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Entrepreneurial Ideation: An Effectual perspective on the new venture creation

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Abstract

Effectuation theory explains how to uncover and exploit opportunities in new markets with high levels of uncertainty. Through inductive analysis, we not only identify the existing five dimensions of effectuation- bird in the hand, affordable loss, lemonade, pilot in the plane, crazy quilt but also identify the three facets of imaginativeness- creative imaginativeness, practical imaginativeness and social imaginativeness as an essential component of effectuation theory. Therefore, in this work, we argue that effectuation is more than just a mode of action (behavioural dimension) and has a cognitive dimension attached to it. This understanding shall propel future researchers to investigate the emotional dimension, thereby establishing the theoretical construct of Effectual Mindset (EM).

Keywords: Effectuation theory, imaginativeness, entrepreneurial ideation, Gioia methodology

1. Introduction

The emergence of new ideas is the starting point of all entrepreneurial ventures (Cunneen et al., 2007), and how they affect the execution of opportunities is central to the field of entrepreneurship (Baron, 2006; Shane and Venkataraman, 2000; Short et al., 2010). This conceptualisation has led to a debate of different facets of opportunity nexus such as opportunity recognition, discovery and creation. However, we posit that different emergent theories of entrepreneurship do not necessarily have the same model of entrepreneurial opportunity formation. In this work, we aim to inductively understand the ideation process in firms that follow an effectual approach.

Effectuation, after almost a couple of decades of research has been suggested to be conceptualised as a “mode of action” (Grégoire and Cherchem, 2020). Some scholars have even argued that it doesn’t explain the formation of the venture (Kitching and Rouse, 2020). While we acknowledge that the theory of effectuation is still in its infancy stage (Perry et al., 2012), such criticisms are natural. In this work, we empirically posit that the effectuation theory is more than just a “mode of action” inductively via Gioia methodology (Gioia et al., 2013). We identify an essential construct, *imaginativeness*, which has been talked implicitly in the past research to be a critical component of effectual logic but then seems to have been lost in the whole debate of “effectuation is not what its advocates claim”. Thereby finding an important antecedent of effectuation components. Therefore, we make a theoretical contribution through this study by identifying an important tenet to the other components of effectuation (Bird in the hand, affordable loss, lemonade, pilot in the plane, crazy quilt).

This work is further divided into three parts. Firstly, we succinctly describe the theoretical background of the study. Secondly, we discuss the methodology and the analysis of the data. Thirdly, we discuss the findings and how it contributes to the current arena of effectuation theory research.

2. Theoretical background:

2.1. Process theories of entrepreneurship:

Till the early 2000s, process theory research in entrepreneurship literature was dominated by economic models of demand-supply dynamics (Casson, 1982; Kihlstrom and Laffont, 1979). Sarasvathy (2001) described these traditional approaches to entrepreneurship as “casual approach”. But soon, the process theories in entrepreneurship has turned many heads in the

research arena with the advent of new theories such as effectuation and bricolage (Fisher, 2012).

The casual approach to entrepreneurship is a perspective where the outcome is given and the entrepreneur chooses between the set of means on the basis of competitive analysis, comparisons with the competitors and thereby chasing the outcome (Sarasvathy, 2001).

In contrast, the effectual approach to entrepreneurship does not chase a target but rather starts with the set of means as given and positively leverage the contingencies that are bestowed on the firm as long as the loss incurred by the entrepreneurial firm is bearable by the entrepreneur.

The third eminent process theory in entrepreneurship research is bricolage (Baker and Nelson, 2005). This perspective of the entrepreneurial process stands close to the effectual approach because, similar to effectuation, this process also starts with means as given; however, it distinguishes itself on the basis of how an entrepreneur uses his rather restrained resources. This perspective talks about making “something from nothing”.

2.2. Ideation

One of the first building blocks which is common to all the processes of entrepreneurship is ideation (Shane, 2003). Ideation refers to the generation of ideas, specifically novel ideas, which is potentially progressed for designing (McCall, 2013), creating, tracking, or developing new products, services, or business models (Flynn et al., 2003) or the process of generating, developing, and testing ideas that may lead to solutions (Brown, 2008). The debate on entrepreneurial opportunity has led scholars to debate on the shades of the same color namely, entrepreneurial recognition, entrepreneurial discovery and entrepreneurial creation (Sarasvathy et al., 2010). The scholarly interest in entrepreneurial alertness was initiated by the works of Kirzner (1973; 1979) who described individuals who were more alert as the ones having an

“antenna” that allows them to “connect the dots” and identify gaps with limited cues. Later Kirzner (1999) posited that alertness relates to *creative and imaginative action* and may “impact the type of transactions that will be entered into future market periods”.

2.2.1. Imaginativeness

Imagination is often used to elucidate the creation of new recipes that is essential to novel conception of an idea (Cornelissen and Clarke, 2010). Kier and McMullen (2018) posited when the imaginativeness is mixed with the ‘knowledge structures’ that is needed for venture creation, it results into concepts that can be measured for its importance in novel enterprise development. Schumpeter (1942) also, signalled the importance of innovation in the creation of ventures when resources are combined in way which causes “creative destruction” the economy’s equilibrium. Imaginativeness enables such creative destruction that is essential for innovative venture creation. This form of imaginativeness is used for *creativity* (LeBoutillier and Marks, 2003) *innovation* (Liedtka, 2015), or novel commodity development (Dahl et al., 2001). Kier and McMullen (2018) posited that there are three types of imaginativeness that can foster entrepreneurial opportunity identification, creation or discovery, there are: creative imagination, practical imagination and social imagination.

2.2.1.1. Creative imaginativeness

Creative imaginativeness is defined as a cognitive skill to envisage something that has not been currently seen or observed for the purpose of creating something novel. Individuals who possess creative imaginativeness make novel association to create new “means-end relationship” (Eckhardt & Shane, 2003) and are undaunted to follow unconventional and fresh approaches to their entrepreneurial ventures. Kier and McMullen (2018) posited that individuals characterized by creative imaginativeness may play a more important role in novel

ventures creations such as Tesla Motors, SpaceX (which is also one of our data source) than in ventures such as McDonalds franchise which is not characterized by innovation.

2.2.1.2 Social imaginativeness

Social imaginativeness is also defined cognitive skill with which one visualises something that cannot be or is not currently being observed for the purposes of taking the perspective of others, seeing and feeling the world from another's shoes or empathically. It is fundamentally embedded primarily in the psychological concepts of *empathy* and *perspective taking* as well as the theory of mind literature from cognitive neuroscience.

2.2.1.3 Practical imaginativeness

Practical imaginativeness is a cognitive skill to envisage something that has not be currently observed for the purpose of “planning, organizing or managing resources, projects or information” (Kier and McMullen, 2018). This skill has the potential to convert mere raw ideas to opportunity that can be executed by potential entrepreneurs (Dimov, 2007).

3. Method and data analysis

3.3.1. Data Sources

We relied on two sets of sample data to get an in-depth analysis of how entrepreneurs think in the initial stages of the entrepreneurial opportunity identification and development phase and how that mode of cognition impacts the process of their entrepreneurial action and their journey. Firstly, we studied the auto-biography of a successful and expert entrepreneur, *Peter Thiel*, who wrote *Zero to one*. The book had more than 40,000 words to analyze and gave us

an in-depth insight into our research question. This auto-biography paved a way to our thinking about our research question.

Secondly, we analysed the interviews conducted by Khan academy of expert entrepreneurs such as Reid Hoffman, Elon Musk and Angela Ahrendts. The average length of interviews was 42:49 minutes. There are two reasons why we thought published interviews were appropriate. Firstly, our understanding of the process of effectuation would be best understood with the communication of expert entrepreneurs (Sarasvathy, 2009) and these interviews are difficult to get as a primary data source. Secondly, the interviewer Sal Khan primed the interviews in a way which was resonating with our primary research objective: *the process of entrepreneurial journey and how did it all start*. In addition to this, these interviews helped us to get an insight of an entrepreneur's mind that led to innovative firms.

We argue that through the usage of secondary data such as pledge letters (Mathias et al., 2017), auto-biographies, and published interviews, Gioia methodology can be made more trustworthy. This increment is because of two reasons, firstly, unlike the semi-structured interviews the authors in the auto-biography are un-nudged to talk in a particular direction, and secondly, the interviews that are published online can be reviewed by the readers in case of discrepancies.

3.3.2. Method

We follow an inductive approach to get an insight into our research question; therefore the findings that emerge from the examination of raw data is not dictated by the former theoretical lenses (Thomas, 2006). The emerging theories of entrepreneurship such as effectuation, bricolage is still in its development phase. Hence, looking at this theoretical framework through a lens of inductivism has the potential to unravel constructs that are of prime importance to the theory. Therefore, a variant of grounded theory (Corbin and Strauss, 1990), commonly known

as the *Gioia method* has been used to unknot the understanding of emerging perspectives of entrepreneurship. The Gioia method is well-recognized as an approach because it helps develop new concepts inductively without compromising rigor (Gioia et al., 2013). The method has been extensively used in entrepreneurship literature before this study (Hubner and Baum, 2018; Chen and Harrison, 2020; Smith and Bergman Jr, 2020). This method assumes both the subjects and the researchers as knowledgeable agents, who are capable of enunciating and examining socially constructed realities (Gioia et al., 2013). Corley and Gioia (2004) posited that this approach uses three orders of analysis. The first order concepts are the voice of the interviewees or the respondents. The second-order themes are grounded in theory and the third-order aggregate themes show a higher-order concept.

3.3.3. Data Analysis

To analyze our data, we strictly followed inductive coding procedures, as prescribed by (Gioia et al., 2013). Beginning with the autobiography, we coded the content independently to develop concepts from the data. After comparing our first-order concepts and resolving any interpretive differences, we toggled back and forth between theory and data to develop our axial codes and aggregate dimensions, culminating in our data structure, as shown in Fig 1 (Gioia et al., 2013).

After reading the autobiography of Peter Thiel, we got a reference point or an anchor for our understanding of entrepreneurial ideation. Therefore, we further chose only expert entrepreneurs to be our data source, and consequently, effectual theme emerged from the data, which also falls in line with Sarasvathy (2009). Ried Hoffman said: *“One thing that's unusual, most consumer internet start-ups don't actually have a vision from the very beginning that they stick to, they pivot a lot. They change a lot. LinkedIn was actually, more or less, there are things that have surprised us, some things we've learned..”* The effectual logic was somewhat consistent in the case of all expert entrepreneurs that we considered except Angela

Ahrendts. She talked more like a CEO than like an entrepreneur, which was something we expected.

Thiel's conception of *secrets* primed our understanding of how expert entrepreneurs could think about opportunities. After taking the interviews, we re-visited the autobiography and realised how during his explanation about *secrets*, he recommends entrepreneurs to *imagine* to unravel the secrets as he posits: "*You can't find secrets without looking for them*". In the interviews as well, we noticed prominently emergent theme of imaginativeness among the expert entrepreneurs when they were asked "how did it all start" which also confirms Kier and McMullen's (2018) argument of imaginativeness being the most fundamental component of entrepreneurial ideation. Fig 1 shows the data structure of how first order concepts developed into second order themes.

Insert Figure 1 about here

E F F E C T U A T I O N

- *“Humans don’t decide what to build by making choices from some cosmic catalogue of options given in advance; instead, by creating new technologies, we rewrite the plan of the world”*
- *“So I started getting into this. And trying to figure out, OK, well can I afford to build a spacecraft? Because I had some money as a result of PayPal, but it had to fit within that budget. And I figured we had to do two missions, because if we only did one and it failed, then it might have like the opposite effect.”*
- *“Facebook started as a service for just one university campus before it spread to other schools and then the entire world.”*

Bird-in-the-hand

- *“Technology companies follow the opposite trajectory. They often lose money for the first few years: it takes time to build valuable things, and that means delayed revenue.”*
- *“Yeah. Well, I figured I was willing to spend half the money that I got from PayPal with no expectation of return..... But the thing is that—their premise for talking me out of it was, well, we think you're going to lose the money that you invest. I was like, well, that was my expectation anyway, so I don't really mind if I lose...”*

Affordable loss

- *“If you can’t beat a rival, it may be better to merge”*
- *“So we set out to hire people who would actually enjoy working together. They had to be talented, but even more than that they had to be excited about working specifically with us. That was the start of the PayPal Mafia.”*
- *“This kind of man-machine symbiosis enabled PayPal to stay in business, which in-turn enabled hundreds of thousands of small businesses to accept the payments they needed to thrive on the internet.”*
- *“Advanced software made this possible, but even more important were the human analysts, prosecutors, scientists, and financial professionals without whose active engagement the software would have been useless.”*

Crazy quilt

- *“So let's see. For the Falcon 1, which is the first rocket we built. And the first three flights did not make it. In fact, we got progressively further. But like the first rocket came in and landed maybe a couple hundred yards away from the launch site, and tiny fragments. So, yeah, anyway, that rocketed ended up costing around \$6 million compared to other rockets in that class, which were about to \$25 million.... But there's an even better step beyond that which is to make rockets reusable.”*
- *“progress without planning is what we call “evolution.” Every living thing is just a random iteration on some other organism, and the best iterations win.”*

Lemonade

- *“In the most minimal sense, the future is simply the set of all moments yet to come. But what makes the future distinctive and important isn't that it hasn't happened yet, but rather that it will be a time when the world looks different from today..... No one can predict the future exactly, but we know two things: it's going to be different, and it must be rooted in today's world”*
- *I never went in saying, “I'm going to do this”. I went in saying, “What if we did this?” I've always been a dreamer.*
- *““Oh, we know how to use LinkedIn now,” but not a lot of people are buying job listings. So then we went to subscriptions and ads and those got us to profitability.”*

Pilot-in-the-plane

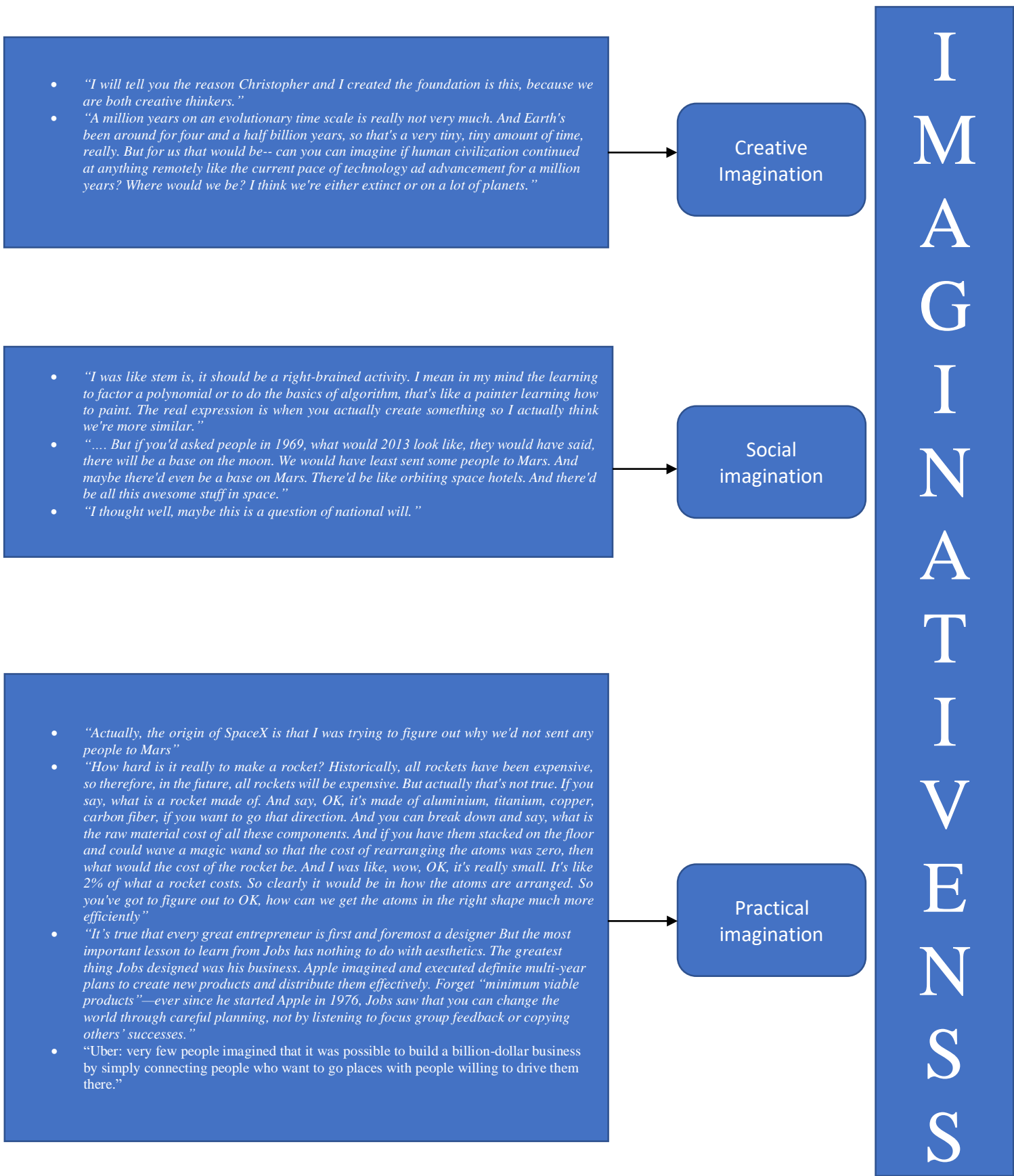


Fig1. Overview of data structure

4. Discussion:

Effectuation theory provides answers to entrepreneurs, especially when the outcome is particularly uncertain. In situations wherein the outcome of one's actions and the environments and factors of success are ex-ante unknowable (Knight, 2012). Effectual logic is thus particularly pertinent for entrepreneurial ventures where there is an introduction of innovative products and services in the economy (McMullen and Dimov, 2013; McMullen and Shepherd, 2006). The more innovative and novel a product or service is, the less available information can help an entrepreneur "trace the footprints" and the tougher it gets for an entrepreneur to follow the causal logic. By contrast to causal models, effectuation posits that the means, resources, and capabilities one can manipulate to form more optimal entrepreneurial ventures than chase the end goal. This stance does not mean that the entrepreneur has no clue where he intends to go (Dimov, 2017; McMullen and Shepherd, 2006). However, rather than chasing a pre-determined goal, the entrepreneur takes the means as given and act effectually. This approach introduces a new facet in the arena: where the entrepreneur takes the means and environmental dynamics as given, it stops being an optimization problem (Simon, 1973); it becomes an issue of design and imagination (Grégoire and Cherchem, 2020).

Sarasvathy (2001b) also hinted at the importance of imaginativeness in her seminal work: *"The essential agent of entrepreneurship is an effectuator: an imaginative actor who seizes contingent opportunities and exploits any and all means at hand to fulfill a plurality of current and future aspirations."* However, ever since, this construct seems to have lost its importance in effectuation's theoretical frame.

Furthermore, Kier and McMullen (2018) posited that the basic effectual logic- "The idea is that an effectual approach is best utilized to uncover and exploit opportunities in new markets with high levels of uncertainty" is incomplete because individuals lacking imaginativeness

won't be able to identify how to convert the means into attractive business models (Fisher, 2012).

Effectuation theory is still in its infancy stage and has been suggested to be a mode of action (Grégoire and Cherchem, 2020). However, we argue differently because it has more to it. This study makes a theoretical contribution by identifying *imaginativeness* as an important antecedent in the theory of effectuation. As conceptualized in the previous studies, imaginativeness lies in the cognitive plane (Kier and McMullen, 2018) of the process model of effectuation. Therefore, we contest that effectuation is not just a mode of action but also a mode of thinking that helps an entrepreneur act effectually.

The current five tenets of the effectuation theory does not explain the source of conceptualisation of ideas in the minds of the entrepreneur. Now that we have some clue what lies in the cognitive (imaginativeness) plane and behavioral plane (mode of action) of effectual logic, it'll be interesting to investigate as to what lies in the emotional plane of effectuation because the cognitive and behavioral elements of any concept do not hang separately and independently (Kuratko et al., 2020). Cognitive dimensions have been often understood as an architect and enabler of individual actions and emotions (Wood et al., 2012; Dweck and Leggett, 1988). This understanding is leading us to an understanding of the “effectual mindset” which contains cognitive, emotional and behavioral components, interwind, which contest the claims that effectuation is just a mode of action (Grégoire and Cherchem, 2020).

5. Limitations and future research avenues:

Although Sarasvathy (2001) said that causation and effectuation and bricolage are not used singularly in entrepreneurial activities. However, the data set that we took into consideration was mainly of expert entrepreneurs characterized where the effectual logic might be more prevalent as compared to causal (Sarasvathy, 2009). However, as defined in the conception of

imaginativeness, it should be more prevalent in ventures characterized by innovation rather than influenced by causal logic. However, imaginativeness can also play a significant role in the process theory of bricolage. The logic is driven by creating “something from nothing,” and this very logic is manifested in creativity.

This work does not investigate if imaginativeness is a dimension common to bricolage. However, it would be imperative for future researchers to research if it is one because of the degree of innovativeness that imaginativeness provides, an essential and distinguishing construct of the bricolage theory.

In addition to the above limitation, there is a self-desirability bias in published interviews or auto-biographies because individuals might not report the information, they do not want the readers to know. However, this study's research question does not investigate the altruistic nature of the entrepreneurs or their dark side, so it should not impact our findings.

Lastly, we acknowledge that the data set could be argued to be reasonably small to make conclusive arguments. However, since the work is still in a development phase, we can add more interview data to build our argument until we reach theoretical saturation coherently.

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