

The Role of Institutional Context in Shaping Decision-Making Styles of Novice Entrepreneurs in Dutch Startup Incubators

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ABSTRACT,

Decision-making in entrepreneurial environments is highly influenced by the level of uncertainty faced by the entrepreneur. In the face of uncertainty entrepreneurs can implement planned and emergent strategies to influence their performance. The planned approach falls in line with causation logic while the emergent approach falls in line with effectuation logic. Both approaches can also be overlapped, and intertwined in many different ways across a mix-match of contexts, decisions, and actions. Novice Entrepreneurs establishing their very first enterprise tend to join Business Incubators, since incubators address the issues entrepreneurs face in the early stages by providing them access to knowledge, resources and network. Business incubators are influenced by their shareholders, and adopt certain strategies to deal with the expectations of their shareholders. These shareholders relate to institutional theory, specifically formal institutions which represent structures of codified and explicit rules and standards that shape interaction among societal members. This paper dives into the effect of the institutional context on the decision-making style of novice entrepreneurs in startup incubators using an exploratory qualitative research design, with semi-structured interviews with entrepreneurs at NovelT's "Incubase" a University Business Incubator (UBI). The results show us that the effect of the institutional context on the decision-making styles of entrepreneurs are both direct and indirect and entail a blend of both causation and effectuation logic. Direct effects were highlighted by the requirements stakeholders and financing parties had for the entrepreneurs, while more indirect effects were highlighted by the community, network and overall ecosystem of the incubator. Future research is needed to dive deeper into the the effect and role of the institutional context on entrepreneurial decision making.

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1. INTRODUCTION

Entrepreneurial decision-making is highly influenced by the level of uncertainty faced by the entrepreneur (Sarasvathy, 2001). Entrepreneurs must decide which opportunities are worth seizing, which relationships are worth cultivating and whether they should continue or exit their business. (Van Praag 1999). Entrepreneurs can implement planned and emergent strategies to influence their performance (Jamin, 2024). In the face of uncertainty and risk, a Plan-based approach has been shown to be more suitable for venture creation (Alvarez and

Barney, 2005). This involves entrepreneurs defining clear-cut goals, conducting thorough market research, analyzing the competitors in the market, and calculating the expected returns of their venture. (Berends et al., 2013). This planned approach falls in line with *Causation* logic which aims to control the future result of a venture by making necessary predictions to increase the likelihood of its success (Berends et al., 2013). *Effectuation* logic on the other hand follows a more non-predictive path, focusing on “starting with the resources on hand, engaging in partnerships, taking calculated risks, and leveraging contingencies” (Roach et al., 2016; Haneberg, 2021). Although they are considered as two different trains of logic both *Effectuation* and *Causation* can occur simultaneously and

can be combined, overlapped, and intertwined in many different ways across a mix-match of contexts, decisions, and actions (Sarasvathy, 2001).

As an entrepreneur myself, upon co-founding a startup company for the first time, I found myself in an environment riddled with challenges, uncertainty, and an influx of data and information. The survival and growth of our startup relied on the need to make critical decisions daily in the midst of these uncertainties all while being confronted with our lack of experience. During the course of our startup's growth, our involvement with our Universities Business Incubator helped us, kickstart our company, grow as founders, expand our network, and open doors for us to access funding for our company. First-time founders such as ourselves establishing their very first enterprise, characterized as Novice Entrepreneurs (Aarstad et al, 2016) are especially vulnerable in today's volatile business environments due to their lack of experience. Being confronted with both their inexperience and the harsh reality that startups experience a high failure rate (Peters et al., 2004) it is ever more necessary for Novice Entrepreneurs to understand how to tackle these uncertainties and increase their chances of survival.

Business Incubators address the issues faced by entrepreneurs in the early stages (Hackett and Dilts, 2004) by giving them access to knowledge, resources, and opportunities to access relevant networks. For entrepreneurs in the early stages, the idea of joining an incubator program presents itself as a fruitful opportunity for growth, navigation, and course correction. Business incubators are influenced by their shareholders from different social areas such as politics, the sciences, or the business world groups and adopt certain strategies to deal with the expectations of their shareholders. "On top of this, incubator programs may impose causal activities on otherwise effectual entrepreneurs through the incubation process. Other, financial, actors in entrepreneurial ecosystems also expect entrepreneurs to follow a more causation-driven approach, at least in terms of presented output - a business plan." Ghezzi, 2019 and Brun, 2019 indicate as cited by Jamin 2024.

These financial actors in the entrepreneurial ecosystem relate to institutional theory. North, 1990 as cited by Holmes et al "Formal institutions represent structures of codified and explicit rules and standards that shape interaction among societal members" An example of formal institutions are economic institutions (Holmes et al 2013).

Levine, Loayza & Beck 2000 as cited by Holmes et al "A country's economic institutions shape the incentives and abilities of financial intermediaries (e.g., banks) to make the capital available, thereby influencing the capital investments of individuals and organizations"

Research gap: This sparks an area of interest as there is a gap in the research on how exactly the institutional context, specifically economic institutions which shape the incentives of financial intermediaries such as banks which are in partnership with universities, directly affects the decision-making style of novice entrepreneurs in startup incubators.

Business incubators adopt *causation* approaches to deal with the expectations of their shareholders meaning that entrepreneurs who utilize the support of incubators are likely to have their decision-making style and approach influenced by the incubator they are involved with (Aarstad and Jakobsen, 2019) even after joining incubator programs. Therefore for Novice entrepreneurs, embarking on this journey to incubation support means they must showcase the feasibility of their

businesses in order to be recruited and accepted into incubator programs (Jamin, 2024). "Also, incubator advisors may enforce causal activities to otherwise effectual entrepreneurs along the incubation process " indicates Brun, 2019 as cited by Galkina, 2022.

This paper aims to dive deeper and answer the Research Question: "How the institutional context affect the decision-making style of novice entrepreneurs in business incubators and what effects that may have on the entrepreneurs as individuals"

2. THEORETICAL FRAMEWORK

The second chapter will outline the academic discussions on entrepreneurial decision-making styles. Then the concept of business incubators and their functions and support system will be displayed. Furthermore, this chapter will examine the Institutional context in which entrepreneurs find themselves upon starting a company.

2.1 Entrepreneurial Decision Making

According to (Mintzberg and Waters, 1985) There are 2 main perspectives in the context of how strategic decisions are made. The first perspective views strategy-making as tasks being planned in advance and the second perspective views strategies as emergent and deriving from practice and not from being fully planned ahead of time.

The first perspective of the "planning school" follows a rational and structured approach basing many of the decisions on predictive methodology. This includes researching into markets, conducting thorough competitor analyses and calculating the risk/return of their decisions. (Dew et al., 2009a; Brinckmann et al., 2010). According to Mintzberg and Waters, 1985, In order for a strategy to be considered successful, it must be deliberate. The ideal scenario for a strategy to be deliberate would be if the intentions of the organizations are clearly defined, are shared by all those involved in the organization and the intentions are performed exactly as planned, without any influences from external factors such as technological innovations, external markets and political changes. However, achieving these conditions is both challenging and highly unlikely. The second perspective of the "Emergent strategy" refers to the achievement of patterns or consistencies in the face of an absence of intentions. (Mintzberg and Waters, 1985). This perspective focuses on learning, flexibility, and managing resources. The ideal scenario for an emergent strategy would be for consistent actions to be taken over time, in the absence of intentional guidance.

According to Sarasvathy 2001, Effectuation Logic focuses on what can be controlled in the face of an unpredictable future. This logic relies very little on predictive data and instead, focuses on the potential found in shaping or combining elements of the external environment over time. According to Sarasvathy, 2008 the effectual process can be best understood thorough its five principles:

"Bird in Hand: Effectual entrepreneurs start with their existing means: their identity, knowledge, and networks. They use what is already available rather than what is out of reach.

Affordable Loss: Rather than focusing on expected returns, they limit their risk by investing no more than they can afford to lose. It guides decisions based on the potential downside rather than the expected upside.

Lemonade: They embrace and leverage surprises and unexpected events as opportunities to create new markets or products, instead of viewing them as setbacks to be avoided through planning and prediction.

Crazy Quilt: Rather than targeting specific stakeholders based on a predicted product market, they build partnerships by allowing anyone to self-select into the process. They co-create their businesses by interacting with others, acquiring new resources, and engaging stakeholders who have a stake in the future of the business.

Pilot in the Plane: The future is not something to be predicted but shaped by the entrepreneur's co-created actions. They focus on activities within their control and guide the business towards achievable goals and resources."

The flexibility of the effectuation process and the adaptive approach that entrepreneurs take as a result allows them to effectively experiment with various strategies and seize new opportunities (Chandler et al., 2011). The effectuation process allows ideas to connect by actively accepting uncertainty and amplifying the level of control through co-creation using existing resources and capabilities allowing new and specific goals to surface (Sarasvathy and Dew, 2005).

Causation Logic, on the other hand, focuses on controlling as much of the future as can be predicted (Sarasvathy 2001). Causation logic relies on gaining knowledge about the market, by identifying opportunities and determining how to take action on these opportunities with the use of historical information to make well-informed decisions (Fisher, 2012). Upon identifying an opportunity worth seizing; a specific goal is defined, the means to achieve it are chosen, the desired outcome is stated and the resources required to achieve it are selected. (Sarasvathy, 2001). Unlike effectuation which focuses on non-predictive strategies, causation embodies a logical, rational system consistent with predictive planning (Wiltbank et al., 2006).

Although causation and effectuation can be viewed as distinct modes of logic, research shows that they can coexist and complement each other to positively influence and benefit the performance of a venture, especially in innovative projects. (Grégoire and Cherchem, 2020). In the initial stages of creating new ventures flexible decision-making is seen to be more prevalent, whereas as the venture and its market matures planning-based decision-making becomes more prevalent. (Reymen et al. 2015) Ventures may switch between effectual and causal logic depending on the stage in their lifecycle in which they find themselves. Entrepreneurs in uncertain environments can begin with using effectual logic by experimenting with Lean Startup Approaches (LSA) to gain knowledge on the possible opportunities that can be seized, and once they have gathered enough knowledge they can use causal logic to formulate a clearly defined planned approach to seize those opportunities effectively. (Ghezzi, 2019). Entrepreneurs must take into account that as their venture grows and they begin looking for investments they must consider using causal logic to create profit forecasts and concrete sales plans (Smolka et al., 2018). This approach demonstrates to investors that the entrepreneur is serious about pursuing and achieving future goals in later lifecycles (Fisher et al., 2016).

2.2 Business Incubators

Business Incubators provide a multitude of resources with the intention of promoting employment, contributing to economic development, and facilitating knowledge transfer. (Bergek and

Norrman, 2008). New startups often lack the resources to get their businesses off the ground. (Peters et al., 2004). Incubators create an environment that helps support new startups by providing; flexible workspaces, shared services, equipment, resources, and access to a network of experts who can help them with various aspects of their startup such as marketing and finance. (Bergek and Norrman, 2008). By using the flexible workspace at incubators, early entrepreneurs are able to reduce the overhead costs helping them increase their chances of survival and growth (European Commission, 2002). The goal of incubators is to successfully link technology, capital, talent, and knowledge to help speed up the process of startups reaching commercialization.

There are **4 types of incubators** as categorized by authors according to their core offering and their financial models: Business Innovation Centres (BIC's), University Business Incubators (UBI's), Corporate Private Incubators (CPI's) and Independent Private Incubators (IPI's) (Grimaldi and Grandi, 2005).

Business Innovation Centres (BIC's) offer a variety of services such as physical infrastructure, and access to experts in various fields of management to reduce the entrepreneur's cost of running their business. The main goal of BIC's is to foster job growth and advancement in technologies in their region and are usually kept afloat through government subsidies.

Corporate Private Incubators (CPI's) are incubators that are part of large companies whose main incentive is to facilitate the growth of new business units by providing entrepreneurs with both tangible and intangible high-value assets and access to financing.

Similarly **Independent Private Incubators (IPI's)** offer services such as technological expertise, and management expertise (internally and externally), high-value assets and financing, however are set up by private individuals who invest their own money in startups in return for equity and help them scale with the goal of maximizing their return on investment.

University Business Incubators (UBI's) on the other hand are mainly focused on achieving the university's goal of promoting innovation in the region, boosting the reputation of their institution, and commercializing the research coming from their institution. This is done by providing entrepreneurs with access to technological knowledge, infrastructure, and access to both internal and external networks. UBI's mainly rely on tenant fees and public subsidies to finance their services.

2.3 Institutional Context

According to Lammers & Barbour, 2006 "The term "institution" has multiple meanings in everyday language. It is frequently used synonymously with organization in reference to a specific church, school, college, hospital, asylum, reformatory, mission, or corporation, especially to confer prestige or status on a particular organization." (Lammers & Barbour, 2006, p. 357-358). W. R. Scott (2001), defines institutions as "Institutions are composed of cultural-cognitive, normative, and regulative elements that together with associated activities and resources provide stability and meaning to social life"

Management research on institutional theory integrates insights from two adjacent disciplines: organizational institutionalism and institutional economics (Holmes et al, 2013)

Holmes et al indicate that Organizational institutionalism focuses on the processes through which a society's collective

actions and values shape the development and maintenance of the society's institutions. As cited by Holmes et al "institutional economics emphasizes the implications of institutions for important outcomes such as investment behavior, the functioning of markets, and wealth generation." Holmes et al also explains that institutional environments are multidimensional, complex, and polycentric, and the various institutions are interdependent.

As cited by Holmes et al "Informal institutions are enduring systems of shared meanings and collective understandings that, while not codified into documented rules and standards, reflect a socially constructed reality that shapes cohesion and coordination among individuals in a society"

Holmes then goes on to say "Informal institutions, which are reflected in its culture, influence the evolution of its formal institutions."

North, 1990 and Scott, 1995 as cited by Holmes et al "Formal institutions on the other hand, represent structures of codified and explicit rules and standards that shape interaction among societal members. They promote order and stability by providing authoritative behavioral guidelines and enabling the formation of expectations regarding behavior"

Features of the UBI such as the university, its partners, stakeholders, culture, community and network apply well to the institutional theory. This research paper aims to dive deeper into how the institutional context affect the decision-making style of novice entrepreneurs in business incubators and what effects that may have on the entrepreneurs as individuals.

3. METHODOLOGY & PLANNING

The research design was based upon the central research question, and relevantly supported by existing literature. Accordingly, the existing literature supported the data collection and analysis process.

3.1 Data Collection Method

The use of quantitative research methods in capturing the complexities of effectuation logic has limitations, as brought to our attention by Arend et al. (2015). Having this in mind this study aimed to adopt a qualitative approach, with the hopes of effectively uncovering more about the entrepreneurial decision-making process. This study used an exploratory qualitative research design, with semi-structured interviews as the primary data collection method (Maxwell, 2012) allowing for a deeper exploration of the decision-making styles of novice entrepreneurs at NovelT's "Incubase" UBI, as well as an investigation of the influence of incubators on their decision-making processes.

The aim of this study is to explore how novice entrepreneurs in NovelT's Incubator navigate decision-making styles, and hopefully better explain this using the help of existing literature on effectuation theory with the use of open-ended research questions.

Throughout the conducting of the interviews, this study aimed at analyzing and identifying any patterns or insights that might surface that could help better explain the reasoning behind entrepreneurs' decision-making styles, be it causation, effectuation, or a combination of the two decision-making logics.

The Interviews were conducted in person and all occurred at the site of NovelT's Incubator "Incubase". Before the interviews, each of the interviewees was given a short introduction to the research to ensure that they understand the objective of this research and were aware that the data collected would be **anonymous**. Giving this context to the interviewees aimed at helping them focus on the topic and better understand the questions (Adams & Cox, 2008).

Due to the scope of the research, only 5 entrepreneurs were interviewed, it is important to note that this is a limited sample. It is crucial to note that further research would be needed to validate the findings and provide further perspectives. Interviewees were selected through non-probability sampling, the entrepreneurs were specifically targeted entrepreneurs at the NovelT Incubator, who were directly accessible through NovelT's network and were to be reached out to, by directly contacting them. A total of 5 interviews were conducted with 5 entrepreneurs of the NovelT Incubase Incubator, all of whom are in different industries to aid in creating a more complete perspective. Ideally, the entrepreneurs to be interviewed would have significant experience with the incubator therefore offering valuable and more well-informed insights.

As the interviews were conducted by only one interviewer, some limitations in regard to any personal biases had to be addressed. Through peer-to-peer feedback, and reviews with my supervisor possible biases were to be identified and challenged if they arose, to boost the credibility of the analysis (Corbin & Strauss, 1990),

3.2 Data Analysis

Each interview was transcribed using the Google Docs transcriber and then was reviewed and corrected in order for the transcriptions to be accurate, which would then aid in effectively analysing the results and coding and evaluating the interviews as effectively as possible. Although this may have been a timeconsuming process, it served as a good mental exercise to really digest the content of the interviews prior to beginning a thorough analysis, allowing for the interviews to be viewed with a more insightful lens upon coding.

The coding the data and accordingly organising the results of the transcripts was with the use of the MAXQDA software. The data was analyzed with the credible and frequently used Goia method (Magnani and Gioia, 2023). The data was collected at the individual level with each entrepreneur being considered as a unit of analysis. This involved analysing each interview, searching for common themes and then structuring them by deriving inductive first, second and third order dimensions (Magnani and Gioia, 2023)

First order derivatives were generated by reading through the interviews one by one and capturing statements, expressions and quotes related to the theory on entrepreneurial decision making as well as comments made about the incubators ecosystem and overall institutional context. These were initially generated as open codes and then merged into integrated first-order concepts. An example of a first-order derivative is: "strategic flexibility in response to the market" (See Table 5)

Second order derivatives were then formulated by comparing the first order derivatives, identifying the common patterns and then sorting them out in accordance to the insights from the literature. An example of a second-order derivative is: "Leveraging Contingencies" (See Table 5)

Third order derivatives (aggregate dimension) were then assigned to the second order concepts aligning with the theories of effectuation, causation and the incubator with the institutional context. An example of a third-order derivative is: "Effectual Decision Making" (See Table 5)

4. RESULTS

In this chapter the results of the semi-structured interviews will be explored as analysed, by diving into the First, Second and Third order (aggregate) dimensions. Due to the scope of this research paper, the data that is most relevant to the research question will be discussed in this section

The results will be divided into sections according to their third order (Aggregate) dimensions. Each section will then delve deeper into the relevant explanatory quotes from the interviews which relevantly highlight and contribute to the core research question of how the institutional context affects the decision-making style of novice entrepreneurs in business incubators and what effects that may have on the entrepreneurs as individuals. The results aim to align with the theoretical framework with the hope of contributing to exiting literature. Having this as the core of the results analysis, these results will examine decision making styles including the effect of the internal and external environments so as to add more depth to this, all while highlighting the relevance of the incubator and the institutional context.

4.1 Effectual Decision Making

4.1.1 Commitments and Self Selected Partnerships

Commitments and Self Selected Partnerships (See Table 5) appeared strongly upon analysing the interviews. Entrepreneurs were shown to be **selective with both investors and their advice** "Some investors said, we don't invest in any hardware relevant solutions! You should remove your hardware and just work on the software instead. We said, OK, maybe it doesn't make sense for the hardware. But after a few weeks, we feel like, NO! That's not the direction to go, because our hardware is our unique part!" showing that entrepreneurs are selective with advice of investors. They then continue to show their preference for self-selected partnerships "There are a lot of investors! No matter how hard we try they won't be interested anyway. What we need to do is just find the right one that knows the importance of this and believes in this and then yeah to go with us together". This also captures the interviewees willingness to **co-create business with stakeholders**.

On the other hand the results capture a willingness to take advice from partnerships they have selected such as with the **Incubator and Overall Ecosystem**, entrepreneurs gain both insights and acquire financial resources "they helped us a lot with the funding we got (for a loan). We needed some funding to get a little bit more validation to increase the value of our startup itself and make sure we can have a strong base going into that transaction with our investment, so that helped a lot! We got investment advice, Like how do you value a business? That was a really pivotal moment where I got to understand validation and what kind of questions to ask! Maybe sometimes you overlook something, so that helps! So that's where the incubator helps a lot to take a little bit of an extra step in the right direction! The biggest lesson I learned is that investors ask the right questions! What are the metrics or what are the insights you need to have, what validation do you need to do to provide value!".

4.1.2 Leveraging Contingencies

Leveraging Contingencies (See Table 5) was also shown in the interviewees **strategic flexibility in response to the market** "In the beginning everything is valid, because you don't know anything!". In response to a question about structure and planning, an interviewee responded by acknowledging the usefulness of structure, while highlighting his openness to testing the waters of the entrepreneurial world with an emergent approach. "it's nice to have some structure and follow some steps, but to be very honest, sometimes you just need to go and do things and just kinda wing it as you go". The interviewee then continues to describe leveraging contingencies as testing out the design of a ship "you can actually test the waters before going back and drawing up different designs for your ship, you know what I mean? Take the boat out to see how it handles, tweak things, go back, draw a new one up, build a new one, try it out again!". This idea of hypothesis testing interestingly aligns with the same train of thought of another interviewee who had failed his first startup. This interviewee showcases an example of embracing failures as an opportunity to change his decision making style instead of viewing them as setbacks "the way I made decisions previously, is not the way I make decisions now. Let's say two years ago, when I started in the Incubator, I was not making decisions. You need to do decisions fast, and sharp! If you're testing this hypothesis, you do everything to test this hypothesis! If you see that the customer is not going to buy you drop it! You don't waste your time because time is the most important thing!"

4.1.3 Pilot in Plane

A Pilot in Plane style focus (See Table 5) is captured by interviewees who focus on activities within their control, and guide the business towards achievable goals and resources, primarily **led by market trends and gut feeling** "I'm led by both the market (trying to understand where does the market lie and what is the interest of the market itself), having a really strong gut feeling about: "OK! this is the direction!" or "this is the missing link in that industry" and I'm validating a lot! So talking and validating! Not always speaking boldly and just assuming, but really going for a certain gut feel about what its going to be like (what's missing in the market) and some strong beliefs about how it should be solved help us stay clear to our goals and values. The interviews also captured the entrepreneurs **defining only rough visions while leaving the details open** "

4.2 Causal Decision Making

4.2.1 Goal Oriented Action

Goal Oriented Action (See Table 2) was identified through the interviews with interviewees discussing their use of **clearly defined milestones and objectives** "we're trying to make a planned decision for the long term, for example our development plan. So we define the milestone we want to achieve, so an average 3 months. We do intense development to reach the milestone and we plan the next one so it's like quarter-based planning". Another interviewee also stresses the importance of goal setting in decision making "We use OKR's (objective key results). We have quality objectives, so let's say for this objective; we would like to launch a pilot to validate our problem-solution fit. Then there's some key results (what are the key results we want to achieve?) We would also like to have more pilots. So we leverage one pilot to get three more pilot locations as the leverage!" The interviewee then continues

to show how these goals guide their day to day actions *“Those guide us every day, like that's the objective for this quarter! We ask ourselves: Does this really help us achieve our objective? If not, we focus back on the objective.”*. Similarly another entrepreneur discusses the importance of specific goal-setting and working towards priorities in decision making *“what can you be sure to enable you to have that goal within a certain time frame? make a number! So that's what I base my business decision on, because there's so many things you can wonder and you can think about! You're just going lose yourself trying to make decisions that in the end you know might not have been the right decision for that moment. So priorities is definitely one of my main things considering that I think I consider making decisions”*.

4.2.2 Competitive Analysis

Competitive Analysis (See Table 2) was highlighted by an entrepreneur who formed his final business idea and solution through a **gap identified in the market**. He begins by saying *“I saw examples in the market”* then he begins to explain the existing industry and competitors in detail regarding his sustainable technology (X) *“If you want to live sustainably that's something that companies can take care of themselves, (there are enough other competitors that can take care of that), but what they can't solve for; that there's no solution for is (X)”*

4.3 External Conditions

4.3.1 Stakeholder Pressure

Stakeholder Pressure (See Table 3) presented itself in the interviews through the **requirements from stakeholders and financing parties** had for the entrepreneurs. One interviewee describes that he would only fill in his business plan when he was applying for funding and it was needed to show stakeholders. The interviewee begins by saying *“What's funny is that we actually only made those when we needed them!”* the interviewee continues by saying *“we needed a business plan for for the financing thing. That's when we started working on the on the business plan so it was not at all structured, it was more like, what we need right now and we went with it”*. The interviewee shows that he only made the decision to work on the business plan when it was required of him by stakeholders *“when I was required more, that's when I decided to spend more time in detail working out the the business plan, working out company structures, and how many people will we need to get to the next phase”*

4.4 Internal Conditions

4.4.1 Traits and Characteristics

Traits and Characteristics (See Table 4) were displayed throughout the interviews, certain statements showcased respondents **personal doubt & uncertainty** *“I for myself actually never even wanted to be an entrepreneur that was never a thing in my mind, it was more like, I'm an engineer, so I like developing stuff and making things. That's also where my passion still lies, so I kind of rolled into this situation, where I sometimes even felt like am I even the right person for this?”*. At certain moments the interviewees showcased characteristics of being **passion and growth driven** *“Not as if I'm not born with entrepreneurial drive or spirit, but also being at the community that made me realize that you're not really born with entrepreneurs spirit, you're born with a passion to do something! Especially the people that I've been able to see here and talk with they allowed me to see that this could just be*

another challenge for me to grow myself and even if it's not my passion to really own a business, it is definitely something that I'm being able to develop myself in.” **Interest driven** *“I've always had an interest in both technical developments and also in the business itself, but I chose to go first into technology from a study perspective, to also later or alongside develop business skills. (I think the reverse is more difficult: to go from business first to technology second).”*

4.4.2 Knowledge Background

Knowledge Background (See Table 4) was displayed by entrepreneurs, the interviewees all had an **educational background**, prior to them starting their companies, as one respondent mentioned *“my startup experience is not very long, from June last year it's roughly a year for now. Before that I was doing research in the university, even before I did my phd, master, bachelor in a row. So basically my majority of experience is in research study. I just started the startup/spinoff like a year ago, So not very experienced”*.

He then went on to mention that similarly his cofounder also had an academic background *“both me and my cofounder have quite intensive research experience”*. Similarly another respondent stated that he started his company alongside his studies *“I founded the company alongside my studies”*. While these 2 were in academic universities other respondents had educational background in applied sciences *“I don't necessarily have a large entrepreneurial background but I did do an entrepreneurial course during my studies of University of Applied Science”* then starting an academic masters *“I finished the Masters of Industrial Design Engineering at University of Twente”*.

Interestingly some respondents also showed signs of coming from an **entrepreneurial family background**. *“I have a family that has an entrepreneurial background. My dad has his own company, so I think that inspired me from a young age too.”* another respondent mentions an entrepreneurial parent offering business resources *“I started in 2020, when I got the book Lean Startup from my father”*

4.5 Incubators Influence

4.5.1 Resource Accessibility

Resource Accessibility (See Table 1) was one of the key themes shown throughout all the interviews with **Community, Networking and the Ecosystem** being one of the most robust and commonly spoken themes by all the interviewees. This is especially interesting since the community, network and the ecosystem is facilitated by the incubator, however has more of an indirect effect on the entrepreneurs, since the real decision making effects are from the people in the community itself and not necessarily directly from the incubator program or coaches.

One entrepreneur shows us how valuable he perceives the events organised by the incubator to be by making the effort to join every single event *“The events organized by the incubator, we join them very very often, so almost all the events that we could join, we will join. In the events we also got a lot of feedback and that part actually affected our decision making a lot”*

The network of the incubator also helps entrepreneurs gain access to talented young employees who can do unpaid internships for them, through the incubators connection to the university and its students. Helping them reduce costs, as one interviewee mentions *“another thing which is not directly a*

benefit from Incubator but I think it's indirectly, is to connect us with students. Because we are located inside the campus and we kind of attract a lot of students to work with us. that really helps us remove a lot of development tasks and then lets me focus on more on the business side and also planning. That actually changed largely of our development timeline. We can do things much faster and in a more affordable way. We don't need to outsource a lot of things from other companies, which is really expensive. I think incubator, at least the location, the office space provides a really good opportunity for us to do this"

Other entrepreneurs shed light on the benefit the incubators community has on motivating, inspiring them to progress in their companies. This is shown by more advanced entrepreneurs in the community paving the way for less experienced entrepreneurs to follow their footsteps leading the way them to do the same *"the community here is really nice, we all work on different things, but the general things will be the same like you see from others how they go through this market product fit and how they go through the development right how they acquire the first customers all these experiences are shareable to see their milestones, you know, okay 1 day I will also reach their milestones! it's just a matter of time! that's something I found really valuable"*

One entrepreneur discusses how he initially came to the incubator for mentoring, only to realise that the real value lay in the community the incubator offered. *"When it came to the incubator, my first thought was: OK i'll get the mentoring, but then I realize that's more of a play. It's more of a community and that's that's the value of it. More than the mentoring, I would say most of the value I got was speaking to other entrepreneurs in the community. The first rule of incubation is to be open, but nobody speaks about it! But the first rule is to be open and speak with people but then also by seeing that other guys are working constantly, it makes me come here and work again, because Hey, they're coming also. Because they're achieving their goals, so I should do that!*

One interviewee discusses how the incubators community helped him meet his new cofounder. *"I would say my journey with my new cofounder started here. it's not direct facilitation, it was a multistep process"*

Another entrepreneur stresses the importance of working at the incubator compared to other workplaces such as his bedroom or the library, and puts emphasis specifically on the value of the ideas shared at the coffee corner *"I can't imagine that doing this just from my own room! I did that for a long time! You almost take it (incubator) for granted! It's super inspiring being in a place where like where **** gets done! Where things happen! Big Things Start Here! The value of incubator in that sense is invaluable! If you don't have a place to connect with others you can quickly lose track of what you're doing. You quickly lose connection with the real world! Also for the day, just talking to people at the coffee corner helps you tell your story and get things out! It creates a gateway into a lot of events and other communities and networks. It's great great place to work and can inspire work and facilitate it. That's not something you can easily get, especially if you're cash constrained in a startup. It's really good to have a place where you work. You know that people there are working on similar goals. They're in the same phase. I would not imagine me working on startup in the library. You need a vibrant location to achieve that with like-minded people"*

One entrepreneur discusses the value he finds by asking the community for advice and to gain information from to help facilitate learning and growing. *"if you have a question you know you get good advice from someone from either the*

community or the incubator" he then continues to say later on *"There's a sense of community which you can also get information and get connections. I just like the people obviously the whole ecosystem here kind of facilitates learning and growing, you're in an environment where people kinda know what to do"*

The interviews highlighted the importance that **Facilities** had for the entrepreneurs, specifically entrepreneur discuss the importance of having office space *"I was working a lot from home so I was looking for a place actually work outside of home so then when I he told me there was an option and actually a place for entrepreneurs to come together and work, that's when I decided to to come here and see see how it was for myself"* another entrepreneur says *"The most tangible is office space. That's very nice! Otherwise, I would be sitting at home all day and that would be depressing."* He then goes on to explain how the facilities help him reduce costs *"Moreover it's crazy affordable that's important 'cause we're bootstrapping everything there's no funding, no nothing, no salaries either"*

Access to funding also was a resource in which interviewees accessed from the incubator. As one interviewee mentions *"yeah we we did get resources/financial support from the incubator. for example we got the TOP loan and UT holdings and we also got some vouchers like TTT vouchers."* similarly another interviewee mentions alongside other benefits of the incubator *"even financing options: so all these things I was able to to get from the community from from novelty"*.

4.5.2 Incubator Education

Incubator Education (See Table 1) also showed to be a key resource offered by the incubator to the entrepreneurs. Firstly through **advice and guidance from coaches**, as one entrepreneur states *"the major help we got from from Incubator is a business coach that help us to identify what's a majority of the importance that for our solution"* he later goes on to describe about the overall education of the program *"The program is also trying to support as much as possible. Gives you guidelines about what you need to do to, to make a better business idea. That is, I think, the benefit or the outcomes we got from the program. Really think about the market, not only the technology itself"*

Another entrepreneur discusses his experience with the thematic nights organized by the incubator program *"The thematic nights were really important, so they had certain theme nights, where experts would come from marketing or from business development. They spoke about things like problem-solution fit and product-market fit. These things that help me ask the right questions on the right stage."* he then went on to discuss the value of his individual coaching *"Individual coaching also helped, a lot! I got 2 coaches: one focused more on the production of practical application of the product and looked closer to the business evaluation. While the other was really focused on sales and how we could actually get the message out and provide the right sales structure and growing numbers!*

Another entrepreneur discusses the value of the availability of the coaches in the incubator on a day to day basis *"you have your coaches who just hang around, you can ask "what would you do in this situation" and you get an answer"*.

The incubators **effect on decision making** was shown by one entrepreneurs experience with the incubator helping him with following a procedure in the earlier stages, *"They gave us alot of inspiration in thinking about how should we start the business and also gave us quite some encouragement in terms of: there's a procedure that we can follow, instead of like looking very blindly in the future. So we know there is some*

some procedure and we know there's help from university and that's also kind of the one aspect of reason why we started this." however he later goes on to describe that as his business matured the influence was much less "So which market direction we should go first and we got a lot of feedback from the business coaching at the Incubator. But right now I think we are getting less and less influence because as mentioned the business plans kind of matured and the only focus right now is to execute that"

The incubators **effect on goal setting and milestones** is reflected in a statement from one entrepreneur about the incubator "I got to understand how to do decision making, how to make it align to my goals how to make goals in the first place" another entrepreneur adds to this same train of thought by saying "they gave us some guidelines on the milestone you should achieve".

The incubators **effect on opportunity assessment** is highlighted in statements such as "We joined the start program and we learned a lot of the basic knowledge about the business, marketing and how do you find the good product-market fit. All this information" another entrepreneur discusses his first interaction with the incubator through an entrepreneurial challenge in partnership with the incubator "That was really when I learned: how do you assess your business. what kind of questions you need to ask, and the initial seeds from that. I knew that it was not just about the product, it was much more of course the customer. Without a customer, you don't have a startup"

4.5.3 Reassurance and Perspective

Reassurance and perspective (See Table 1) offered by the incubator was another key theme in the interviews. Firstly there was one entrepreneur who highlighted the **disciplinary role of the incubator** by saying "pushing the back, like to force you to do things when you kinda don't feel like it or maybe you're scared. I think the fact that I came to a place that could provide that was definitely one of the most valuable things. Starting a company, you have to do everything yourself. You have to be very disciplined if you want to achieve certain things. For me working from home it was a disaster, I was super unmotivated to be able to do things so despite the fact that I could be motivated, who's gonna poke me in the back to keep me going?"

Similarly, the incubator had an **inspirational/motivational role** on certain interviewees. one entrepreneur starts by saying "it feels more like a safety net. So it's not that I'm now taking more risk, but I'm more confident, more at ease" He then continues to say "The incubator help me refine my pitch my conversational pitch or to say I can tell you our unique selling points. The incubator helps us to find these points because if you're just working on your own no one will challenge you to grind them down or like define them!"

Tailored advice is also seen "The incubator really helps us get out of our own echo chamber and will just point out where we might be wrong or what we're missing, what's also possible, different approaches or different ways to do something, to pivot"

4.5.4 Entry Requirements

Entry Requirements (See Table 1) was a theme that all entrepreneurs initially joining the incubator claimed to have a **lack of strict entry requirements** "I don't remember that actually some requirements" another entrepreneur says "We had one meeting with with Rens and then we got an email like hey we want put you in the advanced program, it went pretty quick in that sense!" and another "since I came here when my

company was kinda already formed like the 1st ebay company I was basically placed already in the advanced program. so that meant that actually gave me more freedom. it didn't require me to do that much"

One entrepreneur describes an experience where he accidentally got kicked out of the incubators advanced program, however was then asked to join again with a cofounder, this may highlight **requirements to remain in program** " One day I got kicked out of the advanced program, in the middle of the of everything, I was like, what? what is this? The next day they were like, oh it was by mistake, we misunderstood. Then they said, oh we have new rules about enrolling in the advanced program, is that you need a co-founder. It was kind of rude to me, but then I got it. I didn't say that I was a victim of this, but I got it as a cold shower. like, Hey I need to wake up from whatever dream I was dreaming and I was like I got my business into my hands. Actually what am I doing? do I need a cofounder for that or do I need to work on it by myself?" This situation seems to have acted as a wakeup call to the entrepreneur to improve his business decisions or risk partnership with the incubator.

Table 1

1 st -Order Concepts	2 nd Order Themes	Aggregate Dimension
Lack of Strict Entry Requirements	Incubator Requirements	Incubators Influence
Strict Requirements from the Incubator to Advance		
Tailored Advice	Reassurance & Perspective	
Disciplinary Role of Incubator		
Inspirational/Motivational Role	Incubator Education	
Advice & Guidance from Coaches		
Effect on Decision-Making		
Effect on Goal-Setting and Milestones		
Effect on Opportunity Assessment	Resource Accessibility	
Community, Networking, and Ecosystem		
Facilities		
Access to Funding		

5. DISCUSSION & CONCLUSION

5.1 Discussion

The aim of this research paper was to delve into and expand our existing understanding about the dynamics of the decision making of novice entrepreneurs in incubators and the role of the institutional context in affecting these decision making styles. This research paper delved into multiple aspects: causation,

effectuation, internal and external environments and the role of the incubator. The discussion below aims to present the results of this research and objectively interpret the results, shedding light on any differences in the theory and to confirm any initial understandings which were already present in the existing literature.

5.1.1 Discussion of Theory

The assumption upon starting this research followed the logic that the institutional context and overall ecosystem which entrepreneurs find themselves in, specifically referring to stakeholders and partners of the UBI would directly promote more causal decision-making behaviours.

In the case of the UBI's stakeholders, this assumption specifically related to economic institutions which shape the incentives of financial intermediaries such as banks (which are in partnership with universities) ultimately having direct effects on the decision-making style of novice entrepreneurs in startup incubators.

The results, however, show us that their effect on the decision-making styles of entrepreneurs are both direct and indirect and entail a blend of both causation and effectuation logic. This was in line with the literature claiming that both decision-making logics can coexist and complement each other to positively influence and benefit the performance of a venture, especially in innovative projects. (Grégoire and Cherchem, 2020).

Direct effects on causal and effectual decision-making were highlighted by the requirements stakeholders and financing parties had for the entrepreneurs, specifically in the form of business plans. This stakeholder pressure led to entrepreneurs filling in business plans only when applying for funding and when required to show stakeholders. This was in line with the theory that entrepreneurs must take into account that as their venture grows and they begin looking for investments they must consider using causal logic to create profit forecasts and concrete sales plans (Smolka et al., 2018). This approach demonstrates to investors that the entrepreneur is serious about pursuing and achieving future goals in later lifecycles (Fisher et al., 2016).

Entrepreneurs were also shown to be selective with both investors and their advice, thus not allowing stakeholders to affect their decision-making. This captured the entrepreneur's willingness to take advice from partnerships they have self-selected, such as with the incubator and overall ecosystem. The entrepreneurs utilized these partnerships to acquire both insights and financial resources. This flexibility allows them to effectively experiment with various strategies, seize new opportunities (Chandler et al., 2011), and allow ideas to connect by actively accepting uncertainty and amplifying the level of control through co-creation using existing resources and capabilities allowing new and specific goals to surface (Sarasvathy and Dew, 2005).

Indirect effects on causal and effectual decision-making were also highlighted, in line with W.R Scott's definition of institutions (Scott, 2001) with cultural-cognitive, normative, and regulative elements such as the community, networking, and ecosystem, being paired with associated activities and resources (such as the incubators facilities and organized events), provided stability and meaning to the social life of entrepreneurs.

This interestingly had an effect on entrepreneurial decision-making, as entrepreneurs were basing their decisions on their interactions with people in the community itself and not necessarily directly from the incubator program or coaches. These decisions showed to be shaped by the means of feedback from community members and following in the footsteps/setting similar milestones to other entrepreneurs in the ecosystem.

What is up for discussion however is if the knowledge, education and advice given by members of the community to each other, actually stems directly from the incubator itself, or whether it stems from the individual itself. Either way, the overall ecosystem, which is facilitated by the incubator indirectly fosters the spreading of these ideas, behaviors and decision-making styles. For this reason, by objectively analyzing the results we can view the effect as more indirect than direct.

5.1.2 Limitations

This research paper has several limitations which must be discussed to help future researchers address them.

To begin with the data collection method of semi-structured interviews has limitations, as it is more vulnerable of being affected by retrospective bias, which may affect the accuracy and overall fullness of the data. Although the results were analyzed as objectively as possible the results themselves may be subject to subjective interpretations from entrepreneurs due to inadequately perceiving the essence of the questions being asked. This could possibly lead to interviewees going down a completely different path and train of thought than required for the research paper. Future researchers are encouraged to acquire data using other methods to obtain a more complete perspective of the dynamics of entrepreneurial decision-making in incubators and the effects of the institutional context on these decision-making styles. Methods such as surveys can be used to solidify existing findings from this research paper.

Secondly, the sample of interviewees may not be large enough to make any strong conclusions about the dynamics of entrepreneurial decision-making in incubators and the effects of the institutional context. It is also important to mention that all the interviewees were involved with a specific incubator (UBI) and were all located in the same incubator. The results, opinions, and decision-making styles highlighted in the interviews are closely connected to these contexts and must be taken into consideration by future researchers. It is recommended that future researchers delve into other ecosystems and other types of incubators so as to shed more light on this subject.

Similarly, due to the limited 10-page scope of this research, the time limit to complete this research paper, and the limited number of interviews per participant, the data and above results could be further analyzed and discussed, which could highlight other new key insights.

During the coding process of the interviews, categorizing various responses from interviewees was challenging as many of the responses given by the interviewees in regards to their decision-making could be considered as both causal and effectual. Future researchers are encouraged to be diligent during the interviewing process, and to ask more direct and clearer questions to effectively reduce the blurred lines between effectual and causal decision making.

5.1.3 Future Implications

This research paper aims to pave the way for future research in entrepreneurial decision making in business incubators. To begin with future researchers should reach out to the interviewees involved in this study in the years to come and interview them again in order to gain new insights and uncover any new progress or changes in their opinions. Secondly, future researchers should reach out to more entrepreneurs from different incubators so as to gain more diverse insights into the effects of the institutional context on entrepreneurial decision making in startup incubators. Future researchers are also encouraged to dive deeper into the existing literature on institutional theory, so as to approach future interviews and design interview questions with more theoretical context, in order to obtain deeper insights. It is recommended that quantitative studies are also conducted in the future, to draw more diverse and unique results moving forward. Future researchers are also encouraged to look on the other side of the story and interview incubators managers and other actors in the overall ecosystem, in order to gain insights onto the strategies they apply upon incubating novice entrepreneurs. Due to the scope of this paper, further research is required in order to dive deeper into this research question and to uncover more robust results.

5.2 CONCLUSION

This research paper delved into how the institutional context affects the decision-making style of novice entrepreneurs in business incubators and what effects that may have on the entrepreneurs as individuals. With the help of qualitative research design, the research paper captured the opinions, experiences, and thoughts of 5 entrepreneurs who are part of the incubator ecosystem, through semi-structured interviews. The data was analyzed using the Goia method, which is both a credible and frequently used method. These interviews reveal the dynamics of entrepreneurial decision-making of novice entrepreneurs, with a blend of effectuation logic, causation logic, insights on both the internal and external environments, and the influence of the incubator. The assumption upon starting this research followed the logic that the institutional context and overall ecosystem which entrepreneurs find themselves in, would directly promote more causal decision-making behaviors. The results, however, show us that the institutional contexts' effect on the decision-making styles of entrepreneurs are both direct and indirect and entail a blend of both causation and effectuation logic. Direct effects were highlighted by the requirements stakeholders and financing parties had for the entrepreneurs, while more indirect effects were highlighted by the community, network and overall ecosystem of the incubator. Future research is needed to dive deeper into the effect and role of the institutional context on entrepreneurial decision making.

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6. Appendix

Table 2

1 st -Order Concepts	2 nd Order Themes	Aggregate dimension
Clearly Defined Milestones and Objectives	Goal Driven Action	Causal Decision-making
Gap Identified in the Market	Competitive Analysis	

Table 3

1st-order concepts	2nd- order themes	Aggregate Dimension
requirements from stakeholders and financing parties	Stakeholder Pressure	External Conditions

Table 4

1st-order concepts	2nd- order themes	Aggregate Dimension
Personal doubt and uncertainty	Traits and characteristics	Internal Conditions
Interest driven		
Passion and growth-driven		
Educational background	Knowledge Background	
Entrepreneurial Family background		

Table 5

1st-order concepts	2nd- order themes	Aggregate Dimension
Hypothesis Testing	Leveraging Contingencies	Effectual Decision-making
Strategic Flexibility in response to the market		
Incubator and Overall Ecosystem	Commitments and Self-selected Partnerships	
Selective with both investors and their advice		
Co-creating business with stakeholders		
Led by market trends and gut-feeling	Pilot in the Plane	
Defining only rough visions while leaving the details open		

