

*Tema 3: Estratégia, empreendedorismo e pequenas empresas*

## EFFECTUATION: A STUDY OF CONCEPT'S USE

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### *Abstract*

The objective of the research is to identify in the literature how the concept of effectuation has been used. To do so, the authors identified (a) the concept elaborated by Sara Sarasvathy in 2001; (b) the development of this concept in the author's publications, (c) the concepts used by the authors who quoted the seminal work of the theory. The articles were collected in the ISI database considering the reference theory's article citation and analyzed according to the technique of content analysis. The results indicate that the concept originally proposed by the author was not extended and/or modified in order to transform the effectuation theory. As a contribution, this study presents a temporal vision about the development of the effectuation theory and the identification of its main authors also provides a list of theme focus concepts that can be used for both theoretical and empirical future research.

**Keywords:** effectuation. concepts. entrepreneur.

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The study of entrepreneurship has excelled in different ways: in the academic environment and, more prominently, in the understanding of its agents – the entrepreneurs – and their entrepreneurial behavior. As mentioned by Baron (1998), the entrepreneurs have long been the subjects of intensive study because of their importance in creating wealth, be it personal or societal. According to Brews ; Hunt (1999), studies show that there are basically two ways companies make decisions that promote entrepreneurship in relation to market uncertainty and financial situations - they can strictly follow the strategic plan or seek to adapt to the circumstances that present themselves in the market. To (MINTZBERG, 1990; SCHOEMAKER 1993) situations that are unplanned, can cause a major delay in the expected development for the company to take pride of place on the market. Hamel; Prahalad (1989, p.68) argue that good planning is necessary with setting goals and clarity in choosing each of the steps to be followed. According to Shane; Venkataraman, (2000) the task is to find the opportunity to billions of dollars in environmental puzzle.

Pre-established strategic management defines answers to the many questions that arise from the market and its multiple opportunities, which can cause difficulties for bolder plays. Sarasvathy et al (2003) argue that the current market is conquered by a businessman who does not care about issues such as reputation and resources; for entrepreneurs is critical to have a clear view of the market, the customer and its future prospects, as well as having knowledge to a dynamic management failure. In this context of uncertainty, failure, financial loss and the search for a successful project is fundamental "to deal with the emergency, in the work in generating new possibilities" (GARUD et al 2006 p. 277). In addition, experiential learning was found to have a positive effect on the development of different types of skills, such as the procurement of resources and organization" (COPE; WATTS, 2000; VAN GELDEREN et al 2005; STAM et al, 2008; WRIGHT et al ,1997 A/ B). In contrast, institutional economics literature has a greater tendency to restrict the entrepreneur to a self-interested actor with economic purpose in seeking institutional change. Specifically, a misalignment of supply and demand conditions could represent an opportunity for entrepreneurs who can capture economic value by changing demand conditions offered with or product or changed services, integrating new energy source or means (KIRZNER 1973, 1997). To DiMaggio (1988) institutions now have the "institutional entrepreneur", according to their interests creates and transforms businesses.

The economic benefits are sought by "institutional entrepreneur" (ANDERSON; HILL, 2004) and "property rights of the entrepreneur" (ANDERSON; HILL, 2002). It is so defined that entrepreneurship is leveraged not only by "institutional theory", but also by "economic institutional flow". DiMaggio (1988) introduced the concept of institutional entrepreneur as an agent that stimulates and mobilizes resources to change or create institutional structures. According to Miller (2007, p.58), "entrepreneurship as a process of creating opportunities raises questions that challenge the traditional concepts of risk and rationality". Another central aspect of the new nexus of action and interaction between the entrepreneur and the environment is the contingent nature hitherto taken for granted stable in-relations such as those between resources and their value, risk and creating risk and even demand and expected return.

In this study, the literature is reviewed considering the article "Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial

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contingency” - published in 2001 by Sara Sarasvathy - as a starting point for the discussion about the concepts of effectuation, developed during a study of entrepreneurial process. Professor Sarasvathy’s paper was selected as the focus of this study due to its original proposal on entrepreneurs’ process and the development of a new theory. Being mentioned over 500 times in the last fourteen years by other academic researches indicates the relevance of this concept, particularly because it is a practical perspective about entrepreneurship.

Considering the seminal article as the cornerstone of the effectuation’s definition and the articles that mention it as a development in the theory, the research focus on identifying the concepts used in the academic literature - the original ones or with modifications – and also to obtain the methodological approach used by articles related to the entrepreneur and the entrepreneurship process. The paper proceeds as follows: in the next section, the specific academic article is revisited to capture its main concepts and complemented by additional perspectives developed by its author and another co-authors. Then the authors explain the bibliometric procedures used and its results and content analysis about the articles selected. The final section presents the findings of the research and outlines possibilities for future research.

**2 Background**

The author begins the 2001’s article “Causation and Effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency” by presenting the systematic use of a context of pre-existing resources and artifacts in the academic discussion of business creation, which assumes that a new company will be launched according to a defined business model, the resources will be already available and the competition would be pre-evaluated. Considering the context, the author questions the capabilities of potential entrepreneurs when facing business transformation, with no other information and references, relying only on the availability of resources. The author then presents her development for a decision model based on the process of effectuation, focused on the creation of new firms. The explanation of the processes is based in a comparison with the opposite process, named causation - doing a direct comparison among its characteristics, such as control and prediction, affordable loss and expected returns, means selection and effects selection. The dimensions and concepts presented in the article are shown on the Table 1.

**Table 1 – Effectuation: dimensions and concepts**

Dimension	Description
Process	“ Effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means”.(p.245)
Principles	<ul style="list-style-type: none"> <li>• “Affordable loss rather than expected returns: [...] effectuation predetermines how much loss is affordable and focuses on experimenting with as many strategies as possible with the given limited means”.(p.252)</li> <li>• “Strategic alliances rather than competitive analyses: [...] effectuation emphasizes strategic alliances and pre-commitments from stakeholders as a way to reduce and/or eliminate uncertainty and to erect entry barriers”. (p.252)</li> <li>• “Exploitation of contingencies rather than exploitation of preexisting knowledge: [...] would be better for exploiting contingencies that arose unexpected over time”. (p.252)</li> <li>• “Controlling an unpredictable future rather than predicting an uncertain one: [...] focuses on the controllable aspects of an unpredictable future. The logic for using effectuation processes is: to the extent that we can control the future, we do not need to predict it”. (p.252).</li> </ul>
Decision	• “A given set of means (that usually consists of relatively unalterable characteristics/circumstances

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process	<p>of the decision maker)” (p.249)</p> <ul style="list-style-type: none"> <li>• “A set of effects or possible operationalization of generalized aspirations (mostly generated through the decision process)”,(p.250)</li> <li>• “Constrains on (and opportunities for) possible effects (usually imposed by the limited means as well as by environment and its contingencies)”,(p.250)</li> <li>• “Criteria for selecting between the effects (usually a predetermined level of affordable loss or acceptable risk related to the given means)”.(p.250)</li> </ul>
Agent	<ul style="list-style-type: none"> <li>• “The effectuator prefers options that create more options in the future over those that maximize returns in the present”.(p.252)</li> <li>• “The effectuator merely pursues an aspiration and visualizes a set of actions for transforming the original idea into a firm - not into the particular predetermined or optimal firm, but a much generalized aspiration of a firm”( p.249)</li> <li>• “The effectuator more often than not proceeds without any certainties about the existence of a market or a demand curve, let alone a market for his or her product, or a potential revenue curve”. (p.249)</li> <li>• “Is an effectuator, that is an imaginative actor who seizes contingent opportunities and exploits any and all means at hand to fulfill a plurality of current and future aspirations, many of which are shaped and created through the very process of economic decision making and are not given a priori” (p.262)</li> <li>• “Effectuators are more likely to fail more often but are also more likely to manage the failures more effectively and to create larger, more successful firms in the long run”.(p.261)</li> <li>• At the level of founders/decision makers: <ul style="list-style-type: none"> <li>○ “In Marketing decisions effectuators are less likely to use traditional types of market research, such as carefully designed surveys and test marketing, instead they are likely to dive straight into seat-of-the pants marketing/selling activities and alliances” (p.261);</li> <li>○ “In financial decisions effectuators are less likely to use long-term planning or net present value (NPV) analyses; instead they are likely to be focused on the short term and, at most, to use informal versions of real options”(p..261);</li> <li>○ “In organizational decisions effectuators are more likely to build strong participatory cultures, rather than hierarchical, procedures-based ones. In fact, in contrast to traditional decision makers, effectuators are likely to be less effective in running large organizations with well-oiled procedures” (p..261)</li> </ul> </li> </ul>
Business role	<ul style="list-style-type: none"> <li>• At the role of the economy: “Prefirms or very early stage firms created through processes of effectuation, if they fail, will fail early and/or at lower levels on investment than those created through processes allow the economy to experiment with more numbers of new ideas at lower costs”. (p.260)</li> <li>• “At the role of the market or industry: Successful early entrants in a new industry are more likely to have used effectuation processes than causations processes”.(p.260)</li> <li>• At the level of the firm: “Successful form, in their early stages, are more likely to have focused on forming alliances and partnerships than on other types of competitive strategies, such as sophisticated market research and competitive analyses, long-term planning and forecasting, and formal management practices in recruitment and training of employees”. (p.261)</li> </ul>

Source: Sarasvathy (2001)

To capture the development of the theory, the authors considered the articles written by professor Sarasvathy - as an only author or as a co-author - related to the discussion of this theme after the theory presentation in 2001. The six articles were analyzed in a way to identify the development of the effectuation theory and are presented in a chronological way, in Table 2, to emphasize the discussions conducted from 2001 to 2015, except for the “business role” dimension due to the lack of concepts considering the six mentioned articles. The analysis of the content at Table 3 confirms that the effectuation concepts did not reach

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further development in the articles where Sarasvathy was a co-author after developing the effectuation theory.

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**Table 2 – Effectuation’s additional articles with their additional effectuation concepts**

	Article title and Authors	Process of Effectuation	Principles of Effectuation	Decision process	Agent
2006	What to do next? The case for Non-predictive strategy Wiltbank, R; Dew, N; Read, S; Sarasvathy,S.	“The process is action oriented, inter-subjective, and non-predictively transforms an organization’s means into newly constructed settings. Effectuation begins with three categories of means: Identity; Knowledge; and Networks” (p.991).	“Means-driven action. Each effectual stakeholder considers who he is, what he knows, and whom he knows” (p.992). “Affordable loss as evaluation criterion. Each effectual stakeholder strives to invest only what he or she can afford to lose” (p.993). “Leveraging contingencies. Any environment and epoch in human affairs contains unexpected contingencies; thus predictions come with disclaimers about degrees of confidence” (p.993).	“Continual imagination on a variety of fronts including new goals, new means, new environments and new institutions is a cornerstone of transforming extant realities into new possibilities” (p.993).	“Actors begin with who they are, what they know, and whom they know to imagine things they can accomplish. This reflects an emphasis on future events they can control rather than those they can predict” (p.991). “In the next step of the process, they start reaching out to other people with a view to obtaining input on how to proceed with some of the things they could do” (p.991).”As they find people who want to participate in the efforts to build something they move toward obtaining actual commitments from these potential stakeholders” (p.992).
2008	Designing Organizations that Design Environments: Lessons from Entrepreneurial Expertise Wiltbank, R; Dew, N; Read, S; Sarasvathy.	“Effectuation starts from the position that the future is contingent upon actions by willful agents intersubjectively seeking to reshape the world and fabricate new ones” (p.339). “The essential characteristic of the future, in this view, is its unpredictability” (p.339). “The focus of the entire decision-making process for each individual involved is on what can be done,	“Effectuation may be called a logic because it is a coherent system of principles that are inherently interrelated, internally consistent and collectively independent” (p.345). “In sum, effectuation is not merely a theory, i.e. a statement about the truth or otherwise of a phenomenon	“Since outcomes to novelty are by definition unpredictable, commitments by entrepreneur and stakeholders have to be determined not by calculating the potential of opportunities provided by the environment, but by concrete assessments of affordable loss in pursuit of vaguely promising courses of action to fabricate new	“The effectuator seeks to design intelligent failures that can be locally contained and contribute to his/her learning, and continually pushes forward a series of small successes that can be cumulated over time” (p.340). “While fully acknowledging external constraints on their actions, effectuators divide the



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		given who s/he is, what s/he knows, and whom s/he knows” (p.339). “Effectual artifacts may take on shapes that are unanticipated and sometimes even unimagined by the stakeholders whose commitments engender it (Hagedoorn and Duysters 2002)” (p.339).	in the world. It is also an internally consistent set of ideas that forms a clear basis for action upon the world” (p.345).	opportunities” (p.339-340).” As one cannot avoid negative surprises in the pursuit of positive ones, one key to effectual action consists in failure management” (p.340). “Organism and environment are inextricably intertwined in this worldview and the focus always is on creating new possibilities with extant means at any given instant” (p. 340).	event space into controllable and uncontrollable parts, without assuming opportunities to be pre-existent in the environment; instead they seek to fabricate them” (p.340). “The effectuators’ pool of resources can be computed as a function of the three categories of means [...] begins by imagining several possible courses of action, the consequences of which are for the most part unpredictable” (p.339).
2009	Affordable loss: behavioral economic aspects of the plunge decision Wiltbank, R; Dew, N; Read, S; Sarasvathy,S	-	“Affordable loss is one component of effectuation, a set of heuristics for making decisions under uncertainty” (p.106).	“When making the plunge decision effectually, the mechanism that both supports the willingness to lose an affordable set of resources and enables the quitting of the new venture at the point those resources are exhausted is the precommitment that one is willing to lose a select and finite set of resources over which one has control” (p.117).	-
2010	The Coevolution of Institutional Entrepreneurship: A Tale of Two Theories Pacheco, D; York, J;	“Entrepreneurs who employ an effectual logic begin with the means at hand and focus on selecting between possible effects that can be created with that set of means”	-	-	“These entrepreneurs undertake a nonlinear and participatory approach where uncertainty is perceived as an opportunity” (p.1003).

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	Dean, T; Sarasvathy, S.	(p.1003).			
2012	Reflections on the 2010 AMR Decade award: whither the promise? Moving forward with entrepreneurship as a Science of the artificial Venkataraman,S; Sarasvathy,S; Dew, N; Forster, W.	“These studies, such effectuation, emphasize how elements of the internal environment of the organism interact with elements of the external environment” (p.2012).	-	-	
2013	Failing firms and successful entrepreneurs: serial entrepreneurship as a temporal portfolio Sarasvathy, S; Menon,A; Kuechle,G.	“An intelligent serial entrepreneur, we posit, can learn both from their failures and successes; in fact, in explicating the theory of effectuation based on studies of entrepreneurial expertise, Sarasvathy (2001p.259) has argue that. [...]The normative aspects of effectuation, if any, for the creation of successful firms would have to do with the “management” of failures, rather than with their avoidance” (p.430)		-	

Source: elaborated by the authors

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This research is classified as literature is developed from materials published in books, articles, dissertations and theses. According to Cervo, Bervian; Da Silva (2007, p.61), the literature "is the basic procedure for monographic studies, by which search the state of the field of art on a given theme." Taking the form of a literature review, also called "state of the art" or "state of knowledge" (FERREIRA, 2002), aims to demonstrate the current state of academic contribution around of a particular subject. It provides a comprehensive overview of research and previous contributions, leading to the extent necessary for future research and development of future studies. Anyway, it proves the academic relevance of the work done by a researcher

The main advantage of literature lies in the fact that it enables the investigator to cover a range of phenomena much wider than direct search. This advantage becomes particularly important when the research problem requires data widely dispersed in space (GIL, 2008). The literature is not limited to repeat or summarize what has already been said on the subject, its purpose is to bring a new approach with innovative results (Marconi; Lakatos 2003). The selection of items to be considered in this evolutionary analysis of the concept was established from the database search ISI Web of Science. Therefore, the authors took into account the publications that presented article's citation or mention on the article "Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency" of Sara Sarasvathy (2001). This article initiates the discussion because it introduces the concept of effectuation prepared by the researcher.

**3.1 Data gathering**

A research was conducted on 04.11.2015 in the ISI database with the above-mentioned article as a starting point and it resulted in a list of 500 academic articles with citations of Sarasvathy (2001). In these 500 articles, in order to optimize the selection to be analyzed, the following filters were applied: category: management, type: article and language: english.

The research resulted in 136 articles, which have gone through an analysis of the journals in which they were published. It was used then another criterion for classification. The authors indeed considered the publications listed in the Journal Citation Reports (JCR) - pointing out the most frequently quoted articles and the ones with the greatest impact on their field of research, based on peer review. Thus, after all the selection criteria, 116 articles were selected and used in the research.

**3.2 Data analysis**

Data analysis occurred in two distinct stages: i) a descriptive analysis to verify the amount of articles quoting Sarasvathy each year, which journals these publications were part of, how many authors published, the number of publications by author and the nature of published articles; ii) a content analysis was made to identify the concept of effectuation used in the articles. After the selection, the authors made a quantitative analysis followed by a content analysis. The quantitative analysis aims at providing a condensed representation of information, while the content analysis tries to identify the indicators enabling one to deduce that the reality is different from the message (Bardin, 2011).

**4 RESULTS****4.1 Quantitative Analysis**

In the descriptive analysis, it was initially observed the amount of articles over the years. Since the main objective of the paper is to analyze the evolution of the concept of

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effectuation, it was identified by the researches that the effectuation theme has shown greater demand, although it presents negative variations, reaching sometimes a variation of 133% between periods (2006-2007). The magazine with the largest number of publications that discusses and/or addresses effectuation theme is the "Strategic Entrepreneurship Journal" that suggests to value the contributions that lead to improvement organizations management practices regarding the entrepreneurial process involving imagination, perception, invention and innovation and to inevitable changes and transformations that result in benefits for the society, as described on its web page.

In the sample of articles, as shown in Table 3, a high association of authors in the publication of effectuation subject was found. In a preliminary analysis, this high number of association may indicate an aligned point of view and/or a uniform development of the theory, which will be validated in the content analysis.

**Table 3: Number of authors per article**

Authors per article	Percentage	Authors per article	Percentage
1	11,01%	4	16,95%
2	33,90%	5	0,85%
3	36,44%	9	0,85%

Source: elaborated by the authors

Although it was observed an outstanding co-authoring association - reaching the maximum of 6 authors - , it was not observed high levels of publication for most of the authors of the selection. The percentage of 92.4% of the authors published only one article concerning the topic of effectuation. Despite that, some authors wrote a larger number of publications. One can notice Sara Sarasvathy (6 publications) followed by Sharon Alvarez; Nicholas Dew, both with 5 articles.

#### 4.2 Qualitative Analysis

To analyze the 116 articles selected, the authors used the technic of content analysis as proposed by Bardin (2011). As one of the purposes of this study, it was observed the methodological approach used in the articles - whether theoretical or empirical. The distribution percentage between the articles of the sample shows that 57% were classified as empirical and 43% theoretical. For this purpose, according to Moody (2002), the "Empirical" methodological approach has to be considered when empirical observations or data are collected in order to answer a specific research question. The author Pedro Demo (2000) defined that the "Theoretical" methodological approach should be used for articles limited to use concepts, ideas, variables identification or modeling, building/rebuilding, aiming to improve the theoretical foundations in immediate terms.

Once the descriptive analysis was done, the authors focused on the content analysis. Aimed at achieving the stated objective "to analyze the effectuation of concepts used by researchers and their modification along the theoretical development", after reading the 116 articles, it was observed that many of the articles quoted Sarasvathy (2001) in a different context than she did. Effectuation was seen as an opportunity to exploit (BRADLEY, SHEPHERD; WIKLUND, 2011; BEHRENS, ERNST; SHEPHERD, 2013), trade goals (McMullen; DIMOV, 2013) and access to resources (SEBASTIAO; GOLICIC, 2008; BURG et al., 2012).

Thus, after the first reading, it was found that of the 116 articles, 67 met the search criteria, including the 6 by Sarasvathy. Therefore, the content analysis was based on 61 items and in response to the first specific objective elaborated, in 41% of articles the authors use a

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theoretical approach, while 59% researches were done with an empirical approach. Although most of the research done in the selection of articles was empirical, the number of theoretical investigations dealing with the concept of effectuation is high. This high number can be explained by the attempt of the authors – even Sarasvathy – to conceptually discuss the theme, seeking a better understanding of the theory.

Then, while seeking to achieve the second objective of the research, a deeper reading of the articles was made in order to identify the concepts of effectuation adopted by the authors. As shown in Table 4, the vast majority of articles mentioned Sarasvathy (2001), the first article where the concept of effectuation was set up. It can be also noticed that the other articles having a high number of citations were also written by Sarasvathy as a co-author. The impact of this new approach of thinking entrepreneurship, is also presented in the following academic articles cited, that aim to understand and predict the financial outcome from this new perspective.

**Table 4 – Citation map**

Author's concepts	Articles with the citation
Sarasvathy, 2001	Baker; Miner; Eesley, 2003; Davidsson; Hunter; Klofsten, 2006; Koch; Schmengler, 2006; Alvarez; Barney, 2007; Chiles; Bluedorn; Gupta, 2007; Miller, 2007; Burg Et Al., 2008; Koellinger, 2008; Mitchell; Mitchell; Smith, 2008; Bansal; Mcknight, 2009; Burke; Fraser; Green, 2009; Dew, 2009; Fischer; Mitchell; Phan, 2009; Tan,J.; Heavey Et Al., 2009; Haefliger; Jäger; Krogh, 2010; Harms, 2010; Parry; Song, 2010; Politis; Winborg; Dahlstrand, 2010; Song; Benedetto; Parry , 2010; Thompson; Macmillan, 2010; Gabrielsson; Politis, 2011;; Gelderen; Thurik; Patel, 2011; Golicic; Sebastiao, 2011; Hansen; Shrader; Monllor, 2011; Murnieks Et. Al., 2011; Rasmussen, 2011; Rasmussen; Mosey; Wright, 2011; Fiet; Norton, Jr, 2012; Luke; Chu, 2012; Prashantham; Floyd, 2012; Andries; Debackere; Looy, 2013; Autio; Dahlander; Frederiksen, 2013; Gabrielsson; Gabrielsson, 2013; Nowinski; Rialp, 2013; Santos; Spring, 2013; Spedale; Watson, 2013; Berends, Et Al., 2014; Blauth; Mauer; Brettel, 2014; Chetty, Et. Al., 2014; Garud; Gehman; Giuliani, 2014; Lundqvist, 2014; Mthanti; Urban, 2014; Nummela, Et Al., 2014; Pitkänen; Parvinen; Töytäri, 2014; Sitoh; Pan; Yu, 2014; Shepherd; Williams; Patzelt, 2014; Sun; Yang; Li, 2014; Chandra; Styles; Wilkinson, 2015; Demil; Lecocq; Ricart; Zott, 2015; Ramoglou; Zyglidopoulos, 2015.
Dew e Sarasvathy, 2002	Görling; Rehn, 2008; Spedale; Watson, 2013
Sarasvathy , 2003	Rasmussen, 2011.
Sarasvathy et al., 2003	Spedale; Watson, 2013
Sarasvathy, 2004	Gelderen; Thurik; Patel, 2011
Baker e Nelson, 2005	Berends, Et Al., 2014; Sun; Yang; Li, 2014
Sarasvathy e Dew, 2005	Politis; Winborg; Dahlstrand, 2010; Parry; Song, 2010; Gabrielsson; Politis, 2011; Golicic; Sebastiao, 2011; Berends, Et Al., 2014; Chetty, Et. Al., 2014.
Wiltbank et. al., 2006	Gabrielsson; Politis, 2011; Berends, Et Al., 2014; Mthanti; Urban, 2014.
Miller, 2007	Mitchell; Mitchell; Smith, 2008
Gruber at al., 2008	Pitkänen; Parvinen; Töytäri, 2014
Sarasvathy, 2008	Gabrielsson; Politis, 2011; Andries; Debackere; Looy, 2013; Maclaren; Young; Lochrie, 2013; Mthanti; Urban, 2014; Sitoh; Pan; Yu, 2014; Sun; Yang; Li, 2014
Sarasvathy e Dew, 2008	Lundqvist, 2014.
Dew, 2009	Sun; Yang; Li, 2014
Dew et al., 2009	Mthanti; Urban, 2014; Nummela, Et Al., 2014;

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Mauer, 2009	Andries; Debackere; Looy, 2013
Read et. al., 2009	Haefliger; Jäger; Krogh, 2010; Andries; Debackere; Looy, 2013; Gabrielsson; Gabrielsson, 2013; Blauth; Mauer; Brettel, 2014; Pitkänen; Parvinen; Töytäri, 2014.
Schindehutte e Morris 2009	Mthanti; Urban, 2014.
Chesbrough, 2010	Sitoh; Pan; Yu, 2014
Parry e Song, 2010	Parry; Song, 2010
Dacin, Dacin e Tracey, 2011	Dacin; Dacin; Tracey, 2011
Chandler et. al., 2011	Mthanti; Urban, 2014.
Jones, Coviello e Tang, 2011	Gabrielsson; Gabrielsson, 2013
Sarasvathy e Venkataramam, 2011	Mthanti; Urban, 2014.
Fiet, Norton Jr. e Clouse, 2012	Fiet; Norton, Jr, 2012
Fisher, 2012	Andries; Debackere; Looy, 2013
Sarasvathy, 2012	Ramoglou; Zyglidopoulos, 2015.
Gabrielsson e Gabrielsson, 2013	Gabrielsson; Gabrielsson, 2013; Nummela, Et Al., 2014
Sarasvathy et al., 2013	Chandra; Styles; Wilkinson, 2015
Blauth, Mauer e Brettel, 2014	Blauth; Mauer; Brettel, 2014

Source: elaborated by the authors

## 5 CONCLUSION

At the end of the research, when the contents of the articles dealing with effectuation were observed and analyzed, it was concluded that, in fact, despite the theory arisen 14 years ago, it cannot be identified a significant change in relation which was proposed by Sarasvathy in 2001. Quantitatively, it can be noted that, even today, that the most cited concept is hers and, although some other concepts have reached a high number of citations, the latter have also been proposed by the author or in partnership with another authors. Qualitatively, analyzing the content of other concepts, it can be seen that when the authors propose a definition of effectuation, they do it only in short or replicating what was defended by Sarasvathy (2001), as can be seen in the article of Dacin; Tracey (2011, p. 1210). They indeed wrote that "effectuation represents the form of decision making in which the entrepreneur imagines several possible routes or strategies that his or her venture might take." Similarly, Parry and Song (2010, p. 1115) assert that "the key implication of the model is effectuation that entrepreneurs will trend to rely more on informal information processes than on formal ones."

Besides these authors conceptualize effectuation without making any changes to the original concept, there are those who only appropriated the term and employ it in their conclusions without any reference to what the concept means, linking the term to the authors that preceded the creation of the theory, such as Berends et al. (2013, p 618) who wrote that "Carland, Hoy, Boulton; Carland, (1984) and Schumpeter (1934) wrote that effectuation theory addresses entrepreneurial behavior and seems especially suitable for product innovation in small firms, which is a specific form of entrepreneurial behavior" and further, the same author argued that " according to Ettlie and Rubenstein (1987) the logic of effectuation suits the characteristics of product innovation in small firms: effectuation concerns action under resource constraints, the central concern for most small firms."

Thus, the term "effectuation" remains employed primarily in the same way that was originally proposed. In light of the above, for future research, it is suggested to follow the search for theoretical and empirical developments on the effectuation's concept in a different



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database or using different filters from the ones used in this research aiming to capture a greater number of articles or a different sample in order to potentially validate some transformation on the theory. The study may to a certain degree present a limitation because it only takes into account articles from the journals listed in the Journal Citation Reports (JCR). Thus, other interesting points of view about the concept of "effectuation" may have been left aside during the research. They could have impacted the study conclusions.

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