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Jaime Gil-Lafuente
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Economy, Business and Uncertainty: New Ideas for a Euro-Mediterranean Industrial Policy

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Introduction

On 4th and 5th of September 2017, the XXVI International Conference of the European Academy of Management and Business Economics was held at Reggio Calabria, a welcoming Mediterranean city in Italy. The main motto of the conference was *Economy, Business and Uncertainty: ideas for a European and Mediterranean industrial policy*.

The modern economy is made up of a «complex system in evolution» in which single individuals are joined by relational forces, that the dynamic characteristics cannot be represented by means of individual approaches, but through collective properties submitted to successive non-reversible scansions. Thus, it is imaginable that each economic system, in its evolution, manifests both a multiplicity of equilibrium points, each dependent on previous historical interrelations, and the presence of inefficiencies and lock-ins that may be selected during the evolutionary course of the system, to the detriment of the possible efficient solutions.

The government of the economy, read as a complex system in evolution, excludes, therefore, the possibility that commands can be expressed thinking of a prescribed type mechanism, as would happen if the system under analysis were substantially closed and characterized by a low level of interrelations between the agents.

Within this paradigm, the involvement of professors and researchers from different Spanish, Italian and Latin American universities allowed us to develop and enrich scientific knowledge in specializations such as finance, marketing, operational techniques, management, production, human resources, business organization or management computing, among other subjects.

The level of some of the works presented and discussed in the forum on teaching and research experiences which AEDEM makes up led us to consider the possibility of compiling them in a document so that they could be published by a world-renowned publishing house. The generosity and intense work of the professors Francesco Carlo Morabito and Domenico Marino have made possible that today this book becomes a reality.

Jaime Gil-Lafuente
Domenico Marino
Francesco Carlo Morabito

Contents

Bibliometric Analysis on Customer Dissatisfaction

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Abstract. This research analyzes the consumer's dissatisfaction regarding any possible failure made by brands or companies. In order to do this, the behavior, feelings, and negative and even aggressive behavior that costumers can have towards a company, product or brand are thoroughly studied. It is a relatively unexplored research field within the academic literature, in spite of being a subject of great repercussion or relevance at the present time. For this purpose, a study on bibliometric analysis has been carried out to verify the degree of relevance of this topic in the scientific field, discovering who are the authorities of the same, the life cycle of the articles on this subject, the articles keywords or their connections. With all this, we can deepen the academic literature, establish the knowledge structure in this area and propose future empirical research lines.

Keywords: Dissatisfaction · Customer · Brand sabotage Instrumental aggression · Bibliometric analysis

1 Introduction

This study analyzes the negative behavior of the consumer regarding any possible issue or problem in their relationships with a company, that is to say, the customer's dissatisfaction. Consumers do not always act or react the way they expect. Consumers' preferences, habits, feelings and behaviors are in a changing and complex environment, and therefore it is important to study their reactions and the causes that lead to customer dissatisfaction and discontent. To be successful, you have to know the consumers, know how they want to be treated, what can bother them or why they might be disappointed. As is well known, sometimes your best client can become your worst enemy.

There are internal and external factors that can encourage a negative reaction from the customer towards the company when an unfair situation is perceived, which will depend on the culture, personal influence, situational determinants, perception, experience and learning or attitudes, among others. Why are there consumers who simply decide to make a personal complaint to the company and others opt for the option of hanging a video on YouTube telling their bad experience with the intention of boycotting or damaging the company or the brand? Why are there other consumers who prefer to do nothing? If the relationship with the company is good, will this have a

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damping effect, or will you feel more betrayed? In short, these are the questions that are answered in this research.

Although they are key questions for companies, they have not been deeply treated in the academic literature. Even though many investigations have been carried out regarding consumer purchase behavior, few have been the ones that study the post purchase behavior, the negative reactions of the consumers, and the types of behaviors that they can lead to dissatisfaction (Kähr et al. 2016; Johnson et al. 2017).

In short, the objective of this work is to achieve a deep knowledge about negative reactions carried out by consumers when they are not happy with a brand or a company and what are the consequences for the companies, using a bibliometric analysis for this purpose.

2 Methodology and Sample

Bibliometrics is part of scientometry which applies mathematical and statistical methods to the whole scientific literature and to the authors who produce it, with the aim of studying and analyzing the activity and scientific evolution (Ramos 2017). The instruments used to measure the aspects of this social phenomenon are the bibliometric indicators, measures that provide information on the results of scientific activity in any of its manifestations. The objective is to create a representation of the structure of the research area by dividing elements (documents, authors, journals, words) in different groups. The display is then used to create a visual representation of the classification that emerges.

The structure of bibliometric analysis provides insights into the influence of authors around this issue, as well as changes in their influence over time are as follows

- First they delimit the subfields that constitute the intellectual structure of management strategically.
- Subsequently, relations between the subfields are delimited.
- After the authors play a fundamental role in the construction of two identified or more conceptual domains of research.
- Finally, graphics map the intellectual structure in two-dimensional space to visualize spatial distances between intellectual subjects.

This bibliometric study was conducted using two keywords: Dissatisfaction and client (customer) which was introduced into the database Web of Science (WOS). Web of Science is an online service of scientific information, provided by Thomson Reuters, integrated into ISI Web of Knowledge, WoK. It provides access to a set of databases in cited in journals, articles, books and other printed material covering all fields of academic knowledge. Previous publications are available to see research published on a determined topic through access to their references cited, and also to the publications mentioning a particular document to discover the impact of scientific work on a current investigation. Finally, it can connect you to the full text of and other resources and access them using a search based on keywords. These databases contain nearly 10,000 sciences, technology, social sciences, arts, and humanities magazines and over 100,000 conference proceedings and conferences which are updated weekly.

After entering into the WOS these two keywords (dissatisfaction and consumer/customer), the following filters were applied: fields in the area of social sciences (Social Sciences); specific subfields the area of social sciences and business economics and psychology, behavioral sciences, etc., and related subfields were eliminated such as engineering or medicine; Finally, we selected exclusively scientific articles (not Congresses, thesis or others). The total sample of items incorporated into these filters was 380 items for a period of time from 1980 to the present.

Then we proceeded to delete the inconsistencies of the database and prepared a new file from a classification confirming the names of the authors.

3 Results

First, in Table 1 most cited documents are presented (in this case specifically articles). These are items that have had the greatest impact, influence or have contributed more to the development of the discipline being treated. The most cited articles represent the basis of knowledge of a discipline and they reflect a consensus among its protagonists (Ramos 2017), which allows knowing the list for required reading in a particular field or discipline. The statistical technique used was by counting frequency, having previously done the relevant deleting.

As the article shown in said Table 1 the article that has been mentioned 66 times, was developed by Bitner, M. and has been published in the Journal of Marketing under the name "Evaluating service encounters: the effects of physical surroundings and employee responses", followed by the article written by Oliver that has been cited 65 times in the Journal Marketing Research, which is entitled "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions". Coincidentally the third most cited article belongs to the same author as the second most cited article, "Customer delight: foundations, findings, and managerial insight". Therefore, it is stated that the author with the most cited articles is Oliver, adding up to a total of 119 citations is this table. In addition, Parasuraman also has a high number in the Journal of Marketing and Journal of Retailing magazines, specifically with 94 citations overall.

Secondly, in Table 2 the most cited authors are presented, that is, those who have had greater impact, influence or have contributed more to the development of a particular discipline. The great utility in this point is to know what authors can be considered authorities on a particular subject, and if there is relation between the most productive and most cited authors. The statistical technique used is the counting of frequencies, although it has one limitation because only the first author of the article is considered.

Of the total items extracted in the sample (380), Oliver, R. has the most citations with 176 which reflect that he is an expert or an authority in analyzing dissatisfaction. Next is Fornell, C. with 102 quotes. As seen, this table relates to Table 3, since there are many authors that are repeated.

Thirdly, coauthors analysis (Fig. 1) which uses data coauthored performed to measure the collaboration. Quotations are used as a measure of influence, so if an article is cited it is considered important. This analysis is based on the assumption that the authors cite documents considered important for their work and examine the social

Table 1. Ranking of the most popular articles

Cites	Author	Year	Journal	Article
66	Bitner, M.	1990	*Journal of Marketing*	Evaluating service encounters: the effects of physical surroundings and employee responses
65	Oliver, R.	1980	*Journal Marketing Research*	A cognitive model of the antecedents and consequences of satisfaction decisions
54	Oliver, R. Rust, R Varki, V.	1997	*Journal of Retailing*	Customer delight: foundations, findings, and managerial insight
49	Keaveney, SM.	1995	*Journal of Marketing*	Customer switching behavior in service industries: an exploratory study
47	Parasuraman, A. Zeithaml, VA. Berry, L.	1985	*Journal of Marketing*	Problems and strategies in services marketing
47	Parasuraman, A. Zeithaml, VA. Berry, L.	1988	*Journal of Retailing*	Servqual: a multiple-item scale for measuring consumer perception of service quality
44	Parasuraman, A. Zeithaml, VA. Berry, L.	1996	*Journal of Marketing*	The behavioral consequences of service quality
42	Smith, AK.	1999	*Journal Psychology Marketing*	Buyer–seller relationships: similarity, relationship management, and quality

Table 2. Ranking of the most cited authors

176	Oliver, R.	76	Zeithaml, VA.	52	Smith, AK.
102	Fornell, C.	59	Singh, J.	52	Westbrook, RA.
92	Bitner, M.	59	Tax, SS.	51	Richins, ML.
84	Parasuraman, A.	53	Keaveney, SM.	50	Bolton, RN.

networks that scientists create in scientific articles (Acedo et al. 2006). A relationship between two authors is established when an article is co –published (Liu et al. 2013).

Co-authorship is a measure of collaboration that assumes that the creation of a publication is synonymous with being responsible for the work done. However, just because the name of a person appears as a co- author of a scientific paper, it does not necessarily mean that person contributed with any significant amount of work (Martin 1997). In addition, there could be scientists who contributed to the work but whose names do not appear on the authors list.

As seen in Fig. 1, small islands that reflect different positions within this field and the author that is featured in each can be observed. Interestingly in the field studied there are different views or aspects, since most of the figures are completely independent and do not keep relationship between them. In the figures of the group on the

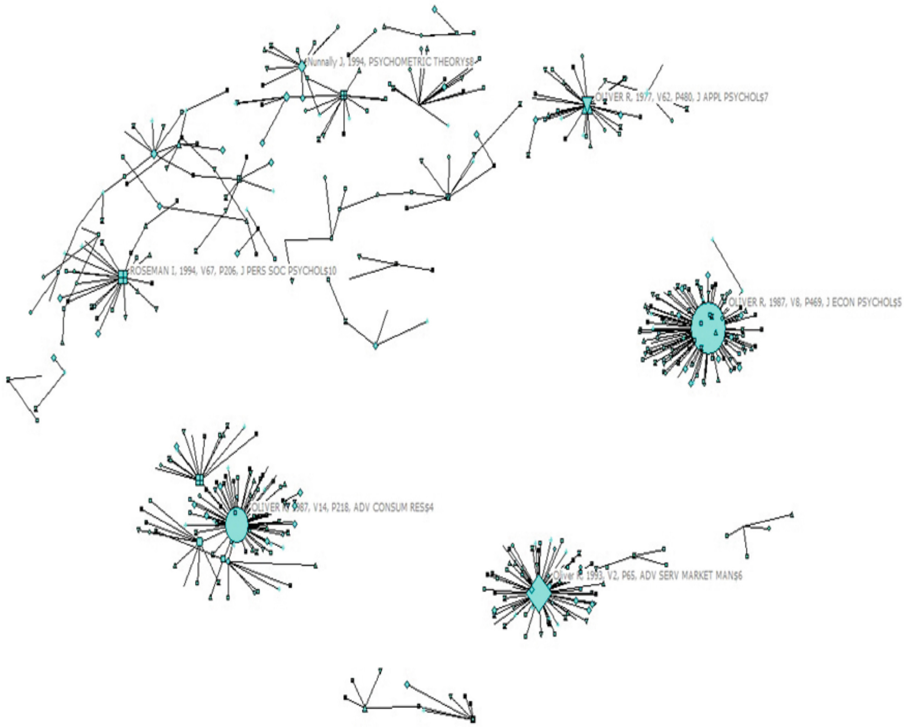

Fig. 1. Map of co-authors

right the author Oliver, R. prevails, and in the other three figures in the representation. Therefore Oliver, R. ranked first, he has been the most cited overall. Topics covered by Oliver shown on the map are economic psychology, marketing services or consumer behavior.

In addition to the other two figures that appear in the upper left part, the authors that predominate are Roseman, I. and Nunnally, J.; they keep some relationship between their researches, as they are joined by lines. Common themes that these authors treat are social psychology, and psychometric theories.

Fourth, in Table 3, the most productive authors in this research line appear, which are the experts or leaders in this scientific field and are the authors whose work should be known in a particular discipline. The statistical technique used is the frequency count of chain of text after making a good deletion.

This table represents the most productive authors, and therefore those who have written and published more articles in this field. Interestingly being the most fruitful or those that have more publications, are not the most cited. If Table 2 is examined, it is found that most of these authors do not appear. This is because these authors have not had enough impact and therefore do not match the authors most cited. The author with more number of papers published in this field is Mattila, AS., followed by Hyun, SS. and Bitner, M.

Table 3. Ranking of the most productive authors

5	Mattila, AS.	3	Pieters, R.	3	Lu, YB.
4	Hyun, SS.	3	Wang, LY.	3	Ostrom, AL.
4	Bitner, M.	3	Li, M.	3	Tronvoll, B.

Fifthly, we analyze which journals have had the greatest impact (Table 4), and how they have changed over time, in addition to which are the forum magazines that form the intellectual basis of a discipline. The statistical technique used was the frequency count, and the procedure used was extracting each journal reference and removing duplicates.

Table 4. Most cited magazines or forum of journals with impact index JCR year 2016

Number of Articles	Journals forum	Impact JCR	Quartil JCR
21	*Journal of Business Research*	**3.354**	**Q1**
17	*Total Quality Management & Business Excellence*	**1.368**	**Q3**
14	*International Journal of Service Industry Management*	***n.a. ****	***n.a.****
12	*Journal of Service Research*	**6.847**	**Q1**
12	*Journal of Services Marketing*	***n.a. ****	***n.a.****
8	*Tourism Management*	**4.707**	**Q1**
7	*African Journal of Business Management*	***n.a. ****	***n.a.****
6	*Managing Service Quality*	***n.a. ****	***n.a.****
6	*Journal of the Academy of Marketing Science*	**5.888**	**Q1**
6	*Journal of Service Management*	***n.a. ****	***n.a.****
6	*Journal of Retailing*	**3.775**	**Q1**
6	*Service Industries Journal*	**3.012**	**Q2**

n.a.: Not available. Magazines that in the year 2016 were no longer indexed in the JCR index, but in the year considered in the study.*

As it is shown in Table 4, the magazine with the highest number of citations, 21 to be exact and leading the ranking is the Journal of Business Research, a JCR impact of 3,354 and belonging to quartile 1, which implies this it is a magazine of high importance and impact. Later the magazine Total Quality: Management & Business Excellence with a total of 17 citations with 1,386 JCR impact and belonging to quartile 3.

Sixthly, it is important to know when the investigation arises in a particular field, in which phase of the life cycle is this line of research, whether it is an emerging, mature or declining field and whether it is a fashion research (Ramos 2017). The set of basic documents can be divided into multiple time periods to capture the development of the field over time. Bibliometric data from each time period are analyzed separately and compared, to find changes in the structure of the field. This longitudinal analysis can reveal how particular groups within an intellectual structure emerge, grow or disappear. The statistical technique used is the frequency count, and the software called Bibexcel and Excel.

As shown in Fig. 2, in 1981 the first article on this subject was published, which reflects that it is a very fresh and new topic. As the years advance, investigations and therefore citations are more numerous. This reflects that the subject studied is an emerging field, and can be considered as an interesting and captivating discipline for many researchers.

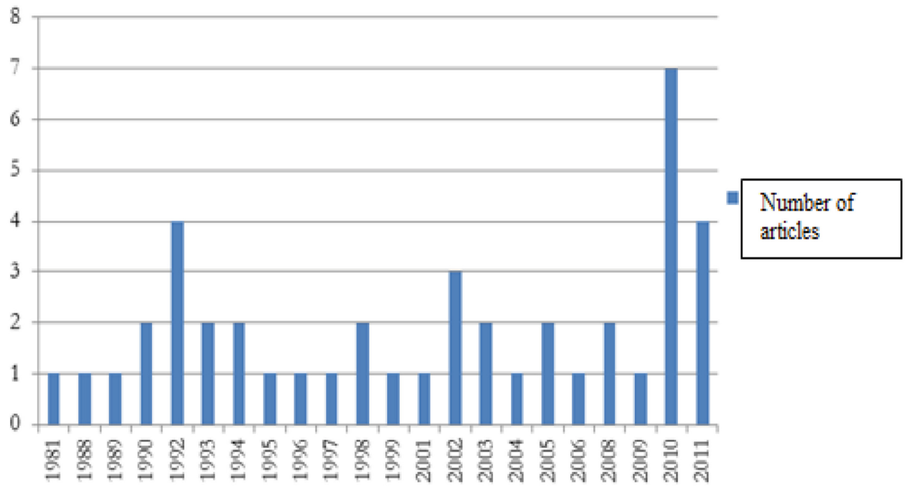

Fig. 2. Representation of the life cycle of the articles

Subsequently which terms are associated most frequently with a specific line of research are analyzed, when did these terms emerge and how they have evolved. While a co-word analysis has also been performed to cite publications, the analysis unit is a word, which means that thresholds for the appearance of words should be established. The statistical technique used is the count of the citations and the removal of duplicates. As shown in Table 5, the most important word that is repeated more times is satisfaction which makes reference to the feeling of comfort or pleasure you have when you have filled a want or covered a need, a term closely related to the field of study. Although in this research the study has been namely customer dissatisfaction, the word appears 235 times in the satisfaction articles of this field. The next word with more hits is client/customers, followed by the word service/services. The words that are repeated fewer times are analysis, information and complaint. All these terms relate in one way or another with this study.

Finally, a map of co- key words, co-words or associated words have been produced (Fig. 3), reflecting on how is the structure and dynamics of a conceptual field, what terms have contributed to the development of discipline, if they can identify “topics” associated with a research and how these concepts have evolved. It is interesting how

Table 5. Analysis of word relationships or keyword ranking

Frequency	Keywords	Frequency	Keywords
253	*Satisfaction*	82	*Behavior*
290	*Customer**	79	*Responses*
264	*Service***	76	*Performance*
157	*Quality*	72	*Management*
149	*Dissatisfact*	66	*Loyalty*
120	*Model*	63	*Recovery*
112	*Field*	57	*Perceptions*
111	*Consumer*	54	*Impact*

*Total result of terms customer/customers
**Total result of terms service/services

the building of density maps and strategic centrality of correlate (Callon et al. 1995). The purpose of this correlation matrix is to identify the structure underlying data, and tools used for processing have been multivariable analysis, social network analysis and mapping or SNA. The representation of the factor solution is made through the Zhao procedure and Stormantt.

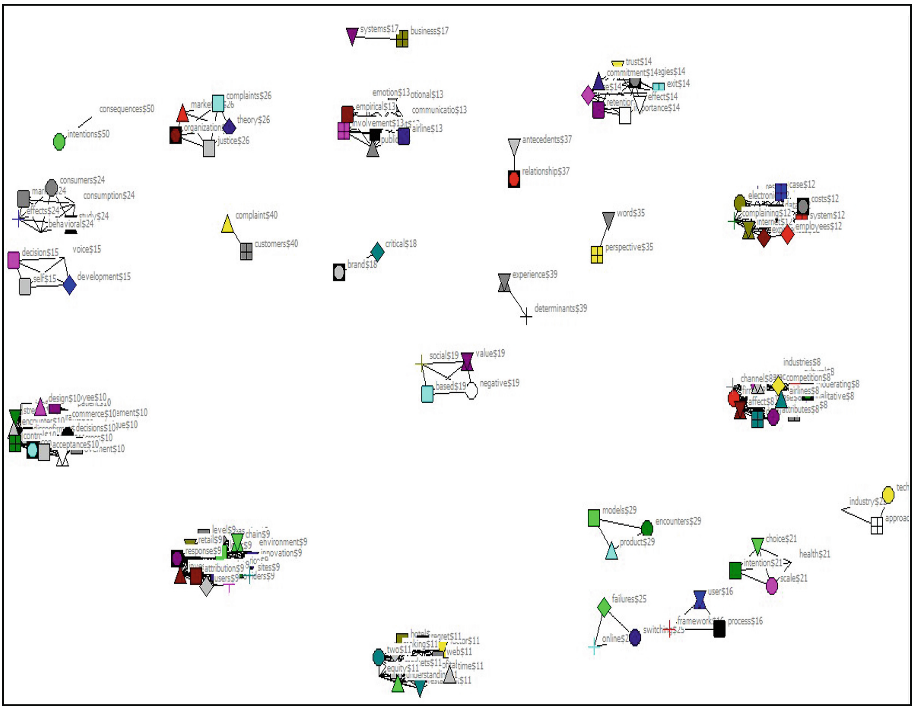

Fig. 3. Map of associated words or co-words

Output co-word analysis is a network of themes and relationships that represent conceptual space of a field. This semantic map helps to understand their cognitive structure (Bohrner et al. 2003). The co-word analysis uses text titles, keywords designated by the author, abstracts or full text to build a semantic map of the field. This method can be used to find links between subjects in a field of research and track its development (He 1998).

As seen in the Fig. 3 there are various relationships between keywords, such as: complaint and customer, critic and brand, experience and determinants, word and perspective, history and relationship, models, encounters and products, social, based, negative and value, consequences and intentions, complaints, theory, justice, marketing and organization, consumption, effects, and consumer behavior. In short, it is verified that all these relationships of words are drawn from articles are that are closely linked to this field of research.

4 Implications

In literature on consumer behavior it special attention has been paid to the study of conceptualization, antecedents and consequences of satisfaction as a phenomenon previous to a shopping experience or consumption. However, a minor concern is seen from the analysis of processes and variables accompanying dissatisfaction because the theoretical body commonly uses the same approach that was applied in the area of satisfaction. Achieving full “customer satisfaction” is a must in earning a spot in the “mind” of customers and the target market. Therefore, in order to maintain the objective of “customer satisfaction” it has crossed the borders of the marketing department to become one of the main objectives of all functional areas (production, finance, human resources, etc.) of successful companies. Because this is essential to analyze the issue of customer dissatisfaction, the causes, consequences, and the process it leads them to act in one way or another. It is considered that the study of customer dissatisfaction is in an evolutionary stage as there is growing interest in this field today, and although it has not been very much studied so far and it is a relatively new field which is captivating and transcendental. “Your most unhappy customer is your best source of learning.” Bill Gates, Founder of Microsoft.

Bibliometric methods are used to describe the evolution of the activity of publication, most representative partners, the methodologies and the content of articles in order to explore the main research topics. These analyses identify potential avenues for future research that could be significant to advance the consolidation of the discipline. Therefore with bibliometric analysis contributions have been made for this line, using different types of measures and indicators to describe the evolution of production and the structure of the field. Bibliometric methods show great potential for quantitative confirmation of derived categories subjectively published reviews as well as exploration of the research field and identifying categories. Mapping science with bibliometric methods are useful for two main reasons: (a) help new investigators to a field to quickly understand the structure of that field and (b) introduce quantitative rigor in traditional literature reviews.

Magazines include more quality; therefore the synthesis presented in this research represents the state of the art research bibliometric management and organization. Bibliometric methods are not a substitute for reading and extensive synthesis. Bibliometrics can connect reliably publications, authors or magazines; Identify research streams; and produce, but research published maps depends on the researcher and his knowledge of the field to interpret the findings, which is the hard part.

It reveals that the study of customer dissatisfaction is a relatively recent issue, and it is increasingly studied and researched. It also has much relevance in the business world and marketing. The usefulness of this research has allowed us to know the different customer behaviors that have before experienced a service failure or brand failure such as reactions which are processed psychologically, and the consequences that these negative behaviors can have for businesses. Empowered by new technological possibilities, consumers can now wreak havoc on a brand with relatively little effort, and this is a very worrying issue and which is on the agenda. Many news stories show how public figures or anonymous people tell about their negative experience trying and often getting to damage the brand or company, uploading a simple video to any social network telling the terrible experience gained is already a danger to any company and therefore an alarming issue for them.

As for future researches, it is interesting to consider this issue to come to understand more deeply these complex behaviors and their consequences involved.

With the bibliometric analysis we can see what the global situation on this interesting subject is currently, and knowing the most expert authors in the field, items with the most impacting keywords which have greater relevance, the life cycle of articles that we have had throughout history and relationships between them, plus analysis of co-words offers new currents links between research and emerging issues. Thanks to this we can further research on benchmarks with great wisdom on this subject so fascinating, and has been so little studied until now.

Some limitations of this study are acknowledged. First, analysis of co-words provides a small number of significant clusters taking into account the number of keywords considered.

In addition, this paper focuses on a set of indicators and bibliometric techniques to examine the content of articles published in selected journals. Other objective analysis techniques data with different objectives are useful mapping methods to identify basic sets of articles, authors or magazines in particular disciplines, the possibility of using other bibliometric techniques that complement this study and provide a systematic description of the structure of the field of customer dissatisfaction before a service failure, since it is likely that several new bibliometric methods become prominent in the future.

This study opens up new possibilities for discovering important research areas. It provides theoretical and methodical suggestions that can improve the development of this subject as a discipline.

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Holistic Learning Evidences in the Supervised Teaching Practice Reports

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Abstract. The curricular unit of Supervised Teaching Practice (STP), of the Master programme in Pre-School Teacher Education and of the Master programme in Pre-school and Primary School Teacher Education, is organized in two main phases: the teaching practice in the adequate education levels, and the development of a final report. The final report is a document each student writes and that reflects the course of the training, the critical and reflexive attitude assumed in response to the challenges that were faced, and the processes and performance of the professional routine experiences. The document should also include a research component concerning the teaching action developed by the student. The final report is, thus, an instrument that allows multiple dimensions of analysis. The work described in this chapter resulted from the study of 62 reports, developed between 2012 and 2015, with the objective of analysing the type of teaching-learning experiences, the content areas and the pedagogical approach developed by students. A quantitative and qualitative approach was followed, using text mining to complement the analysis, due to the large quantity of text. This was complemented with content analysis to interpret the resulting data. The results reveal that students describe and analyse teaching-learning experiences in different content areas, valuing differentiated pedagogical strategies and that the reflective processes are centred in the description of the practicum, without revealing a substantial critical thinking. The final report, regardless of the weaknesses, is a valuable instrument in the training process, because it allows the development of reflection and research tools about the education practice, essential for the professional development of future teachers.

Keywords: Supervised Teaching Practice · Higher education Teaching-learning experiences · Holistic learning

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1 Introduction

Students of the curricular unit of Supervised Teaching Practice (STP) of the Preschool and Primary School Teacher Education master program contact with the professional context (kindergartens and primary schools) in a progressive way. This requires a supervision process, essential to help students improve reflexion about the contexts and their reality, calling for the "creation and sustainability of environments that promote the construction and the professional development, following a sustainable path of progressive development and professional autonomy" (Alarcão and Roldão 2010).

According to Vieira (2009), there should exist a close relation between pedagogy, comprising a conceptual dimension, and supervision, which integrates an experiential component, and whose integration results in praxis. The supervision practice appeals to the cooperation between all the actors as a life-long professional development process that places students, practitioners and supervisors together, sharing knowledge, functions and achievements.

However, supervision is not enough for future teachers to understand the professional reality they are experiencing. To be substantial, supervision has to focus on the multidimensionality of the pedagogical process. It should focus on the students' performance and in the reflexion that leads them to a sustainable and holistic approach about the profession. Practitioners and supervisors should stimulate students to think critically about what they are doing, why, and the impact of their actions. This dialogical process should be supported by documenting, questioning and inquiring, so that theory and practice come together in a joint development of educational action that should be constantly evolving.

In this perspective, supervision is a process that can contribute to make meaning about professional reality and, in this way, induce pedagogical change. According to Freire (1979), praxis is where theory and practice (or practice and theory) meet. It flavours the interpretation of the experience that leads us to a better understanding of the action, and to pedagogical intentionality. This complex process is where critical pedagogy develops.

This study assumes a holistic approach of the professional practices that connects the supervision and pedagogy. This approach is supported by a concept of practice that assumes the intentionality towards change and an ethical commitment with children, their families and the community.

2 The Final Report of the STP in the Development of Critical Thinking

As referred above, the STP should ensure the development of specific, multidimensional, knowledge, that are described, in writing, in a document that helps the students to understand and reflect on the path they are experiencing. The final report describes the teaching-learning activities developed through the STP duration, comprising several educational levels, subjects within the teaching domain, and the critical reflexion about them. The reflexion should be supported by pedagogical and scientific literature, as well as on information gathered from the practice, highlighting the critical analysis and the results obtained.

Considering the meaning of pedagogy discussed above, students should reveal, in their writing, a critical and reflexive attitude that allows them to unveil the research performed on the content areas and on the teaching-learning process, associating the content of the curricular areas and the way they articulate with the self-control, attitudes, representations, beliefs, preferences and styles, purpose and priorities, learning strategies and techniques, and the didactical process.

The written document should reflect the result of a constant reflexion that helps the student, in his effort towards autonomy, to perform changes concerning his concepts and practices. According to Alarcão and Tavares (2016), current trends are leading to a democratic supervision process and to strategies that value reflexion, cooperative learning, and to self-supervision and self-learning mechanisms.

The development of reflexion on the practice helps future teachers to identify coherent pedagogical approaches, to substantiate their options, to understand the value of some pedagogical strategies, to recognize their difficulties and to overcome them, and to develop the attitude for active and innovative pedagogical-didactical practice. This is further strengthened with the role of “facilitator of reflexion, raising awareness of his situation, helping him identifying problems and planning strategies for their resolution” (Amaral et al. 1996, p. 97).

2.1 Experiential and Holistic Pedagogical Experiences: How Students of the First Cycle of Education Learn

The basis for this study is the connection between the educational model and the pedagogical perspective. Several studies and international reports highlight the holistic, experiential and integrative pedagogical approach that teachers need to have in their practice for the concept of praxis to flourish. The teachers’ actions targets the child as a whole, body, mind, emotions, creativity, history and social identity (Pires 2013).

Scientific literature has been revealing that holistic and integrative pedagogical approaches, that recognize the competence of children and listen to their voices, have greater impact on their learning and their future life (Eurydice 2009; OECD 2004, 2012; Siraj-Blatchford et al. 2002). Regarding this, the Starting Strong III report (OECD 2012) highlights that children learn better: (i) with integrative pedagogical approaches, where social and cognitive learning are regarded as complementary and equally important; (ii) when they are active and involved; (iii) when the interactions are frequent and meaningful; (iv) when the curricula is based on previous learning.

In particular, the afore mentioned report also highlights that curricula that value the self-initiated activities by children are more beneficial at a long term, they drive their participation in community services and motivates them to proceed studying. The quality of learning environments is considered, in some reports and scientific papers (Elliott 2006; Evangelou et al. 2009), as one of the most important factors in the process of development and learning of children. The evidences refer, as meaningful elements in this process: (i) the diversity of opportunities the learning experiences have; (ii) the intentional organization of the environment and the quality and diversity of the available materials; (iii) the experiences that value the contact with the nature (forest, field); (iv) learning by playing; (v) the existence of a structured, although flexible, daily and weekly routine; (vi) the appreciation of the children culture as a pedagogical resource; (vii) the involvement of parents in the school life of their children; (viii) the respect of the children's voice and the recognition of their participative competence; and (xix) the existence of qualified teachers, deeply involved in professional development processes that support their own research and learning.

In this context, the Starting Strong reports (OECD 2004, 2006, 2012) have been highlighting the need to ensure professional development opportunities, considering that the teaching procession should embrace a wide range of social responsibilities. Teachers should demonstrate a consistent knowledge of how children learn and develop, creating rich learning experiences for all, including the most vulnerable, involving children of diverse social and ethnical origins, in different levels of development. The functions of the professionals assume a complex nature, that implies the reflexion and development of critical thinking concerning the pedagogies developed in context.

3 Methodology

The study presented in the article assumes an exploratory approach that intends to verify, through the analysis of several STP reports, the areas of content that future teacher value and the pedagogical strategies used during the professional training. Considering the importance of a holistic perspective of the pre-school and primary school curricula, it is also intended the analysis of the degree of integration of the teaching activities. Finally, a relation is established between the main strategies and the content.

The study included all the reports from the last four years, in a total of 62 (17 from 2012, 12 from 2013, 22 from 2014 and 11 from 2015). All of them are available in the digital repository (https://bibliotecadigital.ipb.pt) in the PDF format, allowing a digital analysis.

Due to the large quantity of text (a total of 6723 pages, with 1832566 words), text-mining tools were used. Text organizes letters in words and these in phrases, gathering the information that can be stored, transmitted and read. Large quantities of text can make the interpretation of content and pattern discovery a difficult task. Using information processing algorithms, such as lexical analysis, pattern recognition, syntactical function annotation and natural language processing, among others, allows highlighting potentially useful information, difficult to assess otherwise. In its simpler form, it allows identifying the documents that satisfy given criteria in a large collection.

In this work, a classification process was used, to sort documents according to its content, looking for terms that define content areas and the teaching-learning strategies that were used. Text was initially pre-processed, to eliminate repeated forms and irrelevant words, as well as to minimize the different forms a word has by reducing flexed and derived words (for example, the word Didactic, DIDACTIC or didactic were converted to the common term didactic, as well as collaborate, collaboration, collaborative to the root collator).

Based on a significant number of reports, a dictionary of terms, representing content areas (Table 1) and teaching-learning strategies (Table 2) was built. Since all the reports are written in the Portuguese language, from now on the terms are kept in the original. The tables also present a translation, for reference.

Table 1. Dictionary of content area terms

Área de conteúdo	*Content Area*
Matemática	*Math*
Estudo do meio social	*Social mean*
Estudo do meio físico	*Sciences*
Musical Expression	*Musical expression*
Expressão Plástica	*Plastic expression*
Drama Expression	*Drama*
Linguagem Oral e Abordagem à Escrita/Língua Portuguesa	*Spoken language and introduction to writing*
Expressão Físico-Motora	*Physical expression*
Formação Pessoal e Social	*Social and personal training*

Source: Authors' elaboration

Table 2. Dictionary of teaching-learning strategies terms

Estratégias de ensino-aprendizagem	*Teaching-learning strategies*
Apresentação PowerPoint	*Powerpoint presentation*
Exposição	*Expositive*
Uso da narrativa	*Use of the narrative*
Visualização e discussão de vídeos	*Viewing and exploring videos*
Visitas de estudo	*Field trips*
Atividades práticas e experienciais	*Practical and experiential activities*
Investigação	*Research*
Leitura e exploração de textos	*Reading and exploring texts*
Fichas de trabalho	*Forms*
Jogo dramático	*Drama and role play*
Laboratório gramatical	*Grammatical laboratory*
Jogo fonético	*Phonetic game*
Resolução de problemas	*Problem solving*
Atividade integradora	*Integrative activity*
Trabalho colaborativo	*Cooperative work*

Source: Authors' elaboration

Each of these entries is characterized by words and sentences. For example, the sentences "memory game", "puppets", "theatre", "drama", "drama game", "dance", characterize the Drama Expression area, and the sentences "musical instruments", "songs", "beat", "rhythm forms", "song rhythm", "sound creations", "rhythm and sounds", are all associated to the Musical Expression area.

After this initial step, a histogram of different terms was built, both for the content area and for the teaching-learning strategies, to check the frequency of each term in all the STP reports. The analysis continued by grouping related terms in each report, resulting in several multiconnected charts. Finally, a heat map crossing the teaching-learning strategies and the content was built, to check their intersections and interdependencies. The next section present and discuss the data from each of this instruments.

4 Results and Discussion

The histograms of the different terms, related to the content (Fig. 1) and to the teaching-learning strategies (Fig. 2) allows sorting the frequency of each term in all the reports.

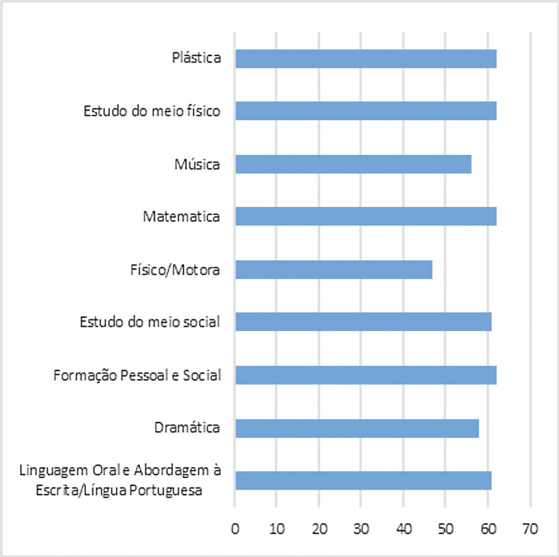

Fig. 1. Content areas. *Source:* Authors' elaboration

Most of the reports refer all the content areas related to pre-school and primary school education, meaning that students consider the development of all areas. However, mention to *Expressão Musical* (Musical Expression) (56 reports) and *Expressão Físico-Motora* (Physical Expression) (47 reports) are less referred. This fact may be associated with the offer of activities in extracurricular regime, existent in most institutions and schools.

The histogram related to the teaching-learning strategies developed during the teacher training period has higher incidence in the *Resolução de Problemas* (Problem Resolution) and in the *Atividades Experimentais* (Experimental Activities). Students use a diversity of active strategies, although their use is not transversal in the reports.

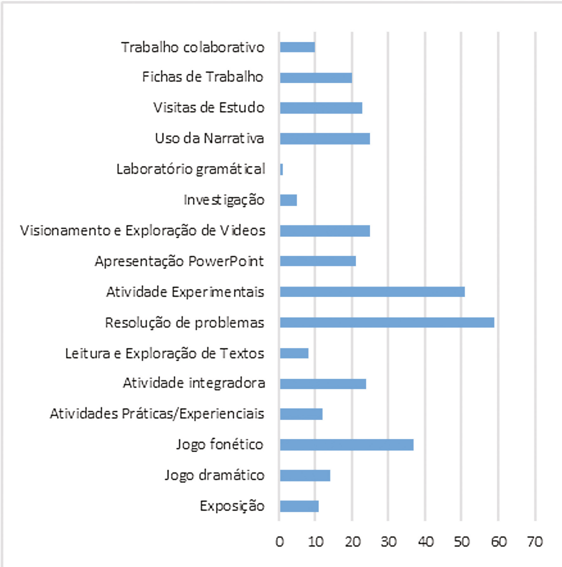

Fig. 2. Teaching-learning strategies.

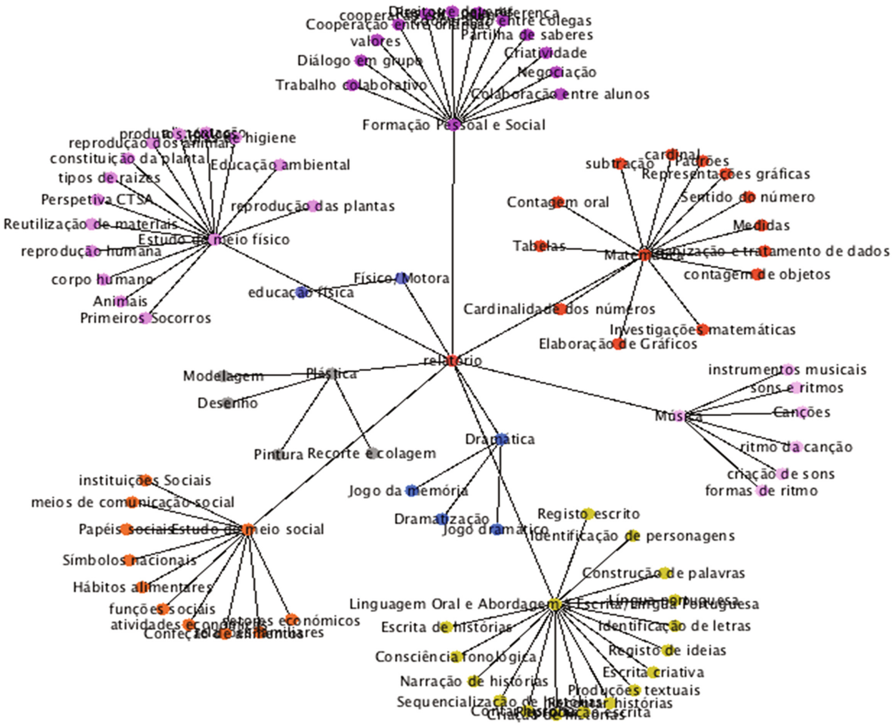

Fig. 3. Content area distribution. *Source:* Authors' elaboration

For better visualization, multilinked graphs were built, with the content area distribution (Fig. 3) and teaching-learning strategies (Fig. 4) in each report. The graphical representation is very similar in all the reports and therefore the pictures are an example of the global. From the analysis of the graphs, each report (represented in the centre of the picture) has several connections to the terms that characterizes it. The dispersion is remarkable, and it describes the representativeness of several areas and strategies in each report.

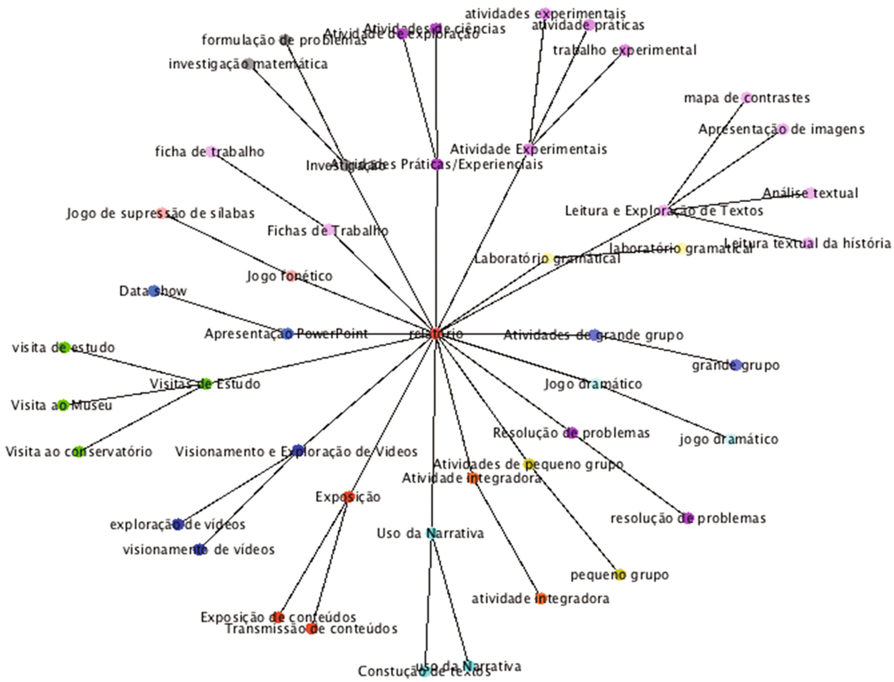

Fig. 4. Teaching-learning strategies distribution. *Source:* Authors' elaboration

Beyond references to the areas and strategies, students frequently mention the organization of classes around small group activities (60 reports) and large group activities (62 reports), which means that students choose the type of group organization that ensures the success of the activity, considering the pedagogical resources available. It may also mean a diversity of options, considering the educational levels in which they are developing activities (these data needs more research in future work so that the differences between the pre-school options and primary school can be assessed).

Usually, the report is structure in two main parts. The first is related to the pre-school education and the second to the primary school. It is possible to estimate the if a term is related to the first or to the second, according to the initial page it firstly appears. Although not infallible, it provides a reasonable heuristic. In this context, the initial position of the term *Atividade Integradora* (Integrative Activity) was retrieved in the 24

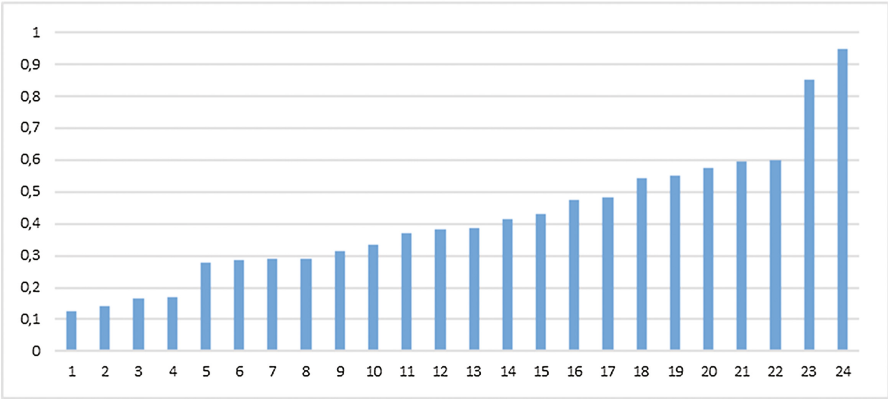

Fig. 5. Reference to "atividade integradora"

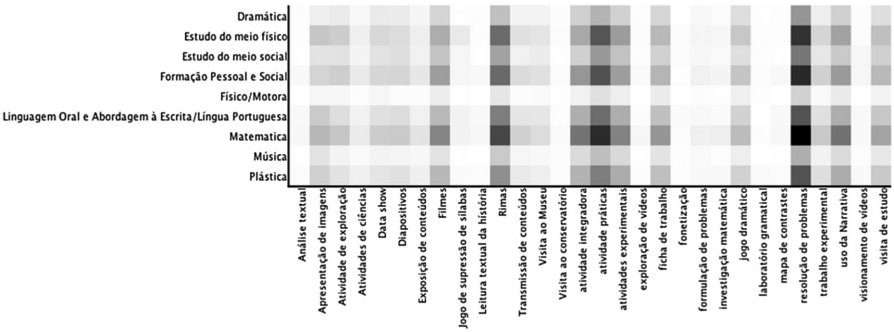

Fig. 6. Relation between teaching-learning strategies and content areas. *Source:* Authors' elaboration

reports in which this term is mentioned (Fig. 5). In 17 of the 24 reports, the term is initially mentioned in the first half, indicating that the integrative activities are more valued in pre-school. This requires further clarification, in future work.

Finally, a heat map was built, crossing the teaching-learning strategies with the content areas to verify the intersection and interdependencies (Fig. 6).

As expected, the crossing is darker (and also transversal) in the *Resolução de Problemas* (Problem Resolution) and in the *Atividades Práticas* (Practical Activities). From the chart, it is possible to see that both teaching-learning strategies have more expression in the area of Math, in the *Formação Pessoal e Social* (Social and Self Training) and in the *Estudo do Meio Físico* (Sciences). In relation to Math, this may indicate a large number of exercises solved by students, highlighting a more technical approach to teaching and less of building critical thinking. However, it is important to assess the context of the practical activities to understand if they are translated into moments of student implication or experientialism.

5 Conclusions

The STP reports are documents that allow studying the options students make during the professional training. Both the content areas and the teaching-learning strategies are described in them, allowing to know the frequency each approach or technique is used. The study presented in this document highlights the importance that the contact with the contexts has to provide students with the professional reality they will face in the future, allowing them to plan and implement different teaching-learning strategies in all content areas.

This exploratory study reflects on multiple possibilities of analysis, based on the data collected. It is clear that students develop teaching-learning experiences in several content areas, valuing some over others. However, a deeper perspective on the curricular integration is needed. The integrative activities, which describe a holistic of the teaching-learning process, are not sufficiently stressed in the first cycle of education (6 to 10 years old), suggesting a more vertical perspective on this education level than on the pre-school education.

It is still necessary to understand the pedagogical approaches that students follow in their practice, their concepts about the teaching-learning in both levels and in the role they attribute to the children and the teachers, in the context.

From the analysis performed, although no described on these pages, it is also evident the reflexion and research on the teaching practice, essential to the professional development of future teachers. These, and other aspects, will give continuity to the research, to better understand the training of future teachers within the STP.

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Assessing Overall Fit and Invariance in a PLS Model of PIGS and V4 Countries' Financial Systems

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Abstract. This research focuses on the financial systems of the countries that are in the tail of the Eurozone (contemptuously named PIGS), that take part in the ESCB, and are subjected to the discipline of the ECB and the troika, versus the systems of the countries which are at the top of the New Member States (NMS) and do not have the Euro currency. In this paper we apply some PLS-SEM-based model fit measures and testing measurement model invariance as a prior study to make sure that we can compare and find significant differences between PIGS and V4 countries financial systems using a Multigroup Analysis. In our opinion, this study provides important and reliable information to the ECB, PIGS and V4 countries' policy makers.

1 Introduction

The financial markets of most European Union (EU) Member States, especially after World War II, and until the 1980s were dominated by banks, which were mainly owned by states. That is why domestic banking were main players in the economy. In Western Europe the situation changed at the end of the 1970s, after the oil price shocks, which were connected with the downfall of the Bretton Woods' system and the beginning of European integration. In the Visegrád Group (Czech Republic, Hungary, Poland and Slovakia) the situation was different and this alliance of four countries was established in 1991 (see García-Machado and Jachowicz 2017). A more detailed description and explanation about the V4 countries financial systems can be found in García-Machadoand Jachowicz (2016). But, in short we can describe the financial sector in the Visegrád group as follows:

– The dominating role of banks, including foreign ones, as main financial intermediaries (in terms of asset size);
– The second largest type of financial institutions are insurance companies and after the financial crisis of 2008 their asset size became bigger as a result of conversions;
– The depth of the financial markets is still unrewarding as measured by total assets to GDP ratio;
– The role and size of the stock exchanges is still low as a source of capital.

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With regards to the PIGS countries, this term is an acronym used to refer to the economies of Portugal, Italy, Greece and Spain, four economies of the Southern Europe with problems after the financial and economic crisis, the burst of the real estate bubble, and the onset of the European sovereign – debt crisis. Ireland became associated with the term, either replacing Italy or as a second I (PIIGS). Sometimes a second G (PIGGS or PIIGGS), for Great Britain, was also added. Finally, another third I is added at times to include Iceland (PIIIGGS). The term is considered pejorative by affected countries and it is widely considered disparaging. The term was first used by the Financial Times and Barclays Capital in 2010 in comparison with the BRIC or BRICS countries (Brazil, Russia, India, China and South Africa), the G7 developed economies or another predominately economic – groupings of countries. From now on we will consider in this paper the first of the meanings. That is, we will include the countries of Portugal, Italy, Greece and Spain (PIGS) in comparison with Czech Republic, Hungary, Poland and Slovakia (V4 Group). On the other hand, as it is well-known, the financial crisis has motivated the PIGS countries Central banks' and Government interventions in several forms, including liquidity injections, direct public finance, publicly loan guarantee schemes and, even interest rates subsidization. However, the effectiveness of these interventions may be put in doubt.

The common points in the financial systems shared by the V4 and the PIGS group are as follows:

- In both groups a nationalized financial system dominates. In West Europe the changes began in the 1970s, whereas in Central Europe – in the 1990s;
- The main role played was still played by banks – initially by national banks but after that by foreign banks especially by German ones;
- Weak developed stock markets The best situation is in the Madrid Stock Exchange, where the Latin South American businesses are noticed and in Warsaw, which is the biggest market in this part of Europe;
- An unsatisfactory level of pension funds.

Governments, mainly in the Eurozone, and affected by the last financial crisis, have developed special programs to save their financial systems and restore their economies to growth. However, this would have been impossible without the participation of the largest central banks that have used unconventional tools aimed at restoring balance in the markets. The Eurozone partly caused the crisis to spread more quickly, but governments moved to rescue the currency. Countries from the V4 are not members of the Eurozone and they are not financially integrated with the Euro, and perhaps that is why the crisis did not hit them as strongly as it did the PIGS group of countries.

In this study, we apply some PLS-SEM-based model fit measures and testing measurement model invariance as a prior study to make sure that we can compare and find significant differences between PIGS and V4 countries financial systems using a Multigroup Analysis.

The paper is organized as it follows. We start reviewing the conceptual framework as theoretical background and giving an overview about model fit measures and techniques to assess the invariance in PLS-SEM context. Next, we describe the methodology, as well as the sample, data collection, component and data analysis. Following that we present empirical results. Finally, we provided a summary and conclusions.

2 Conceptual Framework

According to García-Machado and Jachowicz (2016), there is a large literature that attempts to analyze the transformation of the financial system and its efficiency as well as many interesting methods for assessing banking sectors in order to improve it and predict its development as well as the financial system as a whole. They estimate a PLS path model to study how the V4 countries' Financial Systems work in benefit of the economic welfare of its citizens. This study is also important because it show how PLS path modeling can be used to successfully assess complex model in macro finance and, in this case, provide some explanation of the relationships between the selected factors and the latent dependent variable economic welfare. It provides important and usable information to the V4 countries' policy makers.

Afterwards, García-Machado and Jachowicz (2017) carried out a PLS-SEM Multigroup analysis to study if making a partition of data in two separate groups for PIGS and V4 countries, could provide some useful knowledge about the differences in their financial systems, identifying observed heterogeneity, and checking if they are statistically significant. However, as Hair et al. (2018) point out, a primary concern before comparing group-specific parameter estimates for significant differences using a multigroup analysis is ensuring measurement invariance to be confident that group differences in model estimates do not result from the distinctive content and/or meanings of the latent variables across groups.

There is a heated argument about the overall goodness of fit in PLS path modeling and its suitability to apply it at the beginning or at the end of stages for applying PLS-SEM systematic procedure. For instance, as Hair et al. (2017) state, measures such as the chi – square ($\chi 2$) statistic or the various fit indexes associated with CB – SEM (Covariance – Based Structural Equation Modeling) are based on the difference between the two covariance matrices. The notion of fit is therefore not fully transferable to PLS-SEM as the method seeks a solution based on a different statistical objective when estimating model parameters (i.e., maximizing the explained variance instead of minimizing the differences between covariance matrices). Nevertheless, research has proposed several PLS-SEM-based model fit measures, which are still in development and are not exempt from criticism.

One of the earliest proposed indexes was by Tenenhaus et al. (2004 and 2005), who proposed the Goodness-of-Fit index (GoF). However, for Henseler and Sarstedt (2013) it is not a good measure because it does not represent a goodness-of-fit criterion for PLS-SEM, unable to separate valid models from invalid ones, and the recommend avoid its use.

Later, Henseler et al. (2014) proposed the Standardized Root Mean Square Residual (SRMR), a model fit measure well know from CB-SEM, which has previously not been applied in a PLS-SEM context. It is the square root of the sum of the squared differences between the model-implied and the empirical correlation matrix (i.e. the Euclidean distance between the two matrices). A value of 0 for SRMR would indicate a perfect fit and generally, an SRMR value less than 0.05 indicates an acceptable fit (Byrne 2008). A recent simulation study shows that even entirely correctly specified model can yield SRMR values of 0.06 and higher (Henseler et al. 2014). Therefore, a cut-off value of 0.08 as proposed by Hu and Bentler (1999) appears to be more adequate for PLS path models. Ringle (2016) proposes a more flexible option of SRMR < 0.10.

Another useful approximate model fit criterion could be the Bentler-Bonett index or normed fit index (NFI) (Bentler and Bonett 1980). For factor models, NFI values above 0.90 are considered as acceptable (Byrne 2008). For composite models, thresholds for the NFI are still to be determined. Because the NFI does not penalize for adding parameters, it should be used with caution for model comparisons. In general, the usage of the NFI is still rare. Another promising approximate model fit criterion is the Root Mean Square error correlation (RMS_{theta}), which follows the same logic as SRMR but relies on covariances (Lohmöller 1989; Henseler et al. 2014). A recent simulation study (Henseler et al. 2014) provides evidence that the RMS_{theta} can indeed distinguish well-specified from ill-specified models. However, thresholds for the RMS_{theta} are yet to be determined, and PLS software still needs to implement this approximate model fit criterion. Initially, values below 0.12, are considered as acceptable.

Following Henseler et al. (2016) and Henseler (2017), the global model fit can be assessed in two non-exclusive ways: by means of inference statistics (i.e. so-called tests of model fit), or through the use of fit indices (i.e. an assessment of approximate model fit). In order to have some frame of reference, it has become customary to determine the model fit both for the estimated model and for the saturated model. Saturation refers to the structural model, which means that in the saturated model all constructs correlate freely. PLS path modeling's tests of model fit rely on the bootstrap to determine the likelihood of obtaining a discrepancy between the empirical and the model – implied correlation matrix that is as high as the one obtained for the sample at hand if the hypothesized model was indeed correct (Dijkstra and Henseler 2015). Bootstrap samples are drawn from modified sample data. If more than 5 percent (or a different percentage if an α-level different from 0.05 is chosen) of the bootstrap samples yield discrepancy values above the ones of the actual model, it is not that unlikely that the sample data stems from a population that functions according to the hypothesized model. The model thus cannot be rejected. There is more than one way to quantify the discrepancy between two matrices, for instance the maximum likelihood discrepancy, the geodesic discrepancy d_G, or the unweighted least squares discrepancy d_{ULS} (Dijkstra and Henseler 2015), and so there are several tests of model fit. Next to conducting the tests of model fit it is also possible to determine the approximate model fit. Approximate model fit criteria help answer the question how substantial the discrepancy between the model-implied and the empirical correlation matrix is.

With regard to the suitability to apply the model fit measures at the beginning or at the end of stages for applying PLS-SEM systematic procedure, Henseler et al. (2016), opposite to Hair et al. (2017), propose that the overall goodness of the model fit should be the starting point of model assessment. If the model does not fit the data, the data contains more information than the model conveys. The obtained estimates may be meaningless, and the conclusions drawn from them become questionable.

On a separate issue, researchers are increasingly interested in identifying and understand significant differences across two or more groups of data as a way to recognize that heterogeneity is often present. In fact, failure to consider such heterogeneity can be a threat to the validity of PLS-SEM results (Becker et al. 2013; Hair et al. 2012).

In García-Machado and Jachowicz (2017), they apply a PLS-SEM Multigroup Analysis to study if making a partition of data into separate groups for PIGS and V4 countries, we can gain knowledge about the differences in their financial systems, but researchers recommend to establish measurement invariance (also referred as measurement equivalence), as a primary concern before comparing groups of data, to be confident that group differences in model estimates result from neither distinctive content and/or meanings of the latent variables across nor measurement scale. Hult et al. (2008) point out that failure to establish data equivalence is a potential source of measurement error and when measurement invariance is not demonstrated, any conclusions about model relationships and questionable. Hence, multigroup comparisons require establishing measurement invariance to ensure the validity of outcomes and conclusions (Hair et al. 2018).

To assess measurement invariance, in a PLS context, researchers usually apply the Measurement Invariance of the Composite Models (MICOM) procedure developed by Henseler et al. (2016). The MICOM procedure builds on the scores of the latent variables, which are represented as composites, that is, linear combinations of indicators and the indicator weights as estimated by the PLS-SEM algorithm. As Fig. 1 shows, the MICOM procedure involves three steps: (1) configural invariance, (2) compositional invariance, and (3) equality of composite mean and variances. The three steps are hierarchically interrelated (Hair et al. 2018).

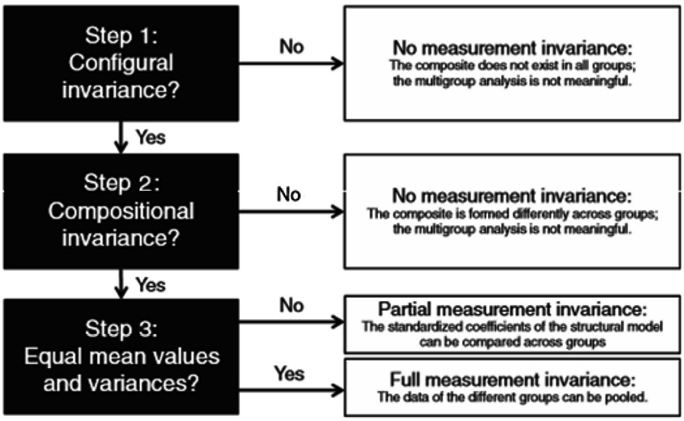

Fig. 1. The MICOM procedure Source: Henseler et al. (2016), p. 412

3 Sample, Data Collection, and Methodology

Our analysis covers a sample of 836 financial institutions from PIGS and V4 countries' financial systems: Czech Republic (25), Greece (12), Hungary (28), Italy (552), Poland (41), Portugal (31), Slovakia (13), Spain (134). The study period is 2000–2015. The empirical bank-level data was obtained from a sample of financial institutions that include commercial banks, savings banks, cooperative banks, real estate and mortgage banks, investment banks and securities firms. Most of these data were obtained from Bankscope International Bank Database[1]. Macroeconomic-level aggregate and financial data for each country were collected from FMI's International Financial Statistics and World Economic Outlook Database, World Bank's World Development Indicators, and Country economy website[2]. Stock exchange data was collected from PIGS and V4 stock markets (Athens Stock Exchange, Bratislava Stock Exchange, Madrid Stock Exchange, Milan Stock Exchange, Oporto Stock Exchanges, Prague Stock Exchange, Budapest Stock Exchange, Warsaw Stock Exchange and) in a daily basis and then annualized.

Data collection was performed from December 2016 to March of 2017. We built a very complete data set, which initially included 44 indicators or manifest variables and a sample size of 112 observations (for PIGS and V4 countries and 15 years). They total 4.928 data. Indicators include manifest variables at macroeconomic, banks and other financial intermediaries and stock markets levels, financial sector structural indicators and indicators for development and happiness. After debugging data set, finally, our sample includes 112 observations, with 37 indicators and 4.144 data. It includes less than a 5% of missing values.

We use our data set with 112 observations for our empirical PLS Model of PIGS and V4 Countries' Financial Systems analyses. The data set is from research that attempts to predict financial efficiency and, ultimately, economic welfare. Following Cohen's (1992, p. 158) recommendations for multiple OLS regression analysis, we would need 92 or 113 observations to detect R^2 values around 0.10, assuming a significance level of 10% or 5%, respectively, and a statistical power of 80%. In addition, following Nitzl's (2016, p. 26) recommendations, we would need 69 or 85 observations to detect a medium effect size of 0.15, assuming the same significance level and statistical power. Because our sample size in this study was 112, there appears to be no problem with respect to the necessary sample size.

Following the former studies for economic stability and welfare in V4 and PIGS countries, carried out by García-Machado and Jachowicz (2016 and 2017), and based on their results, we have selected some of indicators and chosen the same latent variables or constructs which are shown in Table 1.

In addition to the indicators for measurement models, and in order to a better assessment of the Economic Welfare construct, they had taken into consideration two new manifest variables or indicators (García-Machado and Jachowicz 2017): Human development index (HDI) value and the Average happiness. The Human Development Index (HDI) is a summary measure of human development and the Average Happines (Veenhoven 2017) shows how much people enjoy their life-as-a-whole on scale 0 to 10. Life-satisfaction is assessed by means of surveys in general population samples.

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[1] The Bankscope International Database is a detailed database provided by Bankscope which contains information on over 30.000 international banks for a period up to 16 years of detailed accounts for each bank.

[2] www.countryeconomy.com.