

THE ENTREPRENEURIAL JOURNEY OF VENTURE CREATION: RESHAPING PROCESS AND SPACE¹

EL VIAJE EMPRENDEDOR DE LA CREACIÓN DE EMPRESAS: RECONFIGURANDO EL PROCESO Y EL ESPACIO

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Abstract

Entrepreneurial opportunities and the entrepreneurial process have long been understood as the foundation and heart of entrepreneurship. In this article, using systems thinking and a systems approach, we reshape the dynamic stage model of the entrepreneurial process to create a novel method for the configuration and metrics of progression of the entrepreneurial journey. To this end, we justified venture maturity as the generalised dimension that characterises entrepreneurial journey in the temporal scale. Until the venture launch, perceived (by the entrepreneur) venture maturity describes the progression of the entrepreneurial journey. The artefacts generated within the stages of the entrepreneurial process serve as the markers of progression of the journey. We also suppose the combination of the discrete and continuous character of the entrepreneurial journey trajectory between the edges bordering the corridors of opportunity space. This article contributes to existing approaches that facilitate better understanding of the entrepreneurial journey and process concepts by examining the interconnections between entrepreneurial process, journey, venture maturity, time and space.

Keywords: Entrepreneurial Process, Entrepreneurial Journey, Opportunity Space, Progression Metrics, Systems Approach.

JEL: M13, L26.

Resumen

Las oportunidades emprendedoras y el proceso emprendedor se han entendido durante mucho tiempo como la base y el corazón del emprendimiento. En este artículo, utilizando el pensamiento

¹ In the first draft of the paper, the title “The entrepreneurial journey of high-tech venture creation” was presented at the HTSF Conference on Technology Based Entrepreneurship, 4-5 June 2015, Centre of Entrepreneurship, University of Groningen.

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Recibido: 15 de enero de 2019. Aceptado: 13 de mayo de 2019.

sistémico y un enfoque sistémico, reformamos el modelo dinámico de etapas del proceso emprendedor para crear un método novedoso para la configuración y las métricas de progresión del viaje emprendedor. Con este fin, hemos justificado que la madurez del proyecto se corresponde con la dimensión generalizada que caracteriza el viaje emprendedor en la escala temporal. Hasta el lanzamiento de la empresa, la madurez percibida (por el empresario) de la empresa es la que describe la progresión del viaje emprendedor. Los artefactos generados dentro de las etapas del proceso emprendedor sirven como marcadores de la progresión del viaje. También suponemos la combinación del carácter discreto y continuo de la trayectoria del viaje emprendedor entre los confines que delimitan los corredores del espacio de oportunidad. Este artículo contribuye a los enfoques existentes que facilitan una mejor comprensión del viaje emprendedor y los conceptos de proceso al examinar las interconexiones entre el proceso emprendedor, el viaje, la madurez de la empresa, el tiempo y el espacio.

1. INTRODUCTION

New venture creation is an entrepreneurial process that links the stages from entrepreneurial intent to the realisation of a new venture idea based on opportunities originating from the environment, technology competencies and other resources. This process has been described as a journey (Cha and Bae, 2010). The entrepreneurial journey is understood as “a journey to produce value for others, and this journey is fuelled by the belief of those involved that producing value for others is a ticket for producing value for themselves” (McMullen and Dimov, 2013, p. 1504). Although an entrepreneurial journey is inherent in the creation of any business, the trajectory of high-tech companies, due to a higher risk, may be more complex than in a simple business.

A review of published research shows that the term ‘entrepreneurial journey’ is mainly used as a metaphor and few studies use or develop this term in the meaning of research construct. ‘Entrepreneurial journey’ became a more popular concept following its mention in the above article by McMullen and Dimov (2013). According to WoS, the term appears in the text three times before and 35 times after publishing their paper (WoS: April 2019). A similar situation can be seen in other databases, e.g., Scopus: 35/261, Google Scholar: 740/1930. Among these publications, only four could be identified as developing the content of the entrepreneurial journey: Sørensen et al. (2007) categorise the complex character of journeys, Cha and Bae (2010) present the success framework of technology firms, and Selden and Fletcher (2015) suggest an emergent hierarchical system of artefacts for the entrepreneurial journey. Only McMullen and Dimov (2013) look to more deeply disclose the construct of the entrepreneurial journey as a process-phenomenon running over time. All these approaches somehow link the entrepreneurial opportunity realised in the entrepreneurial process of venture creation. This means we need to understand the entrepreneurial process and venture creation in order to understand the entrepreneurial journey.

Many entrepreneurial new venture creation processes perform as potentially global (Eurofound, 2012) based on the innovative technology idea. Variance is related to the embeddedness of the process – is this taking place in an existing organisation (McFadzean *et al.*, 2005) or concurred with the new venture launch. The process can be targeted to a new product launch or to make a new market, or to grow the market share – these are fields for the exploitation of innovative and technology arbitrage opportunities (e.g., Anokhin *et al.*, 2011) by entrepreneurs.

Arbitrage opportunities are unevenly distributed between countries (ibid) and differ between industries (Anokhin and Wincent, 2014). Entrepreneurs adhere to the approaches of Schumpeter (1934) and Kirzner (1999) in implementing both – innovative and technology arbitrage

opportunities in the entrepreneurial process. It supposes that the majority of entrepreneurial entries come from technology arbitrage opportunities and a small share from 'grand' innovation opportunities (Anokhin and Wincent, 2014). The opportunity discovery approach argues that opportunities are objective phenomena (existing objectively on the market) and are not dependent on the subject. The constructivist perspective argues that entrepreneurs create or produce new opportunities (Wood and McKinley, 2010). These arguments force us to question the origin and innovativeness of opportunities that new firms implement in the real entrepreneurial process between the edges: Discovery & Exploitation, Arbitrage & Innovation and Existing & Created Opportunities. However, we understand that the real world is not 'black and white'. Therefore, we cannot suppose arbitrage is lacking in the opportunities that start-ups deal with, or that innovativeness is not characteristic of entrepreneurs failing to create new technology.

The subject of start-ups reaching the market has been described as a technology-market learning process of new product development and venture launch. Frequently, learning new opportunities and striving to cover R&D expenses leads entrepreneurs to the invention of a new globalising business model (Mets, 2012). This is a process in which the result is that entrepreneurs implement a new technology-based business idea to launch a new venture, also called 'opportunity exploitation'.

The entrepreneurial journey is a description of the entrepreneurial process in a temporal context reaching financial viability (McMullen and Dimov, 2013). Bhave (1994) argues that the entrepreneurial process is nonlinear, iterative, feedback-driven, conceptual and physical. The problem arises from the character of the research object – the entrepreneurial process, variables of which contain a myriad of actors, behavioural, cognitive and other factors, different resources and actions in a particular environment and timeframe. The entrepreneurial journey concludes with a positive outcome. The same is assumed about the entrepreneurial process in reaching opportunity exploitation, i.e., the same positive outcome in the context of the two approaches of the phenomenon. Otherwise, the outcome-artefact of the process is a feature of the entrepreneurial journey (McMullen and Dimov, 2013).

Modelling the journey means more emphasis on the temporal description of the entrepreneurial efforts or events. The journey model should be universal enough to give us an understanding of the trajectory and space the entrepreneur passes through that are not dependent on the geography of the market (internationalisation), the product/service origin (innovation/arbitrage) or any other dimension that describes the space of the entrepreneurial journey. The models of the entrepreneurial process include more emphasis on variables and a description of stages of development (see, e.g. Moroz and Hindle, 2012); however, all the features of the process also appear somehow within the journey. Although one could regard these two approaches as describing two sides of the phenomenon, we cannot find any study linking them into the entire framework. Linking process, journey, space and time means defining the dimensions and measurement of these phenomena. However, without knowing dimensions, we are not able to measure the progression of processes within the full complexity. This refers to the shortage of knowledge about the entrepreneurial processes of venture creation and growth acceleration – what is the best way to support these processes in start-up entrepreneurship.

The aim of this article is both to develop further entrepreneurial journey, process concepts and models, and to define the space of opportunity development and exploitation that links entrepreneurial process, journey, time and space. First, that means linking process and journey. To this end, the systems approach is implemented on the stage model of the entrepreneurial process introduced in the next section followed by novel dimensions and a description of the

entrepreneurial journey based on that. Second, an insight into the wider space of the journey is disclosed. In response to analysis of objectivist and constructivist approaches to opportunities, the paths of how entrepreneurs apply and develop entrepreneurial opportunities in the space framed by different dimensions are determined. As a result, the framework of the start-up entrepreneurial journey is presented.

The paper is structured in the following way. It begins by reviewing existing models of the entrepreneurial process. The next sub-section is dedicated to the methodological approach and dynamic entrepreneurial process model development. The subsequent section contains analysis of the entrepreneurial journey of new venture creation. Further, there is a section with dynamic analysis of the opportunity corridor of the entrepreneurial journey. The next section is dedicated to methodological implications. Finally, the discussions and conclusions give a summary and critique of the findings.

The main value/contribution of the paper is to further develop the entrepreneurial journey, entrepreneurial process and entrepreneurial opportunity development (corridor) concepts for start-up entrepreneurship and suggest a framework for further empirical validation.

2. A STAGE MODEL OF THE ENTREPRENEURIAL PROCESS

Overview of models of the entrepreneurial process

The entrepreneurial process is at the heart of new venture creation and learning is a precise function of the entrepreneurial process and journey of venture creation. Frequently, the process is understood as growth or resource accumulation (Lin *et al.*, 2010). Garud and Karnøe (2003, p. 296) find that “path creation results in a steady accumulation of artefacts, tools, practices, rules and knowledge.” To outline the milestones of the path or journey progression, one needs the list of actions, events and activities that line the process of business creation from inception to starting regular opportunity exploitation, which is frequently understood as a venture launch. The models of the entrepreneurial process originate from the process and variance approaches.

The *Process theory approach* using narrative and grounded theory methods within venture creation studies started from explanation of the stages of opportunity development (Bhave, 1994), and discloses the stages of the entrepreneurial process in a venture creation context. Bhave suggests externally and internally stimulated versions of the ways of opportunity recognition process with different sequences of the sub-processes of opportunity filtration, selection, and refinement. His process model could be characterised as an iterative, nonlinear, (operational & strategic) customer feedback driven, conceptual and physical process covering the three stages: Opportunity, Technology Setup & Organisation Creation, and Exchange Stage. The entrepreneurial process model was improved with the effectuation theory by Sarasvathy (2001); her model has also been categorised as dynamic (Moroz and Hindle, 2012). According to the effectuation theory by Sarasvathy (2008), in order to realise the opportunity in the entrepreneurial process, it needs to adopt the means and goals alternately. She also shows how an entrepreneur can implement effectuation by repeating the process many times until reaching a real outcome.

The *Variance theory approach* uses models based on the static linkage of variables and is frequently targeted using statistical analysis. Here, examples can be found from both model-building and empirical studies. Gartner (1985) outlines four dimensions: individual(s), process – the activities are undertaken by individual(s), environment and organisation (structure and strategy) that meet the complexity of the new venture creation process. These dimensions developed into the

entire model, which integrates the new venture creation process with models of small firm performance (Naffziger *et al.*, 1994). The model links the cluster of personal variables, environment and goal, business environment and the idea – all preceding the entrepreneurial decision, strategy and management to firm outcomes and feedback with “the impact of both intrinsic and extrinsic rewards for sustained behaviour” (ibid). Besides genuine linkages between the variables, the causal context gives a fuller understanding of the process. Baum *et al.* (2001) present a multidimensional model of venture growth with 17 independent variables (dimensions), confirming the indirect and direct effects of personality, general and specific competencies, motivation, strategy and environment on the result of the entrepreneurial process. A list of indicators of the performance of the entrepreneurial process includes a launch of venture or product (Haeussler *et al.*, 2012), reaching the market (Jones and Coviello, 2005), sales, positive cash flow, profitability, etc. (Reynolds, 2017).

The entrepreneurial process has also been seen as a process of resource and capabilities accumulation (Keupp and Gassmann, 2009), including knowledge (Shane, 2000). Brem (2011) has demonstrated that the entrepreneurial and innovation processes are similar or even identical at the organisation level. Nevertheless, one can find a minimal number of models integrating factors of the real entrepreneurial process with the learning process by an entrepreneur in the process of venture creation (Moroz and Hindle, 2012).

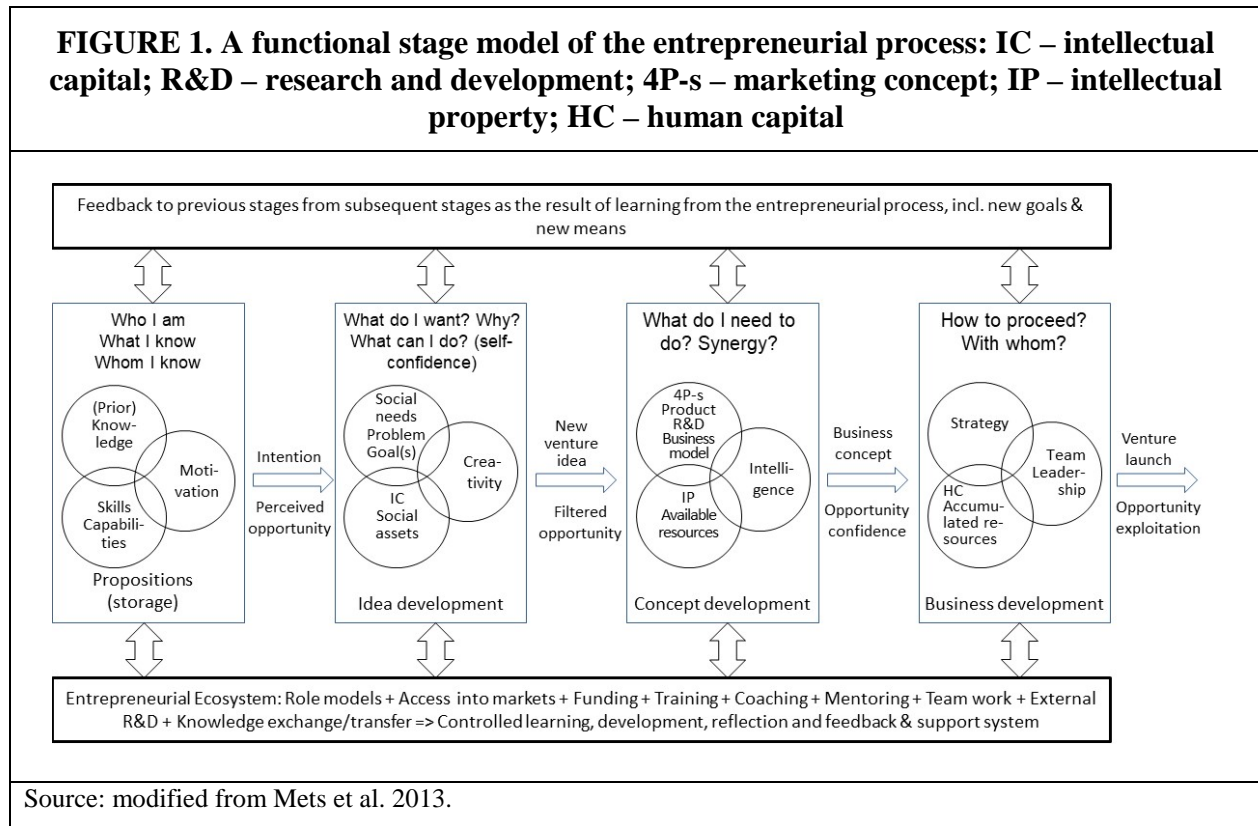
Cunneen and Mankelaw (2007) suggest the (dynamic) model of classroom origin operating with Opportunity: Recognition, Evaluation, Development, and Commercialisation. These stages are divided into sub-stages and have several feedback loops within and between the first two stages: the sub-stages of the Opportunity Recognition stage are Creative activity (idea), Innovative activity (converting idea into innovation) and Additional activities (positioning & protecting innovation idea), while outcome has been shown as Initial Strategic Competitive Advantage (SCA). Their model consists of twelve partly serial, somewhat parallel sub-stages that describe the maturity of the business for start-up (ibid). Due to the vagueness of most outcomes of the (sub-) stages, the model could be criticised as not methodically adhering to the ‘event-outcome’ logic of the process approach (as suggested by Van de Ven and Engleman, 2004). Although another disadvantage of the model is that several sub-processes or sub-stages are not organised into particular general stages, this is the most developed functional process model, reviewed by Moroz and Hindle (2012), to integrate the learning and business development aspects of venture creation.

Developing the dynamic entrepreneurial process model

The task of creating the dynamic model derives from the goal to link the entrepreneurial process and journey. As both are complex non-linear phenomena, the requirements for the complex model stem from the systems approach (Senge, 1990). Using the systems approach in the entrepreneurial process means (1) recognising interconnections (between the components of the model), (2) identifying and understanding feedback (from the ecosystem, market and internal elements), (3) understanding system structure (of the process and ecosystem), (4) differentiating types of stocks, flows and variables, (5) identifying and understanding non-linear relationships (between components of the model), (6) understanding dynamic behaviour (and processes), (7) reducing complexity by modelling systems conceptually, and (8) understanding systems at different scales (based on Arnold and Wade, 2015).

Systems thinking is the main method used for current model building. The background of the model development is the author’s twenty years of experience in training people to become entrepreneurs. The outcome of an open space classroom for the trainee(s) is the launch of their own

business or joint venture with the team. The stage model suggested below (Fig. 1) is the result of the application of the systems approach to the entrepreneurial (learning) process of venture creation. The work on this model started in 2012, and it was first published in the chapter of the book (Mets *et al.*, 2013). Then, the task of the model was to disclose the structure and functional stages of the entrepreneurial process. The stages are interpreted as shapes of the entrepreneurs' proximity from the beginning to venture/product launch. The model has been improved since its first publication, and it now specifies the meaning of the stages and interim artefacts-outcomes to include the milestones of the entrepreneurial journey.



In the systems approach context, the model integrates different variables such as resources and capabilities (variance approach) with activities that transfer these variables into (new) outcomes of the stages of the entrepreneurial process (process approach) in relation to the logic of the effectuation theory. Furthermore, the model includes the environment (entrepreneurial ecosystem) and feedback loops from this environment (including, e.g., from customers) as well as from the subsequent to previous stages that shape the entrepreneurial process of venture creation.

The process is described in the following stages *Propositions (storage)*, *Idea development*, *Concept development* and *Business development*. The stages are linked in series with the entrepreneurial acts – artefacts-outcomes of these stages *Intention & Perceived opportunity*, *New Venture Idea & Filtered opportunity*, *Business concept & Opportunity confidence* and finally *Venture launch*, which can be understood as the decision to exploit the opportunity. The process is followed by *Venture growth* or *Opportunity exploitation* (not depicted in Fig. 1). The names of

outcomes-artefacts of stages in the current version (*Intention/Perceived opportunity, New Venture Idea* and *Opportunity confidence*) are also influenced by recent studies (re-) conceptualising entrepreneurial opportunities (Dimov, 2007; Davidsson, 2015, 2016).

The use of the silo concept is suggested for describing the embeddedness of the whole entrepreneurial process in the proximity of the entrepreneur and his/her team, and labelling the combination of physical and mental shapes corresponding to a single stage: *Propositions (storage), Idea development, Concept development* and *Business development* (Mets *et al.*, 2013). The content and internal processes of the silo are driven and controlled by the direct teleological (goal-driven entrepreneurial) processes of venture creation as well as by the feedback chains and environment (entrepreneurial ecosystem). The content of the silo consists of three partially overlapping domains (Fig. 1). Each stage of the entrepreneurial process is characterised by the most important (generalisation of the author) components of these domains in the order shown in Box 1.

BOX 1. THREE DOMAINS, COMPONENTS OF THE SILO, LEADING THE ENTREPRENEURIAL PROCESS IN THE SEQUENCE OF STAGES
<p>(Learning) Personality: Motivation => Creativity => Intelligence => Team leadership</p> <p>Mental models/system: Knowledge => (Perceived) Social needs, Goals => Business Models => Strategy</p> <p>Resources: Skills, Capabilities => IC, Social assets => IP, Available resources => HC, Accumulated resources</p>
Source: own elaboration.

For the silo structure, we can find predecessors in the three-domain models of learning organisation (Mets and Torokoff, 2007) as well as in the tripartite framework of learning outcomes (Bloom *et al.*, 1956; Kraiger *et al.*, 1993). We would suggest that the silo structure and temporal development be the subjects of further research.

The analogous learning based entrepreneurial process takes place in the business incubator or accelerator environment. The model can describe any venture creation process, including the cases of the independent entrepreneur outside of formal support structures. Of course, besides the author's personal experience, the content of the schema is partly influenced by existing theories and models briefly disclosed in the preceding section, although there is no single particular pattern or theory followed. Instead, it could be argued that Figure 1 is the result of the generalisation and integration of a practitioner's view and many different approaches.

The model is based on the idea that the entrepreneurial process is a complex phenomenon. In order to deepen understanding and more broadly generalise the entrepreneurial process, there is a need to use different theories: individual and organisational learning, the resource-based view of the firm, dynamic capabilities, knowledge and competence management, motivation, personality and behavioural theories, and entrepreneurial ecosystem. The entrepreneurial process is not linear in a temporal scale as seen from the cyclic character of learning according to Kolb (1984). In the entrepreneurial process, it needs to adopt the means and goals alternately to realise the idea in the appropriate timeframe (Sarasvathy, 2008). The mechanism of effectuation with the relevant

reflexive questions (Who am I? What do I want? What do I need to do? etc.) that lead the entrepreneur to his/her own goals, means and strategy (ibid) are presented as a part of the decision-making in the stages of the entrepreneurial process. The effectuation questions together with any other (business development) performance outcome options can lead an entrepreneur back to the previous stages – these circumstances are reflected in the feedback loops.

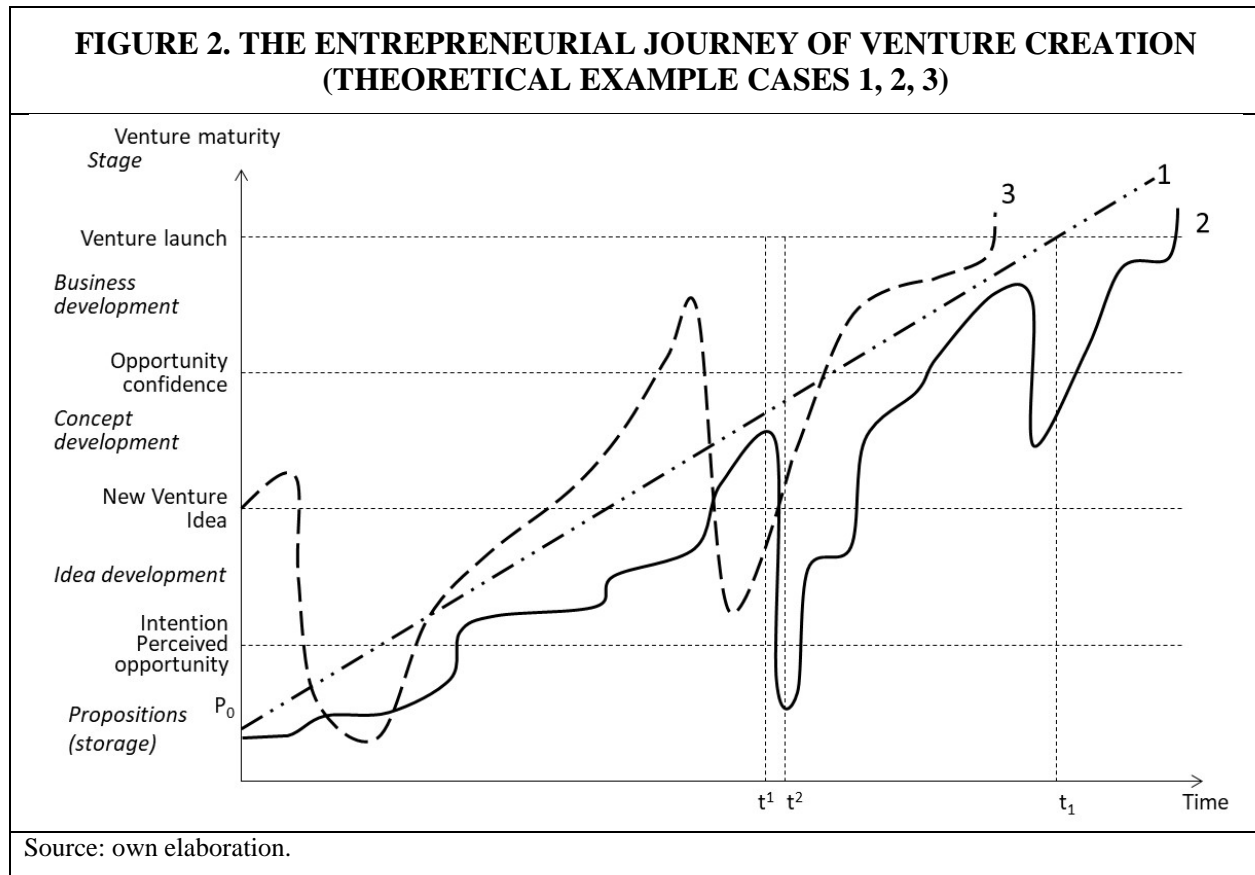
Developing the model in the temporal sequence of non-linearity stages (as in the systems approach) of the entrepreneurial process is considered. The process permeates most or all components of the silo. The four-stage model (Fig. 1) that describes the states of the process has been tested on the example of three start-ups in social, creative and technology entrepreneurship (Mets *et al.*, 2013). Currently, for more effective organisation, the leading constructs/variables of stages for the current example are presented in the schema (Box 1) in line with the logic of a holistic model (Fig. 1). The list of variables is practically inexhaustible, as can be seen from the previous sections of the paper. The stages are feedback driven. This means that although the result of the *Idea development* process is *New venture idea* (outcome), only the acceptance feedback signal from the *Concept development* stage closes the previous *Idea development* stage. Up until that point, *Idea development* stage is active, and even activation of modified *Propositions (storage)* is possible. Sometimes, feedback from the *Business development* stage can trigger the process from the very beginning again, though on a new level – see the analogy with the spiral learning process (Kolb and Kolb, 2007).

The content of a silo is not static. Its components are in mutual interaction as well as in interaction with the entrepreneurial process and environment. The sequence of actions is essential in the venture institutionalisation process (Reynolds, 2017). The meaning and the role and power of variables are changing in the course of the entrepreneurial process, depending on the process progression and environment (Sarasvathy, 2001; Baum and Locke, 2004).

3. THE ENTREPRENEURIAL JOURNEY OF NEW VENTURE CREATION

McMullen and Dimov (2013) delineate the schema with processes permeating through variables: each process (effort) tracks different trajectories leading to the outcome. The conclusion is that entrepreneurship is a process phenomenon. Process phenomenon can be described in different dimensions linked to the temporal scale. This is the logic followed in panel studies that map the sequence of actions in the venture launch process (Reynolds, 2017). Unfortunately, panel studies do not map the full return trajectories caused by feedback signals from the market, customers and investors. The trajectory for high tech start-ups becomes especially complicated if they do not have technological solutions ready at the start point; the success rate in the best cases can reach 10 per cent (Relan, 2012). Therefore, technology start-ups experience difficulties at all stages of development, which can force a reshaping/repeating of the Idea phase as well as a change in the perception of Opportunity several times, until the product/service meets the genuine needs of the customer.

This means that there is a necessity to describe the venture development entrepreneurial process in the scale of perceived maturity. Even opportunity confidence cannot fully say whether the opportunity is real before venture/product launch. In fact, only opportunity exploitation can determine whether real maturity was reached. With this in mind, a description of the entrepreneurial process based on the model in Fig. 1 is presented below as an entrepreneurial journey in two axes (Fig. 2): Venture maturity (*Stage*) and Time (*t*).

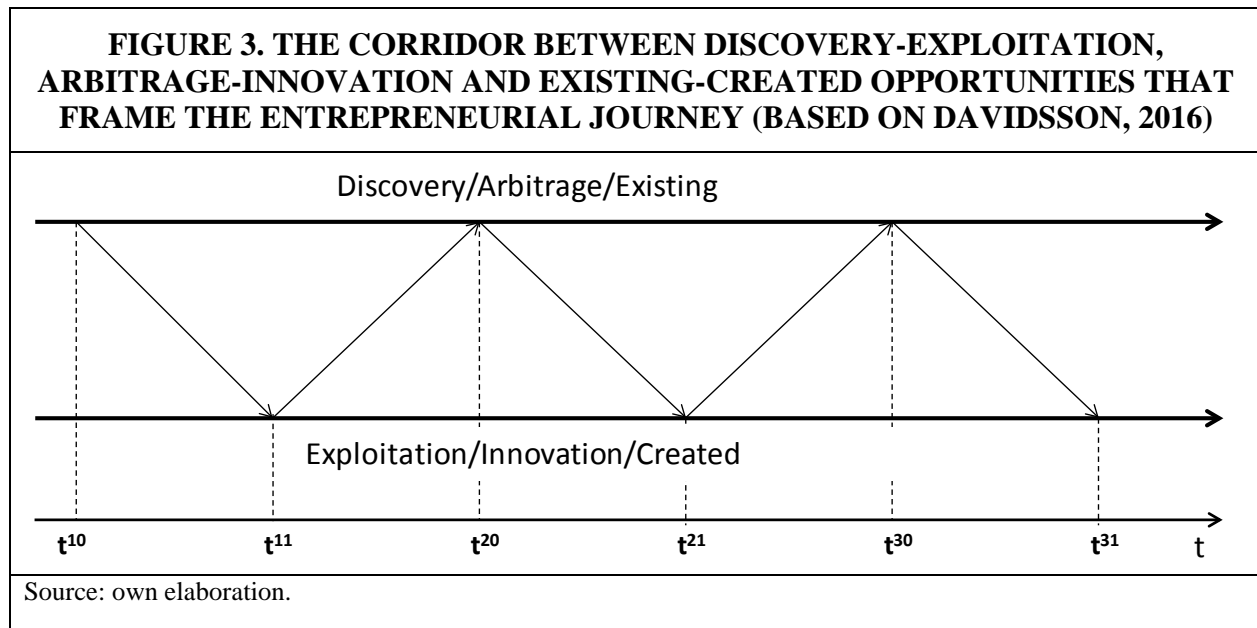


The venture maturity scale is based on the entrepreneurial process model in its central development logic from the first *Propositions (storage)* stage towards the *Venture launch* event. Until *Venture launch*, *Venture maturity* is just perceived by the entrepreneur and becomes real with the *Venture launch* event. The border between stages is marked with the dash lines *Intention & Perceived opportunity*, *New Venture Idea*, *Opportunity confidence* and *Venture launch*. The trajectory of Case 1 is the version of an ideal linear process of venture creation that starts from level P_0 of propositions (corresponding to prior knowledge, skills, capabilities and other initial characteristics) and reaches *Venture launch* at t_1 . Trajectory 2 gives a more practical realisation of the development process. In some periods, the growth of the curve is faster, and in other periods – slower. Also, drastic leaps down are possible. For example, at t^2 , the process starts again from the inception level. The reason for that can be a need to vary the idea of suiting the motivation, skills and knowledge of the entrepreneur. In some periods, e.g. $t^1 \dots t^2$, the silo, including elements of several stages, can have an undetermined status (process interruption). As a result of feedback signals, transition and the relaxation process, the entrepreneur reaches a decision on how to continue. At t^2 , the trajectory of Case 2 starts from the initial (idea generation and) *Intention & Perceived opportunity* level again, follows the expected learning curve and accelerates after t^2 as the entrepreneur is now more experienced. The development trajectory of Case 3 describes a situation in which the entrepreneur starts from the *New venture idea* and reaches the solutions for his/her entrepreneurial process in further learning. This situation can happen, for example, when following a lean start-up idea from the initial market test and developing the business idea further after the first experience with customers. In reality, the entrepreneurial journey can follow very

different curves with various impacts, interruptions and transitions, and relaxation processes. Customer involvement can be used in all the development stages.

4. OPPORTUNITY CORRIDOR OF THE ENTREPRENEURIAL JOURNEY

Sometimes, the dimensions of the entrepreneurial journey are not expressed as explicitly measurable or theoretical constructs, as they do not present us with the opportunity to measure. Davidsson (2016, p. 29) described the situation in which discovery and exploitation are two qualitative interrelated processes. The entrepreneurial process may start from the individual perceiving an opportunity at a given moment, t^{10} (Fig. 3), followed by an attempt to exploit the opportunity at t^{11} and what (as feedback) can lead to a (new) discovery again (t^{20}).



This means that the temporal process runs between two qualitative states, which are the edges of the corridor: discovery and exploitation process. Theoretically, these states can belong to different technology fields/domains: a dual combination of discovery and test (exploitation) can be related or not related to previous or subsequent entrepreneurial attempt(s).

A similar picture could be presented when trying to operationalise technology-related opportunities. Anokhin and Wincent (2014) explain opportunities as originating from technological arbitrage and innovation. Arbitrage is understood as the opportunity rising from “market inefficiencies that make possible differential pricing of certain resources or their combinations are seen as a possible source of entrepreneurial rents” (*ibid*, p. 438). This means that the entrepreneur can decide between opportunities of arbitrage and ‘grand’ innovation as two alternative edges of the corridor (Fig. 3). The means to interpret and implement the ‘grand’ innovation in the entrepreneurial journey is worth discussing.

The objectivist approach to entrepreneurial opportunity states that opportunities exist independent of the entrepreneur’s perception, while the social constructivist approach argues that opportunities are created by entrepreneurs (Alvarez and Barney, 2007; Wood and McKinley,

2010). According to these two theories, opportunities are like alternative edges of the corridor again (see: Fig. 3).

The incompatibility of the two edges used by these three approaches gives the impression of the opportunity being some discrete phenomenon precluding its positioning between the edges. Otherwise, if the opportunity could be a continuous phenomenon, then it could possess features of both sides of the corridor at the same time. Also – in regard to the journey, we can conclude that in synchronism with the entrepreneurial journey in the temporal scale (Fig. 2: $t^1 \dots t^2$), the process and journey have an undetermined status, as mentioned above. For better understanding the construct, it needs greater analysis of its content.

Davidsson (2015) reasonably points at the issue of the definition of ‘opportunity’ between an *objectively existing set of (external) conditions, individual cognition and social construction*. He suggests using three different constructs instead of ambiguous ‘opportunity’: *External Enablers, New Venture Idea, and Opportunity Confidence*. The first, *External Enablers* is an aggregate construct including *regulatory, technology and demographic shifts* in society that affect new venture creation by an entrepreneur (belonging to the *Ecosystem* in Fig. 1). *Opportunity Confidence* refers to the actor’s (entrepreneur’s) subjective evaluation of the two first constructs. It should be mentioned here that *New venture idea* precedes to *Opportunity Confidence* from the entrepreneurial process and entrepreneurial journey perspective. This aspect introduces a temporal dimension in the opportunity framework. Furthermore, *regulatory, technology and demographic* issues of opportunity as an external enabler can be seen as characteristics of the entrepreneurial ecosystem (Venkataraman, 2004).

Technology arbitrage-based entrepreneurship is favoured in industries where knowledge spillover and imitation are easy to realise. Most of the new ventures implement technology arbitrage opportunities, and a small share of start-ups are seen as technology innovation enabled (Anokhin and Wincent, 2014). As the authors refer to ‘grand innovation’, it is worth briefly analysing the space and level of innovation.

In generalising the concept in published research, Garcia and Calantone (2002) categorise innovation on a macro and micro level as radical, really new and incremental. Radical innovations “cause marketing and technological discontinuities on both a macro and micro level. Incremental innovations occur only at a micro level and cause either a marketing or technological discontinuity but not both” (*ibid*, p. 120). The majority of innovations that can result in market or technological discontinuity were positioned between these two categories. Newness can be related both to the market (Dahlqvist and Wiklund, 2012) and to the business model in combination with a new product (Zott and Amit, 2008). If the ‘grand innovation’ (an expression by Anokhin and Wincent, 2014) is interpreted as a radical innovation, then all other (product, market and business model) innovations could be positioned between technology Arbitrage and (radical) Innovation in Fig. 3. It would be quite difficult to find arbitrage without any innovative action. As innovations are created by an innovator/entrepreneur, we can suppose that the Corridor pattern should describe (not only discrete but) the continuous space of the implementation reaching of opportunities in what is a real entrepreneurial journey – a learning process. A new venture, and one even starting from existing technology, moves soon to the creation of new (opportunity exploitation) knowledge. The newness (and innovativeness) of the process outcome lies between technology arbitrage (market-related newness only) and radical innovation.

5. METHODOLOGICAL IMPLICATIONS

The entrepreneurial process model and entrepreneurial journey as presented in Figs. 1, 2 and 3 is a roadmap for the future entrepreneur as well as for further studies by researchers. It is evident that the static variables in the variance theory approach do not describe the dynamics of the events in the process. However, the studies of variance approach have created a comprehensive long list of variables/components/features counted in the process studies. The variables shown in Fig. 1 that describe the entrepreneurial silo in different stages are presented here as the priority ones for the particular stage; their list within the entrepreneurs' proximity domain is not exhausting all features, resources and capabilities. However, this fact also indicates the strong potential of the application of the systems thinking and approach in further studies of the process character of entrepreneurship.

Measurement of the variable only once during or at the end of the entrepreneurial (learning) process does not likely assess the real value of the item necessary for the adequate embodiment of the process. Some of the factors (variables) are just needed once in the process and in other periods are not resources at all, or their importance is minimal. Consequently, the measurement must happen at the right moment at the right stage of the process. Partly, panel studies try to meet this challenge by measuring the process in real time. Unfortunately, the maturity of the process in different cases is different, and the same stage can be repeated several times as can be seen in Fig. 2. The final results of the process cannot be known beforehand. That means the moment of measurement is critical in identifying the correlation between variables. Moreover, the higher explanatory power of the study can be reached by the timing of measurement. The role of the variance method remains in considering general legitimacy relations between the variables in the entrepreneurship processes.

One can suppose that the primary carrier of the new venture (creation) process is an entrepreneur (or his/her team) with his/her/their personality traits and all related tangible and intangible assets, which are conditionally located in a silo (proximity of the entrepreneur). The content of the silo involves dynamic changes from one stage to another. There are particular entrepreneurial action and decision points between the stages. This means that the transition from the previous to the subsequent stage is a qualitative change. However, due to feedback chains, even these qualitative changes can recur several times on a higher level with renewed content of the silo in the entrepreneurial learning and knowledge creation process. Usually, such learning is described as a spiral process (Nonaka and Konno, 1998; Kolb and Kolb, 2007).

The decision points as well as possible opportunity fields and competencies in the entrepreneurial process can be mapped in analysing the trajectory of the entrepreneurial journey – the temporal appearance of sub-processes. Of course, the content of the entrepreneurial process should be business field specific. Depending on the entrepreneur's experience and capabilities to date, the knowledge and competencies can differ. The entrepreneurial process model as presented in Fig. 1 is a roadmap for the future entrepreneur. How much should he/she know that roadmap before leaving for the journey still remains a question.

Mapping the processes is not much easier in the particular case of the venture if its entrepreneurial journey in the corridor of opportunities² includes over 200 new products and services tested in different markets. This was exactly the case with the small Estonian company Mobi Solutions before it went global with its mobile payment business model by the subsidiary

² Perhaps, it is more appropriate to re-name this 'tunnel of opportunities'.

Fortumo (Mets, 2016). This means that the stages researcher must be generally critical of the processes in tandem with mapping. It can happen that several parallel entrepreneurial processes take place in the start-up/venture creation, and these processes also lie in different stages.

Qualifying innovation processes between incremental, really new and radical can remain complicated even after venture launch because innovation is a complex phenomenon. Their impact on the technology and business environment is not always easily evident. For example, the technology of Skype, although protected by the patents, could be seen technically as not very new in the initial phase. Later on, however, its 'peer-to-peer' (P2P) technology concept in combination with its 'freemium' business model found that being a disruptive innovation (see, e.g., Yovanof and Hazapis, 2008) could radically change the global market of telecommunication.

From the entrepreneurial journey (Fig. 2), one can derive the process of what happens to the competencies of the entrepreneur and the team. The trajectory description of the process says when and which skills are required to keep venture creation ongoing. While schema Fig. 1 presents the leading competencies by stages, in every particular start-up case the needs for skills and knowledge by the entrepreneur may differ from each other. In the entrepreneurship training/pedagogy, this posits means the question of how to implement individualised and unified methods. Alternatively, how divergent can the competencies of training groups be? The social constructivist approach says that the role of a trainer or coach is to support the trainee in his/her entrepreneurial journey. However, there is still no answer as to how sharp and directed the guidance should be.

6. DISCUSSION

The ideas for the current synthesised entrepreneurial process model have routes from both the process as well as variance theory, which means (not only) delineating the relationship between (dependent and independent) variables and events (activities, choices, decisions) (Langley, 1999). It also means creating an approach for sense-making using systems thinking methodology in the explanatory and predictive power of the model. Studies based on the variance theory approach have frequently highlighted the linkages that were well known by practitioners long before statistical evidence. For example, investors accepted the importance of the personal characteristics of the entrepreneur in new venture success long before it was verified by statistical linkages (Baum and Locke, 2004). As mentioned by Langley (1999), there is no single way to reach accuracy, generality and simplicity in sense-making. The variance theory remains 'causally shallow' and, therefore, the 'temporal sequence of independent variables is critical' as is the conclusion from the process theory (Van de Ven and Engleman, 2004).

In published research, the authors could not identify any research that entirely covers the holistic model of the entrepreneurial process in connection with the entrepreneurial journey and entrepreneurial opportunity corridor suggested above. The model of the entrepreneurial process, as presented above, describes mainstream and technology entrepreneurship in a general sense and could be implemented in both cases. For technology start-ups, the entrepreneurial process model and entrepreneurial journey framework acquire a specific form due to the higher intensity of intellectual capital and the need to increase this in the process of further development following the launch of the venture. The result can be intellectual property (IP) that serves as a competitive advantage for the technology firm. Usually, the costs of achieving an advantage via the original IP can only be covered by the entrepreneur going global and integrating technological advantages with the business model leveraging the market (Mets, 2012).

Although the new entrepreneurial process model of venture creation (Figs. 1 and 2) is partly based on three case studies (Mets et al., 2013) and the two illustrations above, we are still in the initial stage of the learning process and journey phenomena (together). This also means that there is a need to analyse what happens to the initial entrepreneurial idea and opportunity during the entrepreneurial journey; how entrepreneurs develop the initial idea; how the idea and opportunity develop with time; how the interconnection between the idea and opportunity changes. What is the role of knowledge, innovation, technology and business model in the entrepreneurial journey? We also expect an answer to the subsequent questions in regard to the dimensions describing the space of the entrepreneurial journey. How relevant are these for understanding real processes – the main empirical proof of the approach lies ahead.

7. CONCLUSION

In this article, through utilisation of systems thinking and the systems approach, we reshaped the dynamic stage model of the entrepreneurial process to create a novel method for the configuration and metrics of progression of the entrepreneurial journey. To this end, we justified venture maturity as the generalised dimension that characterises the entrepreneurial journey in the temporal scale. Until venture launch, perceived (by the entrepreneur) venture maturity describes the progression of the entrepreneurial journey. The artefacts generated by the stages of the entrepreneurial process serve as the markers of progression of the journey. We also suppose the combination of the discrete and continuous character of the entrepreneurial journey trajectory between the edges bordering the corridors of the opportunity space. With this article, we are contributing to existing approaches towards a greater understanding of the entrepreneurial journey and process concepts by examining the interconnections between the entrepreneurial process, journey, venture maturity, time and space.

ACKNOWLEDGEMENTS

We would like to thank Dimo Dimov, Johan Wiklund, Francisco Liñán and two anonymous reviewers for useful comments and suggestions.

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