

MENTAL ACCOUNTING: A SYSTEMATIC REVIEW

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ABSTRACT

This study was motivated by the need to characterize scientific research on the "Mental Accounting" construct in the period 1900 to 2015. Mental Accounting is a branch of Accounting science that aims at guiding individuals to make financial decisions as successful enterprises. Discussion of this topic is usually based on the Perspective Theory. The main objective of this study is to describe and to analyze the progress of Accounting research in the Mental Accounting area in the mentioned period, based on an approach of content analysis. The results confirm the need for Accounting research in the Mental Accounting area, although in recent years a gradual progress and greater interest in it is seen. However, despite being considered a promising area, it is still little explored in the literature. We also note that the consumer and his purchasing decisions are priority issues, with focus on the main concept of Mental Accounting in this area, namely the "Loss Aversion". As a suggestion for future works we propose the investigation of other issues related to the Mental Accounting construct, with the aim of expanding the approaches to the issue.

Key-Words: mental accounting; systematic review; perspective theory; financial behavior; purchasing decision.

Subject classification codes: M41; M49

RESUMO

O presente estudo foi motivado pela necessidade de caracterizar a pesquisa científica do constructo "Contabilidade Mental" no período de 1900 a 2015. Contabilidade Mental é um ramo da Ciência que visa orientar indivíduos a tomarem decisões financeiras como empresas bem sucedidas. O tema é normalmente abordado tendo por base a teoria da perspectiva. O principal objetivo do trabalho consiste em descrever e analisar o progresso da investigação contabilística na área da Contabilidade Mental no período mencionado, tendo por base uma abordagem de análise de conteúdo. Os resultados obtidos confirmam a necessidade de investigação contabilística no âmbito da Contabilidade Mental, apesar de, nos últimos anos, se ter verificado um avanço progressivo. Contudo, apesar de ser considerada uma área promitente, ainda está pouco explorada na literatura. Verificamos também que o comportamento do consumidor e suas decisões de compra, são temáticas prioritárias, sendo trabalhado o principal conceito da contabilidade mental nesta área, ou seja, a "Aversão à perda". Como sugestão para trabalhos futuros, propomos a investigação de outras questões relacionadas com o constructo "Contabilidade Mental", com o objetivo de expandir as abordagens sobre o assunto.

Palavras-chave: contabilidade mental; revisão sistemática; teoria da perspectiva; comportamento financeiro; decisões de compra.

1. Introduction

Financial education is presently an issue that arises global concern, due to the increasing financial risks, which include impacting on the release of funds by the World Bank to developing countries. To decrease these risks, the Organization for Economic Co-operation and Development (OECD), through the International Network on Financial Education (INFE), suggests the creation of national public policies which are known worldwide as the National Strategy for Financial Education, NSEF. Some countries have already adopted this strategy, among them the United States, Portugal and Brazil, but many are still in the process of its adoption or regulation, since this suggestion was officially made only in 2010 (Grifoni & Messy, 2012) and is still recent.

OECD's purpose when creating INFE was, among others, to transfer the risks of credit to the families, therefore reducing the global risk for the supply of resources, especially for funds from the World Bank for developing countries.

In this scenario, there have been in recent years increasing financial education initiatives proposed by countries, following the guidelines of OECD. These initiatives seek to increase the level of financial education of society in general, and of families in particular.

This has been seen as positive, as it may also directly result in increasing the net assets of families, thereby providing better management of their income, especially in the short and long term planning, with a direct impact on reducing the stress caused by management and negotiation of debts, consequently bringing an increase in productivity, benefiting the companies where these families work and especially increasing their quality of life.

This is the context in which the present work seeks to bring forth the knowledge of the Mental Accounting construct and its contribution in everyday decisions, aiming at summarizing the theme's state of the art by way of a literature review. The goal is the characterization of the scientific production on Mental Accounting in all thematic areas in the 1900-2015 time span, with the following guiding question: What is the bearing of the scientific production on Mental Accounting?

By researching this issue, we try to contribute to the understanding of the factors that are decisive in investment decisions and financial behavior of families and individuals in general.

Therefore, having this survey as a point of departure it will be sought to bring to evidence how consumption decisions and other performances related to finances are taken.

The study is divided into five sections. This Introduction gives an overview of the study, showing its scope, purpose and structure. The Second section presents the literature review and a brief evolution of Mental Accounting, with an analysis of the concept itself and the underlying theories. In the Third section, the definition of the methodology is undertaken; and in the Fourth section the empirical analysis and the interpretation of results are done. Finally, in the Fifth section the main conclusions are presented, as well as their limitations, along with some suggestions for future research.

2. Literature Review

2.1 Evolution of Mental Accounting

The Theory of Mental Accounting is strongly linked to the rise of Behavioral Economics, which seeks to analyze, among other matters, the consumer's behavior in his decision-making process. Many researchers have found that the most common factor of everyday decisions is not rationality but intuition, thus giving birth, as a critique of the rationality of the decision-making process, to the Theory of Mental Accounting. This theory is supported primarily by Thaler, and Kahneman & Smith (Thaler, 1980) in (Kahneman & Smith, 2002).

The history of the Theory of Mental Accounting lists a number of researchers who analyzed the rationality of classical Economics (Kahneman & Smith, 2002); (Tversky & Thaler, 1990). Thaler (1980) challenged the fundamental principles of the Consumer Theory, based on the Prospect Theory. In this theory, the author argues that the mental illusion in the decision-making process is the rule and not the exception since, according to him, the capacity of the human mind to formulate and solve complex problems is very limited, and consumers should not spend all their time making decisions for they often ignore the cost of the decision, even doing the best that is within their reach (Thaler, 1980).

Interest in Mental Accounting has been increasing gradually over the years, but it is still considered as a new area, as seen when comparing the studies listed in the analyzed databases.

2.2 The Concept of Mental Accounting

When we seek in the scientific literature the definition of Mental Accounting, it is inevitable to refer Thaler (1999), with the work entitled "Mental Accounting Matters". To this author, Mental Accounting is the set of cognitive operations used by individuals and families, due to their need to organize and evaluate financial activities, and keep them under control.

Mental Accounting also serves to describe how people violate the rationality of the decision-making process by failing to maintain a comprehensive view of results, and not treating money as fungible, that is, something that can be replaced, often keeping their decisions on separate mental accounts rather than seeking to integrate mental accounts and enhance the final result (Kahneman & Smith, 2002).

Accounting is currently considered as an essential field of knowledge for the training of decision-making agents of various levels, being the result of the relationship between the development of economic and financial facts and their capture and processing according to the paradigms of its own methodology that is enhanced by scientific rationality. Thus, the cornerstone that supports and sustains the Accounting body of activity can be defined as long as it tracks, reports and respects the essence of the economic events that it captures and measures" (Iudícibus, Martins, & Carvalho, 2005). When studying Mental Accounting, we intend to resume the initial objective of Accounting, which was administering the riches of individuals, according to evidence found in ancient Mesopotamia, believing that knowledge of the history of Accounting allows a better understanding of the present and a more conscious attitude to face the problems of the future (Ribeiro, 2015).

2.3 Theories associated with the "Mental Accounting" construct

In order to give a fundament to this work, theories that could explain the issues referring to Mental Accounting were analyzed, and also assumptions based on several studies.

The place of origin of the word “*theory*” is Ancient Greece. It designated the sacred embassy sent by a Greek city to represent it in the national games (Ferreira, 2010). Trying to make an analogy with the meaning of the term used in Ancient Greece, we could understand the word “*theory*” as what acts as a basis, that is, a doctrine that addresses the basic principles to explain a science (Ferreira, 2010).

In the specific case of the "Mental Accounting" construct, it is based on the Prospect Theory and on the main concept linked to it, the "Loss Aversion."

But after all, what is this theory about which so much affects research in the Mental Accounting area? The Prospect Theory is primarily about decision-making in situations involving financial risk, differentiating itself from other traditional theories such as the Utility Theory, by bringing to evidence that the choices made by individuals are based not only on rationality but also on their previous experiences, which are kept recorded in their mental structures (Kahneman & Tversky, 1979).

This theory contributes to the study of Mental Accounting through various experiments that have been properly conducted, proving that the decisions of individuals are strongly rooted in their mental classification, often at the expense of the rationality advocated by many theorists. Individuals in situations of certain gain tend to have a greater aversion to risk, in detriment of decisions which involve certain loss (Kahneman & Tversky, 1979), regardless of the amount of the final outcome.

The aversion to loss was investigated in most studies that deal with Mental Accounting, e.g. (Barberis & Huang, 2001; Langer & Weber, 2001; Chatterjee, Heath, Milberg, & France, 2000), among others. Barberies and Huang (2001) argue that investors in the stock market are averse to loss in the fluctuations of their stock portfolio. Regarding the Perspective Theory, they believe that Mental Accounting and Loss Aversion provide an easy and intuitive explanation to analyze the extent to which investors accept losses (Langer & Weber, 2001). It was found that the greater the knowledge of investors about the operations of the stock exchange, the greater their aversion to loss (Chatterjee et al., 2000).

The subject “Mental Accounting” being closely linked to decisions, the concept "Loss Aversion " was the most significant contribution to decision-making, for it allowed the scientific demonstration of how individuals make different choices, depending on how the problem it is presented, due to the mental categorization regarding the decision-making process (Kahneman & Smith, 2002).

3. Methodology

Considering a systematic review as a form of research that uses the literature on a given topic as a source of data (Sampaio & Mancini, 2007), we will endeavor to answer the research question, following the method for the preparation of a systematic review (Galvão & Pereira, 2014): (1) developing the research question; (2) reviewing literature; (3) selecting items; (4) extracting data; (5) evaluating the methodological quality; (6) synthesizing data (meta-analysis); (7) assessing the quality of evidence; and (8) drafting and publishing the results, seeking to reach the ultimate goal, which is to analyze all aspects that address Mental Accounting, especially those directed to Accounting, which will be the search area we wish to enhance.

This research has adopted two types of analysis. The first, a quantitative analysis, classifying the main authors, countries, disciplines, publications and their frequency, that are related to the theme. And the second, a qualitative one, making a content analysis of selected works and research areas which are associated with the "Mental Accounting" construct, based on the methodology of “Taxonomia do Dark Triad”: Revelações da rede científica no meio organizacional” (D’Souza & Lima, 2014).¹

Data collection was conducted through a survey of the references of all publications related to Mental Accounting, appearing in the "Web of Science" database, chosen because it includes various scientific bases of research, and has acknowledged scientific rigor.

For the selection of the articles used in this research, we have produced a Search Form (Table 1: **Research Sheet**) in which are drafted the goal of our research, its scope, its methodological validity and its results.

¹ English title: Taxonomy of the Dark Triad: Findings from the scientific network in the organizational environment.

Table 1: Research Sheet

Contents	Explanation
Research objective	perform a systematic review of all 1 works bearing the construct "Mental Accounting" in order to analyze all aspects dealing with the subject, especially those directed to the discipline of Accounting, which is our research focus.
Research Equations to Test	We did not use search equations; only the keyword: "Mental Accounting".
Search Scope	The survey was conducted in the Web of Science database, since it encompasses various sources of research and because it is considered a source that follows the standards and rigor of scientific research. The sample consisted of selected works from the year 1900 to the year 2015.
Criteria of inclusion and exclusion	From the first search on, a filtering was done, favoring the works published in "ISI - Current Contents Connect", for this broadened for us the possibilities of analysis.
Criteria of quality and methodological validity	After surveying the publications, their summaries were read, in order to check the aspects of this theme. The impact factor of the journals in which they were published was also analyzed.
Search results	261 published works were found, as of 01/02/2016, in 6 bases in the <i>Web of science</i> database.
Filtering of results	The abstracts were read in all works providing them, totaling 246 works, since 15 did not provide a summary (Annex 1: Author(s)/Year/Theme/Theory/Discipline/Quotes).
Data Exportation	selected articles were exported directly from the Web bases of collection to the Mendeley research program and then the correction of this export was checked.

Source: Research Data

To get acquainted with all that had been published on the subject until then, a search was undertaken from 1900, start line date of the search in *Web of Science*, until January 2nd, 2016, being found that the first article on the subject is dated 1986, having as author (Singer, 1986) and the related discipline was Psychology.

The search lasted from November 2015 to January 2016 and totaled 261 works, among them clinical research, reviews, meeting reports and articles, which contained in some way the

"Mental Accounting" construct. From the selected works, information was collected on author, year of publication, vehicle of publication, subject, and number of citations (Annex 1: Author(s)/Year/Theme/Theory/Discipline/Quotes).

For the collecting of data, each summary was read, aiming at bringing to evidence mainly the theme and under which theoretical perspective the same was developed.

From this survey in six scientific bases, which are "Main Web of Science Collection", "Current Contents Connect," "Derwent Innovations Index," "KCI - Korean Journals Database", "Medline" and "Scielo Citation Index ", all hosted in " *Web of Science*", it was possible to detail the main authors, themes, theories and works of greater interest for the scientific community, thus fulfilling the main goal of the research, which was to unravel the bearing of the research on Mental Accounting, as shown in Annex 1 .

The most prominent themes are related to consumer behavior, consumer decisions, investments, taxes, self-control, besides others. The main theories and concepts discussed relate to the theory of Mental Accounting itself, with emphasis on the mental classification of accounts, the Prospect Theory and its main concept, Loss Aversion.

4. Analysis of Results

After the collection of data, we have refined the results found in the database "Current Contents Connect", for these enabled detailed analyses of the "Mental Accounting" construct. Of the total 261 works found, 167 were contained in this database, yielding the following results:

Table 2: Main countries that publish on the subject

Order	Country/Territory	Quantity	% of 167
1	USA	98	58.683%
2	ENGLAND	17	10.180%
3	PEOPLES R CHINA	14	8.383%
4	GERMANY	11	6.587%
5	TAIWAN	10	5.988%
6	CANADA	7	4.192%
7	ISRAEL	7	4.192%
8	AUSTRIA	5	2,994%
9	SOUTH KOREA	5	2.994%
10	ITALY	4	2.395%

SOURCE: ISI CURRENT CONTENTS

It appears that the highlight among the countries is the United States, representing 58.68% of all publications, followed by England, representing 10.18% and in third place, China with 8.38%. This overall result confirms the language used, for 99.40% of the published articles are in English.

Table 3: Main institutions researching on the subject

Order	Institution	Quantity	% of 167
1	UNIV S CAROLINA	7	4.192%
2	UNIV CHICAGO	5	2.994%
3	UNIV VIENNA	5	2.994%
4	CORNELL UNIV	4	2.395%
5	HARVARD UNIV	4	2.395%
6	HONG KONG UNIV SCI TECHNOL	4	2.395%
7	PRINCETON UNIV	4	2.395%
8	UNIV COLORADO	4	2.395%
9	UNIV LEEDS	4	2.395%
10	UNIV PENN	4	2.395%

SOURCE: ISI CURRENT CONTENTS

From the analysis of Table 3, we see that the University of Carolina leads the ranking of institutions who publish on the subject, with 7 of 167 publications, followed by the University of Chicago, where is found the second most cited author on this construct (Thaler, 1999).

Table 4: Main Publication Years

Order	Year of publicaton	Quantity	% of 167
1	2012	16	9.581%
2	2013	16	9.581%
3	2015	16	9.581%
4	2010	15	8.982%
5	2009	14	8.383%
6	2014	14	8.383%
7	2008	13	7.784%
8	2006	12	7.186%
9	2011	11	6.587%
10	2001	10	5.988%

SOURCE: ISI CURRENT CONTENTS

According to the analysis of Table 4, there is a tie in the number of publications in 2012, 2013 and 2015, which shows an increased interest in the area compared to previous years.

Table 5: Main Publication Media and Impact Factor

Order	Media	Impact fator	Quantity	% of 167
1	JOURNAL OF ECONOMIC PSYCHOLOGY	1.230	16	9.581%
2	JOURNAL OF BEHAVIORAL DECISION MAKING	2.069	11	6.587%
3	MARKETING SCIENCE	1.186	6	3.593%
4	JOURNAL OF BEHAVIORAL FINANCE	0.333	5	2.994%
5	JOURNAL OF CONSUMER RESEARCH	3.125	5	2.994%
6	JOURNAL OF ECONOMIC BEHAVIOR ORGANIZATION	1.297	5	2.994%
7	MARKETING LETTERS	1.059	5	2.994%
8	JOURNAL OF BANKING FINANCE	1.299	4	2.395%
9	JOURNAL OF MARKETING RESEARCH	2.256	4	2.395%
10	MANAGEMENT SCIENCE	2.482	4	2.395%

SOURCE: ISI CURRENT CONTENTS

As expected, since the theme is related to the field of Behavioral Economics, the primary means of publication was the "Journal of Economic Psychology" with 16 publications (Table 5). The "Journal of Behavioral Decision Making" also was well placed, with 11 publications, but the journal with the highest impact factor is the "Journal of Consumer Research" (IF 3.125), which has five publications related to the Mental Accounting construct.

Table 6: Main Authors who write about the topic

Order	Authors	Quantity	% of 167
1	GUPTA S	4	2.395%
2	JACKSON S B	4	2.395%
3	KIM H W	4	2.395%
4	SOMAN D	4	2.395%
5	THALER R H	4	2.395%
6	HOELZL E	3	1.796%
7	KEASEY K	3	1.796%
8	MILKMAN K L	3	1.796%
9	POLLAI M	3	1.796%
10	POLUNIN O	3	1.796%

SOURCE: ISI CURRENT CONTENTS

Of the top ten authors who analyzed this issue, the highest position belongs to (Thaler, 1999) who is the author of the second most referenced article on the topic with 529 quotes, entitled "Mental Accounting Matters", which is a review of literature until the year 1999. When one surveys

the ISI base, it appears that the main article areas that address the "Mental Accounting" construct are:

Table 7: Key constructs that deal with the theme

Order	Constructs	Quantity	% of 167
1	ECONOMICS	79	47.305%
2	PSYCHOLOGY	49	29.341%
3	MARKETING BUSINESS COMMUNICATION	21	12.575%
4	ACCOUNTING FINANCE	17	10.180%
5	MANAGEMENT ORGANIZATION	13	7.784%
6	MANAGEMENT	11	6.587%
7	ENVIRONMENTAL STUDIES GEOGRAPHY DEVELOPMENT	5	2.994%
8	POLITICAL SCIENCE PUBLIC ADMINISTRATION	4	2.395%
9	LIBRARY INFORMATION SCIENCES	3	1.796%
10	SOCIAL WORK SOCIAL POLICY	3	1.796%

SOURCE: ISI CURRENT CONTENTS

It is clearly visible that the "Mental Accounting" construct is strongly linked to Economics (47.31%) and Psychology (29.34%), corresponding to a percentage of 76.65% on the total which was published in the searched databases, with Marketing coming in third (12.57%); and in fourth place, Financial Accounting (10.18%).

The bearing of the contents of the most quoted articles was searched, adopting as a selection criterion more than 50 quotes having been received by the item; after this refinement, the following 11 works were selected:

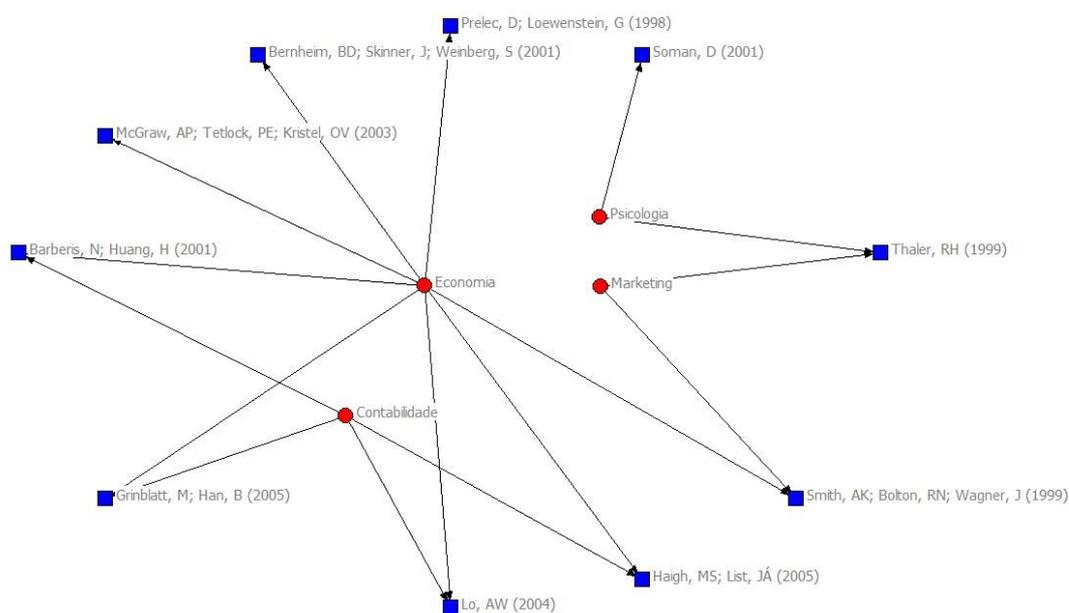
Table 8: Authors / Subject Area / Number of Quotes / Bearing of the Article / Strategy

Authors	Subject área	Number of quotes	Bearing of Articles	Strategy
Smith, Bolton, Wagner (1999)	Marketing and Economics	563	Proposes a customer satisfaction model based on Mental Accounting principles and the Prospect Theory.	Experiment
Thaler (1999)	Marketing and Psychology	529	Summarizes the state of the art of Mental Accounting at the time.	Survey
Prelec, Loewenstein (1998)	Economics	266	Based on the Theory of Prospective Accounting, proposes a mental double-entry bookkeeping, relating the pleasure of consumption to the pain of paying.	Experiment
Haigh, List (2005)	Accounting and Economics	119	Combined two behavioral concepts, Aversion to Loss and Mental Accounting in an experiment carried among professionals and students.	Experiment
Grinblatt, Han (2005)	Accounting and Economics	117	Explains the investor's impulse using the Prospec Theory and Mental Accounting.	Experiment
Bernheim, kinner, Weinberg (2001)	Economics	99	Links the applicability of Mental Accounting to the difference among family budgets.	Experiment
Lo (2004)	Accounting and Economics	91	Evaluates the irrationality of investments in stock market, having as underlyingbasis Mental Accounting and Neuroscience.	Experiment
Soman (2001)	Psychology	80	Evaluates the time cost in investment and its impact on decision making. Highlights the irrationality of decisions.	Experiment
Prelec, Simester (2001)	Economics	69	Associates Mental Accounting to increased readiness to buy when using credit cards instead of cash.	Experiment
McGraw, Tetlock, Kristel (2003)	Economics and Marketing	53	Shows the effects of mental accounting on the relationship between donation and consumption and the limits of fungibility.	Experiment

Source: Research Data

For a better characterization, authors, year (of publication), subjects and search strategy were presented, as shown in Table 8. It is important to clarify that most articles that discuss the "Mental Accounting" construct receive comprehensive contributions classified, according to ISI, in more than one area of knowledge, as shown in Figure 1:

Figure 1: Scientific Network Thematic Area of the Quoted Authors



Source: Research Data

The most quoted work in this area, named "The model of customer satisfaction with service encounters involving failure and recovery" (Smith, Bolton, & Janet, 1999), with 563 quotes to the date of this survey, covers two areas of research, according to the ISI base, which are Marketing and Economics. The authors have developed in it a customer satisfaction model, using the Theory of Mental Accounting to analyze the mental classification of failures after adoption by the company of different repair strategies. The second most quoted work, with 529 quotes to date, named "Mental Accounting Matters" (Thaler, 1999), shows the current state of the art of Mental Accounting in the field of Psychology and Marketing, which indicates that the "Mental Accounting" construct can be applied to various areas of research.

Considering the per cent representation of the disciplines, we will discuss the disciplines Economics (47.31%), Psychology (29.34%), Marketing (12.57%) and Financial Accounting (10.18%) (according to Table 7).

4.1 Financial Accounting

Since this systematic review is primarily aimed at carrying on a survey of the theme and bringing further the research work on Accounting, the publications of this area were surveyed, and also the research strategy they used, the bearing of the works, and in which Accounting journals, or similars, they have been published. In total, seventeen works were identified, linked to the area, ten of then being published in international Accounting journals, as shown below:

Table 9: Bearing of research work in Accounting

JOURNAL	AUTHOR	YEAR	BEARING OF WORK	STRATEGY
Accounting Review	BONNER, CLOR-PROELL, KOONCE	2014	Discusses the dependence of investors on Mental Accounting.	Experiment
	FALSETTA, RUPERT, WRIGHT	2013	Based on the concepts of Mental Accounting, such as hedonism, analyzes the change in the fiscal behavior of the taxpayer.	Experiment
	LIPE	1993	Detailed study on the cognitive impact of Mental Accounting on the classification of expend by managers.	Experiment
Accounting Organizations and Society	JACKSON, RODGERS, TUTTLE	2010	Deals with the dissemination of accounting information regarding depreciation and its influence on the sale of assets in investor's mental accounting.	Experiment
Contemporary Accounting Research	FALSETTA, TUTTLE	2011	Examines, under the light of Mental Accounting and the Prospect Theory whether taxes can influence investment decisions.	Experiment
	JACKSON et al.	2005	Addresses the adjustment of the annual tax declaration of individuals with regard to offering the government an interest-free loan, under the light of Mental Accounting and the Prospect Theory.	Survey
Journal of Accounting & Economics	JACKSON, KEUNE, SALZSIEDER	2013	Deals with Mental Accounting and the cost of wrong decisions in relation to debts and investments.	Experiment
Journal of Business Finance & Accounting	FERRIS, NORONHA, UNLU	2010	Based on the Theory of Perspective and on Mental Accounting, suggests that dividends should be paid as soon as possible, because their frequency alters the pattern of behavior	Experiment
Journal of Finance Accounting Information	LEE	2013	Using concepts such as hedonism, evaluates whether managers should disclose information about Information gain or loss together or separately.	Experiment

SOURCE: RESEARCH DATA

As seen on Table 9, it was found that the first job selected in the research bases, dates from 1993 and was published in the journal "Accounting Review". In it the theory of mental accounting was applied to managers, analyzing the cognitive impact of the classification of their expenses (Lipe, 1993).

Theories of Mental Accounting were also applied to tax paying by individuals (Falsetta, Rupert, & Wright, 2013) and its representation in the income tax adjustment statement (Jackson, Shoemaker, Barrick, & Burton, 2005).

Another selected work (Bonner, Clor-Proell, & Koonce, 2014) addresses the dependence of investors on Mental Accounting itself and the frequency with which payments are made to investors (Ferris, Noronha, & Unlu, 2010). Another one covers also the cost of decisions in relation to debts and investments (Jackson, Keune, & Salzsieder, 2013).

As to the sale of assets subject, a comparison was made between the use of constant depreciation and the accelerated decision, and its influence on the sale of assets (Jackson, Rodgers, & Tuttle, 2010), as well as their reposition by investors (Jackson, 2008).

We thus conclude that, from the perspective of Finance and Accounting, all the articles that were analyzed have a point in common, the search strategy of experimentation; and the topics that were discussed are primarily linked to investors, the depreciation of assets, and taxes paid by individuals and their respective families.

4.2 Marketing

The most quoted study, among those related to the "Mental Accounting" construct, fits into this discipline (Marketing), and concurrently into Economics; it is named "The model of customer satisfaction with service encounters involving failure and recovery" (Smith et al., 1999), and deals with consumer behavior. The authors propose a customer satisfaction model, based on the principles of Mental Accounting and the Prospect Theory. They assess how the client maximizes losses and minimizes gains, thus providing guidelines for organizations to develop procedures to restore customer satisfaction.

Another work (Chen & Rao, 2002) deals with convergent aspects, centering in the defense of the consumer, analyzing various experiments that involved purchasing decisions, such as the use of credit cards, and issues related to offers to third parties, verifying that these increase the readiness to consume.

These same, and also other authors (Okada, 2001; Chen & Rao, 2002; Liao & Chu, 2013) analyze issues related to consumer behavior.

These studies contribute to design transaction mechanisms; institutions that serve this function (marketing experts, policy makers, and those who give advice to consumers) should understand how people really feel about payments, and not merely how they would feel if economic logic were perceived.

4.3 Psychology

This is the second most published research field referring to the "Mental Accounting" construct. The most quoted works are related to issues involving consumer decisions (Thaler, 1999), self-control (Cheema & Soman, 2006), consumer credit (Prelec & Simester, 2001) and investments (Soman, 2001).

The work with more emphasis in this field was developed by Thaler (1999), who is to be considered the founder of Behavioral Economics. The author surveys the state of the art of Accounting, defining Mental Accounting and giving several examples of its applicability in everyday decisions, such as the formation of wealth, considering that "if the funds can be transferred to less tempting mental accounts, they are more likely to be saved" (Thaler, 1999). These issues have been developed based on concepts of Mental Accounting classification, aversion to myopic loss and heuristic diversification.

Cheema e Soman (2006) consider that, in the self-control approach the mental accounts are considered devices that consumers use to avoid excessive spending and consumption.

Finally, the authors in this field emphasize the role of mental accounting, the choices and the elements involved in the process. They consider that often what prevails is not the economy of value but the products that are involved in it.

4.4 Economy

This area is the one with the largest number of publications (See Table 7), corresponding to 47.30% of total publications. The main works cited address risk aversion (Haigh & List, 2005), family budgets (Bernheim, Skinner, & Weinberg, 2001), investments (Lo & Ph, 2005), consumer credit (Prelec & Simester, 2001) and purchasing decisions (Prelec & Loewenstein, 1998).

Also in this area, we should note the study by Prelec e Loewenstein (1998), who proposed a "Double Entry" Mental Accounting Theory, describing the nature of the reciprocal interactions between the pleasure of consumption and the pain of paying, drawing its implications for the consumer.

With respect to consumer credit, the use of the credit card is often discussed under various perspectives. (Prelec & Simester, 2001; Kamleitner & Kirchler, 2006).

Others authors (Shafir & Thaler, 2006; Schulz, Schlereth, Ma & Skiera, 2015; Kaufmann & Weber, 2013) deal with consumer issues in Mental Accounting in a theoretical perspective, addressing the Prospect Theory, hedonism and Mental Accounting, investment decisions and their mental classification. Other recent studies (Stourm, Bradlow, & Fader, 2015) deal with everyday issues such as loyalty programs, in which, through a mathematical model tested by the authors, they give evidence to cognitive and psychological incentives such as consumer motivating factors .

More specific studies (Helion & Gilovich, 2014; Zurawicki, 2015; Dai, Milkman, & Riis, 2015) analyze, for instance, the use of gift cards, the pleasures of taste, from the perspective of consumer marketing, the consumerist goals and the respective motivation to achieve them.

In general, these studies aim to unravel the mysteries of Mental Accounting through consumer behavior analysis, his purchasing decisions and investments, his budgets, among others, based on the concepts of the Theory of Mental Accounting and the Prospect Theory, highlighting the main concept inherent in to this latter, which is the Aversion to Loss.

5. Conclusion

The "Mental Accounting" construct is still considered a poorly known and relatively new topic by many, and this is confirmed in the research bases of the "Web of Science", where the first article, named "Role of transactions in Mental Accounting" is dated 1986 (Singer, 1986). This base lists publications since 1900. It is important to note that articles on the subject have been published previously, notably the article "Toward a positive theory of consumer choice" (Thaler, 1980), which deals with consumer choices.

In order to answer the research question of the present study, about the bearing of scientific production on the "Mental Accounting" subject from the first publication in the scientific bases till the date of this survey, 261 articles were selected that contained the "Mental Accounting " construct,

highlighting the theme, the main countries, universities and newspapers to publish about the subject, with their respective impact factor, year of publications, bearing of the works and numbers of quotes.

The most exploited themes refer to consumer behavior, purchase and investment decisions, and to marketing, being developed from the perspective of the Theory of Mental Accounting and the Prospect Theory, addressing concepts such as aversion to loss and heuristic diversification, among others .

The constructs within which the studies are analyzed and developed are: Economics, Marketing, Psychology and Accounting, besides others with lesser representation.

Searching in the scientific network showed the most cited authors and their respective disciplines, revealing that most of them are concentrated in more than one area of study, such as Economics, Psychology, Accounting and Marketing.

From the perspective of Finance and Accounting, eleven articles were found, all published in international accounting journals. All the analyzed items have in common the research strategy, which is the experiment; and also the issues that were addressed, which are primarily linked to investors, the depreciation of assets, and taxes paid by individuals and families.

Recent studies address current issues, such as gift cards, internet shopping, and points programs, always viewed from the optics of the Perspective Theory, having as a support the principles of Mental Accounting.

In this first research, the concern of only selecting articles that dealt exclusively with the "Mental Accounting" construct was privileged, so as to bring forth for this first time the knowledge of the construct and the predominant theories for its study.

Thus, as a suggestion for future work, we propose a survey of other issues related to Mental Accounting, with the aim of expanding the approaches that address the issue.

Finally, we conclude that this Article has attained the desired goal, which was to bring forth the knowledge of the Mental Accounting construct and its contribution in everyday decisions, aiming to summarize the state of the art of the subject, through an analysis of the bearing of the research from 1900 to the present day, and signaling "Mental Accounting" as a promising construct for conducting researches, especially because of its interdisciplinary character and scientific relevance, still little explored by

researchers in the Accounting area, seeking to fill the gap in the enigmatic combination that is to decipher the influence of mind in financial decision-making.

We considered as a limitation to the work the existence of restricted prior research studies on the topic.

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Annex 1: Author(s)/Year/Theme/Theory/Discipline/Quotes

N.	AUTHOR(S)	YEAR	THEME	THEORY OR CONCEPT	DISCIPLINE	QUOTES
1	ADAMS & WEBLEY	2001	Taxes	Mental Accounting	Psychology	10
2	AGNEW	2006	Investments	Mental Accounting	Accounting	15
3	ANTONIDES	1994	Consumers	Prisoners' Games	Management	5
4	ARKES	2010	Consumers	Mental Accounting	Management	12
5	ATER & LANDSMAN	2013	Marketing	Not present in abstract	Management	2
6	AUH & SHIH	2006	Consumers	Prospect	Psychology	0
7	AUSTIN & FISCHHOFF	2010	Investments	Mental Accounting	Management	5
8	AZAR	2008	Consumers	Mental Accounting	Psychology	9
9	BAERENKLAU & PROVENCHER	2005	Consumers	Not present in abstract	Management	8
10	BARBERIS & HUANG	2001	Investments	Prospect	Accounting	156
11	BERNHEIM, SKINNER & WEINBERG	2001	Budget Familiar	Golden rule or Hyperbolic Discount of Wealth Accumulation	Economics	99
12	BESHARAT, CARRILLAT & LADIK	2014	Credit	Not present in abstract	Economics	0
13	BHOOTRA & HUR	2012	Investments	Cointegration and Prospect	Accounting	0
14	BI & LIU	2014	Business Management	Not present in abstract	Psychology	0
15	BLECHAR, CONSTANTIOU, & DAMSGAARD	2005	Consumer	Not present in abstract	Psychology	1
16	BONINI & RUMIATI	1992	Has no abstract	Has no abstract	Psychology	0
17	BONINI & RUMIATI	1996	Consumer	Mental Accounting	Management	9
18	BONINI & RUMIATI	2002	Consumer	Mental Accounting	Psychology	9

20	BRENDL, MARKMAN & HIGGINS	1998	Consumers	Mental Accounting	Psychology	16
21	BRENNAN	2001	Investments	Prospect	Accounting	1
22	BREUER, RIEGER & SOYPAK	2014	Business Management	Not present in abstract	Accounting	1
23	BROIHANNE, MERLI & ROGERL	2008	Investments	Prospect	Economics	0
24	CACHON & CAMERER	1996	Investments	Not present in abstract	Management	73
25	CHAKRAVAR TI, et al	2002	Consumer	Fundamentals of Mental Accounting	Psychology	33
26	CHAMBERS & SPENCER	2008	Taxes	Mental Accounting	Psychology	6
27	CHANG & CHEN	2014	Investments	Prospect	Economics	0
28	CHANG	2008	Marketing	Prospect	Psychology	1
29	CHANG	2009	Consumer	Not present in abstract	Psychology	0
30	CHATTERJEE, et al	2000	Cognitiv Greed	Theory of Decision/Aversion to Loss/Principle of Desired Wealth	Psychology	48
31	CHATTERJEE, HEATH & MIN	2009	Consumers	Mental Accounting	Psychology	8
32	CHEAH, et al	2015	Savings	Not present in abstract	Management	8
34	CHEEMA & SOMAN	2006	Self-control	Not present in abstract	Psychology	49
33	CHEEMA & SOMAN	2002	Consumer	Not present in abstract	Psychology	1
35	CHEN & RAO	2002	Consumer	Prospect	Marketing	16
36	CHEN, KOEK & TONG	2013	Consumers	Prospect	Management	9
37	CHEN & CHIEN	2011	Investments	Aversion to Loss	Economics	2
38	CHENG & HUANG	2013	Business Management	Not present in abstract	Psychology	6
39	CHERRY	2001	Consumers	Not present in abstract	Psychology	20
40	CHERRY & SHOGREN	2008	Consumers	Not present in abstract	Economics	11

41	CHIN & ASCE	2008	Taxes	Sunk Cost	Management	0
42	CHIVERS & HIGGINS	2012	Other	Aversion to Loss	Economics	6
43	CHOE	2008	Savings	Mental Accounting	Management	0
44	CHOI, LAIBSON & MADRIAN	2009	Has no abstract	Has no abstract	Economics	10
45	CHOI & COULTER	2012	Consumer	Not present in abstract	Marketing	1
46	CHU	2013	Business Management	Not present in abstract	Management	0
47	CHU & LIAO	2010	Consumers	Fundamentals of Mental Accounting	Economics	9
48	CHUANG, et al	2012	Marketing	Prospect	Management	8
49	CHUL & RYU	2008	Consumer	Custo Afundado	Economics	0
50	CHUNG	2015	Investments	Prospect	Management	0
51	CHUNG & KOO	2015	Consumers	Prospect	Marketing	2
52	CLOT, et al	2015	Earnings	Not present in abstract	Economics	0
53	COLMAN	2006	Consumers	Social dilemmas	Psychology	6
54	DAI, MILKMAN & RIIS	2014	Other	Not present in abstract	Management	1
55	DAI, MILKMAN & RIIS	2015	Other	Not present in abstract	Psychology	0
56	DAS, et al.	2010	Investments	Markowitz	Accounting	19
57	DAVIES, EASAW & GHOSHRAY	2009	Family Budget	Mental Accounting	Psychology	6
58	DEVOE & PFEFFER	2007	Marketing	Not present in abstract	Management	35
59	DHAR	1996	Consumers	Mental Accounting	Marketing	1
60	DIRINEA & IORDANESCU	2012	Consumers	Not present in abstract	Psychology	0
61	DJAWADI, FAHR, & TURK	2014	Other	Aversion a Loss	Psychology	1
63	DUXBURY, et al	2005	Consumers	Multi-attribute Decision	Psychology	0
62	DUXBURY, et al	2015	Investments	Not present in abstract	Economics	16

64	EGAN, CORRIGAN & DWYER	2015	Consumers	Not present in abstract	Economics	0
65	EGOZCUE, et al	2014	Marketing	Not present in abstract	Management	0
66	EINIOE, KAUSTIA & PUTTONEN	2008	Investments	Aversion to Loss	Psychology	10
67	ERAT & BHASKARAN	2012	Consumer	Not present in abstract	Marketing	4
68	FALSETTA, RUPERT & WRIGHT	2013	Taxes	Hedonic Editing	Accounting	1
69	FALSETTA & TUTTLE	2011	Taxes	Mental Accounting	Economics	1
70	FELDMAN	2010	Taxes	Mental Accounting	Economics	4
71	FERRIS, NORONHA & UNLU	2010	Business Management	Prospect	Accounting	1
72	FRIEDLINE, ELLIOTT & NAM	2012	Financial Education	Not present in abstract	Economics	4
73	GARLING, KARLSSON & SELART	1999	Has no abstract	Has no abstract	Management	0
74	GARVEY & WU	2010	Business Management	Not present in abstract	Economics	1
75	GIMPEL, AHLUWALIA & VARSHNEY	2012	Consumer	Not present in abstract	Management	0
76	GODEK & MURRAY	2012	Consumer	Not present in abstract	Psychology	0
77	GOU, et al	2013	Consumer	Fungibilidade	Psychology	2
78	GRINBLATT & HAN	2005	Investments	Prospect	Accounting	118
79	GUPTA & KIM	2007	Consumers	Not present in abstract	Economics	27
80	GUPTA & KIM	2010	Consumers	Prospect	Marketing	23
81	HÁ & YOON	2007	Marketing	Mental Accounting	Marketing	0
82	HAHN	2007	Financial Education	Monetary Illusion	Other	0
83	HAHN, HOELZL & POLLAI	2013	Financial Education	Coupling	Economics	0
84	HAIGH & LIST	2005	Aversion to Risk	Aversion to Loss	Economics	118
85	HARDIN & LOONEY	2012	Investments	Aversion to myopic loss	Management	2

86	HARRIS & BLAIR	2006	Consumers	Prospect	Economics	21
87	HAWKINS & WALLACE	2006	Taxes	Mental Accounting	Economics	1
88	HAYWARD & SHIMIZU	2006	Investiments	Mental Accounting	Management	27
89	HEATH	1995	Budget	Not present in abstract	Accounting	115
90	HEATH & OCURRY	1994	Budget	Mental Accounting	Marketing	2
91	HEATH & CHATTERJEE	1995	Consumer	Fundamentals Mental Accounting	Marketing	78
92	HEE & KIMJAEHWI	2013	Marketing	Not present in abstract	Marketing	0
93	HELION & GILOVICH	2014	Marketing	Not present in abstract	Psychology	0
94	HENDERSON & PETERSON	1992	Has no abstract	Not present in abstract	Management	63
95	HESS, ORR & SHELDON	2012	Business Management	Not present in abstract	Management	3
96	HEYBATI, ROODPOSHTI & MOOSAVI	2011	Investiments	Not present in abstract	Management	0
97	HIRST & JOYCE	1994	Credit	Prospect	Management	20
98	HOELZL, POLLAI & KAMLEITNER	2009	Credit	Not present in abstract	Psychology	1
99	HOELZL, POLLAI & KASTNER	2011	Credit	Not present in abstract	Psychology	8
100	HSIEH	2011	Business Management	Not present in abstract	Management	2
101	HU & SCOTT	2007	Investiments	Prospect	Economics	22
102	HU & RAN	2015	Consumer	Not present in abstract	Other	0
103	HUANG, WANG & SEIDMANN	2007	Investiments	Mental Accounting	Management	2
104	HWANG & PARK	2007	Business Management	Mental Accounting	Accounting	0
105	ISABELLA, et al	2012	Consumer	Prospect	Marketing	1
106	JACKSON	2008	Business Management	Not present in abstract	Accounting	3
109	JACKSON et al	2005	Taxes	Mental Accounting	Economics	3

107	JACKSON, KEUNE & SALZSIEDER	2013	Business Management	Not present in abstract	Accounting	1
108	JACKSON, RODGERS & TUTTLE	2010	Business Management	Mental Accounting	Accounting	4
110	JEFFERSON & TAPLIN	2012	Marketing	Fungibility	Management	0
111	JEFFREY & PUTMAN	2013	Consumers	Effects of framing/ Aversion to Loss	Economics	1
112	JEON	2010	Consumer	Temporal Re- framing	Marketing	0
113	JEON	2008	Consumer	Mental Accounting	Marketing	0
114	JOHNSON, HERRMANN & BAUER	1999	Consumer	Fundaments of Mental Accounting	Economics	41
115	JOHNSTONE	2002	Business Management	Prospect	Psychology	0
116	JORGE, JORGE DE JESUS & LAUREA-NO	2014	Other	Not present in abstract	Other	0
117	JOYCE & SHAPIRO	1995	Consumers	Aversion TO Loss	Management	8
118	KAMLEITNER & KIRCHLER	2006	Credit	Hedonism	Economics	7
119	KAUFMANN & WEBER	2013	Investments	Not present in abstract	Economics	0
120	KAUSTIA & RANTAPUSKA	2012	Investments	Not present in abstract	Accounting	1
121	KEYS & SCHWARTZ	2007	Consumer	Mental Accounting	Psychology	22
122	KHOSHNOOD & KHOSHNOOD	2011	Consumers	Not present in abstract	Economics	0
123	KIM & JANG	2013	Marketing	Not present in abstract	Psychology	1
124	KIM & JANG	2014	Consumer		Psychology	1
125	KIM	2006	Consumers	Mental Accounting	Psychology	4
126	KIM	2002	Consumer	Not present in abstract	Management	0
127	KIM & LEE	2012	Consumer	Prospect	Management	0
128	KIM, et al	2005	Marketing	Mental Accounting	Psychology	1
129	KIM & GUPTA	2009	Consumers	Mental Accounting	Management	16

130	KIM, XU & GUPTA	2012	Consumers	Mental Accounting	Economics	27
131	KIMDONGCH OUL et al	2006	Investments	Mental Accounting	Economics	0
132	KIMJAEHWI	2012	Consumer	Not present in abstract	Marketing	0
133	KIMJAEHWI	2014	Self-control	Not present in abstract	Marketing	0
134	KLIGER & KUDRYAVTSEV	2008	Business Management	Not present in abstract	Accounting	7
135	KLIGER & LEVIT	2009	Investments	Not present in abstract	Economics	9
136	KONG	2014	Marketing	Not present in abstract	Economics	0
137	KWONG & WONG	2014	Consumer	Not present in abstract	Psychology	0
138	LABARGE & STINSON	2014	Donation	Not present in abstract	Management	1
139	LANGER & WEBER	2001	Investments	Prospect	Management	43
140	LECLERC, SCHMITT & DUBE	1995	Aversion to Risk	Prospect	Management	137
141	LEE & LING	2004	Has no abstract	Has no abstract	Management	0
142	LEE	2013	Business Management	Hedonic Edition	Accounting	0
143	LEE	2010	Consumer	Behavioral Theory/Decision Accounting (BDT)	Management	0
144	LEI & YE	2015	Marketing	Not present in abstract	Management	0
145	LEVAV & MCGRAW	2009	Consumers	Decision	Marketing	29
146	LI, BERRENS & BOHARA	2005	Family Budget	Mental Accounting	Economics	5
147	LIAO & WANG	2004	Has no abstract	Has no abstract	Psychology	0
148	LIAO & CHU	2013	Marketing	Prospect	Marketing	1
149	LIM	2006	Has no abstract	Has no abstract	Economics	20
150	LIPE	1993	Consumers	Cognitive	Accounting	23
151	LIU	2013	Marketing	Not present in abstract	Psychology	0
152	LIU & CHOU	2015	Marketing	Not present in abstract	Economics	1

153	LO	2004	Investments	Cognitive Neuroscience	Economics	86
154	LOUREIRO & HAWS	2015	Consumers	Not present in abstract	Marketing	0
155	LUE	2008	Marketing	Mental Accounting	Marketing	0
156	LUNA & KIM	2009	Consumer	Mental Accounting	Marketing	5
157	MASOMI & GHAYEKHLO O	2011	Business Management	Mental Accounting	Management	0
158	MCGRAW, TETLOCK & KRISTEL	2003	Donation	Fungibility	Marketing	51
159	MCHUGH, RANYARD & LEWIS	2011	Credit	Not present in abstract	Psychology	4
160	MILKMAN & BESHEARS	2009	Consumer	Consumers Cycle of Life	Economics	15
161	MOHAMED	2006	Consumers	Not present in abstract	Economics	10
162	MOON, KEASEY & DUXBURY	1999	Consumers	Mental Accounting	Economics	17
163	MUEHLBACHER & KIRCHLER	2013	Taxes	Not present in abstract	Economics	1
164	MUELLER & DE HAAN	2009	Consumers	Prospect	Other	23
165	NAVARRO & FANTINO	2009	Consumers	Prospect	Psychology	20
166	NUNES	2001	Consumers	Not present in abstract	Psychology	1
167	OKADA	2001	Consumer	Fundamentals of Mental Accounting	Marketing	48
168	ORLANDO & SANFILIPPO	2010	Consumer	Keynes Consumer Theory	Psychology	0
169	OTT & ANDRUS	2000	Taxes	Mental Accounting	Economics	4
170	PARAG, CAPSTICK & POORTINGA	2011	Other	Not present in abstract	Management	6
171	PARASCHIV & CHENAVAZ	2011	Investments	Prospect	Psychology	1
172	PARK	2009	Consumer	Prospect	Psychology	0
173	PARK & CHOI	2004	Consumer	Not present in abstract	Management	0

174	PARK & OH	2014	Consumers	Not present in abstract	Psychology	0
175	PARK & JUNG	2010	Consumer	Temporal Reframing of Price (PAD - Pennies a Day)	Psychology	0
176	PENG, MIAO & XIAO	2013	Earnings	Prospect	Psychology	8
177	PINHEIRO-ALVES	2011	Business Management	Not present in abstract	Economics	0
178	POLUNIN	2009	Investments	Framing Effect	Psychology	3
179	POLUNIN	2011	Consumers	Efeito framing/ Enquadramento	Psychology	3
180	POLUNIN	2013	Savings	Not present in abstract	Psychology	2
181	PRELEC & LOEWENSTEIN	1998	Credit	Not present in abstract	Economics	70
182	PRELEC & SIMESTER	2001	Credit	Mental Accounting	Psychology	274
183	RABINOVICH & WEBLEY	2007	Savings	Mental Accounting	Psychology	12
184	RAJAGOPAL & RHA	2009	Consumers	Mental Accounting	Psychology	12
186	RANYARD, et al.	2006	Credit	Mental Accounting	Psychology	12
185	RANYARD & ABDELNABI	1993	Consumers	Multi-attribute Choices	Management	28
187	RATH, et al.	2014	Investments	Classic Economics	Management	0
188	ROCKENBACH	2004	Investments	Mental Accounting	Economics	9
189	ROYNE, et al	2012	Consumer	Prospect	Marketing	2
190	SANTOS & BOTELHO	2011	Consumer	Prospect	Psychology	0
191	SCHUETTE & GREGORY-SMITH	2015	Consumer	Not present in abstract	Psychology	0
192	SCHULZ, et al	2015	Consumers	Silver Lining/Hedonism/Prospect	Economics	0
193	SCHWEITZER	1999	Consumers	Not present in abstract	Management	2
194	SCHWEITZER & HERSHEY	1997	Other	Not present in abstract	Management	0
195	SEILER & SEILER	2010	Investments	Prospect	Economics	2
196	SEILER, SEILER &	2012	Investments	Not present in abstract	Economics	3

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197	SETA, HAIRE & SETA	2008	Other	Peak-end Rule	Psychology	3
198	SHAFIR & THALER	2006	Consumers	Mental Accounting	Psychology	27
199	SHAVIT, et al	2010	Investments	Mental Accounting	Economics	1
200	SHUGAN	2008	Marketing	Not present in abstract	Marketing e Economics	1
201	SIDDIQI	2015	Investments	Not present in abstract	Economics	0
202	SIEMENS	2007	Consumers	Not present in abstract	Psychology	7
203	SILER	2010	Investments	Mental Accounting	Psychology	15
204	SINGER & SINGER	1986	Has no abstract	Has no abstract	Psychology	4
205	SIVAKUMAR, LI & DONG	2014	Marketing	Prospect	Marketing e Economics	4
206	SMITH, BOLTON, & WAGNER	1999	Consumer	Prospect	Marketing e Economics	577
207	SOMAN	2001	Investments	Not present in abstract	Psychology	83
208	SOMAN & CHEEMA	2001	Consumers	Mental Accounting	Economics	26
209	SOMAN & LAM	2002	Consumer	Mental Accounting	Economics	10
210	SOSTER, GERSHOFF & BEARDEN	2014	Consumer	Not present in abstract	Marketing	0
211	SOSTER, MONGA & BEARDEN	2010	Consumers	Mental Accounting	Marketing	13
212	STOURM, BRADLOW & FADER	2015	Consumer	Prospect	Marketing	0
213	SUSSMAN & ALTER	2012	Consumers	Fundamentals of Mental Accounting	Marketing	8
214	SUSSMAN, SHARMA & ALTER	2015	Donation	Not present in abstract	Psychology	0
215	TESSARI, et al	2011	Consumer	Not present in abstract	Psychology	0
217	THALER	2008	Has no abstract	Has no abstract	Marketing	3
218	THALER	2008	Budget	Prospect	Marketing	22
216	THALER	1999	Consumers	Prospect	Psychology	539
219	THAMES	1996	Consumers	Sunk cost	Management	6

220	TRUMP, FINKELSTEIN & CONNELL	2015	Consumer	Not present in abstract	Economics	0
221	TUREL & ZHANG	2011	Consumers	Multilevel	Management	8
222	UELKUEMEN & MORWITZ	2006	Has no abstract	Has no abstract	Psychology	0
223	VAN PUTTEN, ZEELENBERG & VAN DIJK	2007	Consumers	Coupling	Psychology	7
224	VICARIO & RUMIATI	2014	Neuroscience	Not present in abstract	Psychology	1
225	VILLA, BARRETT & JUST	2011	Other	Fungibility	Economics	3
226	VOON & VOON	2012	Family Budget	Modelling of structural equations	Other	2
227	VOON & ZHANG	2013	Other	Not present in abstract	Psychology	0
228	WALKER, et al	2015	Self-control	Not present in abstract	Management	0
229	WANG, HE & WANG	2012	Has no abstract	Has no abstract	Psychology	0
230	WANG	2014	Has no abstract	Has no abstract	Psychology	0
231	WATERS, et al	2009	Consumers	Mental Accounting	Psychology	13
232	WHITE	2008	Has no abstract	Has no abstract	Psychology	3
233	WHITE, NOVAK & HOFFMAN	2014	Marketing	Not present in abstract	Marketing	0
234	WU, CUI & XIN	2011	Consumer	Mental Accounting	Economics	0
235	XIAO & OLSON	1992	Has no abstract	Has no abstract	Management	0
236	XIE, et al	2015	Investments	Not present in abstract	Psychology	0
237	YANG, GUI & JIANG	2005	Investments	Mental Accounting	Psychology	0
238	YANG & SUNG-WOOK	2013	Marketing	Temporal analysis	Psychology	0
239	YANGYOON	2005	Consumer	Mental Accounting	Psychology	0
240	YI & JEON	2010	Consumer	Not present in abstract	Economics	0
241	YOON	2008	Consumer	Mental Accounting	Psychology	0
242	YOON & CHOI	2007	Has no abstract	Has no abstract	Accounting	0

243	ZELIZER	2012	Other	Mental Accounting	Psychology	18
245	ZHANG	2009	Marketing	Not present in abstract	Psychology	0
244	ZHANG	2008	Investments	Not present in abstract	Psychology	0
246	ZHONG	2008	Business Management	Sunk cost	Management	0
247	ZHU, CHEN & DASGUPTA	2008	Consumer	Mental Accounting	Marketing	11
248	ZHU	2010	Unclassified - Patent	Not present in abstract		0
249	ZULTAN, BAR-HILLEL & GUY	2010	Consumer	Not present in abstract	Psychology	1
250	ZURAWICKI	2015	Other	Not present in abstract	Economics	0
251	권태건 & CHANSUPARK	2003	Consumers	Mental Accounting	Economics	0
252	박숙진 & KIM	2013	Marketing	Prospect	Economics	0
253	박종선 & WANGDUCKS OON.	2014	Family Budget	Not present in abstract	Economics	0
254	박종선 & HWANGDUC KSOON.	2014	Family Budget	Not present in abstract	Economics	0
255	변경희 & YI	2010	Consumer	Not present in abstract	Economics	0
256	양성강 & CHOE	2009	Family Budget	Accounting Accounting	Economics	0
257	오승현; 한상범.	2008	Business Management	Not present in abstract	Economics	0
258	이영란 & PARK	2009	Consumers	Aversion a Loss	Economics	0
259	장은영 & CHOI	2015	Marketing	Not present in abstract	Management	0
260	최현호; 전홍식.	2014	Consumer	Not present in abstract	Psychology	0
261	하환호 & HYUN	2003	Consumer	Not present in abstract	Other	0

Source: The Authors (Data extracted from The Web of Science)