

Study of the Business model of a Moroccan technological startup through the lenses of Effectuation

Author 1: Lobna Bouanani El Idrissi,

Author 2: Tarik ZAHRANE,

Lobna BOUANANI EL IDRISSE, (PHD Student in Management Sciences)
Faculté des Sciences Juridiques, Economiques et Sociales, Université Cadi Ayyad, Marrakech
Maroc

Tarik ZAHRANE, (HDR Professor in ENCG Marrakech, Cadi Ayyad University)
École Nationale de Commerce et Gestion, Université Cadi Ayyad, Marrakech

Déclaration de divulgation : L'auteur n'a pas connaissance de quelconque financement qui pourrait affecter l'objectivité de cette étude.

Conflit d'intérêts : L'auteur ne signale aucun conflit d'intérêts.

BARI

Pour citer cet article : BOUANANI EL IDRISSE .L & ZAHRANE .T (2023) « Study of the Business model of a Moroccan technological startup through the lenses of Effectuation », African Scientific Journal « Volume 03, Numéro 18 » pp: 389 –427.

Date de soumission : Mai 2023

Date de publication : Juin 2023



DOI : 10.5281/zenodo.8133991

Copyright © 2023 – ASJ



Abstract

In her book "Effectuation, Elements of Entrepreneurial Expertise", Saras Sarasvathy (1998) presents the logic of effectuation. This logic, according to the researcher, is the main decision mode used by the 27 entrepreneurial experts she studied in the framework of a Think Aloud protocol to understand their paths to success. The objective of this article is to study the relationship between the decision logic of effectuation and the business model. In order to do so, we conducted a qualitative analysis using an interpretivist epistemological posture based on a single case study of a young technological company installed in the Marrakesh Safi region. Within the framework of this analysis, we conducted a serie of semi-structured interviews with the founder of the company and each member the management team. Through a vertical and horizontal manual analysis of the interviews, we tried to understand the role of effectuation in the creation and development of the business model of this young company. The results obtained confirm our initial postulate that there is a relationship between the use of effectual logic and the development of a successful business model. We understand that the founder based himself on the effectual logic from the beginning of the creation of his company and led all his decisions by being an actor who can influence and change the market. The management team confirms that all actions taken have contributed to a continuous change of the initial value proposition and an adaptation based on the inputs of the company's self-selected stakeholders.

Key Words: Effectuation, Business Model, Decision Making modes

Résumé

Dans son ouvrage “Effectuation, Elements of Entrepreneurial Expertise”, Saras Sarasvathy (1998) présente la logique de l’effectuation. Ce mode de raisonnement, selon la chercheuse, est le mode décisionnel utilisé par les 27 experts entrepreneurs qu’elle a étudié dans le cadre d’un protocole Think Aloud pour comprendre les règles de succès de ces derniers. L’objectif de cet article est d’étudier la relation entre la logique décisionnelle de l’effectuation et le Business model. Pour ce faire, nous avons mené une analyse qualitative s’insérant dans une posture épistémologique interprétativiste selon une étude de cas unique d’une jeune entreprise technologique dans la région de Marrakech Safi. Dans le cadre de cette analyse, nous avons conduit une série d’entretiens semi directifs avec le fondateur de l’entreprise et l’équipe dirigeante. A travers une analyse manuelle verticale et horizontale des entretiens, nous avons essayé de comprendre le rôle de l’effectuation dans la création et le développement du Business Model de cette jeune entreprise. Les résultats obtenus confirment notre postulat de départ qu’il existe une relation entre l’usage de la logique effectuale et le développement d’un Business Model performant. Nous comprenons que le fondateur s’est basé sur la logique effectuale dès le début de création de son entreprise et a adopté toutes ses décisions en étant un acteur qui peut influencer et changer le marché. L’équipe dirigeante confirme que toutes les actions menées ont contribué à un changement continu de la proposition de valeur initiale et une adaptation selon les inputs du réseau de valeur de l’entreprise.

Mots clés : Effectuation, Business Model, Mode de raisonnement décisionnel

1. Introduction

The entrepreneur, being an innovator (Schumpeter, 1935), adds value to society through the creation of ideas and their transformation into businesses. Schumpeter (1935), the father of the field of entrepreneurship as Filion (1997) calls him, presents the entrepreneur as a disruptive economic agent. He emphasizes that only individuals capable of innovation deserve the title of "entrepreneur". As an economic agent, the ultimate goal of the entrepreneur is to accumulate capital (Smith, 1991). He is therefore expected to make several decisions in order to create a profitable project. Through an analysis of expert entrepreneurs' experiences, Sarasvathy (1998) came up with a cognitive model for the transformation of an idea into a new business in a new market that is the Effectuation theory. Effectuation describes a series of behaviors that aim to simplify the rationally intractable entrepreneurial situation by breaking down the task (Sarasvathy, Simon, 2000) and creating precedents through actions (Sarasvathy, Dew, 2005). Entrepreneurs can no longer rely on market and trend predictions to innovate and create their companies. These entrepreneurs change their logic of thinking from a causal one and focus on an effectual logic. The causal logic reflects through:

- An entrepreneurial intention focusing on setting action to a specific predetermined goal (Bird, 1989)
- Maximizing expected profits (Friedman, 1953)
- Continuously analyzing of competitors (Porter, 1980)
- Managing surprises strategically (Ansoff, 1980)

They are led to develop their ideas on the basis of their own resources and by starting with what they already possess, i.e. their personality, their know-how and their networks (Sarasvathy, 2001). According to Sarasvathy and Dew (2005) entrepreneurs appear as Simonian decision makers, i.e., they are of limited rationality and docility. They live in a "*Marchian world of goal ambiguity*", where predicting and anticipating is not a sign of a positive outcome. (Sarasvathy and Dew, 2005). This requires the development of the Technology of Foolishness (March, 1978) that allows us to understand how entrepreneurs can make decisions in ambiguous contexts. The current situation linked to a wave of digitalization of all socio-economic sectors, the repercussions of the health crisis and the Russo-Ukrainian conflict stimulate the development of a volatile, uncertain, complex and ambiguous environment on an international scale. In addition, the daily challenges of high poverty levels, lack of access to education, lack of gender

equality and other socio-economic issues further accentuate the ambiguity and complexity of African markets.

However, thanks to the dynamics of African human capital and the rise in skills, entrepreneurship development has seen a surge in the last ten years at the African level. According to the latest report of Partech Africa (2021) "*Africa tech still grew faster than any other region with 2x the activity of last year and more than 3x the amount invested: 681 rounds of fundraising brought in a total of \$5.2 Billion*". Startups are a growth force in any economy. Through their development, these startups create job opportunities and fight not only unemployment but the economic recession of countries. As Birch (1979) explains, even with the different difficulties they face in securing the capital needed for their investment and the threat of securing their durability, small firms are the first types of entities to generate new jobs in economies. Birch (1979) explains that in some areas, small firms are considered the only providers of new job opportunities. At the Moroccan level, several schemes have been created to support and encourage either the creation or development of young Moroccan technology companies. On the state level, investment protocols have been launched such as "Innov Fund Invest" with a financing capacity of up to 700 million MAD, dedicated exclusively to innovative technology start-ups. The INTELAKA program, launched by His Majesty King Mohamed VI, allows Moroccan entrepreneurs to take out loans from various banks to finance their expansion activities. Other initiatives have been launched including: StartUp Maroc Booster, The Next Society, DiafrikInvest and Startup Africa Summit at the Kingdom level, and also promotional ecosystem initiatives such as the creation of the Morocco Tech Ecosystem. Regional protocols have been launched in different regions of the country such as the CRI Boost Lab in the region of Marrakech Safi or the creation of support and incubation cells in several Moroccan universities to encourage student entrepreneurship.

But despite all the protocols put in place, business failure rates are higher among innovative startups as demonstrated Walsh and Cunningham, 2016, even outside of times of crisis. Innovative startups face risks that threaten their existence (Stinchcombe, 1968). According to studies conducted by Deller and Conroy (2016), Vanderstraeten (2016) and Mas-Verdú et al (2015), the success rate of a startup is less than 5%. Of the 5% that survive, only 25% are able to provide significant and stable revenues. In other words, only 1.25% of startups worldwide have a chance to succeed and make a profit. These statistics perceived between 2015 and 2016 do not take into consideration the negative impact of the Covid 19 health crisis and the

subsequent economic crisis. In 2021, the CB Insights report shows that 90% of startups internationally fail to survive. The report shows that even after fundraising and access to finance, 70% of startups fail for various reasons. The report explains that one of the primary reasons for these failures is that the entrepreneur fails to create a successful business model for his company in the long term. In this case, the company loses money, faces operational problems and goes through legal problems that cause its bankruptcy. In this context, startups are required to use all the tools that can help them survive the waves of digitalization and socio-economic crises by trying to find new ways to generate value through the continuous reviewal of their Business Model. The Business Model, an artifact that has long been poorly defined and interpreted, has become the key to business success in this era of digitalization (Verstraete 2012). According to the 2008 IBM Global CEO study, 70% of corporate executives and private sector leaders said that their companies are looking at the Business Model to create additional value in their businesses (IBM, 2008). As a result, start-ups need to review their business model and all of its components in order to properly define and assimilate them, and to be able to think ahead in order to find new niches and development markets correlated to their initial value proposition.

In the context of the VUCA (Volatility, Uncertainty, Complexity, Ambiguity) environment, entrepreneurs must rely solely of the effectuation logic and the constant review of their business models. Through our paper, we seek to answer the following research question: **What role does the logic of effectuation play in the creation and development of a successful business model?** The objective of our paper is to understand how did the logic of effectuation guide the entrepreneur's choices from the creation phase to developing his business and what components of the business model artefact were linked to the principles of effectuation. The subject of our paper is a Moroccan Technological Startup founded more than 5 years specializing in the construction industry and operating from the region of Marrakesh Safi.

We structured our paper based on the following parts:

- The first part will be a review of the theoretical corpus related to our two key concepts: the theory of effectuation and the business model. In this part, we try to define these two concepts and their principles and components. We then look at the link that previous researchers have discovered between effectuation and business models.

- The second part of the article discusses the exploratory phase conducted in this research. We focus on the choice of the research methodology and approach, and then explain the different steps carried out.
- The third part of the article discusses the results of our exploratory study, following the limits of our current research and the avenues for improvement and research induced by this subject.
-

2. Conceptual and theoretical framing:

Our literature review begins with a review of the core discussed theory that is the Logic of effectuation. Next, we provide explanations of the Business Model artefact and the different scientific models created to explain it. On the light of the effectuation logic, we explain our choice of the GRP Model to continue our qualitative study of the digital startup.

2.1.Effectuation

In her book, *Effectuation: Elements of entrepreneurial expertise*, Saras Sarasvathy introduces the reasons of writing and discovering the theory of Effectuation through the development of Space ShipOne or the industry of Space Tourism that started in 2003. She explains in the first chapter how the designer Burt Rutan, the co-founder of Microsoft Paul Allen and Sir Richard Branson, the founder of Virgin Group, all collide and partner to create an industry that humans all around the world have only dreamt of. In the second edition of her book, Sarasvathy uncovers that the value of the Stocks of Virgin Galactica have increased by 726% in a market that didn't even exist before. Step by step, Sarasvathy (2008) uncovers the motives behind each person of this circle, their own personal ambitions that drove them to think of this idea in the first place and how their gathering made this idea become an opportunity and later on an investment. Through her empirical journey based on administering 27 Think Aloud Protocols (Ericson & Simon, 1993), Sarasvathy explains that the theory of effectuation is a decision-making framework that guides the entrepreneur's actions and behaviors (Sarasvathy & Dew, 2008). She explains that effectual entrepreneurs start by evaluating the available means at their immediate disposable. Then, they focus on what they can create through these resources. (Sarasvathy, 2001). Through focusing on what they already have, effectuation helps entrepreneurs navigate through Knightian uncertainty (Sarasvathy, 2008). They later on set an affordable loss limit that they respect and work towards creating alliances and recruiting self-selected stakeholders to

join their projects. (Saravasthy, 2008, Dew et al., 2011). The process of finding self-selected stakeholders is a major factor in the success of each firm. Through mobilizing effectual asks, entrepreneurs open to the different ideas of stakeholders that could lead to changing their original idea. While navigating the uncertain environment, effectuation helps entrepreneurs to exploit all surprises and turn them into opportunities, while trying to control the future instead of being controlled by it. (Saravasthy, 2001, 2008). Effectuation focuses on flexibility, experimentation and learning by doing to help entrepreneurs create or engage in new products and markets. (Saravasthy, 2001, 2008).

Effectuation is a solution to the constraints experienced by entrepreneurs which are: lack of ideas, lack of money, lack of direction and fear of failure. The theory encourages entrepreneurs to focus on feasible actions based on the following factors: who they are, what they know and who they know. Sarasvathy (2001) developed five defining principles that explain how entrepreneur's actions are based on effectuation (Sarasvathy 2001, Silberzahn 2016):

- **The Bird in Hand principle:** or Means-oriented action, is a principle that focuses on using the available means each person has. These resources can be their identity, their knowledge or their network. (Sarasvathy, 2001). Effectual entrepreneurs test with their available resources and try to choose from their business ideas a valuable opportunity, that limits their potential losses and is attractive to potential partners. Blank (2013) explains that the effectually created firms tend to succeed as they have the ability to adapt to all contingencies and changing customer needs.
- **The Affordable Loss principle:** Entrepreneurs act on their resources by considering and accepting the losses that may result from their actions, in contrast to the traditional approach where any action taken is the result of previously defined goals. Effectual entrepreneurs focus on defining a limit of resources they are willing to use and accepting to not go beyond that limit and their resources to pursue their idea. Effectual entrepreneurs are experts are focused at limiting their risk of loss (Sarasvathy, 2001, 2008). In addition to monetary resources, resources considered include time, personal relationships, reputation, and even health. Entrepreneurs can improve their business performance when they set an upper limit on losses, thereby controlling the downside, limiting costs and increasing efficiency.
- **The Crazy Quilt principle:** The entrepreneur is looking for partnership and co-creation and not only for independent clients or VC investors. The entrepreneur aims to create



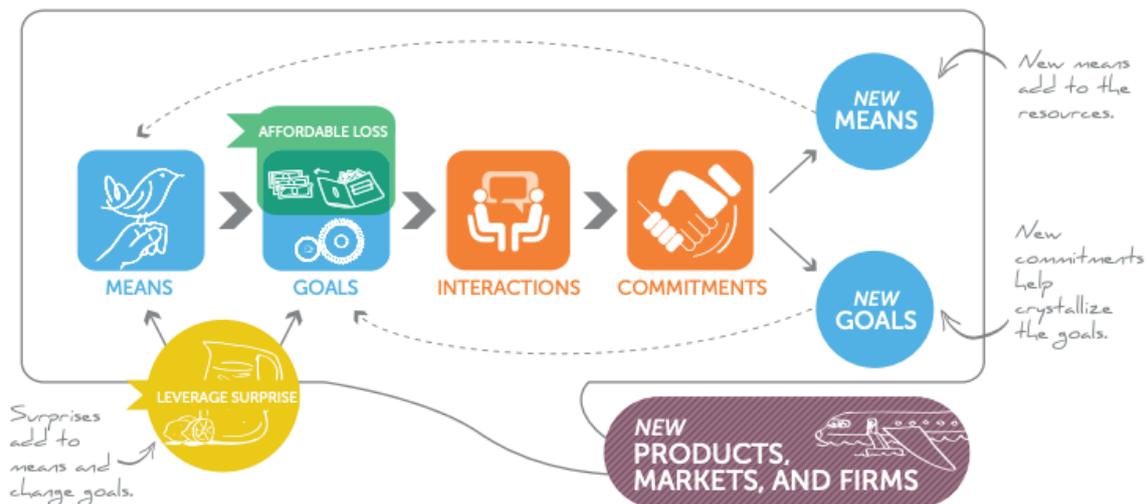
interactions between himself and all people in their environment. Through this principle, he asks the people he interacts with not only their opinion, but what would it take them to join him in co-creating this firm and turning this idea into a venture. In order to do so, the entrepreneur uses what is called an “Effectual Ask”. The entrepreneur is not only interested in a response of a Yes or No but looks for commitments from self-selected stakeholders. Therefore, everyone involved in his business is a co-creator to help either make the venture better, or change the venture’s original idea entirely. (Sarasvathy, 2022). According to Silberzahn (2016), effectuation joins the work of researchers Akrich, Callon and Latour (2006), who promoted, according to their theory of the Network Actor, a sociotechnical vision of innovation in which the notion of diffusion of an innovation is replaced by that of building a network of stakeholders interested in its success.

- **The pilot in plane principle or the co-creation principle:** Through the Crazy Quilt principle, the entrepreneur makes interactions with people in his environment with a mindset of finding stakeholders. Through the pilot in plane principle, he secures commitments from the people he interacted with. Eisenhardt and Schoonhoven (1996) explain that forming alliances helps entrepreneurs who are working in competitive markets or who lead innovative ideas. Through these alliances, they aim to reduce the uncertainty and share the risk. These self-selected stakeholders see that they can contribute to his original idea or change it entirely. Through these partnerships, new resources add to the entrepreneur’s original Bird in hand. The entrepreneur switches his mindset from guessing and predicting the market to a logic of innovating and/or inventing. The effectual model hides a creative vision of entrepreneurship that approaches Schumpeter's theory of Creative Destruction (1934). Silberzahn (2016) cites the Swatch and Starbucks companies, which despite the negative development of their respective industries launched their businesses and achieved international success.
- **The lemonade principle:** In a volatile, complex world that changes constantly through digitalization and new technologies, many firms cease to exist because their visionary ideas stumbled new obstacles and surprises from the market. But instead of being affected by these disruptions, entrepreneurs must embrace them and take advantage of them to empower their original ideas or to create new ventures completely different from their first paths. These contingencies can also be the reason that pushes some

individuals to become entrepreneurs in order to answer some issues they are going through. Sarasvathy has interviewed many entrepreneurs during her exploration and most of them explain that these successful ventures weren't born because they are visionary but because they are adapting to a contingency from the market, they were already in. According to Silberzahn, many companies have changed their business because of these disruptions, such as the case of Stacy's Chips, which switched from selling sandwiches to selling chips. Read. et al, (2011) refers to «*contingency path to new outcomes*,» that explain that entrepreneurs who take into consideration all surprises, can achieve better outcomes.

Sarasvathy created the Dynamic model of effectuation (As shown in Figure 1) and updated through the years to include not only the five principles of effectuation but to illustrate the effectual cycle entrepreneurs go through. She explains that this process is not a success path to follow but it's a sculpting path for everyone to use.

Figure N°1: The Effectual Cycle



Source: Sarasvathy 2021,¹

¹ Cited from <https://effectuation.org/effectuation-101>.

According to Silberzahn (2016), effectuation redefines some key concepts of entrepreneurship through three axes:

- **Idea:** Entrepreneurs can start simple and mostly through personal ideas. To develop the idea, the key factor is the bearer of this idea, i.e. the individual. The entrepreneurial project starts with an individual placed in a problematic context as in the case of Muhamed Yunus, professor of economics in Bangladesh, who was surprised to see that a group of farmers could not borrow 23 dollars, which gave birth to the system of microcredit.
- **Opportunity = Idea + Action:** According to Silberzahn, opportunity is constructed through entrepreneurial action. It is possible that the individual does not realize that he or she is engaged in entrepreneurial action, as in the case of Muhamed Yunus who took the first step of action by visiting financial organizations to understand and diagnose the problem behind the \$23 loan.
- **Sustainable Project = Opportunity + Stakeholder Engagement:** For a project to be viable, it must have the interest and commitment of multiple stakeholders including partners, employees, customers and others.

Even if effectuation as an adaptative and transformative approach (Wiltbank et al, 2006) came as an independent decision-making logic (Mckelvie et al, 2020) compared to the visionary approach (Wiltbank et al, 2006) or the causation logic, both logics are not true opposites (Perry et al, 2012). Sarasvathy (2001, p. 245) argues that "*both decision logics are integral to human reasoning and can occur simultaneously, overlap, and intersect in different decision and action contexts,*" implying that causation and effectuation should not be considered opposites.

According to Mckelvie, et al. (2020), both decision logics are not negatively correlated. He explains that each of them can be used in an alternative way, in different types of decisions, and in different stages. According to Berends et al. (2014) and Reymen et al. (2015) effectuation is the logic most used in the early phases of firm creation and development, when the levels of uncertainty are high. Causation is used in the more later phases of firm development, when the firm and market are more stable. Reymen et al (2015) explains that the along with uncertainty, the number of decision makers involved is a factor of when each decision logics is used (Nummela et al., 2014).

2.2. Business Model:

Despite the fact that every company operates a business model (Chesbrough, 2007), research around this notion is a relatively young field of research. This is apparent by the fact that there is still no accepted common definition for the term "Business Model" (Zott, Amit, & Massa, 2011). This notion of the business model has received increased attention from practitioners and scientific researchers. Chesbrough and Rosenbloom (2002) conducted searches on the Google search engine around appearances of the notion of the Business Model. In 2000, 107 000 hits were found. In 2006, the number of hits increased to 36.8 million. This increase shows the interest in the notion of the business model parallel to the development of the internet bubble. The business model has been identified as a distinct source of competitive advantage and as a valuable tool in competitive business environments (Christensen, 2001; Zott, Amit, & Massa, 2011). This artefact that facilitates group ideation and innovation processes, as Eppler et al. (2011) described it, can be defined as *"the means by which a firm creates and sustains margins of growth"* (Euchner and Ganguly, 2014) or *"the heuristic logic that connects technical potential with the realization of economic value"* (Chesbrough, Rosenbloom, 2002). Teece (2010) defined the Business Model as a framework that *"articulates the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value"*. But despite its frequent use in business creation, the Business Model is being eliminated against other concepts such as business plans. Some researchers believe that this confusion about the notion of the business model is linked to its competition with the notion of strategy (Lecocq, Demil and Warnier, 2006). For this reason, these researchers define the business model as the choices that a company makes to generate revenue. These choices relate to three main dimensions:

- **Resources and skills mobilized:** Edith Penrose's (1959) research proposed a theory of firm growth based on the resources it holds. These resources and skills can be exploited and combined to offer several services and sources of revenue. The growth of the company depends on the ability of the managers to exploit unused or underused resources, or to combine them in an innovative way. Companies need to be constantly vigilant in identifying emerging resources and skills that can be leveraged.
- **The product and service offer made to clients:** After identifying the resources and skills to be mobilized, managers must develop a product and service offer to better valorize the resources. These forms of valorization depend mainly on the sector of

activity and the creativity of the managers and show what the company's target is and what types of relationships are forged between the managers and different agents. The company must identify the agents with whom it will value its resources. Traditionally, the customer is the first agent identified, but it is important to also identify the stakeholders and partners critical to the company.

- **The company's internal organization or positioning in the value chain:** Thirdly, after the valuation of resources, the company must position itself in the value chain by defining the functions it will provide and those that will be provided by its partners. Companies may not take into account functions that their competitors perform for a better optimization of their profit margins, as in the case of Dell, which does not wish to reinvent the innovations of Intel or Microsoft. But companies can take into account new revenue opportunities that do not necessarily fit into its normal Business Model, as for example the airline company Sabre that rents its planes for advertising. On the other hand, the positioning of the firm should not limit its revenue, as in the case of Alcatel, which by focusing on its engineering activities, has prevented itself from benefiting from other sources of revenue from production activities.

The choices made on these dimensions determine the structure of the company's revenues and expenses. This definition shows the difference between the business model and strategy. Strategy focuses on the choice of activities and the acquisition and preservation of a competitive advantage that produces a performance superior to that of competitors. The Business Model focuses on the company's sources of revenue and proposes more operational elements than the dominant theories in strategy and moves away from strictly functional analyses to understand the company in a transversal way. The Business Model leads to the notion of margin, which indicates whether it is profitable and sustainable, by focusing on the company's revenues and expenses as follows:

- **Volume and structure of revenues:** In developing the BM, the company's managers must address several issues, including the volume and structure of revenues generated by the products and services offered. Indeed, the revenue structure is of major importance because of the following elements:
 - It determines the company's exposure to crises and its sustainability
 - It conditions the bargaining power of clients



- It has repercussions at the cognitive level with respect to customers and partners. The business model thus defines the elements that generate value. On the other hand, it is necessary to address the company's remuneration methods. The managers must adopt a Yield Management logic through which they could increase their turnover by spreading the sales over a period of time and possibly proposing lower prices for the customers
- **The nature and level of expenses:** The objective of the Business Model is not only to increase the company's income but to ensure its sustainability. For this, controlling the level of expenses is essential. Cost control is not the only issue, but also the nature of the expenses, fixed or variable. The authors explain that increasing revenues on the basis of variable costs is a good way to improve the profitability of the company, since fixed costs must be amortized over larger volumes of products and services. According to the authors, the outsourcing of certain activities or the implementation of cooperation can lead to a reduction in costs. However, these choices limit opportunities at the same time. Company managers must be sensitive to the impact of revenue volume increases on financial requirements and working capital needs.

Another Business Model was created in 2010 by Osterwalder and Pigneur called the Business Model Canvas. This artefact was created in order to view the important components that a firm focuses on in order to create profit and gain market share. The Business Model Canvas, or BMC, is essentially an instrument for making individual and collaborative decisions about organizational effectiveness (Lima and Baudier, 2017). As analyzed by Lima and Baudier (2017), the model includes two types of components:

- Components focused on choosing, delivering and capturing value: customer segments, value proposition, channels, customer relations, revenue streams (Lima and Baudier, 2017)
- Components focused on value creation: activities, resources, partnerships and business costs (Lima and Baudier, 2017)
- The value proposition building block is the centerpiece of the canvas (Lima and Baudier, 2017)

Innovative ideas come from brainstorming each block of the Business Model Canva to create new value adding ideas and opportunities. (Fritscher, Pigneur, 2010). Lima and Baudier (2017)

present a table explaining the different benefits of the Business model artefact as illustrated in Table n° 1.

Table N°1: Claimed benefits of business model artefacts

CLAIMED BENEFITS		SOURCES
Functional Benefits (related to the expected organizational outputs of BM innovation activities)	1. Performance	Zott and Amit 2007, 2008; Trimi and Berbegal-Mirabent, 2012; Gunzel and Holm, 2013; Verstraete et al., 2012
	2. Communication	Trimis and Berbegal-Mirabent, 2012; Osterwalder et al., 2005; Fritscher and Pigneur, 2010; Jouison and Verstraete, 2008
	3. Innovation	Zott et al., 2011; Chesborough, 2010; Johnson et al., 2008; Teece, 2010
Cognitive Benefits (related to the thinking process of individuals and groups using the BM as an innovation tool)	4. Visualization	Osterwalder and Pigneur, 2010; Osterwalder et al., 2005; Fritscher and Pigneur, 2010; Verstraete, Kremer and Jouison-Laffite, 2012
	5. Decision-making	Trimis and Berbegal-Mirabent, 2012; Osterwalder and Pigneur, 2010; Schneider and Spieth, 2014
	6. Creative thinking	Eppler et al., 2011; Schneider and Spieth, 2014; Fritscher and Pigneur, 2010
	7. Collaboration	Fritscher and Pigneur, 2010; Osterwalder and Pigneur, 2010; Eppler et al., 2011; Verstraete, Kremer and Jouison-Laffite, 2012
	8. Reflection	Trimis and Berbegal-Mirabent, 2012; Teece, 2010; Schneider and Spieth, 2013

Source : Lima, M. & Baudier, P. (2017). Business Model Canvas Acceptance among French Entrepreneurship Students: Principles for Enhancing Innovation Artefacts in Business Education. *Journal of Innovation Economics & Management*, 23, 159-183.

As the BMC presents the different components of business modeling, it also presents different issues. Gunzel and Holm (2013) explain that the Business Model Canva is a multifaced framework. This structure requires that the Business Model needs to be led by capable leaders through diversified approaches. Eppler et al. (2011) explains that using the Business Model Canva has both positive and negative consequences for team collaboration. According to their research, the template of the Business Model Canva enhances collaboration between team members, but lowers creativity levels and supports team members to be more cautious when accepting these new ideas.

In 2012, Verstraete, Krémer, Jouison-Laffitte offer a new way to study and use the Business Model. They start by emphasizing the systemic nature of this artefact, pointing out that each

component or sub-system of a visual artefact is heuristically linked to the others like the BMC. But unlike Lecocq, Demil and Warnier (2006), they refuse to limit the meaning of the Business Model to the revenue model. The notion of business model has shown greater interest with the advent of the internet and because of the difficulties of partners to understand the new business (Verstaraete, 2012). The Business Model is a way to model business in a systemic approach that allows partners to understand the most complex systems. The authors define the Business Model according to three generic components as follows

- **The generation of a value** appreciated by the markets;
- **The remuneration of this value;**
- Sharing success with the "**value network**", i.e., the actors of the system.

These three components of the business model define the GRP model, which stands for Generation, Remuneration and Sharing as illustrated in Figure 3 below. The authors explain this model as follows:

- **The Generation of a value** appreciated by the markets: This first component informs on three main elements:
 - o The project leader or entrepreneur who must justify his or her legitimacy through motivation, experience and network.
 - o The value proposition which is an explanation of the business idea related to the service or product
 - o Value creation, which is defined as the ability to gather and organize the necessary resources of all kinds for the success of the project. To capture these resources, it is important to establish agreements with those who possess them, who become stakeholders. Thus, entrepreneurship is seen as an act of partnership.
- **The remuneration of this value**, which is none other than the economic model or income model, is divided into three elements: the source of remuneration, the volume of this remuneration and the potential profit.
- **The sharing of success** with the "value network", in other words the actors of the system: the different stakeholders, the conventions and the ecosystems.

Through this model, the authors believe that the Business Model is a business convention and the GRP model is the translation of this convention into a strategic and operational tool, which can be used to initiate or train projects. The Business Model is a shared representation (convention), related to value generation, value remuneration and value sharing (Verstraete, Jouison-Laffitte, 2011) The theory of convention is strongly present in this development of the Business Model. The entrepreneur is the spokesperson for a business agreement established between him and the various partners or stakeholders. His primary task is to convince the partners to join his business. As the partnerships are established, each partner influences the Business Model under construction, resulting in a common frame of reference of what the business is. The GBO is thus a systemic artifact. This systemic approach emphasizes the interactions between the parties. The links between the components of the Business Model, Generation and Remuneration are based on the RBV (Resource Based View) current where the organizational structure is linked to the tangible and intangible resources that the entrepreneur must capture. The Business Model is considered as a generic method to organize the knowledge built up about a project based on existing heuristic or analytical approaches such as SWOT analysis or Porter's five forces model. The GRP model is considered as a toolbox for any project owner who seeks to build his BM through the filling of predefined headings useful to set up the business agreement. As an example, an interactive site has been developed to help Internet users fill in the GRP model to build their business agreements. According to the researchers, the BM has several features that have increased the level of interest around the concept. In practice, the BM according to GRP model is:

1. **A tool to create meaning:** It offers a framework of intelligibility to complex systems through different forms of representation. It thus helps to understand complex organizations due to a dense business network or innovation that breaks with the conventions of the sector.
2. **A tool for convincing:** It is difficult for any entrepreneur to get the support of the partners, as the BM is a collective dynamic of meaning and value creation for each actor. Through the GRP model, the understanding of the BM becomes easier. It represents a solution to convince partners through a discussion on the most important elements in any business summarized and grouped through the GRP model. This advantage of the GRP model was supported by the presentations made by the CREE Master students to

a panel of financing and coaching professionals. The latter greatly appreciated the use of the BM approach and the GRP model in the students' projects.

3. **A tool for imagining and stimulating creativity:** The BM helps avoid freezing the target envisaged by the business in the early stages. It allows to review all the components through the GRP model in order to get the most value and development from each of them.
4. A tool to formalize: The entrepreneurial process has five main phases:
 - Every entrepreneur must have a business idea.
 - This idea must be exploited as a business opportunity.
 - The entrepreneur reveals this opportunity to convince partners to put in place the necessary resources for the project, leading to the construction of a business model.
5. **A tool for forecasting:** The GRP model is not only a tool to give a picture of an organization at a given moment, but it is a dynamic tool for medium-term management.
6. **A pedagogical tool for entrepreneurship:** The BM is mobilized in the framework of degree courses on several curricula through the creation of BM in groups. The main interest is the link it imposes between theory and practice.

Thus, throughout our research and exploratory phase, we will adopt the GRP model as a clear and global representation and definition of the Business Model.

2.3.Effectuation and Business Model:

Few researchers have discussed the correlation between effectuation theory and the Business Model artefact. Chesbrough (2010) explains that when there is a lack of market data, effectuation is mobilized by entrepreneurs to enact and control the market. He explains that effectuation and experimentation can help solve the barriers of business model innovation Chesbrough (2010). Chandler et al. (2011) explains that effectuation helps to result in a better business model through the alterations of each component. Through studying effectuation in an R&D environment, Brettel et al. (2012) explains how the dimensions of effectuation are “*performance enhancing measures,*” which results in creating strong business models.

According to Vinciane Servantie (2012), there is a significant correlation between the two variables. Through a unique case study carried out around The Game Time Foundation, which

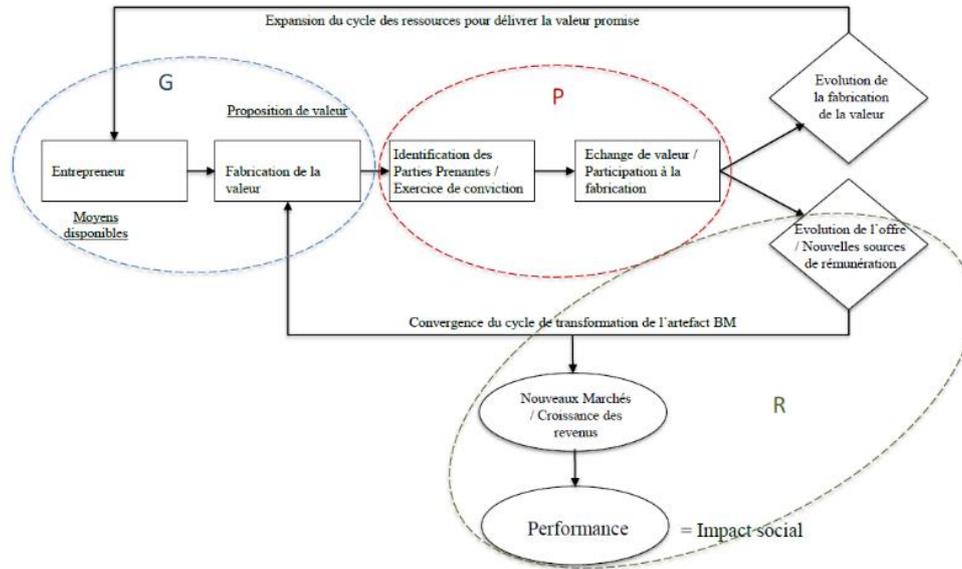
helps Colombian youth from disadvantaged neighborhoods to get out of the vicious circle of violence and misery through soccer, she tried to answer the following problematic: How does an initiative that starts from nothing, often from the personal effort of someone working full time on the side, who does this to help others and has the simple will to make a difference, grow and achieve a strong impact in a short period of time? Servantie (2012) conducted several interviews averaging one hour in length, based on the Life Story interview method, with key leaders in the project who played a key role during the various stages of the business model's evolution. The interviews were structured along this path:

- Discussion of the entrepreneur: who they are, what they do, who they know.
- Presentation of the value proposition or mission of the association
- The researcher looks at how they work with the resources they have
- Analysis of how each step has an influence on the BM: new means, diversification of the offer and new remuneration channels

Servantie used the GRP model to analyze her research, explaining that of all the models of this artifact, only the GRP model incorporates the Value Sharing component, a component also presents within the effectual logic. Servantie (2012) therefore resulted in the following research proposals:

- Proposition 1: The GRP model provides the components to understand the organization and the effectual process provides a conceptual framework to analyze the entrepreneurial process.
- Proposition 2: The effectual process ultimately addresses what Servantie (2012) identified as the Value Generation component: the entrepreneur, the value proposition, and the value manufacturing with the participation of the value network.
- Proposition 3: Any effectuation-like change in value generation has implications for compensation and value sharing.

Figure N°2: Evolutionary reading of the GRP model according to an effectuation logic



Source : Servantie, V. (2012)

3. Methodological framework:

For a rigorous methodological framing of research, we chose to conduct our research within the paradigm of Interpretativism. The paradigm stipulates that knowledge is constructed through the individual experience and it is linked to the situation and environment where the subject lived this experience (Avenier, 2012). This paradigm allows us to retrace knowledge from the lived experience of our paper's subject and taking into consideration the environment where their experience was situated. In our paper, using this paradigm to study the relationship between the Business model and the effectuation logic in a Moroccan environment is crucial. The interpretative paradigm got developed along with many qualitative methods (Avenier, 2012), which we choose to conduct our exploratory study. Qualitative exploratory approach was chosen due to many factors presented as follows:

- The novelty of the research question: The effectuation theory has been presented to the scientific world in early 2000s. In the last twenty years, this theory has been studied in itself and the role it plays either in internationalizing SMEs or venture capitalism or in comparison to the causation logic. It has only been studied once as a vector of Business model innovation.
- The context of the research question: Effectuation has been mobilized in different settings all around the world. But the African region, and particularly The Kingdom of Morocco offers a new environment to understand how Effectuation can be applied and

used taking into consideration the singular socio economic and political characteristics of the country and the region.

- The international economic state: This paper studies the crises of COVID 19 and how it impacted the Moroccan market as well as the current economic crises due to the Russian Ukrainian conflict and the exponential rise of prices and scarcity of raw materials.

Through the various methods adjacent to the qualitative exploratory research, we opted for the study case method (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Yin, 1984) in this paper. As Stake (2000) explains “case studies have become one of the most common ways to do qualitative inquiry”. It is important to use this method on our research as it is good for analyzing how and why a specific event and process occurs (Yin, 2003). In this case, our paper focuses mainly on understanding how the effectuation process was used to create a performing Business Model instead of aiming to generalize results (Bardin, 2007).

3.1.Data Collection procedure

Our exploratory research target is a single case study illustrated in the company Continuum BIM; a technology startup specialized in the construction sector. According to Yin, selecting cases relevant to the research object consists in choosing cases that offer a reality that corresponds to the constructs under study (Yin, 2009). Based on this, we chose Continuum BIM as the subject of our study due to these factors:

- On a first level, the firm’s principal vision is the digital transformation of the construction sector in the Moroccan level. It specializes in the Building Information Modeling industry. This industry is based on Cloud and IT tools that able all parties working in a construction project to digitalize documents, construction processes and all interactions. It allows financial, time and operational optimization through this digitalization. Continuum BIM is the first leading startup working in this industry in Morocco. This aspect shows that the firm has created an innovative Business model that can lead to transforming one of the most traditional and important industries in all economies.
- On a second level, Continuum BIM is led by an alumnus of the Cadi Ayyad University. Thanks to the university’s ecosystem, this innovative startup was presented to his Majesty the King Mohamed VI. Some of the firm’s project were presented to a

committee which led to awarding its founder as one the most innovative entrepreneurs in Morocco of the year 2018 by His Majesty coming from a public university. This process has been proof that the firm is manly led through the effectuation logic and relies heavily on the contribution of all partners, clients and ecosystem that it is a part of.

Therefore, it seemed interesting to understand and analyze the behavior of an established effectually led firm and the process that its founder and managing team has led during its five years of existence. To collect the data, we administered semi-structured interviews with the founder and managing team of the startup each in charge of a different department. We interviewed during two meetings the founder and current CEO of the firm through the Life Story interview method to clearly understand the choices he made. We interviewed once the Business development manager, the Operational Manager and the Financial manager. The main advantage of interview methods is the validity of the data produced. Data generated spontaneously by the respondent or in response to open-ended questions are more likely to reflect what the respondent thinks (Cossette, 1994). Individual interviews were conducted manually and face to face with the interviewees. The duration of the interviews varied between 45 min and 1h30. The structuring of our interview guide was done in such a way that we could answer our initial problematic, thus, the questions of our interview guide take their source from the literature review. For an in-depth and more detailed content analysis, the interviews were transcribed manually by listening to the recordings again. In relation to the analysis of the data produced, we proceeded to a manual processing of the interviews, via a content analysis. Content analysis aims at a second reading of a message to replace the intuitive or instinctive interpretation with a constructed interpretation (Feller, 1977). The content analysis lead in our paper is focused on a thematic analysis on the base of two principal sub analysis methods:

- Horizontal analysis: the synthesis here is related to the themes and sub-themes of the research;
- Vertical analysis: provides a summary of each interview conducted

Data collection process has also involved consulting the annual financial reports of the firm from 2018 to 2023. We also investigated all the information of the firm published in different newspapers, social networks to analyze the way that the firm presented themselves. We also examined different presentations, market researches and business plans that were made as a part

of a process to look for potential investors and stakeholders to support the firm either in its creation phase in 2018 or to survive the COVID 19 crisis in 2020.

4. Results and Discussion:

The main objective of our paper was to explore the role that the logic of effectuation plays in creating and developing a performing Business Model. A theoretical foundation based on a rich literature review allowed us to go through a large part of our study, extracting research proposals and a conceptual model that partly answer our central research question. Going into the field with the exploratory qualitative study allowed us to provide concrete answers to our question, and to find ourselves with significant results. We will start first with Table 2 that resumes all the altering decisions that impacted the Business Model of the firm through its five years of existence since its creation in 2018. These decisions have played a role in creating the performing Business model and the current market share the firm holds.

Table N°2: List of decisions made by the Firm Founder impacting the Firm's Business Model

Date	Decisions taken by Management that altered the Business Model of the startup
Before 2018	<ul style="list-style-type: none">- Experiences of the founder in BIM design offices in the United States of America- Hired in one of the design offices in the city of Rabat in Morocco- Participation in various events of the construction industry and networking- Idea has emerged and discussion has been led with mentors in the Academic domain and professional domain
2018	<p>02/2018:</p> <ul style="list-style-type: none">- Creation of Continuum BIM- Enrolling in the investor process created by Réseau Entreprendre Maroc to finance the creation and primary investment to buy the necessary equipment and to acquire an office- Bundling of family financial aid and acquisition of an office <p>04/2018:</p>



	<ul style="list-style-type: none">- Failure of the investment process with Réseau Entreprendre principally due to the difficulty to prepare the documents required at this stage such as Business Plan, detailed market researches- First projects of the company acquired from the founder's network: Developing the Mohamed VI Avenue in Rabat using BIM and BIM study of the Bus Station in Rabat <p>10/2018:</p> <ul style="list-style-type: none">- Awarded as young innovative startup of the year originated from a Public University by His Majesty the King Mohamed VI <p>12/2018:</p> <ul style="list-style-type: none">- Inauguration of the headquarters of the company in Marrakech
2019	<ul style="list-style-type: none">- First projects lead in BIM in Morocco- Recruiting team members in charge of Business Development and operations- Opening a second office in Rabat, Morocco
2020	<p>03/2020:</p> <ul style="list-style-type: none">- Covid 19 crisis, start of containment in Morocco, stopping construction sites, closing schools, universities, administrations- Switching to telework for all employees- Continuing the BIM studies thanks to the Cloud platforms <p>06/2020:</p> <ul style="list-style-type: none">- Creating a digital marketing strategy and major focus on content creation through a website and social media presence- Request for financing through the COVID 19 crisis through the Intelaka loan- Failure of the procedure to receive the Intelaka loan due to the complexity of the documents requested and the impossibility of creating forecasts in a crisis environment <p>08/2020:</p> <ul style="list-style-type: none">- Returning to the offices and resumption of construction sites- Decision to diversify the activity by creating a new company Continuum Academy specialized in professional training in BIM and the resale of software and Cloud solutions used in the BIM business <p>10/2020:</p>

	<ul style="list-style-type: none"> - Signing of the contract to become an Autodesk Authorized Reseller - Recruitment of a sales team to manage this new niche - Continuum Academy begins operations
2021	<ul style="list-style-type: none"> - New BIM led projects - Enhanced Digital Marketing campaigns - One on one sales approach led by the founder and the Business development manager <p>08/2021:</p> <ul style="list-style-type: none"> - Autodesk contract terminated due to customer feedback of conflict of interest
2022	<ul style="list-style-type: none"> - Market growth - Partnerships with international institutions to work on Moroccan projects led by Continuum BIM - Opening a new branch in Tangier, Morocco - Delivery of the first digital twin project in the construction sector in Morocco - Diversification and creation of new entity (No ability to have more information because of confidentiality)

Source: Interview with firm founder and Management team.

In this section, we will discuss the results by theme in order to highlight the main ideas and to describe the main results in relation to our research question.

4.1.Result 1: The entrepreneur is effectual by nature in creating his enterprise.

Before having the idea of the firm, the founder of Continuum BIM relied on different experiences. As a civil engineer from the Faculté de Sciences et Techniques of Marrakech, he was interested in the newest technologies of his industry. Through many internships and specialized trainings, he found the Building Information Modeling industry. He opened himself to the construction industry network and started building his own network starting from his professors, the university's dean and university partners. His prior ambition was to simply find a good job to start his career in. But his ambitions took him to the entrepreneurship path.

After acquiring a new Master's degree from Columbia University, and working as a Project Manager in one of the Civil engineering offices in Rabat, Morocco, he realized that there is a void in the Construction industry market. Many project owners he met through the projects he

piloted complain about the lack of optimization, the amount of construction material wasted and thrown after the project ends, the lack of productivity of workers and the issues faced in advanced stages of projects that could be resolved in the prior stages of engineering studies. Through his experience in Building Information Modeling, he started proposing to these project owners to use BIM in their daily processes. He presented this new process and started working with two clients. In the span of one year, clients started to be convinced by his work and the services he offered. He often got a lot of feedback, and changed his processes every time depending on the client's ambitions and needs. He also started to look for help in his environment. He asked different people of their opinions and what would it take to bring them on board. In the late of 2017, he found his first self-selected stakeholder who is one of his old colleagues from Cadi Ayyad University. In the beginning of 2018, himself and his colleague created Continuum BIM as the first agency specialized in Building Information Modeling and Civil Engineering analysis based on BIM. During his years of work, he was able to save an interesting amount of money which allowed him to acquire the first equipment and to rent a first office for the company. Little by little, he presented his idea to his entourage and received financial support from his family. As he discussed his idea with his friends and former colleagues, he received operational commitments as some friends offered to create a brand, brochures and presentations for this new venture. He relied on the network he originally built to get connected to different real estate developers, architects and civil engineering offices to offer them support in their projects. In a few months, he succeeded through his connections in his previous job to conduct the infrastructure development of Mohamed VI Avenue. This opportunity itself was a start to get other projects with the same project owner. After finishing this project and without his knowledge, he was proposed by the Cadi Ayyad university in a competition by the Royal committee as a young innovative entrepreneur. He was then received by his Majesty King Mohamed VI and Continuum BIM awarded as a young innovative startup. From then, the growth of the company continued through the profits he made from different projects. In 2019, he inaugurated the headquarters of the company in Marrakech, opened new offices in Rabat and recruited ten more people to work on the new projects. The entrepreneur relied heavily on his bird in hand to create his company and to turn his idea into a viable project. His idea was mainly born from his knowledge, what he studied and his previous professional experiences. He relied on different interactions to formulate the idea better through the crazy quilt. This led him to receive either material or operational commitment from different self-

selected stakeholders that are his friends and family. His Bird in Hand grew as his network grew. He received his first projects through the connections he created during his work as project manager. He invested only what he can afford to lose without taking any loans he cannot refund. This entrepreneur, without intending, practiced all the effectuation principles.

4.2.Result 2: Business Model's value proposition was created effectually and evolves constantly through an effectual process.

The original idea of the startup's founder was a civil engineering office that uses new technological tools. Through his first projects and discussion with various clients, he saw a real need of adopting the Building Information Modeling process in all the studies phase. Along with his team, they developed a process that start from the earliest phase of the construction project that is the design phase and helped the architecture team and other teams to turn their 2D plans into 3D models. These 3D models allowed project owners to view the construction and how the project will be executed. In another project, the team created a new process to utilize these 3D models and resolve all the construction conflicts between architectural teams, structural civil engineers and MEP engineers before starting the execution phase. In this project, that is currently the first construction project led in BIM since the start until the end of execution, the team has conducted several rounds of clash detection process and solved more than 500 clashes in the construction process before the execution. Based on the Operational director studies, this process helped optimize 20% of the time and 30% of the material resources that were planned to be engaged in the projects. While working on this project, the team realized that Building Information Modeling process can be applied above the studies phase to the execution phase. Based on their extensive experience in engineering software, they mobilized new Cloud based solutions to manage their project and all the communication between engineering offices, architects, project managers and the execution firms. They also guided this change wave through trainings they conducted themselves to all the contributors to the project. This change faced indeed some resistance, especially by the traditional workers, but slowly they were convinced by the importance of these processes and the optimization they allow. Based on their calculations, the Operating Manager cites that this project should have been made in at least 4 years. Today, the project is being finalized in a period of 2,5 years. Lastly, through the feedback of many clients and especially institutional ones, the team has understood that project owners face enormous issues to manage the facilities of their projects after being executed.

Through the interview with the Business Development Manager of the company, they conducted researches on the ways major clients manage their facilities. From commercial centers to hospitals to office buildings, this need was apparent to the team and they needed to find a solution for it. They developed then a department inside their company specialized in Digital Twins. They signed a partnership with one of the leading firms in Smart Building Solutions on the international level, and they started working together on a first project of one of their most loyal customers. According to the Financial manager, the company isn't making any significant profit of this pilot project, but they are working to learn about this new process and to achieve better results for their clients. The entrepreneur also tried to create other entities in the adjacent sector as the initial one because he understood that there could be a market for that. This decision was also based on the client's needs. The idea was to create an entity specialized in Professional trainings and commercializing engineering software. This opportunity did not turn into a viable project because of many issues due to the market maturity and conflict of interest. The team abandoned the idea and took a strategic decision to focus solely on the processes of Building Information Modeling. We understand from these different changes that the company started by offering a minimal value proposition and continued enhancing and developing their services through the inputs and ideas gathered from their clients and from international best practices. This constant development helps the value proposition of the firm to be more interesting and the Business Model more performing and more diversified. These changes also show that the entrepreneur takes into consideration all the new practices and disrupting technologies in the international and local market. Through mobilizing the lemonade principle, the team works to develop more the value proposition and include all the market contingencies. Currently, the entrepreneur is also expanding into other ideas and creating other opportunities that appear through his interactions with clients or partners and continuously mobilizing the Crazy Quilt principle.

4.3.Result 3: The entrepreneur is faced with the obligation of using the Causation logic but prefers to rely on the effectual logic in the current context

In the first steps of creating his firm in the beginning of 2018, the entrepreneur tried to submit a proposal for the Réseau Entreprendre to approach investors to finance his idea and help him turn it into a viable project. This network does not allow regular entrepreneur to pitch their ideas but they are asked to be sponsored by members of the network that are either high profile

professionals or successful entrepreneurs. Through his network, the founder of Continuum BIM succeeds in securing the first sponsorship. In order to submit the proposal, the founder was requested to prepare different documents principally a presentation of the idea, market research based on the Moroccan market and a business plan to estimate the future profits to be made. The entrepreneur was surprised by what was asked and appealed by the difficulty of estimating and predicting revenues when it is a completely innovative idea. After many trials, the founder of the startup could not estimate appropriately the market even if the idea is inspired by international practices as it still was in the beginning stages of market creation. Based on these challenges, he abandoned the process. On a second time, the founder tried to seek funding from the bank institutions. He tried to get the Intelaka loan in order to finance some new investments needed for materials and to help the company survive the consequences of COVID 19 crisis. According to the entrepreneur, this procedure took more than 4 months between his team and the bank. Many documents were demanded such as a presentation and future estimations. According to the financial manager, the team was completely unable to estimate any profit especially during the crisis phase. This procedure was later abandoned by the team. In these two initiatives we witness that both types of investors, banking institutions and venture capitalists, request primarily future estimations and business plans to be submitted for reviewal before any action could be taken by the investors. These documents refer directly to a planning vision and a causality logic. Yet, as a young startup with an innovative technological idea it is not only difficult to estimate future profits but it is extremely challenging to estimate how the market will react to this idea. Technological and innovative entrepreneurs are therefore limited to the effectuation logic and developing their ideas through their own resources. They cannot adopt a causal logic especially during the creation phase. On a second note, economic crises, induced either from Covid 19 sanitary crises or the Russian-Ukrainian conflict, not only impact international economies but especially the young entrepreneurial ventures. The environment becomes more complex, more volatile and more ambiguous for the strongest firms. Therefore, the young startups can only look for ways to survive that time and cannot be able in any shape or form to estimate how their industry will grow in the near or far future. Based on these two observations, venture capitalists and banking institutions should bare these challenges in mind to either create financing products for these special clients or share the risk with the entrepreneur even if they are positioned in a Knightian uncertainty. In light of this, the entrepreneur follows the effectuation logic in all his path, either in the creation or development phase. He looks for



financing outside of the causation logic, and stakeholders that can pilot with him the project and not just invest without any input. This helped him succeed in his first endeavor in Continuum BIM as his partners were his clients, professors, friends and family members.

5. Conclusion:

Through this paper and the exploratory research, we have offered a new way to see the use of the logic of effectuation using the Business Model artefact. We wanted to understand what role does effectuation play in creating and developing a performing Business model. We understood that using the effectuation logic as the most important decision-making method allow the entrepreneur to constantly review its value proposition either through the inputs of his active stakeholders, clients or through integrating the different new technologies and contingencies the market offers. The entrepreneur practices, without any prior intention, the principles of the bird in hand the crazy quilt, the pilot in plane and the lemonade of the theory of effectuation. We also understood that the entrepreneur would rather invest from his own savings that he can afford to lose, rather than going through a causal process to look for dormant investors that ask you need to estimate market evolution and future profit. The entrepreneur prefers to invest through the principle of affordable loss than to make estimations either in times of crisis or due to the innovative nature of his idea. Finally, we understood that while presenting an innovative idea attracts resistance, the entrepreneur strongly belief that he can create a new market through this idea. The entrepreneur does not consider the possibility of failing in this endeavor but presents all the reasons he will succeed in it and focuses solely on that. Driven by an overconfidence bias (Sarasvathy, 2008) and relaying on their resources, the entrepreneur aims to control the market rather than predict or follow it. He practices the pilot in plane principle that is the fifth principle of the theory of effectuation. These five principles of effectuation principally help in the creation and development of the value generation component of the artefact of the Business Model. The principles impact the first component of the value generation that is the entrepreneur himself. The who I am, What I know and whom I know question help the entrepreneur build his own persona and therefore help him mold the services or products he will be offering to clients. The value proposition is therefore impacted by the entrepreneur's personality. The value fabrication also depends on what the entrepreneur is offering and to whom. He adapts the promotional strategy and how the value proposition is presented depending on himself but also who his clients are. Therefore, the inputs of the clients are valuable since they are considered partners in constructing and fabricating the value proposition and a part of the value network. The entrepreneur also relies on the ecosystem from where his idea has emerged and the different partners and active stakeholders, he will meet along the way of developing his project. The revenue model is a result of all these component

interactions as it results on a volume of revenue and measurable financial performance. Furthermore, this accumulated profit is used by the entrepreneur to enhance and develop more the value proposition, variate the ways it is fabricate it and help him gain more partners and enlarge his network. Through our paper, we based our findings on a single case study of a technological startup established in the region of Marrakech Safi and operational through all the Moroccan Kingdom. We understand that one study case does not represent the total experiences of many firms and startups in the technological sector. We hope through upcoming papers to cover more effectual and innovative entrepreneurs in the technological industries to understand the role effectuation played in developing their business models. Moreover, we would like to understand how different African entrepreneurs coming from different African countries create and build their firms in an effectual way and what obstacles do they share with Moroccan entrepreneurs and what differs from them. The African continent contains many success stories and is a fertile soil for all upcoming entrepreneurship researches. Future research can cover many research questions that emerged from our paper. The link between performance of business model and effectuation is an eminent subject. Researchers should study the correlation between the use of the logic of effectuation and performance either in an organizational aspect or financial one. As qualitative research is most used in the study of effectuation, quantitative research methods can add a new outlook on the use of this logic regarding the performance of Business Models. Another working track could be the study of how effectual entrepreneurs react to failure. Our study case shows that the entrepreneur always seeks to turn new ideas into viable projects even if they experienced failures in the past. This behavior can be linked to an overconfidence bias that serial entrepreneur experience as shown by Sarasvathy (2001). But it could also be linked to other psychological traits that other scientists can define through more qualitative research.

6. BIBLIOGRAPHY

- Akrich, M., Callon, M., & Latour, B. (2006). Sociologie de la traduction : textes fondateurs. *Presses des MINES*.
- Alvarez, S. A., & Busenitz, L. W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27(6), 755–775.
- Ansoff, H. I. (1980). Strategic issue management. *Strategic management journal*, 1(2), 131-148.
- Avenier, M.J. (2012). Epistemologies de l'entrepreneuriat Cadres scientifiques et épistémologiques mobilisés dans la recherche en entrepreneuriat, *Cahier de recherche n 2012-02-E4*
- Bardin, L. (2007). L'analyse de contenu (éd. 1ère).
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120
- Berends, H., Jelinek, M., Reymen, I., & Stultiëns, R. (2014). Product innovation processes in small firms: Combining entrepreneurial effectuation and managerial causation. *Journal of Product Innovation Management*, 31(3), 616-635.
- Birch, D. L., Mass. (1979). The Job Generation Process, *Massachusetts Institute of Technology Program on Neighborhood (Cambridge, Change, R., & Mass.) (Vol. 302, p. 1979)*.
- Bird, B., & Jelinek, M. (1989). The Operation of Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, 13(2), 21–30
- Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. (2011). Causation and effectuation processes: A validation study. *Journal of business venturing*, 26(3), 375-390.
- Charles A. Campbell, (1992) A Decision Theory Model for Entrepreneurial Acts, *Entrepreneurship Theory and Practice, Volume 17, Issue 1*
- Chesbrough, H. (2007), Business model innovation: it's not just about technology anymore, *Strategy & Leadership*, Vol. 35 No. 6, pp. 12-17
- Chesbrough, H., & Rosenbloom, R. S. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and corporate change*, 11(3), 529-555.



- Davidsson, Per, Lindmark, Leif, & Olofsson, Christer (1998) SMEs and Job Creation during a Recession and Recovery. In Acs, Z., Carlsson, B., & Karlsson, C. (Eds. *Entrepreneurship, Small and Medium-sized Enterprises and the Macroeconomy*. Cambridge University Press, Cambridge, M.A, pp. 286-309
- Deller, Steven & Conroy, Tessa, 2016. Survival Rates of Rural Businesses: What the Evidence Tells Us, *Choices: The Magazine of Food, Farm, and Resource Issues*, Agricultural and Applied Economics Association, vol. 31(4), pages 1-5, December
- Dew N., Read S., Sarasvathy S. D., Wiltbank R. (2011). On the entrepreneurial genesis of new markets: Effectual transformations versus causal search and selection. *Journal of Evolutionary Economics*, 21, 231–253.
- Dew N., Sarasathy S., Read S., Wiltbank R. (2009). Affordable loss: Behavioral economic aspects of the plunge decision. *Strategic Entrepreneurship Journal*, 3, 105–126.
- Dutton, J. E., & Ottensmeyer, E. (1987). Strategic issue management systems: Forms, functions, and contexts. *Academy of management Review*, 12(2), 355-365.
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, 14(4), 532–550
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, 50(1), 25-32
- Eisenhardt, K. M., & Schoonhoven, C. B. (1996). Resource-Based View of Strategic Alliance Formation: Strategic and Social Effects in Entrepreneurial Firms. *Organization Science*, 7(2), 136–150.
- EPPLER, M., HOFFMANN, F., BRESCIANI, S. (2011), New Business Models Through Collaborative Idea Generation, *International Journal of Innovation Management*, 15(06), 1323-1341.
- Euchner, J., & Ganguly, A. (2014). Business model innovation in practice. *Research-Technology Management*, 57(6), 33-39.
- Fillion, L. (1997). Le champ de l'entrepreneuriat : historique, évolution, tendances. *Revue internationale P.M.E.*, 10(2), 129–172.
- Francisco Mas-Verdú , Domingo Ribeiro-Soriano , Norat Roig-Tierno, 2015, Firm survival: The role of incubators and business characteristics, *Journal of Business Research* 68 (2015) 793–796

- Friedman, M. (1953). The methodology of positive economics, *Positive Economics (Chicago: Univ. of Chicago Press, 1966)*, pp. 3-16, 30-43
- FRITSCHER, B., PIGNEUR, Y. (2010), Supporting Business Model Modelling: A Compromise Between Creativity And Constraints. In Task Models and Diagrams for User Interface Design (28-43), *Springer Berlin Heidelberg*
- Grace S. Walsh and James A. Cunningham (2016), "Business Failure and Entrepreneurship: Emergence, Evolution and Future Research", *Foundations and Trends® in Entrepreneurship: Vol. 12: No. 3, pp 163-285*.
- GÜNZEL, F., HOLM, A. (2013), One Size Does Not Fit All: Understanding the Front-End and Back-End of Business Model Innovation, *International Journal of Innovation Management, 17(1), 1-34*.
- Haltiwanger, J., Jarmin, R. S., & Miranda, J. (2013). WHO CREATES JOBS? SMALL VERSUS LARGE VERSUS YOUNG. *The Review of Economics and Statistics, 95(2), 347–361*.
- Henrekson, M., Johansson, D. Gazelles as job creators: a survey and interpretation of the evidence. *Small Bus Econ 35, 227–244 (2010)*
- Hudson, L. A., & Ozanne, J. L. (1988). Alternative ways of seeking knowledge in consumer research. *Journal of consumer research, 14(4), 508-521*.
- Jim Euchner & Steve Blank (2021) Lean Startup and Corporate Innovation, *Research-Technology Management, 64:5, 11-17*
- Johanna Vanderstraeten a, Arjen vanWitteloostuijn Paul Matthyssens Tales Andreassi Being flexible through customization – The impact of incubator focus and customization strategies on incubatee survival and growth, *Journal of Engineering and Technology Management Volume 41, July–September 2016, Pages 45-64, Journal of Engineering and Technology Management*
- JOUISON, E., VERSTRAETE, T. (2008), Business model et création d'entreprise, *Revue française de gestion, 29(1), 175-197*.
- L. J. Bourgeois, III, (1985): Strategic Goals, Perceived Uncertainty, and Economic Performance in Volatile Environments. *AMJ, 28, 548–573*
- Lima 1, M., & Baudier, P. (2017). Business model canvas acceptance among French entrepreneurship students: Principles for enhancing innovation artefacts in business education. *Journal of Innovation Economics & Management, (2), 159-183*.

- March, J. G. (1978). Bounded rationality, ambiguity, and the engineering of choice. *The bell journal of economics*, 587-608.
- Matthew D. Bird, Christian Swann & Patricia C. Jackman (2023) The what, why, and how of goal setting: A review of the goal-setting process in applied sport psychology practice, *Journal of Applied Sport Psychology*
- McKelvie, A., Chandler, G.N., DeTienne, D.R. et al. The measurement of effectuation: highlighting research tensions and opportunities for the future. *Small Bus Econ* 54, 689–720 (2020)
- Mintzberg, H. (1978). Patterns in strategy formation. *Management science*, 24(9), 934-948.
- Müller, R. M., & Thoring, K. (2012). Design thinking vs. lean startup: A comparison of two user-driven innovation strategies. *Leading Innovation through design, 2012 International Design Management Research Conference*, 151(2),
- Neumark, D., Wall, B., & Zhang, J. (2011). Do small businesses create more jobs? New evidence for the United States from the National Establishment Time Series. *The Review of Economics and Statistics*, 93(1), 16-29.
- Nicholas Dew, Saras Sarasathy, Stuart Read, Robert Wiltbank, (2009) Affordable loss: behavioral economic aspects of the plunge decision, *Strategic Entrepreneurship Journal Volume 3, Issue 2*
- Osterwalder, A., & Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers (Vol. 1). *John Wiley & Sons*.
- OSTERWALDER, A., PIGNEUR, Y., TUCCI, C. (2005), Clarifying Business Models: Origins, Present, and Future of the Concept, *Communications of the Association for Information Systems*, 16(1), 1-25.
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.
- Perry, J. T., Chandler, G. N., & Markova, G. (2012). Entrepreneurial Effectuation: A Review and Suggestions for Future Research. *Entrepreneurship Theory and Practice*, 36(4), 837–861.
- Porter, M. (1980) *Competitive Advantage: Creating and Sustaining Superior Performance; and Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press, New York.

- Read S., Song M., Smit W. (2009). A meta-analytic review of effectuation and venture performance. *Journal of Business Venturing*, 24, 573–587.
- Read, S., Sarasvathy, S., Wiltbank, R., Dew, N., Ohlsson, A.V, (2010) *Effectual Entrepreneurship, Routledge.*
- Sarasvathy S. D. (2008). Effectuation: Elements of entrepreneurial expertise.
- Sarasvathy S. D., Dew N., Read S., Wiltbank R. (2008). Designing organizations that design environments: Lessons from entrepreneurial expertise. *Organization Studies*, 29, 331–350.
- Sarasvathy S. D., Menon A. R., Kuechle G. (2013). Failing firms and successful entrepreneurs: Serial entrepreneurship as a temporal portfolio. *Small Business Economics*, 40, 417–434.
- Sarasvathy S. D., Ramesh A. (2019). An effectual model of collective action for addressing sustainability challenges. *Academy of Management Perspectives*, 33, 405–424.
- Sarasvathy S. D., Venkataraman S. (2011). Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship Theory and Practice*, 35, 113–135.
- Sarasvathy, S. (2001), Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency, *Academy of Management Review* 26, pp. 243-263.
- Sarasvathy, S. D. (1998). How do firms come to be? Towards a theory of the prefirm. *Carnegie Mellon University.*
- Sarasvathy, S. D. (2001, August). Effectual reasoning in entrepreneurial decision making: existence and bounds. *Academy of management proceedings (Vol. 2001, No. 1, pp. D1-D6). Briarcliff Manor, NY 10510*
- Sarasvathy, S. D. (2003). Entrepreneurship As a Science of The Artificial. *Journal of Economic Psychology*, 2(24), 203-220.
- Sarasvathy, S. D., & Dew, N. (2005). Entrepreneurial logics for a technology of foolishness. *Scandinavian journal of Management*, 21(4), 385-406.
- Sarasvathy, S.D., Dew, N. (2005). New market creation through transformation. *J Evol Econ* 15, 533–565
- Sarasvathy, S.D., Dew, N. (2013), Without judgment: An empirically-based entrepreneurial theory of the firm. *Rev Austrian Econ* 26, 277–296

- SCHNEIDER, S., SPIETH, P. (2013), Business Model Innovation: Towards an Integrated Future Research Agenda, *International Journal of Innovation Management*, 17(1), 1-34.
- SCHNEIDER, S., SPIETH, P. (2014), Business Model Innovation and Strategic Flexibility: Insights from An Experimental Research Design, *International Journal of Innovation Management*, 18(6), 1-21.
- Schumpeter, J. A. (1935). The Analysis of Economic Change. *The Review of Economics and Statistics*, 17(4), 2–10.
- Servantie, V. (2012). Evolution du Business Model selon la logique effectuale, *Congrès International Francophone en Entrepreneuriat et PME*
- Silberzahn, P. (2016). L'effectuation, logique de pensée des entrepreneurs experts. *Entreprendre & Innover*, 28, 76-82.
- SMITH, A. (1991), La richesse des nations, Paris, GF-Flammarion (édition originale 1776).
- Stake, R. E. (2005). Qualitative Case Studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (pp. 443–466). Sage Publications Ltd.
- Stinchcombe, A.L. (2000), "Social structure and organizations", Baum, J.A.C. and Dobbin, F. (Ed.) *Economics Meets Sociology in Strategic Management (Advances in Strategic Management, Vol. 17)*
- TRIMI, S., BERBEGAL-MIRABENT, J. (2012), Business Model Innovation in Entrepreneurship, *International Entrepreneurship and Management Journal*, 8(4), 449-465.
- Vanessa Warnier, Xavier Lecocq, Benoît Demil (2016), Le Business Model, un support à la créativité de l'entrepreneur, *Entreprendre & Innover*
- VERSTRAETE, T., JOUISON-LAFFITTE, E., KREMER, F., HLADY, M., BONCLER, J., BOUCHER, T., BOUSQUET, F., DONDI, J., MEIAR, A., PAPIN, C., SCIPION, F. (2012b). Recherche-action pour apprécier l'utilité du concept de Business Model pour les jeunes dirigeants d'entreprise du bâtiment, *Revue de l'Entrepreneuriat*, 11(4), 68-94.
- Verstraete, T., Krémer, F. & Jouison-Laffitte, E. (2012). Le business model : une théorie pour des pratiques. *Entreprendre & Innover*, 13, 7-26

- Wiltbank, R., Dew, N., Read, S. and Sarasvathy, S.D. (2006), *What to do next? The case for non-predictive strategy*. *Strat. Mgmt. J.*, 27: 981-998
- Yin, R. K. (2009). *Case study research: Design and methods (Vol. 5)*. *sage*.
- Yin, R.K. (1984) *Case Study Research - Design And Methods*. *Sage Publications. Beverly Hills*
- ZOTT, C., AMIT, R. (2007). *Business Model Design and the Performance of Entrepreneurial Firms*, *Organization Science*, 18(2), 181-199.
- ZOTT, C., AMIT, R. (2008), *The Fit between Product Market Strategy and Business Model: Implications for Firm Performance*, *Strategic Management Journal*, 29(1), 1-26.
- Zott, C., Amit, R., & Massa, L. (2010). *The business model: Theoretical roots, recent developments, and future research*. *IESE Research Papers*, 3(4), 1-43.
- ZOTT, C., AMIT, R., MASSA, L. (2011), *The Business Model: Recent Developments and Future Research*, *Journal of Management*, 37(4), 1019-1042.



Webographie:

- Africa Tech Venture Capital Report 2021, Partech, <https://partechpartners.com/2021-africa-tech-venture-capital-report/>
- <https://www.cbinsights.com/research/report/startup-failure-reasons-top/>
- <https://effectuation.org/>
- The Enterprise of the Future: Global CEO Study, <https://www.ibm.com/downloads/cas/XDWLBNZ2>