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# **Patterns of agile and creative methods for Solo-Entrepreneurs**

- an empirical research



submitted to obtain the degree of  
Master of Science (M.SC.)  
at TH KÖLN University of applied science  
Institute of Informatics

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## **Bibliography**

# List of Abbreviations

<b>SME</b>	Small and medium Enterprises
<b>DT</b>	Design Thinking
<b>DBR</b>	Design-based Research

# Acknowledgements

Master Thesis submitted to obtain the degree of Master of Science (M.Sc.) at TH Köln University of Applied Sciences, Institute of Informatics, Course of Studies: Web Science, Cologne, February 2021

First supervisor: Prof. Dr. Christian KOHLS, TH Köln University of Applied Sciences

Second supervisor: Dr. Nils JENERS, Freelance Innovation Consultant and Business Design Coach

I am very grateful for the patience and support of many people during my work on this master thesis. I would like to say a big thank you to:

- my two editors Christian Kohls and Nils Jeners, who always gave me an open ear for my questions - and who of course also have a lot of work to do with the review and evaluation of this thesis.
- the six probands, who must remain anonymous here, who took about a whole working day for me and my work. And who, in turn, each involved about five other people in the tests.
- Manuela Böttcher, [www.schreibserviceonline.de](http://www.schreibserviceonline.de), who made a valuable and highly qualitative contribution to this work by transcribing the interviews.



- and last but not least to my family, who had to do without their dad, husband and son far too often during the hot phase of this work.

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# **Chapter 1**

## **Introduction**

### **1.1 Research domain**

Solo-Entrepreneurs are an important factor of the economy. Furthermore, their situation differs significantly from that of other companies, such as in statistically lower income, worse general working conditions, but on the positive side on more freedom, compared to employed people.

Solo-Entrepreneurs - like the economy in general - are not a homogeneous group of professional profiles. This master thesis focuses on a small group of Solo-Entrepreneurs in the knowledge sector. It explores their situation and especially their challenges - systematized here as soft-factor and hard-factor challenges - in a qualitative scientific research to understand them in detail.

Agile methods are the focus of interest, especially in the area of software development, but also in innovation management. There are various framesets on the market, for example, SCRUM, Xtreme Programming, Lean Business Development - and Design Thinking.

According to the fact that Solo-Entrepreneurs have challenges that could be called business cases - not products or services - the methods and mindset of Design Thinking fit best to deal with them - SCRUM, for example, is

strictly focused on the development of a software product. Design Thinking is more open than the other agile methods, overall a very heterogeneous "framework" with some self-emphasizing concepts from some institutions, like IDEO or d.school, but ultimately with a wide variety of methods and application domains. The large body of knowledge around Design Thinking and other creative methods is attractive for an adaptation for Solo-Entrepreneurs.

Books and ideas on how Solo-Entrepreneurs can use agile and creative methods for their effectiveness, mostly based on self-organization ideas, usually have no real scientific approach. The literature mostly describes which methods and tools are suitable but does not answer the question of whether these methods are permanently applicable and useful in the specific situation of freelancers or Solo-Entrepreneurs.

In this master thesis, the process and methods from Design Thinking - which is almost always applied as a team project - were adapted to the lonely situation of Solo-Entrepreneurs who are not in a team to solve their business cases.

Accordingly, the research question of this master thesis is:

"Are agile and creative methods, especially Design Thinking, useful and meaningful for addressing hard and/or soft business cases and challenges of Solo-Entrepreneurs in the knowledge domain? Why?"

[Chapter 2](#) of this master thesis describes the research area in detail.

## **1.2 Motivation and Sorting to the WebScience area**

The author's motivation for this master thesis is his situation: He has been a Solo-Entrepreneur for almost 20 years, working as a freelance journalist with various colleagues and clients. During this time, he has used agile and creative methods for his development, e.g., to advance his project to sell writing instruments.

The topic is strongly related to websciences' domain: General approaches to project management are addressed in this master's thesis. Furthermore, certainly, the ideas of Human-Computer-Interaction and Design Thinking are connected to this work.

## **1.3 Objective**

The master thesis analyzed the special situation of freelancers/Solo-Entrepreneurs and their working environment and tried to find out and analyze scientifically validated which agile and creative methods fit for Solo-Entrepreneurs. Therefore, the diverse scientific method of literature research, design-based research, workshops, and qualitative interviews were used. As a result, 18 methods were evaluated.

The main goal is to develop a special toolbox for Solo-Entrepreneurs to solve or work on business cases. For this purpose, the author developed method cards and method templates and designed a "Design Thinking Box", which he sent to the probands - face-to-face meetings were not possible due to the Corona pandemic situation. A side benefit is that all methods and materials were evaluated in a distributed situation using a video conferencing tool.

It could be very beneficial to have a toolset, "patterns" of ideas/methods/tools inspired by agile methods, adaptable

for Solo-Entrepreneurs. This toolset could be a starting point for further work, e. g., developing a web service/prototype in this area.

Furthermore, it might help better understand how exactly such methods are beneficial for Solo-Entrepreneurs - and project teams in general. In general - on a research-level - it could be interesting to analyze how much the situation of Solo-Entrepreneurs differs from that of companies.

[Chapters 4](#) and [5](#) describe how this evaluation process was designed and what the concrete results are. [Chapter 6](#) gives an interpretation, and an outlook on further developments certainly discusses the limitations and ethical aspects of this master thesis and gives suggestions for further scientific investigations and evaluations.

## **Chapter 2**

# **Exploration of the research area**

## **2.1 Introduction**

In order to define a clear research question, it is necessary to deeply explore the areas of this topic, divided into:

- Solo-Entrepreneurs: What exactly is the situation of Solo-Entrepreneurs, what are comfortable definitions and what are the challenges and opportunities, what is the importance of this group for the economy?
- Agile Methods: What are the definitions, discussions, and main aspects of agile methods?
- Research question: What are the consequences for the formulation of the final research question?

This chapter discusses these aspects in detail and critically; it forms the basis for further research in this master thesis. As a result, the final research question is defined at the end of this chapter.

## **2.2 Situation of Solo-Entrepreneurs**

### **2.2.1 General Definitions**

The definition of small and medium-sized enterprises (SMEs) is based on the definition of the European Union ("What is an SME?" 2020), which distinguishes between medium-sized, small, and tiny enterprises.

According to this definition, all companies with fewer than 250 employees and a turnover of no more than 50 million euros per year or a balance sheet total of no more than 43 million euros per year are SMEs. Large enterprises are an abstraction of this EU definition: anyone above these data is a large enterprise. Furthermore, most importantly for this master's thesis, microenterprises are companies with fewer than ten employees and less than or equal to 2 million euros in sales or total assets.

IfM Bonn ("Kennzahlen der KMU nach Definition des IfM Bonn" 2017) (whose definition differs somewhat from the EU definition) described the economic impact of these different segments: In 2018, 3.47 million tax-paying German SMEs had 24.6 million employees. The majority of about 13,000 companies are large enterprises. These companies had 6.7 million employees in 2018.

However, this definition does not fit as well for freelancers or Solo-Entrepreneurs: A basis could be the definition of the Künstlersozialkasse ("Voraussetzungen für eine Versicherung bei der KSK" 2020). According to this, an artist is a freelancer if they employ a maximum of one other person and earn more than 350 euros per month.

The general definition of freelancers is another: all persons who do not have to pay "business tax" are "free professionals" for the law; there is no restriction on the number of employees (Dennerlein, 2020).

In total, 1.432 million people were working as freelancers in Germany in 2019. The IfM Bonn statistics add all entrepreneurs ("self-employed"). Accordingly, a total of 4.01 million people are entrepreneurs in 2018 ("Kennzahlen der KMU nach Definition des IfM Bonn" 2017).

Solo self-employed people vary widely in their occupational profiles, education, and income. For example, "Solo-Selbständige in Deutschland - Strukturen und Erwerbsverläufe" (Brenke and Beznoska, 2016) counts 55 different occupational profiles.

As Destatis.de summarizes, in 2019, 4.6% of all employees were Solo-Entrepreneurs or self-employed, and massively working in agriculture and forestry (19.2%), further in real estate (13.1%), business services (9.4%), and communications and information (8.6%). ("Solo-Selbstständige" Last viewed on 19.01.2021)

A short definition of Solo-Entrepreneurs according to Brenke et al., could be:

"Self-employed persons without employees [...], the so-called solo self-employed. [...] When self-employed persons or solo self-employed persons are referred to in the following, we are always talking about persons, not companies. In reality, however, it may happen that self-employed persons do not have employees, but do not work alone, but carry out their activities together with other self-employed persons or with family members working without remuneration." (Brenke and Beznoska, 2016, page 17)

Another definition is according to the labor law in Germany:

"The term solo self-employment is not defined in any law. This applies both to labor law and to tax and social security law and criminal law, which must also be observed. It is



generally agreed that one speaks of solo self-employment when individual persons (entrepreneurs) who do not employ their staff provide their work and services independently, i.e., independent of instructions and not in personal dependence. The two characteristics "alone" and "independently" are characteristic." (Kunz, Last viewed on 19.01.2021).

According to this master thesis's research field, the spectrum of job descriptions of this study seemed to be too large. For this reason, this master's thesis focuses on the so-called knowledge workers, which are defined as:

"Knowledge workers work mainly on symbols (representations), transforming them in cognitive processes, which is the main source of added value. To do that, they must command a large body of knowledge equivalent to university education, understood and internalized, grounded in experience, and consequently updated. They perform complex tasks, focus on problem-solving, creating knowledge, distributing it, and applying to achieve results. They broadly use documents and ICT [Information and communication technologies], and require a high level of autonomy." (Surawski, 2019).

Or in a shorter definition:

"an employee whose job involves developing and using knowledge rather than producing goods or services" ("knowledge worker" Last viewed on 19.01.2021).

### **2.2.2 (Economic) Situation of Solo-Entrepreneurs**

Destatis.de opined that "self-employed persons who are alone and often in the start-up phase of their business. This

form of self-employment is often characterized by instability and insecurity, as work absences cannot be compensated for" ("Solo-Selbstständige" Last viewed on 19.01.2021).

Brenke et al. (Brenke and Beznoska, 2016) described this divergence also in the area of income: "In addition to Solo-Entrepreneurs, there is a widespread in many respects. This applies, for example, to job profiles: On the one hand, academic job profiles have a big impact, on the other hand, there are many Solo-Entrepreneurs with simple jobs."

The authors also described a widespread income situation, "only a small part also has high incomes [...], in job profiles where high qualification is required". The authors describe them as "academic proletarians": "Sometimes the incomes are too low to live on."

VGSD.de want to establish Solo-Entrepreneurs as a serious part of the German economy, and opposes "bogus self-employment" and the negative impact of this.<sup>1</sup>.

Several studies shed light on different aspects of solo entrepreneurship, for example:

- Gender issues: "Female Solo-Entrepreneurs earn lower incomes than male Solo-Entrepreneurs, on average, by 38.7 percent" (Gather, Schürmann, and Trenkmann, 2017, page 22).
- Social insurance systems: How social insurance systems could be developed because "many of them are unable to protect themselves against unemployment and old-age poverty because of their low income" (Koch, Rosemann, and Späth, 2011, page 4).
- Work situation: A study describes a contradictory picture of Solo-Entrepreneurs, who on the one hand "perceive

more job insecurity than self-employed with employees and dependent employees” but also “have more room for maneuver and engage in less monotonous activities than employees” (Kottwitz, Otto, and Hünefeld, 2019, page 10).

- Precarious journalism: Freelance journalism, for example, is classified as “precarious work.” “The journalistic precariat is a heterogeneous group of journalists who work under precarious conditions but do not necessarily perceive the associated insecurity as a threat. Those affected differ in many respects. What they have in common is that their working conditions can be classified as precarious [...]. For the freelancers, the ambivalence of their form of employment is characteristic: on the one hand, freelance journalism has a precarious, on the other hand, a liberating potential.” (Schnedler, 2020, page 223 - 237)

Some data are available for the concrete economic situation of Solo-Entrepreneurs:

- Among the solo self-employed, a full-time employee reached 13.95 euros and a part-time employee 11.63 euros in 2014; low-income earners work longer hours than high-income earners; hourly wages do not vary much with age - this is better for salaried employees ((Brenke and Beznoska, 2016, pages 40 and 41).
- “Last year’s speculations were premature: the average hourly rate is unlikely to climb above 100 euros in 2019. Furthermore, in 2018, the targeted 93.80 euros was not achieved either; the hourly rate was 86.73 euros. That was a decline of about two percent compared to 2017.” (“Studie IT-Freiberufler 2019” 2020, page 17)

- The average hourly rate in 2020 is 94.28 euros, 67% of freelancers set an hourly rate between 60 and 109 euros. Only 4% receive less than 50 euros per hour (“Freelancer-Kompass 2020” Last viewed on 11.01.2021).

### **2.2.3 Challenges for Solo-Entrepreneurs**

The field of IT entrepreneurs, in particular, has been the proband of several studies. For example, the “Study IT Freelancers 2019” asked about the main challenges of Solo-Entrepreneurs in the field of IT (“Studie IT-Freiberufler 2019” 2020):

- Negotiations for hourly/ daily rates: 29.1%.
- Lack of time (for further training): 28.0%.
- High workload: 26.2%
- No project allocations: 16.6%
- High administrative expenses: 13.3%.

A large quantitative study of all freelance jobs (“Freelancer-Kompass 2020” Last viewed on 11.01.2021) describes the following key challenges for freelancers:

- Project acquisition: 68%
- separation of professional and private life: 35%.
- false self-employment: 34%
- Get better to pay: 30%.
- Stay positive: 25%