4,57
9	INFORMATION SYSTEMS RESEARCH	4,45
10	JOURNAL OF SUPPLY CHAIN MANAGEMENT	4,29
11	GOVERNMENT INFORMATION QUARTERLY	4,04
12	ACCOUNTING ORGANIZATIONS AND SOCIETY	3,94
13	STRATEGIC ORGANIZATION	3,71
14	JOURNAL OF MARKETING RESEARCH	3,37
15	INTERNATIONAL JOURNAL OF OPERATIONS & PRODUCTION MANAGEMENT	3,33
16	MIT PRESS	2,52
17	JOURNAL OF EXPERIMENTAL PSYCHOLOGY-HUMAN PERCEPTION AND PERFORMANCE	2,28

18	PROJECT MANAGEMENT JOURNAL	2,28
19	PUBLIC ADMINISTRATION	2,26
20	CALIFORNIA MANAGEMENT REVIEW	2,25
21	FUTURES	1,80
22	SCANDINAVIAN JOURNAL OF MANAGEMENT	1,74
23	MIS QUARTERLY EXECUTIVE	1,60
24	JOURNAL OF BUSINESS & INDUSTRIAL MARKETING	1,59
25	SERVICE INDUSTRIES JOURNAL	1,36
26	INFORMATION TECHNOLOGY & MANAGEMENT	1,19
27	INTERNATIONAL INTERACTIONS	1,16
28	EUROPEAN JOURNAL OF MARKETING	1,14
29	SUSTAINABILITY ACCOUNTING MANAGEMENT AND POLICY JOURNAL	1,14
30	JOURNAL OF MODELLING IN MANAGEMENT	1,03
31	ORGANIZATIONAL DYNAMICS	0,99
32	DECISION SCIENCES	0,92
33	AUSTRALASIAN JOURNAL OF EARLY CHILDHOOD	0,82
34	ASIAN JOURNAL OF TECHNOLOGY INNOVATION	0,70
35	IBM SYSTEMS JOURNAL	0,68
36	R & D MANAGEMENT	0,67
37	INFORMATION RESOURCES MANAGEMENT JOURNAL	0,64
38	JOURNAL OF GLOBAL INFORMATION MANAGEMENT	0,63
39	CANADIAN JOURNAL OF ADMINISTRATIVE SCIENCES- REVUE CANADIENNE DES SCIENCES DE L ADMINISTRATION	0,45
40	ACADEMIA-REVISTA LATINOAMERICANA DE ADMINISTRACION	0,41
41	SOUTHEAST EUROPEAN AND BLACK SEA STUDIES	0,40
42	WORLD JOURNAL OF ENTREPRENEURSHIP MANAGEMENT AND SUSTAINABLE DEVELOPMENT	0,36
43	PACIFIC AFFAIRS	0,16
44	REFERENCE & USER SERVICES QUARTERLY	0,16
45	ACTUAL PROBLEMS OF ECONOMICS	0,12

Source: Web of Science database. Prepared by the authors.

To better study and visualize the relationship between journals and the impact factor, intervals were established to collect and to demonstrate the number of journals and their referred impact factor. This led to a distribution in categories. It was noticed a much larger number of journals with an impact factor varying from 0 to 1.9 representing more than 55% of the totality. About 40% range from 2 to 5.9 and about 4%

above 6.

Table 4: Periodical Percentage and impact factor table.

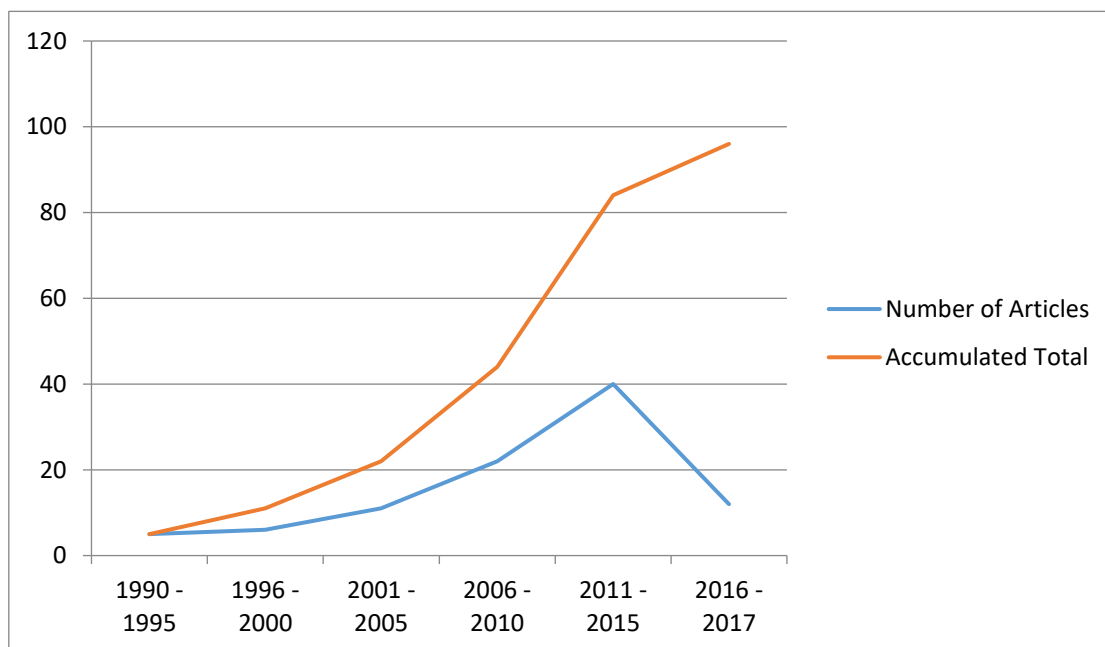
Number of journals versus impact factor	Amount	%
From 0,0 to 1,9	25	55,56%
From 2,0 to 3,9	9	20,00%
From 4,00 to 5,9	9	20,00%
Over 6,0	2	4,44%
Total	45	100%

Source: Web of Science database. Prepared by the authors.

As the term Strategic Alignment aimed at management is a relatively new subject and the impact factor is related to the number of citations, the fact that 40% of journals fit into journals with impact factor between 2 and 5.9 show that interest in the subject is growing. Likewise, even though only 4% of journals have an impact factor above 6, this may be a very relevant number for such a recent topic.

It was noticed an increase in the number of publications, mainly from 2001, after the publication of two articles on Strategic Alignment in journals with greater impact factor, such as the Journal of Operations Management and Strategic Management Journal, being the article by Papke-Shields and Malhotra (2001), selected for the bibliographic portfolio, one of those published in this journal.

Figure 2: Number of articles produced on Strategic Alignment



Source: Web of Science database. Prepared by the authors.

At the end of the selection of the articles considered most relevant to the research, and after the various filters already mentioned, one can notice the diversity of subjects related to the strategic alignment topic. Journals with a focus on engineering, planning, tourism, technology, medicine, production, management,

among others, have published articles on the theme in line with the transversality of other areas. In relation to the number of citations of the authors selected in the portfolio and analysed based on Google Scholar results, it was identified that the article of Information Technology of Henderson and Venkatraman (1993) was the most cited. As previously mentioned, these authors were one of the first to approach the term strategic alignment, being cited and used as a model to date.

Table 5: Bibliographic portfolio on citation evaluation

	AUTHOR	TITLE	JOURNAL	YEAR	QUOTES
1	HENDERSON, J. C.; VENKATRAMAN, H.	Strategic alignment: Leveraging information technology for transforming organizations	<i>IBM systems journal</i>	1993	4795
2	CHENHALL, R. H.	Integrative strategic performance measurement systems, strategic alignment of manufacturing, learning and strategic outcomes: an exploratory study	<i>Accounting, Organizations and Society</i>	2005	1006
3	BERGERON, F.; RAYMOND, L.; RIVARD, S.	Ideal patterns of strategic alignment and business performance	<i>Information Technology & management</i>	2004	575
4	BEER, M. <i>et al</i>	Strategic management as organizational learning: Developing fit and alignment through a disciplined process	<i>Long Range Planning</i>	2005	278
5	JOSHI, M. P.; KATHURIA, R.; PORTH, S. J.	Alignment of strategic priorities and performance: an integration of operations and strategic management perspectives	<i>Journal of Operations Management</i>	2003	272
6	PAPKE-SHIELDS, K. E.; MALHOTRA, M. K.	Assessing the impact of the manufacturing executive's role on business performance through strategic alignment.	<i>Journal of Operations Management</i>	2001	149
7	DECOENE, V.; BRUGGEMAN, W.	Strategic alignment and middle-level managers' motivation in a balanced scorecard setting	<i>International Journal of Operations & Production Management</i>	2006	137
8	SINGH, N.; HU, C.	Understanding strategic alignment for destination marketing and the 2004 Athens Olympic Games: Implications from extracted tacit knowledge	<i>Tourism</i>	2008	86
9	SCHNEIDER, B.	The Human Side of Strategy: Employee	<i>Organizational</i>	2003	76

	<i>et al</i>	Experiences of Strategic Alignment in a Service Organization	<i>Dynamics</i>		
10	KOLEHMAINE N, K.	Dynamic strategic performance measurement systems: balancing empowerment and alignment.	<i>Long Range Planning</i>	2010	64
11	SILVESTRO, R.; SILVESTRO, C.	New service design in the NHS: an evaluation of the strategic alignment of NHS Direct	<i>International Journal of Operations & Production Management</i>	2003	39
12	CÄKER, M.; SIVERBO, S.	Strategic alignment in decentralized organizations—The case of Svenska Handelsbanken	<i>Scandinavian Journal of Management</i>	2014	21
13	SOUBA, W. W.	Leadership and strategic alignment—Getting people on board and engaged	<i>Journal of Surgical Research</i>	2001	15
14	DIAZ, R. A.	Planning for sustainable development: Strategic alignment in Peruvian regions and cities	<i>Futures</i>	2011	3

Source: Web of Science database. Prepared by the authors.

Of the 14 effectively selected articles that directly address the strategic issue alignment under the management focus we can report that focus ranges from alignment of business performance, people, technology, motivation, planning, leadership, performance measurement, service analysis medical, sustainable development, organizational structure, service alignment and commitment. A survey of the key words was carried out in the 14 selected articles and approximately 160 keywords were identified. Some terms are repeated, but the diversity of subjects involving strategic alignment, management and the many business sectors are present.

Figure 3: Keyword cloud of selected articles.

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