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- startups and corporate entrepreneurship in the Czech Republic
- research methodology under MNE
- application of the research methodology
- conclusions

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Kuratko, Donald F.; Entrepreneurship: Theory, Process, and Practice; Cengage Learning; 9 edition (January 1, 2013)
Sanford S.; Civic Life in the Information Age: Politics, Technology, and Generation X; Palgrave Macmillan; Reprint edition (November 27, 2012)

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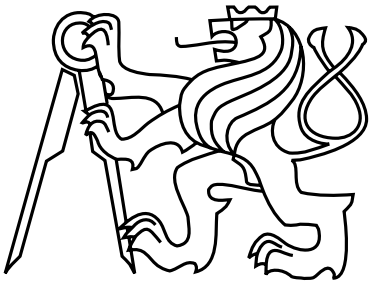

Master's Thesis

Entrepreneurship (how to run startup) under multinational enterprise (MNE)

by

Ing. Jiří Pětník

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Study Programme: Electrical Engineering, Power Engineering and Management

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Declaration

I hereby declare that I have completed this thesis independently and that I have listed all the literature and publications used.
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In Prague on May 11, 2015 .....

Abstract

The aim of this thesis is to focus on the startups – dynamic and newly established projects or starting companies particularly designed to bring some innovation; within the environment of multinational enterprise (MNE) – simply the big company with clear policies and rules intended to do the business in many countries around the world.

This thesis provides a comprehensive overview about startups. In the context of globalization it explains the multinational enterprise and it combines both key terms together via a discussion about corporate entrepreneurship / intrapreneurship. The analytical part of this work assesses the current environment of the Czech Republic in relation to startups and corporate entrepreneurship. Based on the results of existing researches and with help of proposed empirical research applied in the chosen multinational enterprise, the thesis makes available few possible models how the startups can be incorporated in the environment of multinational enterprise and under what conditions.

Keywords: startup, multinational enterprise, globalization, corporate entrepreneurship, intrapreneurship, empirical research

Abstrakt

Cílem této práce je zaměřit se na startupy – velmi dynamické a nově založené projekty či začínající firmy, jejichž záměrem je ve většině případů realizovat inovace; v rámci nadnárodních podniků – jednoduše velkých společností s jasnými pravidly a interními politikami, které se soustředí na obchod v mnoha zemích po celém světě.

Tato práce předkládá ucelený přehled o startupech. V kontextu globalizace se snaží vysvětlit specifika nadnárodní společnosti a oba klíčové termíny kombinuje s pomocí korporátního podníkání / intrapodnikání. V analytické části práce je stručně zhodnoceno současné prostředí v České republice ve vztahu ke startupům a korporátnímu podnikání. Na základě výsledků existujících výzkumů a s pomocí navrženého empirického výzkumu aplikovaného ve zvolené nadnárodní korporaci tato práce předkládá možné modely jak lze startupy zařadit do prostředí nadnárodní korporace a za jakých podmínek.

Klíčová slova: startup, nadnárodní společnost, globalizace, korporátní podnikání, intrapodnikání, empirický výzkum

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Chapter 1

Introduction

An interest in startups is nowadays evident. They undergo a sort of renaissance and these principles no longer appear only in places such as Silicon Valley or various technical centers. They can be met all around us.

The demands for jobs in these units are on the increase. Young people are the ones who are mainly interested. They rather seek an informal collective of employees, the least amount of bureaucracy and different management structures and the ability to influence the outcome of the effort of the entire company [87]. This is exactly what the startups can offer.

The startups are a fashion of the last twenty years. They are related to modern technologies and thanks to the Internet, there is no exception, that with a little effort and a small team, they are able to launch a really big business with a global reach. [106] Based on this statement, it's obvious that the startups can be either very successful or they can very quickly fail, since with their potential to success, there is simultaneously bound a high degree of risk.

As an opposite of startups there are already existing and well-established companies on the market. The same as the end users, these companies are also interested in startups. Their mutual relationship can be distinguished into separate categories as follows.

- Since the startups are bound with innovation, new ideas or different approaches to the standard things, the existing companies acquire them just for their own further development. The purpose of majority of these acquisitions are very often talents or specific products [51]. Similarly, the same strategy is very often used if some startup tries to disrupt existing market, creates new competition or jeopardizes an unique position in the market, and the existing company wants to silence its activities.

- Second relationship is rather a kind of symbiosis. The existing companies offer the programs, which purposely help the early-stage tech startups to build their own enterprise solutions and grow their business [13]. The candidates are rather chosen and must meet strict conditions such as a willingness to build their own solution above the platform of existing company. This is what the companies like Microsoft, IBM, SAP or Cisco want. When the young company is born on their technologies, in the future, it's very likely, that it will turn to the paying and growing customer [86].

- The third mutual relationship between the startups and well-established companies can be an effort to encourage innovation inside the company via corporate startup projects. The pioneer in this area is Google with its well-known rule of „20% time“. The engineers of Google were allowed to spend one day a week working on projects that weren't necessarily in their job descriptions [58] and incubated Gmail, Google Transit, Google Talk, Google News, Google Closure Compiler and many other experimental projects from Google Labs ([25], [67]). Obviously, this step brought a big amount of new ideas and made Google what it is now. On the other hand, for sure, many things weren't core to Google's mission, so Larry Page (co-founder and current CEO of Google) restricted the source of these new projects and put the rules around „20% time“ [53].

The effort to create innovation teams inside the large companies, in other words an applied innovation or corporate entrepreneurship in a form of startups, is currently a hot topic ([8], [18]), which this thesis is also focused on. In this context, a startup can be understood as a special form of organization, actually only the temporary one, which is used by the company to find a functioning and sustainable business model [106].

Chapter 2

Goals of the Thesis

This chapter is focused on closer description of the problem and a little discussion about thesis assignment. There are also mentioned particular goals with brief details and last but not least, a short description of overall structure of this work – its textual form, is provided.

2.1 Problem Description

This thesis focuses on big enterprises, in other words the multinational enterprises, where – despite the fact that these organizations are in most cases very successful, is sometimes missing an openness of managers to the ideas of their direct employees. The lowest employees are very often those, who can see the problems or have ideas, which could lead to innovation – either for internal purposes or for the customers. The enterprise, if it wants to benefit from the potential of its employees, must provide and create appropriate environment, the culture, inside and support the activities of employees, who want to get involved. It's obvious that these activities bring hire risk. Lots of them rather fail than bring a longed-for profit. Therefore, we can sometimes see strict working policies or restrictive key performance indicators (KPIs), which, by their nature, suppress any of these activities.

On the other side of these rigid policies inside the big enterprises, there are small agile rapidly changing and adaptive teams or groups – in other words the startups. These are very often connected with innovation and change, build on connectivity, but they lack of solid foundations.

2.2 Goals of the Thesis

The aim of this thesis is to try to combine both of these opposites together. So there is the intention to find some possible ways how to combine a dynamism of startups with strict policies of multinational enterprises. Thus how to bring innovation into corporate environments using startups, which are implemented by employees themselves. It's obvious that this cannot be applied for all multinational enterprises. It depends on the subject of business and on the employees – especially on their motivation. And the enterprise must be opened to these activities and support them.

Particular goals of this thesis which build on the thesis assignment are as follows:

- **Comprehensive overview about startups.** The first goal is obvious and it's important to clearly cover this topic with all of its specifics. What are and what are not the startups? What are the reasons and motivators for people to build them? Are there any methodologies around these units? The goal here is to create some overview, where the main points – usually associated with startups, are clearly described. Despite the fact that this topic is nowadays quite popular, the information are often fragmented.
- **Multinational enterprise (MNE).** A multinational enterprise as a term requires to be defined. Moreover, it's also important to mention any other characteristics, which form and influence these organizations.
- **Corporate entrepreneurship.** For the purpose of this work, it's important to clearly define the entrepreneurship as a term. Another important terms are intrapreneurship or corporate entrepreneurship. This thesis should be able to distinguish all of these terms and provide common characteristics or differences, if there are any.

By these three goals above, the first point of thesis assignment (the literature review) will be fulfilled. These three goals will serve mainly as a theoretical background of this thesis.

Following three goals rather relate to analytic part of this work.

- **Startups and corporate entrepreneurship in the Czech Republic.** The second point of thesis assignment asks for some brief analysis of current situation in the Czech Republic. Recommended approach is to go from generalities to specifics, so from general characteristics of whole society (culture) in the Czech Republic to some specific examples.
- **Research methodology under MNE and its application.** Based on the theoretical knowledge and also based on the existing researches, if there are any, an appropriate research methodology should be created. This methodology must be clearly defined and applied within chosen multinational enterprise. The research should focus on mutual relationship between startups and the enterprise.
- **Proposal of possible startup models under MNE.** Based on the results of research from the previous goal and existing researches, if there are any, a few possible models how the startups could be incorporated into existing enterprise will be provided. These models will reflect research results and impose conditions of their applicability.

2.3 Structure of the Thesis

The structure of this thesis almost identically matches the goals defined above. This work is divided into two separate parts.

The theoretical part is started with Chapter 3. This chapter summarizes and provides comprehensive overview about startups, where the main focus is put on startup methodologies and startup steps. Chapter 4 about multinational enterprise is started with globalization

– its definition, gradual development and current environment characteristics, which influence the multinational enterprises today. The discussion about the definitions of MNE and other details follow. The last chapter of the theoretical part (see Chapter 5) deals with entrepreneurship, mentions a role of entrepreneur and compares traditional and intrapreneurial culture.

The analytical part is built on the bases of the theoretical part. There is the analysis of actual intrapreneurial environment in the Czech Republic (see Chapter 6), which includes Hofstede 6-D model, the Innovation barometer of Erste Corporate Banking and existing research in this area. There are also examples of startup activities and their support both in academic and business sector. Chapter 7 then provides important information about IBM Czech Republic – the subsidiary of multinational enterprise. This chapter gives the first insight into the company, lists four leading units and focuses on IBM and its relation to innovation, support of innovation and startups. IBM Czech Republic is the subject of empirical research, which is defined in Chapter 8. The emphasis is laid on the research definition and data processing. Proposed research methodology is discussed in greater detail; followed by research results and research assessment. The last chapter of the analytical part is Chapter 9 about startup models inside the corporate environment. There are mentioned starting points and three possible models, which can be implemented either independently or some continuity is possible.

The last Chapter 10, which summarizes the fulfillment of individual goals and provides overall assessment, is then followed by Appendix Chapters containing a list of used acronyms, the business model canvas and the lean canvas for a comparison and the lists of questions for interviews and the lists of evaluation criteria used within the research.

Part I

Theoretical part

Chapter 3

Startup

The intent of this chapter is to summarize the facts about startups – the definition, some methodologies, the reasons or motivators why we usually start a new business and how we can measure our progress. Especially the steps that most startup may (but may not) pass are the key part of this chapter. At the end there is also a brief comparison of startup and spinoff with simple division into basic categories.

3.1 Definition

The term *startup* can be defined in several ways. It obviously depends on the author's experience, general understanding of the topic and also the environment – meaning that e.g. the industrial sector.

Business Dictionary [28] defines *startup* as:

> *„Early stage in the life cycle of an enterprise where the entrepreneur moves from the idea stage to securing financing, laying down the basis structure of the business and initiating operations or trading.“*

This definition combines several points together and can be considered as a general one. Going in details this positions startup at the beginning of the life cycle of an enterprise. It also talks about the key points, which the entrepreneur should achieve to successfully begins new business.

Regarding the early stage in the life cycle of an enterprise, a startup is definitely placed into the Learning phase of the Sigmoid Curve [23], see Figure 3.1.

That's a time a lot of resources, knowledge and time are invested. On the other hand, a great reward cannot be expected for what is currently done and invented. Usually there is the lack of appropriate amount of customers, the marketing processes are in the beginning and instead of focusing on a specific segment a market research is rather done. Sometime a third-party investment is needed to cover the costs.

This thought is also supported by the startup definition of Steve Blank and Bob Dorf [9, p. xvii] which says:

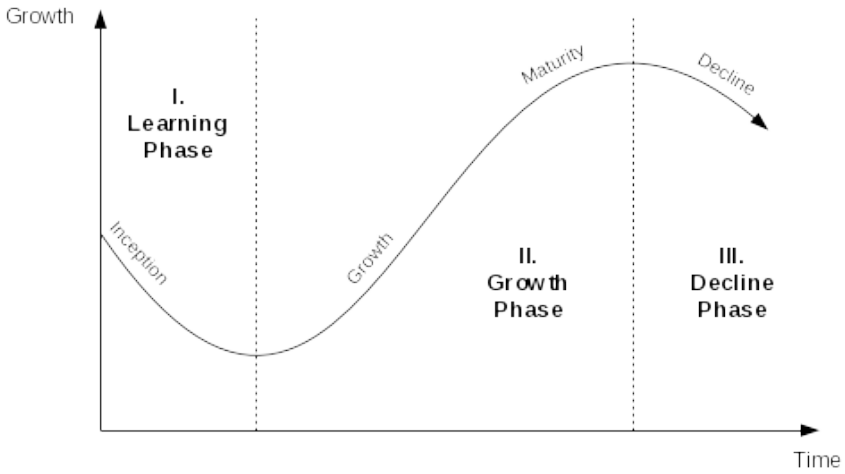

Figure 3.1: The Sigmoid Curve [23]

> *„A startup is a temporary organization in search of a scalable, repeatable, profitable business model.“*

Paul Graham [38] brings a little bit different view. He links startup to the growth and considers startup as:

> *„A company designed to grow fast.“*

The growth is a key identifier and distinguishing element for him and based on this, he defines three phases, which a successful startup usually has [38]:

1. There's an initial period of slow or no growth while the startup tries to figure out what it's doing.
2. As the startup figures out how to make something lots of people want and how to reach those people, there's a period of rapid growth.
3. Eventually a successful startup will grow into a big company. Growth will slow, partly due to internal limits and partly because the company is starting to bump up against the limits of the markets it serves.

These three phases unambiguously place startup on a whole Sigmoid Curve (see Figure 3.1), which gives us a little bit different point of view than the previous general definitions. Paul Graham adds that [38]: *„The phase whose growth defines the startup is the second one.“* Meaning that the phase of growth.

Neil Blumenthal, co-founder and co-CEO of Warby Parker, understands startup as [82]:

> *„A company working to solve a problem where the solution is not obvious and success is not guaranteed.“*

Success is obviously a required stage of each startup and it goes hand in hand with the growth. Without growth the liabilities incurred in the early stage (if any) cannot be repaid and of course any future development will stagnate or even decline. In theory, especially in time of growth, it is recommended to step back a little bit, rethink the targets and ideas, use current resources and knowledge and try to move the company on a higher level via a new „Sigmoid“ process before the decline ([23], [38]).

My company is new, so it must be a startup

One of the mistake is to think that every newly founded company is a startup. Let's think about a new common restaurant or pub, barber shop or newspaper kiosk. If the location is appropriate and these services are missing there, the business will probably do well, but a number of people in this restricted neighborhood, which can be served, is and every time will be limited [39].

That means it's all about the constraints [39]. If the business is „opened to the world“ and it has something what can be offered to all the people, the potential is much different and in most cases it is a step from startup territory. A possibility to scale very quickly is needed [82] without strict constraints [39]. This differentiates startups from small businesses and make them so hot for investors and venture capitals (VC) [38].

New technical company is (not) a startup

Another grounded mistake is an assumption that a new technical company must be a startup [38]. Let's image following three examples:

1. New small business which offers technical services like creation of web pages.
2. Skilled programmers implemented a great framework for developing fancy web pages.
3. Four students used cloud's Platform as a Service (PaaS) model for implementation of a simple service, which can store and use user's credentials to automatically log into the different sites in a way as single sign-on (SSO) usually does.

All of these examples are technically related ideas of new possible business. But not all of them can be called a startup if set up. Again there can be found some constraints, options to scale or targeted market segments, which make all of these three examples different [39]. And nothing would change this even the business would be built in Silicon Valley.

So, the startup, by definition, does not have to be technically oriented. This rumor is related to the boom of Internet technologies and devices connected via Internet of Things (IoT), which are easily visible by a lot of (connected) people around the world. Generally, the world of information and communication technologies (ICT) with the Moor's Law in mind can be obviously understood as the right place for startups. But certainly not the only one.

The startup should be rather considered as the general newly created highly dynamic structure where things can change extremely quickly – either up or down, with a big potential to be extremely successful or quickly forgotten, as can be concluded from the startup definitions mentioned within this section ([9, p. xvii], [28], [38], [82]).

3.2 Reasons and Motivators

The real reason why to built a startup differs person by person and in most cases there isn't the only one. Usually the main element, which encourages people to start a new business, is possibility to make big money. On the other hand, there is the question whether especially this reason is that right one. Damien Brzoska [11] collected several reasons about this point – why to build a startup.

Because I want to make a lot of money. [11] As mentioned above this is usually the most obvious and understandable reason why to build a startup. But doing things just to make big money is not always the best way to go. New business needs more than just this. Brzoska says that [11]: „*Without any other ambitions, one will be facing difficulties to make the startup success.*"

Because I want to be famous. A lot of startup companies are connected with famous people („these days" – this must be added). For instance let's mention names like Steve Jobs, Bill Gates or Mark Zuckerberg. These people usually did not do what they are famous for (now) to be just famous. Brzoska does not see any sense to have as only motivation to be famous [11].

Because I know how to solve an actual issue. Coming closer to the reality, this is about the market segmentation, groups of people and their problems. Obviously, it's not possible to address whole market [11]. But finding some correct issue of appropriate market segment, which one can solve with a new business, is definitely the good approach.

Because I have an idea. Or why not to use a term *killer idea* [42]. It needs to be realized that there is a difference between the idea and THE idea [11]. Even the ones, which are contagious, exciting and easily interest other people, can fail in the end. Why? Because every idea also needs appropriate consumers or market segment as discussed in the point above. Simply some people whom THE idea will help to [11].

What also must be included is the fact that a new business does not always need to find the best idea all over the world. It's a common mistake to believe that the company should be based only on a new idea and only after that the business can be successful. Gary Jones suggests to combine one or more business ideas or even copy or improve someone else's successful thoughts if there is an intention to do it better with higher added value for end users [57, p. 3-4]. Sometimes a completely new market or a gap in the existing market can be revealed and the consumers will come from their own. But simply speaking the less, the idea is tried and tested, the greater is the risk.

Because I do not want a job by default. Time when employment was mandatory[1] is gone. Now everyone can choose to be employed or start own business. Brzoska says that [11]: „*Sometimes we only work for someone when we don't know which business to start.*" In case people want to realize themselves and they do not want to be dependent on the other people, own business is a possible choice.

[1] Required by former political regime in the Czech Republic.

Because I have great co-founder. Starting up alone or with partners has both its own advantages and disadvantages. There are personal comfort and flexibility with unlimited earning potential, on the one hand, and diversification of our expertise and spread of our risk, on the other hand [95]. In most cases, the expertise from different disciplines is required [37]. Also the facts, that new ideas can be brainstormed with someone else, and that the responsibility and risk can be shared, these are usually the factors why to rather find good co-founder than start alone [11].

Because I have a passion of a product. Passion is often mentioned as one of the keys of success [11] but also as a root of failure, so this has to be appropriately balanced with a reality. A founder mustn't be blind and focus only on what he likes the most. He needs broader view like real market research, understanding the future costs and support [96].

As mentioned at the beginning of this section, the reasons why people want to build a startup differ person by person and obviously it's not possible to list all the options here. At the end of this section, few gender-specific (feminine) reasons follow: **stay home to raise a family**, **financial independence** or **do work that has purpose and meaning** [61].

3.3 Startup Methodology

In this section, the methodologies, which can be applied as systematic and theoretical methods to the startup field of study, are summarized. In the beginning, there is mentioned Osterwalder's Business Model paradigm globally used for proposals and description of new including current business models. Further there is also mentioned Ries's Lean Startup mechanism with its Build-Measure-Learn feedback loop.

3.3.1 Business Model

A business model describes the rationale of how an organization creates, delivers and captures value and can be also understood as a blueprint for a strategy to be implemented through organizational structures, processes and systems [73, p. 14]. It also serves as a good starting point for any discussion, meeting or workshop on innovation. It should be everybody understandable, simple, relevant and intuitive. On the other hand, it cannot oversimplify the complexities of how enterprises or startups function.

Osterwalder's Business Model [73] formed from nine building blocks can give us a hand on how to consolidate our first thoughts of new business from zero or first idea to the kickoff startup structure. Together these points create the Business Model Canvas as shown in Figure 3.2.

The description of nine building blocks of Business Model Canvas follows [73]:

1. **Customer Segments** – define the different groups of people or organizations an enterprise aims to reach and serve. The heart of any business model.

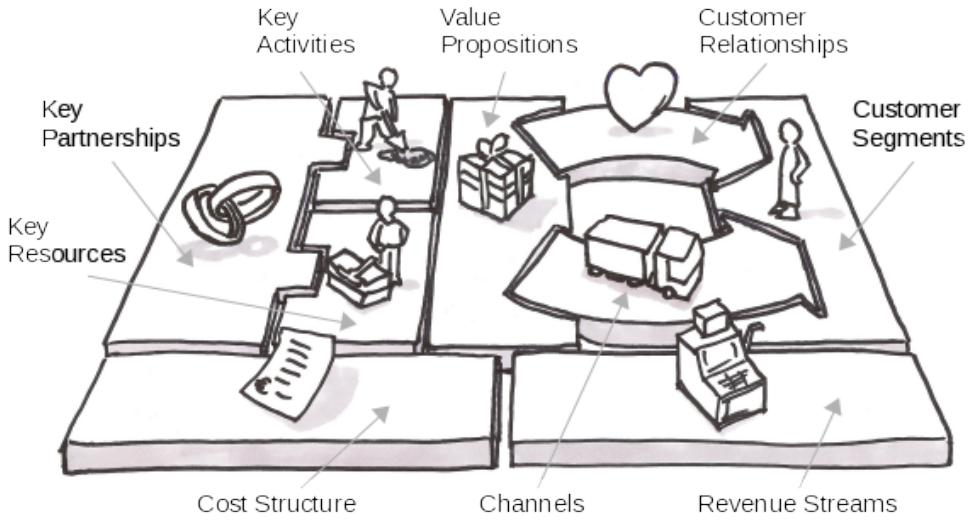

Figure 3.2: The Business Model Canvas [62]

2. **Value Propositions** – describe the bundle of products and services that create value for a specific *Customer Segment*. These solve a customer problem or satisfy a customer need.

3. **Channels** – describe how a company communicates with and reaches its *Customer Segments* to deliver a *Value Proposition*.

4. **Customer Relationships** – describe the types of relationships a company establishes with specific *Customer Segments*.

5. **Revenue Streams** – represent the cash a company generates from each *Customer Segment* (costs must be subtracted from revenues to create earnings).

6. **Key Resources** – describe the most important assets required to make a business model work. Key resources can be physical, financial, intellectual or human. They can be owned or leased by the company or acquired from *Key Partners*.

7. **Key Activities** – describe the most important things a company must do to make its business model work.

8. **Key Partnerships** – describe the network of suppliers and partners that make the business model work.

9. **Cost Structure** – describe all costs incurred to operate a business model.

It's obvious that since the startup structure is highly dynamic, the model created one week will not be probably correct next week. That means the model should be discussed again and again, with a focus on appropriate parts that can be changed, updated or made better and a new better model should be came up after each round. Having this model in

mind can help to handle the startup under control. Also the progress and development can be seen by comparing the current model with the previous ones.

3.3.2 Lean Startup

Second methodology is the Lean Startup, as defined by Eric Ries, which consists of five principles. These are as follows [80, p. 8-9]:

1. **Entrepreneurs are everywhere.** Eric Ries's definition of startup says [80, p. 8]: *„A human institution designed to create new products and services under conditions of extreme uncertainty.“* This opens the world of startups to everybody, not only to the people from „garage“, but also to the people from any size company, even a very large enterprise, in any sector or industry.

2. **Entrepreneurship is management**. A startup requires a new kind of management appropriately oriented to its context of extreme uncertainty. Ries believes „entrepreneur“ should be considered a job title in all modern companies that depend on innovation for their future growth.

3. **Validated learning.** Ries understands startup as a learning process how to build a sustainable business, not just a way how to make some money or serve customers. This learning can be scientifically validated by running frequent experiments that allow entrepreneurs to test each element of their vision.

4. **Build-Measure-Learn.** The fundamental activity of startup is to turn ideas into products, measure how customers respond, and then learn whether to pivot or persevere. All successful startup processes should be geared to accelerate that feedback loop.

5. **Innovation accounting.** To improve entrepreneurial outcomes and hold innovators accountable, a focus must be put on how to measure progress, how to set up milestones, and how to prioritize work. This requires a new kind of accounting designed for startups – and the people who hold them accountable.

In other words this methodology is designed to teach how to drive a startup. Instead of making complex plans that are based on a lot of assumptions, it can make constant adjustments with a steering wheel called the Build-Measure-Learn feedback loop [80, p. 22].

Ries's model of startup starts from *Vision*, through *Strategy* to *Product* as shown in Figure 3.3. The vision includes *THE idea* [11] as discussed in Section 3.2. The *„true north of startup“* as stated by Ries [80]. The strategy includes business model, a product road map, a point of view about partners and competitors and the ideas about who the customer will be. The product is the end result of this strategy and is subject of continuous changes called *Optimization*. The change of the strategy itself is less frequent and is called *Pivot*. However, the overarching vision rarely changes. [80]

The *Optimization* and *Pivot* can be considered as a result of continuous communication with customers – both the early-adopters and ordinary customers. The core of the Lean Startup is the Build-Measure-Learn feedback loop [80, p. 22], see Figure 3.4, where:

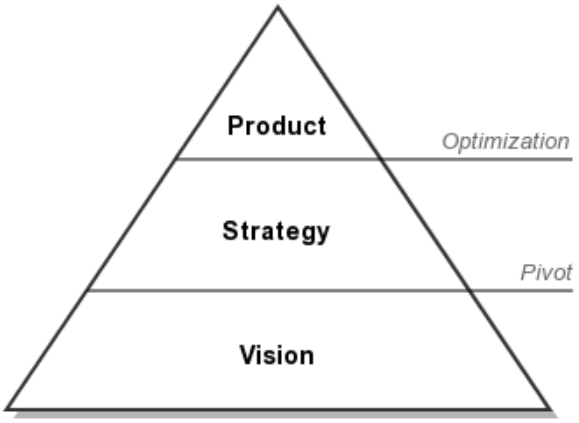

Figure 3.3: Ries's Vision, Strategy and Product Model [80]

- **Build** is a phase where we turn ideas into products.
- **Measure** is a phase where we see how customers respond.
- **Learn** is a phase where we pivot or persevere.

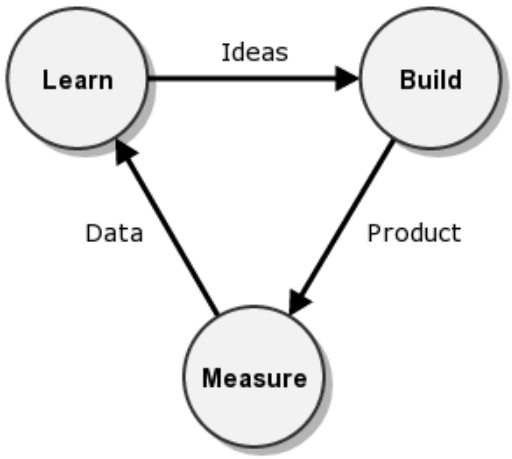

Figure 3.4: Ries's Build-Measure-Learn Feedback Loop [80]

At the beginning of the startup, the first step is to enter the build phase as quickly as possible with the Minimum Viable Product (MVP). The MVP is that version of the product that enables a full turn of the Build-Measure-Learn loop with a minimum amount of effort and the least amount of development time [80, p. 76-77].

The aim of this methodology is to focus on minimizing the *total time* spent in each loop. The process repeats and after each loop, it should shift the startup into higher and higher level.

The Lean Startup methodology builds capital-efficient companies because it allows start-ups to recognize that it's time to pivot sooner, creating less waste of time and money [80, p. 78]. The sooner we pivot, the less impact to the company, and the more customer-driven business in the end.

Lean Canvas

Lean Canvas, firmly bound to the Lean Startup, can be considered as an adoption of the original Business Model Canvas discussed in previous Section 3.3.1. This model is usually associated with Ash Maurya and his thinking about business models [65].

Unlike the original model, the Lean Canvas puts in contrast the customer segments with their problems linked together by our solution and unfair advantage, again via unique value proposition. The rest of the model is the same. But on the other hand, someone can understand the Lean Canvas better than the original model, since it is more focused on the problems to their solving.

Both models can be compared in Appendix Chapter B, see Figure B.1 and Figure B.2.

3.4 Startup Steps

The business models described in the previous sections can be considered as the must of each business, the starting point, which cannot be skipped if the business is meant to be done seriously. On the other hand, there were a lot of startups, which succeed unless they started from any business model. Why? In fact they focused on the customers, their problems or needs in a similar way as the Lean Startup methodology suggests. They brought them some added values via key activities with their key resources, etc. So no matter if it is called a business model or not, this general structure (or at least few key elements) can be found almost under every successful startup case.

Unfortunately the startup process itself is the know-how everybody keeps secret or tries to build a business around it like some consulting agencies, so there are no strict steps to follow in order to be successful in the end. Usually the only chance how to gain these (practical) skills is to try to start a new business or get help (theoretical skills) from some just mentioned consulting agencies or via incubators and their lectures and support in the early stage.

The startup can be considered as a combination of opportunity, team and timing. The ideal startup addresses a huge market place, that is receptive to a change or is just being created due to a paradigm shift, has a team that is sensitive enough to the demands of the market, and hits the market at the right moment, not too early and not too late [32, p. 38].

The purpose of this section is to mention the main points usually related to the startup's processes and principals.

3.4.1 Idea

Everything starts with some idea. As discussed in Section 3.2 above, the best idea is not always the best case. A few already existing business ideas can be combined or even copied or

existing thoughts can be improved. Starting with some points in mind, these can completely change since some new ideas are revealed. So the ideas are constantly evolving.

The way to get the startup ideas is not to try to think of the startup ideas [37]. The idea can arise while facing with some new opportunities – something what we want, what others want or what others perceive to be useful. Problems and issues are the right place to start. But always apply, „what one can do“. If someone is focused on distributed IT systems, he will not probably think of a new machine for automatic surgery.

So initial idea is only the beginning and it depends on one's experience and focus.

3.4.2 Team

What usually matters more than the idea is the team. People with different experience and focus. Absolutely distinct points of view can be brought if the best qualities are combined together.

Having some idea, any interview to hire new people will not be probably organized. There are no processes, no HR department and even no company at this stage. Friends, classmates from university or family members [39]. People who can be trusted. These are called co-founders later on and form the basis of the startup.

3.4.3 Customers

Only exciting idea and great team cannot form new business. As well as for the developed companies, „customer first“ principle also applies for all startups. Marketing research can be the right way how to find appropriate market segment.

Whereas operating companies have many possibilities how to reach new customers and get feedback, startup's resources are a bit limited. In most cases, the best way to get in touch with possible customers is prototyping [80]. The goal is to show startup potential not only to future customers but also to future investors or partners, but with minimal possible cost in mind. We should not focus on the „packaging“. Functionality of our prototype is the most important thing at this stage. Startup must be able to offer customers something truly needed and prototyping is a good approach how to attract and get instant feedback [39].

3.4.4 Timing

Whatever is developing or inventing, appropriate timing has to be considered, meaning that the right time when the standards and market ecosystem is ready enough for the product. In other words: „*The timing of when the market needs a solution and the development time of the solution must generally align.*“ [33]

A great (future) product can be thought of or the latest IEEE[2] standards can be used, but still the correct environment is needed. Coming up with a new device for 5G networks can be a good case of Japanese market, but it's obviously too early for current European market.

[2] IEEE stands for Institute of Electrical and Electronics Engineers.

3.4.5 Hackathons

Hackathons are competitions few days or weeks long where people with mainly software development and coding skills jam to create new software products, business ideas or just hack the current products. These competitions are often organized by big companies to find new ideas or directions of further development, either internally just for their employees or publicly for everybody.

Some possible example of hackathons can be also a requirement to educate employees in the area of security principles while hacking some harder and harder exercises. Or the real hackers can be even informally let to check the website's security by promising a reward if they success (i.e. they find some security problem which was overlooked).

Generally the hackathon is based on the current hot topic, e.g. cloud computing, data analytics, social media and collaboration, Internet of Things, etc. So it can be a glue of all the main points mentioned above:

- **Idea** – new idea within hot topic,
- **Team** – generally the people who cooperate on the same topic,
- **Customers** – only good business ideas can get good ranking, either from judging panel of people from practice or the end users (potential customers),
- **Timing** – hackathons are based on the *current* hot topic.

With a promise of funding, the hackathons can easily point out new startups. That's a reason why these competitions are so popular both for founders (expecting mentioned promise of funding) and for investors (expecting new ideas for investments).

3.4.6 Incubators & Accelerators

Once the idea is thought out, the development is begun. Here the help – both material and intellectual, is usually needed, since the startups are so weird that if one trusts only the instincts, he'll make a lot of mistakes [37].

The incubators are facilities intended to help and educate young (startup) companies during their early stage. They associate firms, which require longer period of development like research projects, and usually offer prepared programs with gradual increase in prices for offices and services or management support, marketing support and training.

Whereas the accelerators are often intended to work on the principle of quickly building the product and hitting the market. They offer complex business services, subject matter experts (SMEs) as mentors and usually some funding too. In comparison to the incubators, accelerators focus more on the short term incubation period [46]. This is extremely useful for startups in later part of the early stage to finalize their structure and go with the product to the market.

All of these services are not obviously for free. Startup must pays by cash or more often by company's percent of equity. Table 3.1 summarizes the major differences of Business Incubators and Business Accelerators firms.

Table 3.1: The major differences of Business Incubators and Business Accelerators firms [46]

Business Incubators	**Business Accelerators**
Entrepreneurs stay 3-5 years	Short / intense incubation period
Take larger percent of startup (about 20 %)	Take smaller percent of startup (about 6 %)
Available guidance from legal, accounting, marketing, etc.	Highly selective, small group of startups admitted per cycle
Companies pay 25-50 % less than commercial rental space	Conclude with showcase day

3.4.7 Seed Capital

Known proverb says: „*Time is money!*“, and this is doubly true for startups. If someone spend some time preparing the ideas, plans, doing market research or developing prototype or the initial proof of concept (POC), he will most likely reach the point in time, in which there is a need to raise money [39]. At early stage, saved money are usually spent to do the initial implementation of the plans or just to meet some administrative costs.

Next money comes from „*Friends, Family and Fools*“ (FFF) [98] – that's how this first round of financing is usually called and what makes the seed capital. Friends or co-founder's friends, family members and others who believe in the plans are asked for help. The last „*F*“, i.e. the *fools*, nicely describes the risk everyone can naively overlook, since for people investing their money voluntarily into „*nothing*“ or into just some „*idea*“, this „alias“ is more than justified.

3.4.8 Angel Investors

At first glance, the people, that can be also included in the last „*F*“ category, are called *Angels*. But the opposite is true. Angels are professional investors who knows what they do. Obviously, their main intention is a return on investment (ROI) [39], but on the other hand, they do not only bring the money needed to grow up.

Angels more likely behave as our mentors. Their advice and suggestions are often more valuable than just money itself. They also provide connections to other people from the same industry or even to the network of other angel investors. [39]

Angel's investment is still understood as a part of seed capital since his or her experience is usually what makes startup prepared for other rounds of funding. The price for angel's services is again some percent of equity. On the other hand, this percent is just what drives angel to also take care of our business.

3.4.9 Venture Capitalists

Startup typically goes through several rounds of funding and at each round it wants to grow up to the next level. Potential investors should not invest money that they cannot afford to lose and should develop an exit strategy, because until they sell, any profits exist only on paper [34].

If a startup is at stage it needs large amount of capital to make capital investments in its infrastructure, technology, human resources (HR), etc. but it does not have access to public funding, it will come across the venture capitalists [39]. These are the firms willing to invest their capital in anticipation of bigger return if the startup is successful. The negotiation with venture capitalists takes months and can include a large number of conditions like appointment of new Chief Executive Officer (CEO) of their own choosing [39].

Startup Pitch

The way to reach venture capital firms at the conferences or special events is called *startup pitches*. Simply speaking these are the short time slots for presentation of startup to attract several venture capitalists. In the pitch, the speakers should cover [78, p. 3]:

- **What are they going to do** – concept,
- **How are they going to make money** – business case,
- **The size of the opportunity** – potential,
- **How are they going to do it** – implementation plan,
- **Where they are** – information about current status,
- **Who is behind this** – team,
- **How much money do they need** – to attract the next set of investors.

Most venture capitalists say that they are more interested in the people (the team) than the ideas. The main reason they want to talk about the idea is to judge the people, not the idea [39]. In any case, the startup pitch is a good way how to attract attention since these events are usually under the supervision of public or industry-specific medias.

As mentioned above, the statups can go through several rounds of funding, especially from venture capital firms, if angel's capital is not enough [41]. It also needs to be mentioned that not every startup must pass all (or any) funding cycles. But if so, these cycles with venture capital firms are called *series*, usually marked with letters in alphabetical order [5].

Series A Round

Series A is the first round of financing received from a venture capital firm. In most cases, the startup already generates some revenue from the first commercial deals, through it might not be net profit [5]. At this stage the startup needs the capital for finalization of product and further product development, expanding of engineering, technology platform or sales, jumpstarting of marketing or additional market research, covering of people's salaries and overhead expenses [5]. The earlier the series, obviously, the higher the risk for investors, the longer time of negotiation and more stringent conditions of investment.

Series B Round

This series is intended to scale up the business, enlarge market share and face competitors. One of the goal is also to have net profit. In comparison to the *series A* round, investment risk of the *series B* is lower and amount of funding is bigger. The time of discussion decreases, if the startup is doing well, since investors who have already invested in early rounds prefer to invest in subsequent rounds too to maintain their share in the company over time. [5]

Series C Round

One of the last cycle before an Initial Public Offering (IPO) is called *series C*. It's when startup looks for greater market share, development of more products and services or expansion of operations, facilities, etc. This round can also be some kind of preparation for acquisition. [5]

Mezzanine

Mezzanine financing phase is late stage of financing. The company already has a solid base and is looking to finance a major expansion through the issuance of debt or more equity [41]. In addition to venture capital firms, at this stage, the company can get financing from other sources like banks.

In following Figure 3.5[3], the main points mentioned above are visualized.

3.5 Measurement and Qualification

Running business with steady revenues and earnings can be e.g. valued as a multiple of its earnings before interest, taxes, depreciation and amortization (EBITDA) or based on other industry specific multiples [66]. But it's much harder to value whatever new business which is not publicly known and may be several years away from sales.

So is there any correct way how to determine the company's worth? Unfortunately not. Ben McClure [66] offers four options (Cost-to-Duplicate, Market Multiple, Discounted Cash Flow and Valuation by Stage) discussed in the next sections including the Growth Rate, Revenue and Active Users.

3.5.1 Cost-to-Duplicate

This approach involves calculating how much it would cost to build another company just like the one from scratch [66]. Usually the price wouldn't be much more than it would cost to duplicate the same business. So the possible way to proceed is to look at the physical assets and determine their fair market value. For instance regarding a software business, total cost of programming time, research time, prototype development, patent protection and many others should be also included [66].

[3] The original image released under CC BY-SA 3.0 license was adapted for my needs.

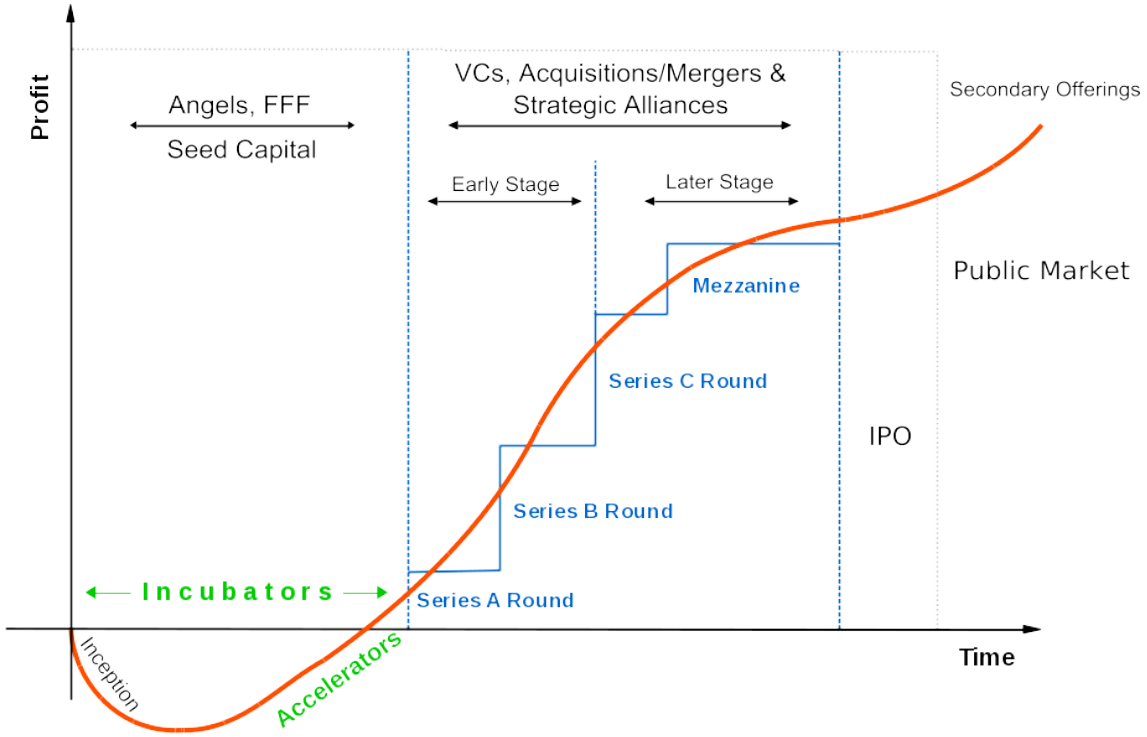

Figure 3.5: The Startup Financing Cycle [60]

At starting point of valuing startups, this method is the right one, because it's fairly objective and it's based on verifiable historical expense records.

On the other hand, this method doesn't capture any intangible assets, company's future potential for generating sales, profits, return on investment (ROI), possible brand value, relationships or intellectual capital. So it depends on the company's orientation, but usually this method generally underestimates real worth, so it might be considered as a "lowball" estimate of company's value. [66]

3.5.2 Market Multiple

Basically, the market multiple approach values the company against recent acquisitions of similar companies in the market [66]. So, this can be a good indicator for VC investors what the market is willing to pay for a company.

Imagine that cloud provider companies are selling for ten-times sales. With this information another cloud provider venture can be valuated and the multiple can be adjusted appropriately to the different characteristics – either up or down.

Quite a big problem of this method is the fact that the comparable market transactions can be very hard to find. And what more, it needs to be realized, that we are talking about a startup market, where only THE ideas [11] are usually intended to survive and grow. In other words, every new venture can be unique and little comparable to others.

3.5.3 Discounted Cash Flow (DCF)

Discounted cash flow (DCF) involves forecasting how much cash flow the company will produce in the future and then, using an expected rate of investment return (ROR), calculating how much that cash flow (CF) is worth. A higher discount rate is typically applied to startups, as there is a high risk that the company will inevitably fail to generate sustainable cash flows. [66]

The problem of DCF is obviously an uncertain future – future market conditions or long term growth rates. Especially for most startups, which haven't started generating earnings yet, this method can be very dangerous, since it would be based only on assumptions. Also the expected ROR used for discounting CF makes DCF method highly sensitive. [66]

3.5.4 Valuation by Stage

This valuation is typically set by the investors or venture capital firms depending on the venture's stage of commercial development. The main idea of this method is that the further the company has progressed along the development pathway, the lower the company's risk and the higher its value [66]. Example of such a possible model can be seen in Table 3.2.

Table 3.2: The example of Valuation by Stage model [66]

Estimated Company Value	**Stage of Development**
$250,000 - $500,000	Has an exciting business idea or business plan
$500,000 - $1,000,000	Has a strong management team in place to execute on the plan
$1,000,000 - $2,000,000	Has a final product or technology prototype
$2,000,000 - $5,000,000	Has strategic alliances or partners, or signs of a customer base
$5,000,000 and up	Has clear signs of revenue growth and obvious pathway to profitability

It's obvious that this model is dependent on the kind of company and also on each investor – his point of view and experience. What this model simply suggests is to define several milestones (or stages of development as stated above) and valuate them appropriately. On the other hand, a company knowing these milestones can focus on them to build credibility for investors – for instance starting with clear business plan through thousands of customers at the end.

3.5.5 Growth Rate

Paul Graham [38] understands growth rate as a key element within the startup evolution. The one number every founder should always know. According to him [38]: *„If you don't know that number, you don't even know if you're doing well or badly.“*

Regardless of an object that the calculation uses, the formula (see Equation 3.1) is always identical.

$$growth\ rate\ ratio = \frac{new\ additional\ values}{current\ existing\ values} \tag{3.1}$$

So considering e.g. the number of new customers, the absolute number is not a relevant identifier. In this case the growth rate is calculated as:

$$growth\ rate\ of\ new\ customers = \frac{number\ of\ new\ customers}{number\ of\ existing\ customers} \tag{3.2}$$

What needs to be realized is the fact that if we get a constant number of new customers during a specific time period (week, month, quarter or year), it means the growth rate is decreasing [38].

3.5.6 Revenue

The Business Model clarified above (see Section 3.3.1) includes *Revenue Streams* among the nine building blocks. This indicator is much more important for the startups than the earnings – the values many established corporations are valued based on [66].

Initial costs can be a bit higher in the beginning which can give us negative values. In that case it is better to determine the value of startups based on the revenue multiples (growth rate). That's also the reason why one of the best thing to measure the growth rate of is revenue [38].

3.5.7 Active Users

For any firm at the infancy stages is difficult to find a key element for valuations. One of the possible identifier, if the startup is not still charging its goods or services, can be the number of active users. Calculating the growth rate of active users is almost the same as calculating the growth rate of revenue. Once the company starts making money, its revenue will be most likely a sort of multiple of active users [38].

3.6 Startup vs. Spinoff

At the end of this chapter, there are briefly mentioned the differences between a startup and a spinoff. Sometimes these terms could be understood identically, but they are not.

One of many definitions says that a spinoff is [55]:

> *„The creation of an independent company through the sale or distribution of new shares of an existing business or division of a parent company. A spinoff is a type of divestiture.“*

So simply speaking a company might spin off one of its mature business units that is experiencing little or no growth so it can focus on a product or service with higher growth prospects [55]. On the other hand, a reason to spin off some par of a company can also be the fact if there is an assumption that separated part could be more valuable as independent.

As compared with previous pages about startup, there is a big difference, since startup is considered as something completely new (new business) trying to be the first, which occupies the revealed *blue-ocean*[4] space or brings new ideas and services to the current market. What has not been discussed yet and will be a part of following pages is an environment where the startup can operate. Considering the environment of a big company together with startup's and spinoff's definition, following combinations can be concluded:

- **Corporate Spinoff** – the divestiture of some part of the existing company as discussed above,
- **Corporate Startup** – completely new idea or approach arising in the environment of existing company and fully supported by this company,
- **Brand-new Startup** – completely new idea or approach arising out of the environment of existing company supported by incubators, accelerators, angels or venture capitalists.

[4] *Blue-ocean* is a term defined by W. Chan Kim and Renée Mauborgne meaning that a new place on the market yet without competition [59].

Chapter 4

Multinational Enterprise (MNE)

To create a clear picture of multinational enterprise (MNE), at first, the globalization is judged, its definition, problems, timeframes and driving forces. Following with a description of current environment where MNE operates – based on the current era of globalization, and ending with MNE itself, giving the definition, reasons for formation including the threats and finishing with its investment and production activities.

4.1 Globalization

The globalization as a term is anything but easy. The reason to this is also the fact that the definition is changing through the time to reflect current situation in our society.

4.1.1 Definition

Talking about a human society the first thought, which should be pointed out here, is the definition of Martin Albrow and Elizabeth King [2, p. 9]:

> *„Globalization refers to all those processes by which the peoples of the world are incorporated into a single world of society, global society.“*

The key points of this definition are two basic facts. Firstly, it considers globalization as a set of processes, which, secondly, lead to some global integration – in this case: *global society*. This can be supported by following statement that the globalization [27] is:

> *„The worldwide movement toward economic, financial, trade, and communications integration.“*

Georger Ritzer [81, p. 2] in his book *Globalization: The Essentials* defines globalization as a:

> *„Transplanetary process or set of processes involving increasing liquidity and the growing multi-directional flows of people, objects, places and information as well as the structures they encounter and create that are barriers to, or expedite, those flows.“*

The *liquidity* term, in this case, should be understood as *an increasing ease of movement of people, things, information, and places in the global age*, which once they are on the move, they are difficult to stop [81, p. 6].

The most comprehensive overview based on tens of collected definitions from Dr. Nayef Al-Rodhan's and Gérard Stoudmann's research [1] says:

> *„Globalization is a process that encompasses the causes, course, and consequences of transnational and transcultural integration of human and non-human activities.“*

Putting all the things together, globalization is a process of interaction and integration within interconnected and interdependent world among the people, companies, and governments of different nations, a process driven by international trade and investment and aided by information technologies. This process has effects on the environment, on culture, on political systems, on economic development and prosperity, and on human physical well-being in societies around the world [76].

The fact, that should be mentioned at the end of this section, and which will be indirectly discussed in more details in the section about Environment characteristics (see Section 4.2), is the condition of any kind of globalization (even the economic one). This is the informational globalization. And current global information environment is obviously the Internet.

4.1.2 Problems

On the other hands, we can find few side effects of globally interconnected and interdependent world. Globalization is not in fact any kind of „one-world-nation“. It does not include unhindered movement of labor and, as suggested by some economists, may hurt smaller or fragile economies if applied indiscriminately [27].

In other words, the integration is producing new vulnerabilities. Shocks in one part of the world can spread rapidly, impacting people's lives everywhere [30, p. 227]. Disruption at one place can triggers local problems elsewhere, even on the other side of the planet. Manifest at times as local reactions to the spillover effects of events far away [30, p. iv].

Globalization brings countries together with several new opportunities, but adverse events will be transmitted more rapidly [30, p. 8]. Pandemics, natural disasters, armed conflicts or financial instability can easily influence such part of the world, which at the beginning had nothing to do with. For instance in 2010 a volcano eruption in Iceland disrupted air travel in Europe and left fresh produce rotting in Latina America and Africa [30, p. 111-112].

Globalization is also often blamed for the loss of jobs in developed nations, as corporations ship manufacturing jobs overseas in order to save costs [56].

4.1.3 Timeframes of Globalization

Globalization as a process of progressive convergence of the whole world is nothing new. The way how to understand globalization can be as a historical process and as a result of

human innovation and technological progress [90]. Usually the milestones are set according to some historical events, by which the time is divided into several timeframes.

Anthony Giddens said that globalization was fueled by the end of the Cold War, an era *„when divisions between nations were more clearly established“* [77].

Second well-known sociologist Göran Therborn identified the same and concluded six epochs or „waves“ of globalization [81, p. 18]:

1. The fourth to the seventh centuries which witnessed the globalization of religions (e.g. Christianity, Islam).
2. The late fifteenth century highlighted by European colonial conquests.
3. The late eighteenth and early nineteenth centuries during which various intra-European wars led to globalization.
4. The mid-nineteenth century to 1918; the heyday of European imperialism.
5. The post-World War II period.
6. The post-Cold War period.

Obviously, this distribution is not strict and several different types can be found. Thomas Friedman, the recipient of three Pulitzer Prizes, talks only about three eras of globalization [35]:

- **Globalization 1.0**: 1492 – 1800. World shrunk from a size large to a size medium. Globalization was driven by the countries (colonization of Spain, Portugal, Britain).
- **Globalization 2.0**: 1800 – 2000. World shrunk from a size medium to a size small. Globalization was driven by big companies, Multinational Enterprises (MNE).
- **Globalization 3.0**: 2000 to present. World shrunk from a size small to a size tiny. Globalization is driven by individuals and small group of individuals.

Thomas Friedman also states that [35]: *„The eras of Globalization 1.0 and Globalization 2.0 were dominated by white Westerns individuals, but the Globalization 3.0 is going to be dominated by the individuals of every color of the rainbow who are going to be able to plug and play.“*

4.1.4 Driving Forces

Globalization is not new, but the present era has distinctive features. Shrinking space, shrinking time and disappearing borders are linking people's lives more deeply, more intensely, more immediately than ever before [31]. Current wave of globalization is shaped both at a popular and at a governmental level since people and governments try to manage the flow of capital, labor, goods and ideas [76].

One of the driving force of globalization are various global institutions as:

- **World Trade Organization (WTO)** which deals with the global rules of trade between nations [103],
- **World Bank Group (WBG)** which mission is to [102]: „*End extreme poverty within a generation and boost shared prosperity.*“ or
- **International Monetary Fund (IMF)** which works to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth and reduce poverty around the world [54].

Secondly there are politico-economic unions or many international agreements to deal with reduction of costs, creation of common markets, promotion of trade in goods, services, investments, etc. Without deeper details, let's mention e.g. [81, p. 72]:

- European Union (EU),
- Organization for Economic Cooperation and Development (OECD),
- Organization of the Petroleum Exporting Countries (OPEC),
- North American Free Trade Agreement (NAFTA),
- Free Trade Area of the Americas (FTAA).

But the economic factors are not the only driving forces of globalization. Another principal drivers are technologies, e.g. the information technologies, communications and transportation technologies. Big companies are usually connected with these factors. These are called the multinational enterprises (MNE), the companies, which operates in many markets, influence them and thus all the people there too.

4.2 Environment Characteristics

To describe current environment where the multinational enterprises work and what also makes appropriate place for new startups, ten flatteners of Thomas Friedman were chosen. In his work *The World is Flat*, he uses these points to explain current global situation and why especially these points influenced and made current environment.

The source of the following ten flatternes described below was recorded video of Friedman's speech on Yale University [35].

11/9/89

The fall of Berlin Wall. Before this event, nobody uses the word *global* in a meaning of *for whole the world*. There was only *West*, *East* and so. Five month later, Windows OS 3.0 came up[5].

[5] That's also a reason why Friedman call this flattener [35]: „*When the Walls came down and the Windows came up.*“

8/9/95

Small startup company Netscape went public. Netscape gave us the *Internet*, not the interconnection itself, but the *Internet browser*. It also commercialized open-transmission protocols and so made the Internet operable and accessible for everyone, not only for scientists. Thus this flattener is also the beginning of *dot-com-era*.

Work Flow Software

Time of applications to applications communication or machines to machines communication without involvement of humans thanks to the standards which allow work to flow. This actually creates the global platform for multiple forms of collaboration. Next six flatteners are new form of collaboration, which sprung from this platform and flatten the world even more.

Outsourcing

New form of collaboration allowing e.g. MNE to split services and business into smaller pieces or components, which can be subcontracted in more efficient way to the low-wage workers.

Offshoring

The MNE's physical relocation of business, business processes or whole factory or subsidiary from one country to another one. The example can be an assembly of products in China.

Open Sourcing[6]

The rise of open source software, which is made by many people or public communities all over the world for free, just to improve some thoughts or products and make them available to the others in order to continue with the improvements. For instance the operating (mostly linux-based) systems, the web browsers, the HTTP servers, open source encyclopedia, etc.

Supply-Chaining

Complex and international supply chains to deliver, sort, pack, distribute, buy, manufacture, reorder, deliver, ... products, services, information or resources from suppliers to customers.

Insourcing

Actually the opposite of outsourcing. Kind of penetration of many large companies by other companies that provide services and logistical support inside the firm, as Friedman says: „*behind marketing shells*“ of the main company. The biggest example is UPS company, which is „insourced“ in many well known companies such as Toshiba, etc.

[6] Fiedman, in his book *The World Is Flat 3.0: A Brief History of the Twenty-first Century* [36], calls this point as *Uploading* meaning that everything uploaded online and collaborated by people for free – also blogs, forums, etc.

In-forming

We can easily *inform* ourselves, we can collaborate with data and mine data, all by ourselves. Many people have the ability to find so much information about so many things and about so many other people, everything on their own, via search engines like Google or social networks like Facebook or Linkedin.

The Steroids

The steroids are the technologies both wireless and Voice over Internet Protocol (VOIP). Simply, that also means technologies like instant messaging, digital devices, mobile devices – phones, tablets, etc. They turbocharge all six of these new forms of collaboration (Outsourcing, Offshoring, Open Sourcing, Supply-Chaining, Insourcing, In-forming), so we can do anyone from anywhere with any device.

Around the year 2000 the complementarities between these ten flatteners all started to work together and reinforced each other. This created web-enabled global platform for multiple forms of sharing of work and knowledge irrespective of distance, time, geography and increasingly even the language [35]. This also means that the ideas created by anybody and anywhere on the planet can be more easily and quickly consumed and supported no matter the geographical location, which makes the place for new startup very attractive but also a bit more complex since this makes the whole world a *potential competitor*.

4.3 Multinational Enterprise (MNE)

In Section 4.1.4, the Multinational Enterprise (MNE) paradigm was mentioned among the driving forces of globalization. MNE is a significant economic player or driver, which can and does influence the globalization and also vice versa is influenced by globalization process.

4.3.1 Definition

Multinational Enterprise (MNE) or Multinational Corporation (MNC) is simply an *international corporation*, a *transnational corporation* or a *stateless corporation*. Whatever it is called, this is usually a big organization, which operates in many countries with several national subsidiaries controlled from the parent company.

It's interesting to take few official definitions into account. Firstly, let's mention Dicken's definition of Transnational Corporation (TNC) [26, p. 198] which says:

> *„A transnational corporation is a firm that has the power to coordinate and control operations in more than one country, even if it does not own them.“*

This definition is adapted by Ritzer to define Multinational Enterprise (MNE) [81, p. 73] as follows:

> *„A multinational enterprise is a firm that has the power to coordinate and control operations in more than two countries, even if it does not own them.“*

Many believe the MNE has grown more powerful than the nation-states [81, p. 77], but Giddens says that [77]: *„The idea that corporations are equivalent to nations is false. Nations control territory, laws and military power. They have the power to regulate what corporations do.“*

4.3.2 Reasons for Formation

The reasons for formation of MNE can be often simple – to reach the local customers by their local language, by the local people, who know current local characteristics, and to offer local support for the products or services. Usually this is sometimes the only way how to address governments and governmental institutions where, very often, only the local companies and their services among the national borders are allowed to be a part of governmental selection processes.

Establishing new subsidiary in another country is sometimes the only reason how to reach other than the domestic (already saturated) market. There can be also the barriers due to some political regulations like import tariffs, some cultural or other political reasons.

Sometime we can find examples just to expand strategic collaboration to share risks, costs or uncertainties.

Another reason can be e.g. the offshoring of manufacture in order to employ low-wage workers and more easily distribute constructed products in the surrounding areas or near states.

4.3.3 Risks

There are, of course, few risks connected with MNE. One of the obvious risk is a complexity, especially far complex networks. Network of each subsidiary in other countries needs to be tied into the internal network of parent company. These larger and more complex networks are inherently more difficult to control [81, p. 74]. Therefore the centralized control is usually based on strict process management without the possibility of major deviations, which reduces the ability to respond to dynamic local market conditions. Or what more, this can block the initiative of employees to bring new ideas, new principals, new processes to the current environment.

Also there can be problems to synchronize knowledge between core headquarters and local subsidiaries, which can lead to greater amount of management levels and lower responsiveness to top management decisions. In manufacturing sector where MNE tries to apply economies of scale in production, local market conditions also needs to be taken into account. [81, p. 74]

Then there are more specific issues such as the location of corporate headquarters (usually the home country), core research and development centers (usually the home country too), sales and marketing (usually dispersed globally) and production activities (usually dispersed too) [81, p. 74].

4.3.4 Investment Activities

There are few forms of activities used by multinational enterprise to spread its business globally as follows [81, p. 73-74]:

- **Foreign Direct Investment (FDI)** – investments by one firm in another firm that exists abroad in a different nation-state, with the intention of gaining control over the latter's operations. This also involves setting up a branch / subsidiary operation in another country.
- **Portfolio Investment (PI)** – investment involving purchase of equity in companies in other countries where motivation is financial gain and not to obtain control over those companies.
- **Greenfield Investment (GI)** – which involves the building of totally new facilities in another country.
- **Mergers and Acquisitions (M&A)** – which stands for combining of different companies together. While a merger is a combination, which forms a new company, an acquisition is a purchase of one company by another company without forming a new company.

4.3.5 Production Activities

In terms of production activities of multinational enterprise, Ritzer summarizes following four categories [81, p. 74-75]:

- **Globally concentrated production in a single location** – this produces economies of scale, but it maximizes transportation costs and doesn't make use of local expertise.
- **Production specifically for a local or national market** – this limits economies of scale.
- **Production of a specialized product for a regional market** (e.g. the EU).
- **Segmenting production and locating different parts in different geographic locations** – this produce a form of transnational vertical integration.

Chapter 5

Entrepreneurship

Large firms often suffer from chronic problems that hinder creative thinking and innovation, especially when it comes to matters that are not directly related to the organization's mission. Process of implementation of new activities and their planning process is lengthy and lacks the necessary flexibility. These problems can often be overcame by using intracorporate entrepreneurship (in other words intrapreneurship) – mainly motivational factors and managerial changes are important to create appropriate climate.

To better understand this climate, in this chapter, there is summarized the information about entrepreneurship, its definition, few characteristics about the person of entrepreneur, which can be applied both outside and inside the company. Further the definition and the context of intrapreneurship – definition, relationship to startups as described in previous Chapter 3 and finally the comparison of traditional and intrapreneurial culture.

Entrepreneurship (or better intrapreneurship) is here understood as an opportunity; a result of a combination of startups and multinational enterprises as described above.

5.1 Definition

Entrepreneurship should not be understood only as a creation of business, it's much more than that. It's a holistic (complex) process which combines different kinds of resources and thinking.

Dr. Donald Kuratko, Professor of Entrepreneurship of Indiana University-Bloomington, defines entrepreneurship as [63, p. 23]:

> *„The dynamic process of vision, change, and creation that requires an application of energy and passion toward the creation and implementation of new ideas and creative solutions. This process of innovation and new-venture creation is accomplished through four major dimensions – individual, organizational, environmental, and process – and is aided by collaborative networks in government, education, and institutions. All of the macro and micro positions of entrepreneurial thought must be considered while recognizing and seizing opportunities that can be converted into marketable ideas capable of competing for implementation in today's economy.“*

Essential ingredients of entrepreneurship include the willingness to take calculated risks – in terms of time, equity or career; the ability to formulate an effective venture team; the creative skill to marshal needed resources; the fundamental skill of building a solid business plan; and, finally, the vision to recognize opportunity where others see chaos, contradiction and confusion [63, p. 5].

5.2 Entrepreneur

The *entrepreneur* term is derived from the French *entreprendre*, meaning that „to undertake“. The entrepreneur is one who undertakes to organize, manage and assume the risks of business.

Dr. Donald Kuratko characterizes the entrepreneur as [63, p. 4; 23]:

> *„An innovator or developer who recognizes and seizes opportunities; converts those opportunities into workable / marketable ideas; adds value through time, effort, money, or skills; and assumes the risks of the competitive marketplace to implement these ideas; and realizes the rewards from these efforts.“*

He also adds that [63, p. 4; 23]:

> *„Entrepreneur is the aggressive catalyst for economic change who uses purposeful searching, careful planning and sound judgment when carrying out the entrepreneurial process. The entrepreneur – uniquely optimistic and committed – works creatively to establish new resources or endow old ones with a new capacity, all for the purpose of creating wealth.“*

5.2.1 Key Characteristics

To be a real entrepreneur, one has to have appropriate assumptions. Definitely it's true, that entrepreneurship is not a job. Entrepreneur undertakes the responsibilities of other people. He or she does not work within the confines and does not follow rules. The real entrepreneur creates the rules, which are followed by ordinary employees – they just follow these rules.

The key characteristics of entrepreneur are personal initiative, the ability to consolidate resources, management skills, a desire for autonomy and risk taking ability. Other characteristics include aggressiveness, competitiveness, goal-oriented behaviour, confidence, opportunistic behaviour, intuitiveness, reality-based actions, the ability to learn from mistakes and the ability to employ human relations skills. [63, p. 4]

5.3 Corporate Entrepreneurship and Intrapreneurship

The entrepreneurship is a phenomenon which can occur in a variety of different organizational contexts. The corporate entrepreneurship (CE) is a term used to describe entrepreneurial behaviour inside already established both mid-sized and large organizations.

In opinion of Kuratko, Morris and Covin [69, p. 11] other popular or related terms for CE are *Organizational Entrepreneurship*, *Corporate Venturing* and *Intrapreneurship (IP)*.

The idea itself – entrepreneurship within already established enterprise or intra-corporate entrepreneurship, is nothing new. Gifford and Elizabeth Pinchot were the first who laid the groundwork of this topic in 1978 [50]. Later, in 1985, Gifford Pinchot published his first book *Intrapreneuring: Why You Don't Have to Leave the Corporation to Become an Entrepreneur* [49], which changed the view and the intrapreneurship has been understood as a separate research topic since then.

Before some definitions of intrapreneurship, some differences between corporate entrepreneurship and intrapreneurship have to be discussed. The same as Kuratko, Morris and Covin [69], many other scholars use these terms interchangeably what can sometimes cause ambiguity. There are also thoughts that intrapreneurship is a key component of corporate entrepreneurship which is understood as a sum of all firm-specific innovations [17].

Barton [8, p. 25] in her dissertation thesis about *Intrapreneurship and Its Development Opportunities in the Czech Environment* briefly distinguishes both terms. Corporate entrepreneurship is understood as a *top-down* approach where initial pressure comes from the management layer and influences ordinary employees. On the other hand, the intrapreneurship is understood as a *bottom-up* approach where the ordinary employee is the one, who comes up with a new idea via his proactive behaviour. This is supported by Burns [12, p. 13]. In his opinion the intrapreneurship is concerned with individual employees and how they might be encouraged to act in an entrepreneurial way within a larger organization.

Kuratko, Morris and Covin [69, p. 37] also adds that „intrapreneurship" word can be misleading since it can make corporate entrepreneurship sound like something completely unique or as if it was a stepchild of entrepreneurship, borrowing some of the name but not really constituting the real thing. From the perspective of entrepreneurial basics, this can be true. But on the other hand, my personal view tends to the Barton's and Burns's side since in the context of this thesis the view, that intrapreneurship is a kind of *unforced bottom-up* approach concerned with individual employees in contrast to corporate entrepreneurship understood as s kind of *forced top-down* approach enforced by management, preferred.

For the purpose of this work the strict division of both terms is not important and so, if used hereafter, the meaning will be the same, unless otherwise stated. The real difference is only the matter of definition, since the CE is usually defined at the level of organizations and IP is defined more at the level of individuals.

5.3.1 Definition of Intrapreneurship in relation to Startups

In relation to startups, the definition of intrapreneurship requires at least a combination of *new idea* and appropriate *people (team)*, see Section 3.4. The *customers* and *timing* should be rather understood as the external factors, meaning that *out of the organization*, so that's the reason why they are not added among the requirements on the definition.

One of the most known and also one of the most appropriate definition satisfying mentioned conditions comes from Pinchot [49, p. viii]:

> *„Intrapreneurs are any of the 'dreamers who do'. Those who take hands-on responsibility for creating innovation of any kind within an organization. They*

> *may be the creators or inventors but are always the dreamers who figure out how to turn an idea into a profitable reality.“*

Especially the first part, where the intrapreneurs (simply the entrepreneurs who operate inside an established organization) are likened to the *dreamers*, forms the main idea or vision of each startup. So the intrapreneurship refers to employee initiatives in organizations to undertake something new, mostly without being asked to do so.

5.4 Traditional vs. Intrapreneurial Culture

New small and aggressively growing companies develop new and new products, which are going to compete with the products of large companies and in some markets slowly start to dominate. Large corporations thus attempt to create an organizational climate that would be appropriate for such a business concept - small and rapidly growing business plans [44, p. 412], in other words *startups* within the established companies. The main distinctive elements of both traditional environments (which are not suitable for new ideas) and intrapreneurial environments (which are suitable for new ideas) will be discussed in this section.

5.4.1 Similarities

To better understand the differences between traditional and intrapreneurial culture, it's also important to comprehend their similarities. Many of them are summarized in the following list [69, p. 36]:

- Both involve opportunity recognition and definition.
- Both require a unique business concept that takes the form of a product, service, or process.
- Both are driven by an individual champion who works with a team to bring the concept to fruition.
- Both require that the entrepreneur be able to balance vision with managerial skill, passion with pragmatism, and proactiveness with patience.
- Both involve concepts that are most vulnerable in the formative stage, and that require adaptation over time.
- Both entail a window of opportunity within which the concept can be successfully capitalized upon.
- Both are predicated on value creation and accountability to a customer.
- Both find the entrepreneur encountering resistance and obstacles, necessitating both perseverance and an ability to formulate innovative solutions.
- Both entail risk and require risk management strategies.

- Both find the entrepreneur needing to develop creative strategies for leveraging resources.
- Both involve significant ambiguity.
- Both require harvesting strategies.

5.4.2 Traditional Culture

Traditional corporate (business) culture creates such an environment and uses such a remuneration system that is based on conservative ways of making decisions. The emphasis is laid on a large number of data, which serve as a basis for rational decision making. Decision making under risk is eliminated or postponed indefinitely. For final approval of some decision there is required many approval levels and consents that in result no one feels any personal responsibility. [44, p. 413]

The main principles of traditional corporate culture are a compliance with the orders and rules, a perfection or faultless (no mistakes), a required successfulness, no self-motivation or initiative, a waiting for instructions, an interest only in own tasks, a protection of own back. Overall environment has rather restrictive character that does not allow creativity, flexibility, independence and risk-taking. [44, p. 413]

Traditional corporate culture has already defined hierarchical structure, established practices and ways of communication. There is also fixed working hours etc.

5.4.3 Intrapreneurial Culture

On the other hand, the main principles of intrapreneurial culture are: an effort to create new visions and goals, a planning of new activities, an activity based remuneration, a freedom to design and experiment, an openness to the target region of our interest, a personal responsibility for problems and an ultimate ownership of the problems [44, p. 413].

Intrapreneurial culture usually reflects flat organizational structure based on teamwork. The main principles are mutual trust and cooperation, a work is fun, and the employees usually devote even their own time to solve the problems. There are still new and new ideas and designs regardless of own field of activities. Ubiquitous creative atmosphere contributes to the collective development and implementation of new ideas. [44, p. 413]

Another important differences and unique characteristics of traditional and intrapreneurial culture are summarized in Table 5.1.

Table 5.1: The major differences of Traditional and Intrapreneurial Culture [69, p. 38]

Traditional Culture	**Intrapreneurial Culture**
Entrepreneur takes the risk	Company assumes the risks, other than career-related risk
Entrepreneur 'owns' the concept or innovative idea	Company owns the concept, and typically the intellectual rights surrounding the concept
Entrepreneur owns all or much of the business	Entrepreneur may have no equity in the company, or a very small percentage
Potential rewards for the entrepreneur are theoretically unlimited	Clear limits are placed on the financial rewards entrepreneurs can receive
One misstep can mean failure	More room for errors; company can absorb failure
Vulnerable to outside influence	More insulated from outside influence
Independence of the entrepreneur, although the successful entrepreneur is typically backed by a strong team	Interdependence of the champion with many others; may have to share credit with any number of people
Flexibility in changing course, experimenting, or trying new directions	Rules, procedures, and bureaucracy hinder the entrepreneur's ability to maneuver
Speed of decision making	Longer approval cycles
Little security	Job security
No safety net	Dependable benefit package
Few people to talk to	Extensive network for bouncing around ideas
Limited scale and scope initially	Potential for sizeable scale and scope fairly quickly
Severe resource limitations	Access to finances, R&D, production facilities for trial runs, an established sales force, an existing brand, distribution channels that are in place, existing databases and market research resources, and an established customer base

Part II

Analytical part

Chapter 6

Intrapreneurship & Startups in the Czech Republic

In recent years, we can see increasing attention to intrapreneurship in both academic and as well as in business environments. There are few intentions to build appropriate space for startups at universities and also within established firms of all kinds. This development is mostly related to the Information and Communication Technologies (ICT) companies, but not only to them. We can also find examples in banking and other sectors. In most cases, any activities in corporate environments are connected with changes in the market. Thus the companies also transform themselves to better reach customers and meet their changing needs. Nowadays, one of the biggest problem of big enterprises is to dynamically react to these changes, therefore they also try to find new solutions. For instance via support of their own startup environments inside the companies.

The aim of this chapter is to briefly assess the intrapreneurial environment in the Czech Republic with focus to startup activities. This will be done with help of existing researches. Further there are the examples of particular existing institutions focusing on startup activities in the Czech Republic.

6.1 Hofstede 6-D Model

Based on Hosftede's research [16], a culture is defined as the collective mental programming of the human mind which distinguishes one group of people from another. This does not imply that everyone in a given society is programmed in the same way; there are considerable differences between individuals [16]. But on the other hand, this can provide the first insight to possible intrapreneurial or startup environment (generally the culture) of the Czech Republic.

There is a recommendation how to work with the model and this is as follows [16]: *„Statements about just one culture on the level of „values“ do not describe „reality“; such statements are generalisations and they ought to be relative. Without comparison, a country score is meaningless.*“

For the comparison Finland, namely for two reasons. The first one is due to its geographical position – in Europe. And the second one is the fact that Finland is seen as

one of the most innovative culture in Europe [108]. In this context especially the gaming industry must be mentioned what is an innovative affair in itself. There are also many hubs and accelerators which make the country so different [92]. The comparison of the Czech Republic and Finland can be seen in Figure 6.1.

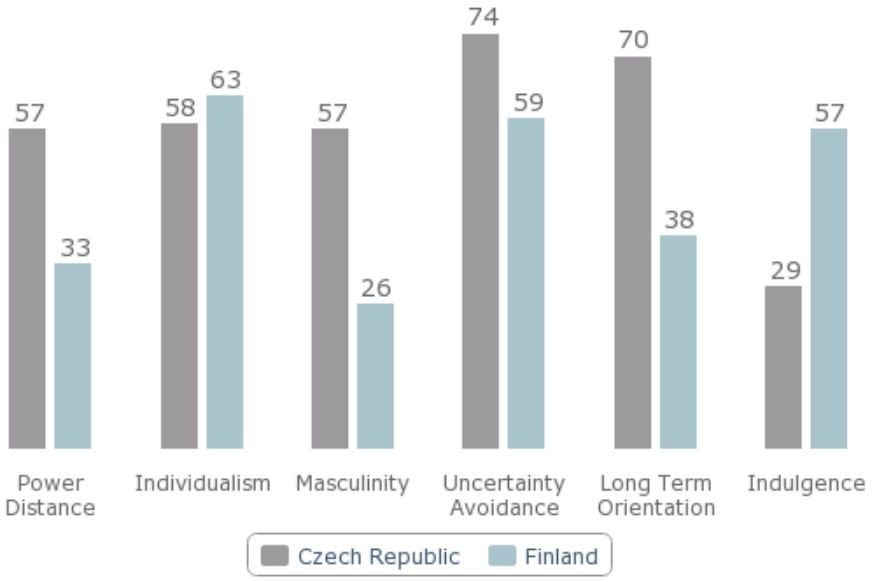

Figure 6.1: The comparison of the Hofstede 6-D Models for the Czech Republic and Finland [16]

First dimension (*Power Distance*) simply says that there is a hierarchical society in the Czech Republic, people accept a hierarchical order in which everybody has a place, centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat [16]. These are not ideal attributes for any startups. As we can see in the comparison, Finland makes better and the society is rather flat with coaching leaders and equal rights.

Masculinity dimension gives us a comparison of real masculine society (Czech Republic) and feminine society (Finland). This can be characterized as „*live in order to work*“ where conflicts are resolved by fighting them out (Czech Republic) versus „*working in order to live*“ where conflicts are resolved by compromise and negotiation (Finland) [16].

Both countries have high *Uncertainty Avoidance* which make an environment where innovation may be resisted and security is an important element in individual motivation [16].

Further (see *Long Term Orientation* dimension), the Czech Republic is very pragmatic society, which, in comparison to Finland as normative one, clearly says that there is strong propensity to save and perseverance in achieving results. In Finland people more focus on quick results, which is much better for any agile environments and any agile techniques in relation to methods of people and project management [16].

The last dimension (see *Indulgence* dimension) confirms why Finns are so good at gaming industry. There is an indulgent society where people enjoy life with a tendency towards

optimism and positive attitude. Czechs have rather a tendency to cynicism, pessimism and fear [16].

6.2 Innovation Barometer

Regarding the innovation, which is the base of every startup – both brand-new and corporate one, another important research is mentioned, which can describe the situation from this point of view in the Czech Republic.

The Innovation barometer of Erste Corporate Banking [108] assesses the attractiveness of all 28 economies of the European Union (EU) in terms of their innovation capabilities, competitiveness and future prosperity. There are ninth monitored statistics whose data come from renowned institutions such as Eurostat, World Intellectual Property Organization (WIPO), SCImago Journal & Country Rank (SRJ) and European Private Equity and Venture Capital Association (EVCA). The statistics are as follows:

- **Expenditure on R&D [RD]** – total expenditure on research and development (R&D) to GDP,
- **Patents [PA]** – number of applications for patents per 1000 inhabitants of applicant's country of origin,
- **Graduates [GR]** – number of university graduates in technical fields per 1000 inhabitants in the 20-29 age group,
- **Publications [PU]** – number of cited scientific publications per 1000 inhabitants,
- **Venture Capital [VC]** – venture capital funds into seed and startup companies to GDP,
- **Broadband Internet [BI]** – proportion of households with access to broadband Internet,
- **Expenditure on education [ED]** – public expenditure on education to GDP,
- **High-tech export [HE]** – proportion of high-tech products export to country export,
- **E-Government [EG]** – proportion of people communicating with the public administration in electronic form.

In Table 6.1, there can be seen the results of selected countries[7]. There is Finland, the best country in this assessment – that's also the reason why this country was used for previous Section 6.1, direct neighbors of the Czech Republic and Romania, which is the worst in this assessment.

Result of the Czech Republic is not so bad, e.g. we can see quite strong position regarding high-tech export. On the other hand, the numbers regarding the innovation itself are not

[7] All values are standardized dimensionless numbers on 0-100 scale. The ranking is based on arithmetic mean of nine sub indexes [108].

Table 6.1: Innovation barometer results of selected countries (year 2014) [108]

#	Country	RD	PA	GR	PU	VC	BI	ED	HE	EG
1.	Finland	100.0	86.0	81.9	85.8	91.9	87.0	75.0	29.3	84.7
7.	Germany	85.6	82.1	59.6	47.4	51.2	79.7	41.9	60.2	57.8
8.	Austria	81.8	64.0	53.3	65.8	43.5	67.6	57.2	60.2	64.5
17.	Czech Republic	55.7	33.7	55.4	46.3	23.6	40.9	33.1	63.3	30.8
20.	Slovak Republic	27.0	31.1	61.7	28.8	50.0	43.3	24.8	42.1	36.2
23.	Poland	29.1	33.2	61.7	22.2	24.4	40.9	41.2	31.3	22.7
28.	Romania	18.0	30.9	49.0	15.7	21.3	9.4	6.3	27.0	0.0

good at all. It can be seen low support of education, which may have an effect in the coming years. The lower number of applications for patents can be (to some extend) also related to that. But the most significant factor is the fact that regarding the capital investments into seed and startups companies, the Czech Republic is the second worst state of the European Union. From this general point of view, the Czech Republic cannot be seen as suitable country for innovation and startup environments in Europe, at least for now. Generally an attractiveness for venture capital firms is missing.

6.3 Existing Research

In this section, the existing research focusing on the intrapreneurship in the Czech environment is discussed. This can give us much better insight into current culture of big companies. There is the PhD thesis about *Intrapreneurship and Its Development Opportunities in the Czech Environment* [8], authored by Monika Barton. This thesis is written in the Czech language, so for the purpose of this work, few characteristics had to be translated into English. All content of this Section 6.3 including all its subsections (namely Section 6.3.1, 6.3.2 and 6.3.3) are based on the characteristics of the Czech environment and conclusions from Barton's research (source [8, p. 115-150]).

6.3.1 Research Focus and Target Group

The research was done through out of the Czech companies with most focus to those which are listed in the Czech Top 100 ranking (year 2011). What must be mentioned here is the fact that this ranking does not contain big multinational enterprises that operate in our market even though we can find some examples, e.g. HEWLETT-PACKARD s.r.o., AHOLD Czech Republic, a.s. or Telefónica Czech Republic, a.s. The ranking is more oriented on the local companies. Whole list from the year 2011 is attached to Barton's research as the appendix n. 5 [8, p. 187-189].

Target groups are [8, p. 101-103]:

- **experts** – experienced consultants and educators,
- **HR professionals** – executives of HR departments of large companies,

- **students** – potential intrapreneurs who are interested in business, but are also interested in working in large enterprises,
- **managers** – middle management of large enterprises, who directly work with potential intrapreneurs, and who have a direct effect on the development of their intrapreneurial capabilities.

Almost all the respondents (excluding the students) insisted on keeping the confidentiality of provided data, so the results are kept at the general level and cannot be traced back to the original companies.

6.3.2 Analysis of the Czech Environment

The research itself is structured into the seven separate sections from which only some interesting facts, which describe general Czech environment in relation to intrapreneurship, are selected. These sections are as follows [8, p. 113]:

- Competitiveness of large Czech enterprises,
- Experience with intrapreneurship,
- Intrapreneurs,
- Role of managers in the development of intrapreneurship,
- Readiness of the Czech enterprises to development of intrapreneurship,
- Expected role of intrapreneurship in the Czech enterprises,
- Specific ways of development of intrapreneurship.

For each section brief characteristics follow.

Competitiveness of large Czech enterprises

Most of the respondents (across all the target groups) do not think that large Czech companies are significantly competitive [8, p. 116].

The respondents would like to see more support of business in the domestic market – mostly through stable laws and export restrictions, and also would like to see more support of penetration to the foreign markets [8, p. 116].

Experience with intrapreneurship

The vast majority of the respondents either do not know the term (intrapreneurship) at all, or only vaguely know what it is hidden beneath. Only in the group of HR professionals, there are representatives who partially meet the basic principles of intrapreneurship, but rather under other names such as „*free company*“, „*leadership at all levels*“ or „*coaching corporate culture*“. [8, p. 116-118]

As a barrier, the respondents mention missing literature (mostly books) on this topic purely in the Czech language and low connectedness of academic and business environments. As a source of information there is predominantly the Internet. [8, p. 116-117]

Intrapreneurs

The experts are against the proactivity of employees in large companies rather skeptical. Their view is that even if employees want to be active and have decided to become the intrapreneurs, the decisive factors are the managers – how they can allow such conditions for their subordinate employees. [8, p. 119-120]

Intrapreneurs should be independent, but also very willingly cooperating and should not exceed the boundaries determined by their managers. Further, intrapreneurs need to be able to handle their own motivation and be able to apply self-management. Also, they should have a clear idea of their strengths and weaknesses and be a good team player. [8, p. 122]

As for intrapreneurs, the HR professionals have a tendency to imagine rather good senior employees, where the high degree of loyalty and less propensity for risk can be assumed [8, p. 123].

Students (oriented to business problems), at the beginning of their careers, in more than 70 %, wish to be employed for about five to ten years to gain experience before starting their own business. Students generally prefer larger companies because they believe that they will have better opportunities to career progress and thus better financial remuneration and better conditions for professional development. [8, p. 120-121]

Coaching is chosen as a major opportunity for development of possible intrapreneurs [8, p. 123].

Very important is a bidirectional ethical approach between employee and manager. One of the problem can be an appropriation of the ideas of someone else, inadequate compensation or even any competition inside the company. [8, p. 125]

Role of managers in the development of intrapreneurship

Role of managers are in the development of intrapreneurship understood as the biggest obstacle. Additional barriers are fear of failure, the employees themselves and structure. [8, p. 125]

The managers play the key roles, especially at the stage of decision-making and at the stage of building of strategy for how and to what extent to implement intrapreneurship within the company. They are also key drivers of corporate culture and possible sponsors of intrapreneurial projects. [8, p. 126]

Readiness of the Czech enterprises to development of intrapreneurship

A lot of Czech companies are not yet ready for intrapreneurship. Common problems of the culture of large companies are the fear of failure, intolerance to errors and that they are not willing to go into too much risk. [8, p. 126]

Corporate culture is understood as an important condition for implementation of intrapreneurship – meaning that both internal culture and management support. But there is a fear of chaos and distrust of managers to their employees. There are used authoritarian leadership styles. [8, p. 127]

There are departments and divisions, which are more suitable for intrapreneurship than the others. Departments like marketing, commerce and logically research and development departments are seen as more appropriate than typical „back office“. [8, p. 127]

Expected role of intrapreneurship in the Czech enterprises

Most of the respondents think that the intrapreneurial concept has some future in the Czech enterprises. It is expected to be a gradually deployed style and possibly a boom as it was the case with the methods of coaching several years ago. [8, p. 128]

Research shows that young people have a desire to try intrapreneurship within large enterprises and generally they consider intrapreneurship to be very attractive alternative to them [8, p. 130].

Competitiveness and support of innovation in the future are seen as key points why the company should implement this concept. Improvement of working environment and internal culture change are considered as less important [8, p. 130].

Managers feel that intrapreneurship is suitable for modern, progressive and inherently creative industries such as ICT, advertising or tourism. Sectors like finance, manufacturing and healthcare have possibilities to support. [8, p. 130-131]

Specific ways of development of intrapreneurship

In the area of personal development and education, employees, unlike managers, do not have too much freedom to choose what they want. They are usually governed by decisions of their managers or HR specialists. [8, p. 132]

Since there is a general pressure to the financial effectiveness of any development activities, alternative ways of development and education are becoming more popular – e.g. some Internet programs, webinars or online events. But language is seen as a restrictive barrier. [8, p. 132]

6.3.3 Conclusions and Suggestions

Barton's research concludes with four main critical conditions which are the must for successful implementation and development of intrapreneurial characteristics within big companies in the Czech environment. These are as follows [8, p. 137]:

- trust,
- sharing,
- self-motivation,
- courage.

Mutual relations are summarized in following Figure 6.2. Trust is understood as the key point based on which other three requirements can be further developed. But on the other hand, trust is also understood as the biggest barrier [8, p. 137-138]. Middle management is one of the key layer which must be opened to intrapreneurial principals [8, p. 147].

Important suggestion which is given by Barton's research is the fact that since the Czech environment is characterized by high degree of conservatism and unwillingness to radical changes, it is not appropriate to proceed with any intrapreneurial implementation

too revolutionary [8, p. 149]. Gradual changes, where mutual trust is build in step-by-step model, should be the best approach. This will also allow a higher degree of control. Barton also sees greater potential for adaptation of these phenomena in specific business areas, especially in ICT or HR [8, p. 149-150].

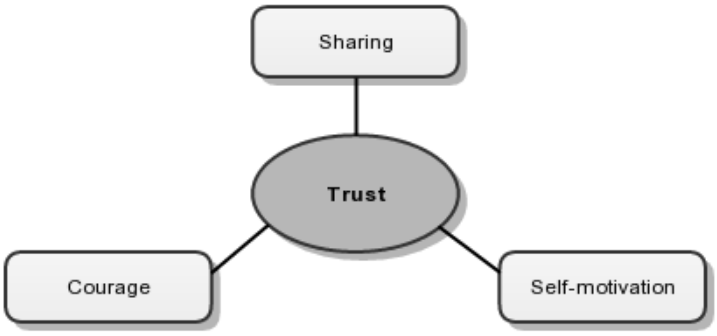

Figure 6.2: Barton's model of critical conditions for intrapreneurial environment in the Czech Republic [8, p. 137]

6.4 Academic Sector

Development of intrapreneurial activities in the Czech Republic can be extended via appropriate courses at the universities which can familiarize students with this topic. Unfortunately these days the offer is relatively limited – especially in comparison to the other foreign countries, e.g. the United States of America (USA).

Specific educational institutions that try to address this topic are as follows [8, p. 95]:

- Tomáš Baťa University in Zlín,
- Business School in Ostrava,
- University of Economics in Prague,
- University of Technology in Brno.

Regarding the startups in general, the Czech Republic is missing some kinds of online courses like we can found abroad. The example can be StartupClass.co [93] which is the online course about how to start a startup based on the business class of Standford University. This class combines academic sector with one of the most famous seed accelerator – Y Combinator (YC) [105]. Moreover the course is open to everyone.

In the Czech Republic we can find at least three models connected to startup activities in the academic field.

1. First model considers a single university and its own incubator or accelerator.

2. Second model considers a consolidation of individual universities into concentrated groups, especially on the regional level.

3. And finally, the third model considers creation of competence centers which are driven by external companies.

At least one example per each model is mentioned in the following paragraphs.

6.4.1 Startup Incubators and Accelerators

This section is intended to give few examples of the first model as considered above, meaning that the examples of individual universities and their own incubators or accelerators. Obviously only limited list follows since it's out of scope of this thesis to enumerate all possible examples in the Czech Republic. The same applies for Section 6.4.2 and Section 6.4.3.

InovaJET

InovaJET is a business incubator and the key part of Inovacentrum of the Czech Technical University (CTU) in Prague. Inovacentrum focuses on the development of cooperation between university partners and industrial partners in the Czech Republic and abroad. [52]

The incubator itself is intended for students as well as for researchers who try to start new and early-stage innovative businesses. It offers a year and half long program divided into three parts (*Accelerate*, *Focus* and *Develop*) which try to help young companies to succeed or stop their activities on time. The program includes tax and legal consultancy, mentoring and coaching, development of soft skills – time management, presentation skills, and many others. The program is not for free. There is a monthly membership fee and also contribution to room rental and services. [52]

xPORT Business Accelerator

xPORT Business Accelerator at the University of Economics in Prague is a new initiative which started in late January, 2015. It's based on previous experience but currently the approach is more purposeful. The accelerator itself is divided into four main blocks which are as follows [104]:

- **iPORT** – where „i“ stands for „incubator“, supports individuals and teams, who are at the beginning. They have some idea but do not have resources and workspace to check whether their idea is good and if it has any market potential.
- **aPORT** – where „a“ stands for „accelerator“, focuses on the next phase of development, meaning that the teams, who currently work on their ideas or products and need help and connection to some experienced mentors or investors.
- **cPORT** – where „c“ stands for „competence“ or „corporate“. This part is opened to corporate sector and to the firms, which bring new ideas and allow students to work on them. This center will be discussed later within the next Section 6.4.3.

- **ePORT** – where „e“ stands for „entrepreneurship“, is a place for learning about business-related topics and attending training events. The place where one can find new contacts and build new teams.

xPORT is opened to any projects regardless of the field of business but under the condition that at least one member of the team is student or former student (graduate) of the University of Economics in Prague. [104]

Green Light

Green Light (GL) is a program which aims to motivate and encourage especially university students to realize their own business plans. Since this program is a shared project of universities of Ostrava and their partners, it could be also included in next Section 6.4.2. The realization of this program is managed by the Innovation Support Centre at Technical University of Ostrava (VSB-TUO). [40]

The key part of the program is two-months Startup Accelerator in which participants undergo intensive training through practical workshops and individual consultations. Everyone, who has some innovative idea that has not been realized yet, or whose product is younger than one year, can apply. At the end, all projects compete and try to address the professional jury, investors and the public. The undoubted advantage is the fact that the program is for free. [40]

6.4.2 Regional Innovation Centers

In the Czech Republic we can also find few innovation centers which try to deal with innovative business on the regional level. These activities are mostly connected to and supported by local educational institutions.

- **South Moravian Innovation Centre (JIC)** – is an agency that focuses on South Moravia. It helps early-stage businesses to grow, create jobs and compete on the market. It also brings together all higher education institutions in the region in order to maximize the contribution to regional and national economies. [88]

  Regarding the involved universities in this center, they are as follows [88]:

  - Masaryk University,
  - Brno University of Technology.
  - Mendel University in Brno,
  - University of Veterinary and Pharmaceutical Science Brno.

- **Technology Innovation Centre** – is a joint project of Tomáš Baťa University in Zlín and of Zlín Regional Government. It was established in 2005 and co-financed by the European Fund for Regional Development and the Ministry of Industry and Trade of the Czech Republic. The same as JIC as mentioned above, this center tries to implement the strategy of economic development of its region and focuses on development of new industries, technologies and services with an emphasis laid on high-tech technology. [97]

6.4.3 Competence Centers

In general, the competence center should be understood as a group of people either at the universities or within big companies. The aim of the center is to focus on some specific area of the business, engage people, educate them and develop their appropriate skills, capabilities and thus the *competence* itself. As a result, the center provides a unique know-how and is capable to solve real projects in the area of its competence.

Talking about the competence centers at the universities, the people who form the centers are mainly students and professors. The influencers are companies which behave almost like mentors – they allow students to access the software, hardware and know-how, and generally they try to let them focus on topics which are in line with the strategies of companies. In other words, both sides benefit from this cooperation. Students can work on real projects with the latest technologies. Also there is an opportunity for their bachelor or master thesis or there can be a research topic. It's a place where academic sector, private sector and R&D are connected together. On the other hand, the companies, which support these competence centers, educate new people to their technologies and in a certain sense they create further awareness of their technologies.

Few examples of competence centers at the universities in the Czech Republic follows:

- **Center for Knowledge Management (CZM)** – is an independent unit at the Faculty of Electrical Engineering (FEL) at Czech Technical University (CTU) in Prague. This center actively cooperates with IBM and builds competence especially in the area of Business Process Management. [14]
- **cPORT** – as briefly mentioned in Section 6.4.1, is a part of xPORT Business Accelerator at the University of Economics in Prague, opened to collaboration with corporate sector. Currently there are five active centers with the following focus [104]:
  - Retail Analytics,
  - Collaboration Solutions,
  - Software Quality Assurance,
  - Open Data,
  - Healthcare.
- **CEPSON** – stands for Center of Computer Networks and Operating Systems at the Department of Information Technologies (FIM) at the University of Hradec Králové (UHK). In 2011, CEPSON gained status of IBM Competence Center in the area of data networks, virtualization and cloud solutions. [15]

6.5 Startup Activities in Business Sector

Despite all the examples above, the academic sector in the Czech Republic may be understood as quite weak ([8], [108]) and the business sector in the Czech Republic may correspond to that. There are also natural barriers in our society as declared by Hofstede's 6-D model (see Section 6.1). On the other hand, it must be said that for a qualitative assessment of

the current state in the Czech Republic (regarding the startups in the business sector) there is no study which would support any of these statements. Similarly, there is also no study which would disprove such claims. So this section rather defends impartial attitude. This could be a subject of further research (this is beyond the scope of this thesis).

What must be also added is the fact, that not every startup is from ICT, which (almost) must be visible online to get into awareness of people. In the Czech Republic there can be few successful startups in industries such as medicine, chemistry, mechanical engineering or applied biomechanics. Their growth is not probably as steep as in the case of ICT startups, which attract thousands of people online. On the other hand, their added value can be much higher in comparison to some „one-minute“ companies and they can settle in the market more permanently.

A few examples of startup activities in the Czech environment are mentioned in the following paragraphs. These are not examples of particular startups but mainly few accelerators, incubators and venture capital firm which allow implementation in general.

StartupYard

StartupYard is a seed accelerator for technology startups. Its goal is to help companies to build viable products, launch fast and successfully raise capital. It tries to pose itself as local accelerator, which follows the startup principles and methodology in the same way as famous accelerators (such as Y Combinator [105] and the others) do. StartupYard currently offers three-months acceleration in three possible areas which are as follows [94]:

- **data** – manipulation of large amount and blocks of data,
- **analytics** – making sense out of large data sets,
- **mobile** – new clever mobile apps.

Incoming applications are evaluated and only selected teams continue to the program itself. After three months full of mentoring and hands-on advices from experts and investors, the program is finished by the Demo Day (the pitch for potential investors, business angels or VCs in Europe). [94]

Wayra CEE

Wayra is Telefónica's global network of startup accelerators. Wayra CEE, as its name implies, is indented to focus on the whole CEE region. Local branch is located in Prague. It offers half-year programs with full of support of mentors, many events and possible funding at the end. Further, in case of mobile applications, there is potential opportunity to connect to Telefónica and its thousands of customers all around the world. [100] This March (year 2015) Wayra CEE ends its operations in Prague. The reason is the sale of part of Telefónica in the Czech Republic [10].

Node5

For a monthly fee, Node5 offers a co-working workspace that combines the best of a business incubator and startup accelerator. It's mainly intended for early stage technology startups, programmers and graphic/UX designers. There is a place where entrepreneurs, business angels, ideas, education and inspiring events are combined together resulting into a new sort of community. As in similar communities there are many partners which offers several support benefits for the members like lending of new mobile phones, web hosting, cloud space, banking services, consultation, etc. [71]

Czech ICT Incubator @ Silicon Valley

Czech ICT Incubator is very new initiative which is going to organize three rounds of selection procedures for agile startups, in 2015. In each run, there will be selected up to three startups, which will go to Silicon Valley, and will become a member of the prestigious incubator Runway [84] for four months. For sure, this can be a good opportunity how to quickly address foreign markets. [22]

Credo Ventures

Credo Ventures is a venture capital firm that focuses on early stage companies in Central and Eastern Europe across the information technology, Internet, mobile and healthcare markets. From their inaugural fund, called Credo Stage 1, they has raised €18M. In April 2015, Credo's second fund, Credo Stage 2, was founded while raising €34M in the first closing. Only the startups that have high-growth potential and international ambitions may be the candidates of possible investments. [19]

Chapter 7

IBM as a Multinational Enterprise

For the purpose of this thesis, IBM was chosen as the multinational enterprise. IBM, as an abbreviation, stands for International Business Machines, which nowadays lost its original meaning, but the power of this company persists and is constantly changing according to the market for more than 100 years.

The intention of this chapter is to provide the first insight into the company with regard to the aim of this thesis. Therefore this chapter includes brief information about IBM's subsidiary in the Czech Republic, short history, description of the chosen business units and then the topics focused on innovation, intrapreneurial activities – IBM Smarter University, and the information about startup program at the end.

7.1 IBM Czech Republic

The history of IBM in the Czech Republic started with the establishment of IBM's office in Prague in 1932. Due to political changes after the World War II, the Prague office was nationalized in 1948. IBM's modern history started again in 1991, when IBM CSFR was founded. In 1993 the subsidiary was split into IBM Czech Republic and IBM Slovakia and eight years later, on April 2, 2001, a new services center – IBM Delivery Center Central Europe – was opened in Brno. [47]

7.2 Business Units

IBM is divided into several different divisions. In addition to Marketing, HR, IT Support or Finance, there are divisions, which are intended to deal with the client's business. For the purpose of this thesis, following business units are mentioned.

- **Global Technology Services (GTS)** focuses on providing IT services and solutions in line with the latest market trends and specific customer demands. It's the world's largest technology services provider which can take care about many areas of ICT. GTS offers complete Green Data Center and security solutions – from design, development to deployment, from data networks to applications, support of business operations, IT

infrastructure monitoring and administration services, service-level agreement (SLA) tracking and management, maintenance and technical support. Enterprise-Application Integration (EAI), Business Process Management (BPM), Automated Document Processing Systems, Disaster Recovery (DR), Data Storage services and solutions, Business Intelligence (BI), Data Management Services (DMS), end-to-end or partial IT takeover and management (Strategic Outsourcing), etc. [47]

- **Global Business Services (GBS)** offers consulting services. The core of this business unit was created by acquiring PwC Consulting in 2002. GBS has grown into a unique organization with product offering that covers the entire range of consulting services – business strategy, consulting, process strategy implementations as well as IT. Portfolio of services includes Application Maintenance and Application Outsourcing, System Integration, Customer Relationship Management, Supply Chain Management, Financial Management Solutions, HR Solutions and Strategy and Change. [47]
- **Software Group (SWG)** is the IBM's software division holding a prominent market position with its families of software products, which includes communication and team collaboration applications; data, IT and asset management, security, IT monitoring and backup solutions; internet application development, operation and integration solutions, SOA; data storage and content management products; software development tools and project management tools. IBM software is of multiplatform character and fully supports Linux, open standards and open formats. [47]
- **Systems Technology Group (STG)** is a traditional vendor of servers, graphic workstations, storage systems and point-of-sale systems. Implementing the latest technologies, IBM's servers achieve outstanding price / performance ratio, provide advanced virtualization features, enable „on demand" capacity expansion, thus dramatically increasing system resources utilization, performance, reliability and return on investment. IBM offers a broad range of servers from System z mainframes through Unix-based servers System p and midrange servers System i. IBM System Storage product line includes disk arrays, tape libraries, SAN and NAS systems from entry-level models to top performing high-end systems. [47]

7.3 IBM and Innovation

IBM is well-known for the number of patented innovations and in 2014 it received a record of 7534 patents. This marked 22nd consecutive year that the company topped the annual list of U.S. patent recipients [4]. Totally, since 1993, IBM has already received more than 81500 patents, which makes it the most successful company in the world.

Currently the areas of focus are based on five pillars which are as follows [4]:

- cloud computing,
- big data and analytics,
- mobile,

- social,
- security.

For IBM these are the strategic areas for further research and development. The areas, which are gradually getting at the forefront, are cognitive systems, including new Watson related cognitive technologies.

These inventions have a huge impact on clients, partners and society and make IBM the leader in the field of innovation. On the other hand, only number of patents does not bring added value to IBM's customers. This could be only understood as an optional prerequisite. IBM has to still focus on a development of final solutions around these innovations.

Two examples with added value also for the end-users follows.

Innovative examples

One of the latest example of real innovation can be e.g. **CogniToy** [99], a smart Dino toy, which is Internet-connected, that learns and grows with children. The idea is pretty simple. The child speaks and Dino listens and then responds. The trick is that the toy is connected to the Internet to IBM's Watson cognitive cloud which processes and drives the conversation. The toy can learn a child's personality traits and preferences, like favorite color, and then deliver age-appropriate content for their interactions. In other words, the toy interactively engages and grows with a child. The project also plans on providing parents with a cloud-based console where they can track their child's progress and even show them the questions children asked.

OPENPediatrics [45] is second innovative example. In this case, this innovation can save many children's lives. This is the world's first cloud-based global education technology which originated from Boston Children's Hospital. The idea is to share the information about caring for very sick children and thus create a community with learning and possible mentoring program. IBM supported this innovation via power of social networking and cloud technologies.

7.4 IBM Smarter University

IBM Smarter University was established in 2009 as a unique system of education and development. It combines IBM real business with academic sector and therefore it is an amazing opportunity for students to broaden their knowledge beyond what the classical university can offer. [48]

All activities within the university are based on trust, openness, respect and reverence. Students gets the opportunity and it is only up to them to take this opportunity and show how they can deal with it. They can access intranet resources, collaborate with any IBMer all over the world and solve the problem in the area which they chose. [48]

The key part of the university is the Internship program opened to all students who are interested to work on themselves, learn, gain valuable knowledge and experience. The program takes four months and during this time, students are allowed to attend different

teambuilding or training – both soft and technical. They can also get certification in the area of their focus. Each student has his own mentor who helps him and leads him throughout the program. At the end of the program student obtains the certificate of successful completion. [48]

Passing the Internship program brings another opportunity. Only the best students can continue in the Trainee program. The main difference in comparison to the Internship is the fact that in the Trainee program students get paid. This allows student to obtain further specialization and improve professional and career growth while working on real projects for real customers. Finally, this may also help to get full-time job in IBM or at some business partner. [48]

Intrapreneurial view

The reason why the IBM Smarter University and its Internship and Trainee program are mentioned here is the fact that from intrapreneurial point of view this activity can be understood as an example of intrapreneurship. The program started from idea, gained its leader (in other words the intrapreneur), who got an opportunity to realize himself and build the full program. It's obvious that without management support, this program would not have been ever created. Also it must be realized that the program cannot make a big loss. There are the costs associated with student's mentor (time, which student takes), lent hardware, training, sometimes traveling. Moreover students in Trainee program get paid. On the other hand, students while working on real projects can bring this money back and that's the reason why only the best students can stay.

Pavel Wimmer, the leader of IBM Smarter University, says that the program must be set in such a way to keep people enjoyed. People have an opportunity to realize their dreams, want an autonomy and want to work with the latest technologies. That's exactly what the program offers. Moreover these principles are starting to spread to other countries where IBM has branch offices – e.g. the Slovak Republic, Poland or Russia. Pavel Wimmer further adds that IBM Czech Republic is in comparison to other countries, one of the most attractive branch office, where the students would like to be employed after school.

To conclude, IBM Smarter University is very nice example of intrapreneurial activity which started at the *bottom* of the company and went *up*. That's already mentioned *bottom-up* approach as described in the theoretical part of this thesis (see Section 5.3) – one of the main characteristics of the intrapreneurship.

7.5 IBM Global Entrepreneur Program

As a part of IBM Ecosystem Development department, there is IBM Global Entrepreneur Program (GEP) intended to take care about startups [13]. Petr Biskup is the leader of this program for the Czech Republic and the Slovak Republic. In addition to this, he generally takes care about business partners and evangelizes IBM technologies. Following characteristics of the program are published with his kind permission.

IBM Global Entrepreneur Program for startups was created in the United States of America (USA) in 2011 with the main reason to find new business partners. Since the

market is changing, IBM is also changing its view to the customers and also to the business partners. In this case, startups are understood as a kind of new business partners which deliver new kinds of services – mainly we can talk about solutions related to and for cloud environments.

In an opinion of Petr Biskup, we can distinguish two kinds of business partners:

- **mature business partners** – those who deliver classical offline solutions,
- **new-class business partners** – those who offer only services which are usually served from cloud.

This program came to the Czech Republic and also to the Slovak Republic in early 2014 as a result of initiative from the parent company in the USA.

The partnership in this program has mutual benefits. IBM offers free access to any IBM software for internal use in startup companies and also for creation of their own solutions based on the IBM software. Startups can also use IBM cloud services – either SoftLayer, which is Infrastructure as a Service (IaaS), or Bluemix, which is Platform as a Service (PaaS) mainly intended for developers as an open-standards platform for building, managing and running applications of all types. The incubation period for free access and software licenses can take up to three years, then any further use is charged.

All startups in the program can use services of IBM Innovation Centers (IIC) in Prague and in Bratislava. The centers offers many online, remote and face-to-face training and assistance. The centers are also open to port and test solutions and host any interesting events in collaboration with IBM, its business partners and universities.

Currently IBM gives more than it can get back, but on the other hand, IBM expects that this support will lead to strengthening of its market position, since if startup builds some solutions e.g. based on IBM software, in the end, IBM will profit too. So, generally, this program can be considered as a kind of strategic investment.

To become a startup supported by IBM Global Entrepreneur Program, the company must fulfill comparatively hard criteria.

- It cannot be older than five years (counting from the date of registration in the Commercial Register).
- It must build its solutions based on software.
- It must keep IBM globally popularized idea of Smarter Planet in its solutions.
- There must be mutual interest in partnership.
- Further the company must be registered as an official business partner of IBM and then it can apply for the program.

Currently there are hundreds of companies involved in this program globally, few of them has already successfully left and generates money with IBM software. In the Czech and Slovak Republic we can talk about twenty firms. These are all external, since this program is only intended for external companies. Few of them already generates a certain

profit from their solutions. Also there are quite new companies which temporarily focus on consultancy activities.

IBM does not proactively ask all possible startups on the market for cooperation in the program, it's done in the opposite way. IBM often visits startup events where the program is introduced – its characteristics, concept and possibilities. Then the startups usually come to IBM and discuss whether their solutions could be somehow improved with IBM offerings.

A mutual communication starts from assessing of the startup business – where are the main intersections, what is the solution about (from the technical point of view). Based on the assessment, IBM can offer some components (software, hardware, cloud services, etc.) which would be helpful for further growth. From the business point of view IBM can help startup to be a part of large project as a subcontractor. This is mainly done in the area of consulting services, since startups usually follow fresh approach to the new solutions.

On the other hand, one of the main problem which Petr Biskup sees is that startups are not able to do B2B business. This is not a general statement for every startup. Obviously this does not apply to those which focus on such kind of business. But there are only few within the program. On the other hand, focus on B2B business can be highly important for any startup, so one of the local intention in the program is to provide education in this area (some kind of training of business skills). Further there are possible mentoring activities of both business or technical skills. In any case, every time it depends on startup itself what it asks for or where it sees its gaps.

7.5.1 Examples of External Startups

Particular examples of startups, which participate in IBM Global Entrepreneur Program, are not secret, rather the opposite. It is mutually beneficial for both sides. Few examples are as follows:

- **Skypicker** – the flight search engine which migrated part of its solution to SoftLayer cloud environment and is going to develop further services for the customers with IBM tools like Xtify or Unica.
- **Brand Embassy** – provides a customer service on social media. It is IBM's customer of SoftLayer and the member of startup program in the area of clever marketing (interested in Silverpop solution).
- **Visidom** – the cloud web analytics tool focused on visitor's experience. It uses SoftLayer cloud services.
- **Blindspot Solutions** – the spinoff of the Czech Technical University (CTU) in Prague which is building a solution for optimization of routes based on IBM ILOG.
- **Hungry Gecko** – the web based platform company that provides adoption of enterprise social networks. The spinoff of the University of Economics in Prague.

In general, many of participating companies are very young. There are led by young people from universities or by people originally from big companies where they were bothered by something, they decided to change it and went their own way.

7.6 Startups within IBM

As discussed in previous Section 7.5, IBM has its own program just for startups, but it must be mentioned again that the program is intended only for external startups. Currently there is no intention or support of the same thing internally, within IBM.

Generally, IBM owns many software and hardware products, but sometimes, from the market point of view, there is the lack of solutions. This is what the startups could change and this is also one of the reasons why IBM supports external startups. It expects startups will or could deliver solutions based on IBM software and hardware to the customers. On the other hand, it must be said that during last few years IBM has been transforming itself and in this area, it tries to move as much as possible software products to the cloud and offers them interchangeably with on-premise installations.

The main problem is that IBM, as same as many others, is business-driven company – meaning that if there is no business opportunity just behind some work, the result will not be probably ever used. The question is what is correct. Either to have prepared set of assets and only to manage these assets or to do everything on a request bases. It's evident that both approaches are correct, since big long-term deals definitely have their own specifics and these are the cases which require unique (on a request bases) solutions. This is exactly what IBM is capable to do with its amount of employees and their capabilities and skills. On the other hand, so big deals are not very often and thus IBM also focuses on the rest of the market and there, the prepared set of assets (solutions) with a network of business partners is successful. These are the solutions which can be given in life via corporate startups.

This topic, how to combine a startup behaviour within the multinational enterprise, is a subject of the research defined in next Chapter 8.

Chapter 8

Empirical research

This chapter builds on the theoretical bases given by previous chapters. The research is inspired by results of existing researches and takes few suggestions into account. The goal of this chapter is to describe the empirical research, its execution under the MNE and provide results at the end. The research is outlined, there are mentioned research objectives, delimitations, the main research question is discussed, the target group of the research is described and research method is justified. The focus is also put on the description of the research methodology, which was developed just for this purpose. At the end the results are interpreted to provide better understanding of the collected data and after assessment the research question is answered.

„*The function of the empirical research is to verify the veracity of the assumptions and hypotheses that are the results of theoretical thinking.*“ [101]

8.1 Research Objectives

The research objectives are clearly summarized in the following statement:

> *The main aim of this research is to assess the readiness and suitability of the given MNE environment for intrapreneurial behaviour – the key is finding and confirmation of implied characteristics of startup principles.*

Therefore at the beginning of the research, it's important to ask the questions about intrapreneurship, whether the respondents have some knowledge about this or whether they have ever tried or applied these principles. Therefore this category is called as Awareness of intrapreneurship (**AI**).

Based on these bases, there are four areas which the research is focused on and they are as follows:

- Innovative Environment (**IE**),
- Barriers (**BA**),
- People (**PE**),

- Motivation (**MO**).

By assessing these four categories, it will possible to say much more about current environment and then design a suitable model or at least get an inspiration of startup behaviour inside the MNE.

Innovative Environment, as the first category, is a logical point, since the startups are strictly related to innovation and innovative things of all kinds. Thus at this step, it's important to assess current culture, approach to innovation and support of innovative things.

Barriers, as the second category, are just as important as the *Innovative Environment*. The goal is to find whether and what are the main barriers and borders with regard to innovation, innovative approaches and startup characteristics.

In the third category, the *People*, there is an intention to assess whether the people in the given environment are allowed to work on innovative projects, if this is included within their key performance indicators (KPIs) and if they have enough time to bring new ideas and realize them inside the company.

The last category, the *Motivation*, should not be understood only as an intrinsic motivation of people. Also the extrinsic motivation factors are part of this point. Thus it also means how the company motivates people to work on innovative things, to bring and to realize new ideas and to take the responsibility for them. Whether the people are remunerated for this behaviour or not, etc.

Graphical representation of key categories, which will be assessed within the research, is shown in Figure 8.1. *Awareness of Intrapreneurship* can be, in this case, understood as a base general category.

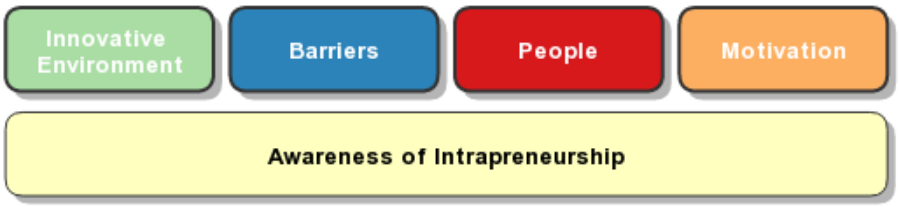

Figure 8.1: Key areas which the research is focused on

What needs to said at the end of this section is the fact that the essence of this research is not to create new theoretical hypothesis, but it rather focuses more on particular environment and it serves as a way how to assess it based on the specific criteria. Thus the results of this research can be only partially generalized.

8.2 Research Delimitations

As will be mentioned later, this empirical research will be done in a qualitative way. This research methodology is very time-consuming and therefore it is necessary to clearly define various restrictions at the beginning, set the rules and carefully identify target group (see

Section 8.4). With these criteria clearly defined, the research process can be significantly accelerated.

Since the subject of the research is a multinational enterprise (MNE), which is by definition highly structured – both on the level of transnational basis and also on the level of internal structures, these levels of diversity must be limited. Therefore the research focuses more on the portion of these structures. It means in particular that since, in this case, it's not possible to assess whole MNE, the research will rather focus on the subordinate entities.

The field of the research is limited to:

1. **individual business units**,
2. **within the borders of the Czech Republic**.

These two points above need to be clarified in more details.

Regarding the delimitation to only individual business units (ad 1.), this is logical. This clearly defines the boundaries. Therefore the field of research does not include any support centers of the organization, finance division, marketing division, human resources division and many others. The research will focus on the business units which generate revenue streams.

Regarding the second delimitation – simply about the geographic location (ad 2.), this is primarily due to the availability of and access to the information. It's evident that this delimitation is not the problem of e.g. intra corporate communication or impossibility to obtain some information from „the other side of the planet". To tell the truth, this is easy, since we are within the borders of MNE. But in this case, the narrower focus can bring better understanding of the problem and better applicability of the results. These are the facts which are preferred. Also it must be taken into account that if we select given business unit, the characteristics within European environment and e.g. within African environment will be probably a little bit different. So these are all the reasons why the research boundaries are limited to the Czech Republic.

What must be added is that this does not mean that MNE characteristics of this work are out of scope by these decisions, rather the contrary. All business units in the Czech Republic, the same as in the other countries, are managed, directed and influenced from the upper structures. And what more, since the business units are formed regardless of national borders, this brings the global MNE characteristics to the local environment.

Another delimitation is the exclusion of System Technology Group (STG) from the group of focused business unites of this research. The reasons are the past events associated with this business unit. The first event was the sale of IBM Personal Computing Division in 2004 to Lenovo [64]. The main recent events are especially the sale of whole IBM x86 Server Business – meaning that not only System x, but also BladeCenter, Flex System blade servers, switches, etc. [21] and also the announcement of GlobalFoundries's acquisition of IBM's global commercial semiconductor technology business [20]. This does not mean that IBM's STG business unit is „dead", there are still System z mainframes with its new introduction of IBM z13 [83], Power Systems, Storage Systems, PureApplication, PureData appliances, etc. But currently IBM's main areas of focus are different [4]. This business unit focuses more on the backbones and big individual customers.

So, to summarize, the business units, which are subject to this research, are as follows:

- Global Technology Services (GTS),
- Global Business Services (GBS),
- Software Group (SWG).

Graphical representation of research delimitations is shown in Figure 8.2.

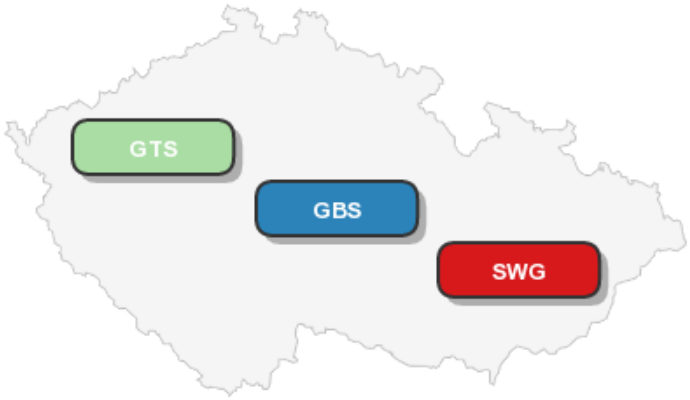

Figure 8.2: Research is bound to the Czech Republic and given business unites

8.3 Research Question

Research question is something what the research should solve and what should bring new information and finally the answers to the general problem. What also must be taken into account is a type of methodology, meaning that qualitative or quantitative research. In this case, the qualitative approach is chosen – the deeper explanation and reasons are summarized in Section 8.5.

Even the research goes through three business units, the research question is only one. The reason is to have a point which the whole research can focus on. Also, the comparison of particular results and specifics of each business unit ca be done at the end.

The first question, which was proposed after longer consideration, was as follows:

How to run startup under multinational enterprise?

After some time, it was realized that this question is wrongly posed. The reason is that the research itself as defined further cannot answer the question in this form. Despite the fact that this question tries to touch the overall objective of this thesis, for the purpose of this research here, it is the wrong one. The research itself is intended to assess the readiness and suitability of the given MNE environment for startup principles, it is not going to answer *how* to implement these principles. This is essentially the next step which will follow and will benefit from the results of this research.

So therefore, the research question (**RQ**), which corresponds much better with the research objectives, is as follows:

> **RQ**: *What are the key environment characteristics for the possibility of realization of startup principles within the multinational enterprise?*

8.4 Target Group

As Barton's research [8] concludes (see summary in Section 6.3.3), middle management is one of the key layer which must be opened to intrapreneurial principles to successfully implement this behaviour inside the company. Barton understands *middle management* as an executive power, which can directly cooperate with potential intrapreneurs and has direct influence to their development [8, p. 147].

Due to this suggestion, the **managers** were chosen as the target group of this research. What must be deeper specified is appropriate management level. After the consideration of the internal structure of IBM, for the purpose of this research, management level L1 and L2 were chosen. These two levels can meet the requirements above.

The reasoning is as follows. At the beginning, all five main categories, which the research is focused on, are taken into account. Other criterion is to talk to long-term employees, who know a lot about the past and current environment within the business units and therefore they are capable to assess individual characteristics. Regarding the key areas, it is especially an openness of environment for any new ideas and obviously also its barriers. These people are also responsible for people management of their subordinate employees, they can identify potential gaps among the key performance indicators and can take into account many other factors. Last but not least, they are the ones who should and do motivate people and again are able to evaluate set criteria. And since they have direct contact, on daily bases, with the lowest level of employees, who are the potential target group for intrapreneurship, these two levels – meaning that first line (L1) and second line (L2) of management above the lowest level of employees, are the right ones, who the research should focus on.

In other words, the target group includes business unit's team leaders, managing consultants or their direct managers who also lead the individuals at the lowest level.

At the beginning, there was identified a list of managers who met the requirements above. Almost all of them were opened to be a part of the research and participated – 75% in total. The rest did not refuse directly, but unfortunately they did not find any free time to participate. Final distribution of the respondents between focused business units is summarized in Figure 8.3.

8.5 Research Type

As already quickly outlined above, the quality is preferred to quantity. Therefore qualitative research was chosen as an approach suitable to answer the research question. Moreover the research question itself was aligned to the type of research (qualitative research). Thus these two points are both mutually interrelated.

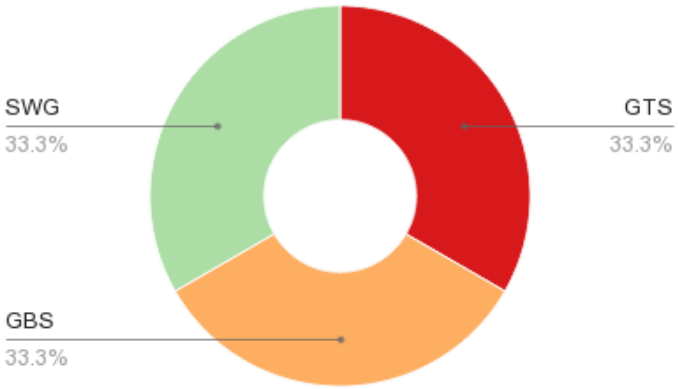

Figure 8.3: Distribution of the respondents between focused business units

This kind of research does not provide huge amount of information from tens or hundreds of respondents as is characteristic for the quantitative research, more likely it prefers less amount of respondents. Due to the selected target group, this was also a reason for the choice.

Generally, the theory says that in qualitative research, we rather ask *why* and *how* instead of *what*, *where* and *when*. The main task is to deeper understand to the problem and its reasons and to uncover the meaning of information. It relies on induction, so the process starts from the observation, then finding of regularities, conclusions and finally it provides a theory with the hypothesis [85]. Qualitative research examines the phenomenon in its natural environment [101].

What must be mentioned at this point is the fact that the research in this thesis does not aim at creation of any theory, so in this case, the last step is missing. Also since the aim is to find environment characteristics and then assess the readiness and suitability for intrapreneurial behaviour, the main research question asks *what*.

The main disadvantage of this approach is obviously that it will not be possible to generalize all final conclusions for other environments, since the results will be highly specific for the environment subjected to this analysis. On the other hand, the same research approach (as described further) can be repeated in the similar environment and the results can be compared.

8.6 Research Method

The research method is simply the way how to get some information or data for the research. The individual interview as a method of qualitative research was chosen, but with a difference, that the list of questions (guide list) was prepared. This allows to gather structured collections of responses for further analysis. The guide list is also useful during interview itself since it helps to focus on the required topics and let us not forget to anything we want to collect. This semi-structured approach allows a respondent to speak relatively freely. At the same time, the researcher can see his own checklist whether all topics are covered.

Another advantage of this approach is the fact that all the questions do not have to be answered in sequence, since the order does not matter.

This semi-structured interview, as the research method, is, in this case, considered as the best technique, since it's based on personal contact with the respondents and it lowers a risk of misunderstanding. On the other hand, the respondents can feel less sense of anonymity than when filling some surveys.

For each category declared in Section 8.1, the list of questions was prepared, in order to find out more about it. All lists of all used prepared questions can be seen in Appendix Chapter C. What must be said is that these lists mostly served only as a guide for fluent conversation and the questions were not, in most cases, the only topics which were discussed.

In addition to defined questions, simultaneously the lists of topics were prepared. The topics should be understood as the points which the research is focused on within each category. In other words, the topics can serve as a separate layer between defined categories and the lists of questions. But at the same time, they are tied together with defined questions. These relations can be seen in following Figure 8.4. There is the research question (**RQ**) at the top. This question is decomposed into five categories with defined topics. The interviews with the respondents serve as a way how to fill defined topics with appropriate answers to the lists of defined questions.

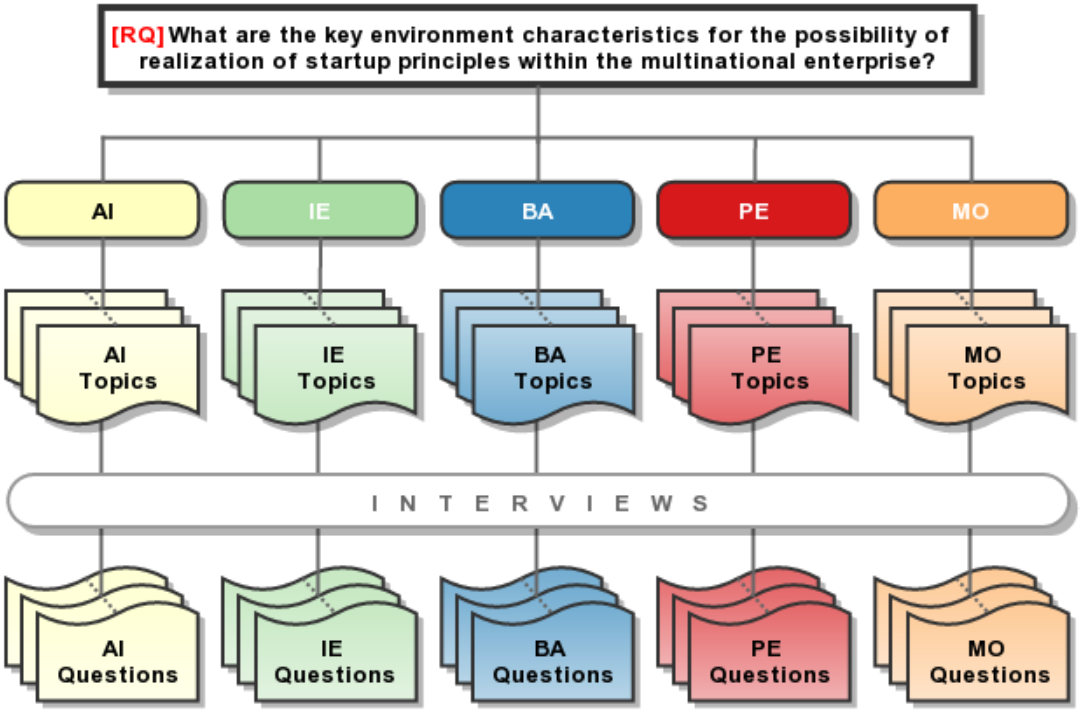

Figure 8.4: Use of research method

Key topics, which the interviews were focused on within each category of the research, are summarized in following Table 8.1. The first category – Awareness of Intrapreneurship (**AI**),

follows up on Barton's research and is intended to briefly confirm her results. The rest of the categories are intended to reveal characteristics of chosen environment. The relationship between these topics and the questions are not 1:1 in all cases, since more than one question had to be usually asked and discussed, in order to be able to asses one given topic.

In this case, it is also important to mention how the whole list of topics was actually created. This was not a straightforward process, but rather a cyclic process with gradual changes. At first, the set of questions and related topics were prepared and one respondent was kindly asked to discuss all the topics. During this interview few problems were remedied and the topics with appropriate questions were updated for the next loop and so on. In this case, the face-to-face interview proved to be a good choice. This approach and especially the fact that the respondent is not bound to predefined strict structure and can speak relatively freely, allowed to gradually develop all the topics. Topics and questions were improved four times in total. The first two respondents can be also understood as the test group which the research method was finalized on. The third and the fourth change was done during further interviews since some new topics had been revealed.

Table 8.1: Research categories and key topics

Category	**Key Topics**
Awareness of Intrapreneurship (**AI**)	• Intrapreneurship as a term • Experience with intrapreneurship • Trust, courage, sharing, motivation • Cross-units cooperation
Innovative Environment (**IE**)	• (Typical project types)* • Investments into innovative projects • Rules for innovative projects • Innovative processes • (Examples of innovative projects)*
Barriers (**BA**)	• Explicit barriers • Attitude of leaders towards mistakes • Risk of innovation • Influences of MNE
People (**PE**)	• (Roles and their KPIs)* • Trust in people • Innovation and overall assessment • Time management
Motivation (**MO**)	• Motivational factors of innovation • Remuneration & reward for innovation

* *Topics in parentheses are not the points which the research focuses on the most. These are only the help topics which deeply imply other topics or which can bring better understanding.*

What also needs to be said is the fact that once the list of topics was changed, in most cases, it was possible to answer related questions from the notes thanks to the possibility to let the respondents speak relatively freely and thus cover broader area of topics than just

those, which were identified and focused on at the beginning. Otherwise, the respondent was kindly asked again to answer only that new question(s) for appropriate topic.

The lists of topics are actually one of the first outcome of the research, since these were partially defined at the beginning and then iteratively improved to the current form.

8.7 Data Collection

As mentioned above, individual interview was chosen as a method for collecting qualitative data in this research. The research was scheduled from January, 2015 to half of March, 2015 but it was more time consuming than it was expected at the beginning and so the last interview was organized on March 27, 2015.

One of the biggest obstacle was to plan a suitable time window for both – for the researcher and for the interviewee. In few cases, some managers agreed to be interviewed, but then they were not able to find any available time slot – even asked more than one month before the scheduled end. On the other hand, there were also those who actively tried to find some possible time and in these cases, even the meetings were rescheduled few times, we were able to meet.

Each interview was planned for about 30 to 60 minutes. But the reality was a little bit different. In most cases, the interview took about 60 minutes and more. The longest interview lasted about 150 minutes – on the other hand, this one brought the most insight and understanding.

All interviews except the one took place inside the company, usually in the meeting room or at the side of open-space, so it was possible to work with the list of questions and made relevant notes as the answers. A few times, the respondent was ask to allow to record an audio. This approach was then considered as the most time consuming as it can be. Since the processing then took about tree times more to listen to the recording again and again to get (absolutely) the most from it. But in all cases, all additional data obtained by this way were unnecessary and not used in the end. One interview was also organized at the Czech Innovation Festival 2015.

What was also experienced during the interviews were the situations, in which the leading position in the conversation was lost. This happened due to the target group since the managers are much more experienced in people communication, so they simple took the control in few moments.

Very important is a role of researcher. The researcher cannot not try to influence the interviewees. He should only ask the questions and lead a conversation into topics, which he is interested in for the research.

8.8 Data Processing

A role of researcher is even much more important when processing the data. The researcher must be impartial and must not add his own views into the results. The researcher works with obtained data and does not try to change their „shapes“ for any reason whatsoever.

During the interviews and once the objectives of the research were presented, many of respondents asked about the anonymity. Most of them wanted to talk only on condition of anonymity. That's the fact which was respected so the results are discussed only in general impersonal terms to avoid traceability.

Under these conditions, any transcript of individual interviews cannot be published. This is not even necessary. In other words, any transcripts are usually understood as unstructured or semi-structured (as in this case) data, which are rarely presented with final results. It's not so for the reasons of confidentiality, but rather because of their illegibility or discontinuity. The researcher also very often collects much more data that are not even necessary for the results. Researcher's task is to adequately interpret obtained data and present only the results [8, p. 100].

The way, how the results are interpreted, is described further. But what must be mentioned before is the fact, that there are few standardized methods and methodologies[8] how to analyze the qualitative data. These include e.g. following examples [89]:

- Compare and contrast methodology,
- Metaphors,
- Factorization,
- Qualitative clustering,
- Grounded theory.

In many cases, one of the most recommended methodology is just the last one – Grounded theory. This methodology uses different levels of coding (open coding, axial coding, selective coding) to go from description to theory, which is hidden behind mere description [8, p. 40]. But in this case, there is no aim to create or find any theory, the focus is more on the assessment of the environment with regard to startups / innovation or intrapreneurial principles. That's the reason why for the purpose of this thesis own methodology for data processing was developed. But used approach is very similar to the standardized methodologies as mentioned above and uses similar steps (as described here [89]).

8.8.1 Proposed Methodology

The proposed methodology is consisted of few phases and the whole process can be graphically represented as shown in Figure 8.5.

At first, the collected qualitative data must be fixed („**Data fixation**“) – meaning that to save them either by making some notes or by saving the recorded audio.

Second phase can be called as „**Data preparation for analysis**“. This phase is based on two important steps which are as follows:

[8] A *method* is usually understood as a single procedure to examine some phenomenon. The example can be an induction, a deduction or a synthesis. While a *methodology* is usually understood as a set of methods mostly specific for some scientific discipline. [109]

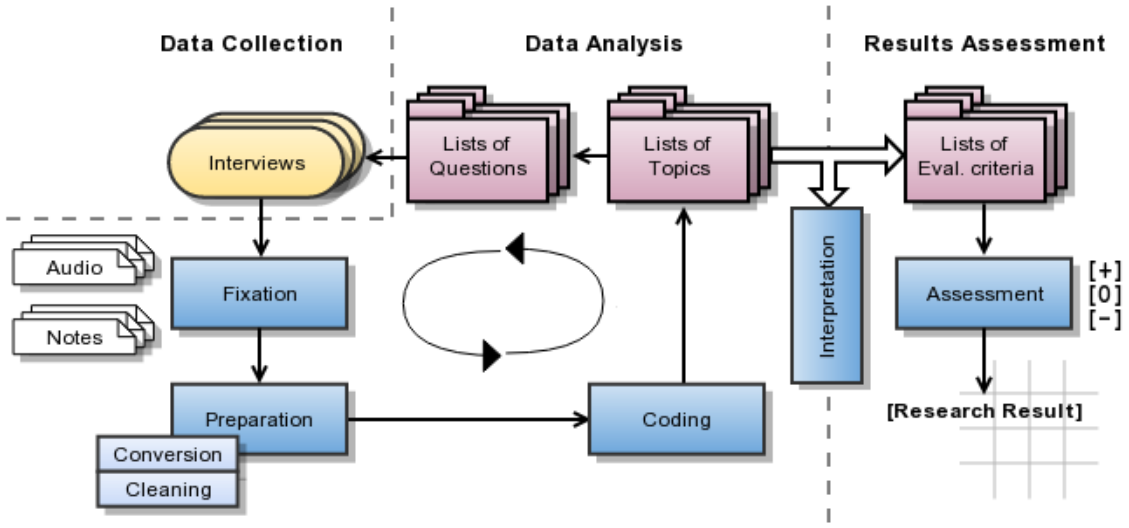

Figure 8.5: Used research methodology for data processing and assessment

- **Data conversion** – this step includes especially making some notes from recorded audio and their translation into semi-structured form as defined by the lists of questions.
- **Data cleaning** – this step includes reduction of data meaning that removal of unimportant data and selecting the important ones. Also since the interviewees were allowed to speak relatively freely, sometimes the notes, which were made during the interviews, needed to be tied to appropriate category and given question. So this step also includes a kind of reorganization of saved notes.

„**Coding**“ is usually a phase where we construct data into specific (semantic) units and name these units. This is what was already briefly described in Section 8.6. The topics, which are tied with appropriate questions, should be understood as named groups. These were created via iterative process with gradual changes based on the interaction with the respondents. Thus in this phase, all (currently used) topics are analyzed. If some new possible topic repeatedly appears also in other interviews, the original topic is divided and renamed. Then the new topic is named, appropriate question is assigned and new topic is re-evaluated also for already finished interviews (if possible). In case of not enough data, the interviewee is kindly asked again.

Once all the interviews are finished, obtained data should be interpreted and evaluated. „**Interpretation**“ is a step, where researcher provides a reader insight into the collected data and it also serves as a description of important points and particular findings. Evaluation is done separately per each business unit which is a subject to the research. To be able to get some final results, the „**evaluation criteria**“ for each category and each topic in it were created. These criteria reflect the requirements of this research. For simplicity each criterion has three possible states where:

- `[+]` – expresses positive state,

- `[0]` – expresses neutral state,
- `[-]` – expresses negative state.

All mentioned symbols, which will be used further for research assessment, always reflect the degree of fulfillment of expectations of each topic in relation to the characteristics of startups or intrapreneurial principles.

Very important is the fact that these criteria are based only on discreet states as defined above. So there is nothing in between. `[+]` and `[-]` are extreme states – meaning that all the respondents answered the same topic in the very similar either positive or negative way. `[0]` is a state used for indecisive answers, so the respondents gave both positive and negative answers. Each topic has its own evaluation criteria described in Appendix Chapter D. Researcher is the one how is responsible for independent and impartial evaluation of all the topics.

8.9 Research Results

In this section, research results are briefly described and where possible, there are also some graphs attached. All the topics within each category are evaluated and put in comparison with each business unit where important. Well-arranged matrix as the final result of the research is discussed in Section 8.10. This chapter was created using the responses of interviewees and does not reflect researcher's personal point of view.

8.9.1 Awareness of Intrapreneurship

Knowledge of the *intrapreneurship* or some of its principles is quite inconsistent. This is highly related especially to the fact, whether the respondents have ever gotten in touch with this term personally. So there are the respondents, who are aware of this term very well, but on the other hand, there are those, who are not able to even imagine what this can mean. In case of *corporate entrepreneurship* the understanding is a little bit better. With only one exception, none of respondents mentions that these principles are usually understood as a *bottom-up* approach. Few respondents also understand intrapreneurship as a kind of collaboration between business unites in order to try new things and to create new solutions. Another interesting understanding is that intrapreneurship is an autonomous „cell“, which can do anything, affects the functioning of things, and does anything that nobody else can do.

A summarized view on this topic – *Intrapreneurship as a term*, is shown in Figure 8.6.

As already mentioned, the definition is highly related and has to do with own experience. In GTS the experience is practically absent and this is not e.g. due to the lack of interest but rather due to the set rules, which will be discussed later. In GBS and SWG the situation is better. GBS and especially the consultants or partners are responsible for creation of new ideas, defending them, obtaining money for them. They oversee the implementation itself and they also stay with the customer after the implementation. It's important to note that this approach comes from the person – the partner, who is usually the sector leader e.g. for public, banking or telco. So in this case, the behaviour like here described can be understood

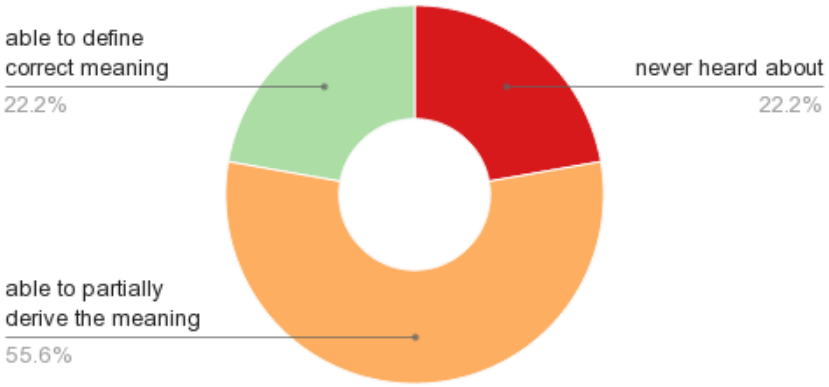

Figure 8.6: Knowledge of intrapreneurship as a term

as a kind of intrapreneurship. In SWG, there is also nice example of intrapreneurial effort. This is IBM Smarter University, discussed independently in Section 7.4, which originated just in SWG. From idea, via its leader (in other words the intrapreneur), the program crossed the borders of the Czech Republic and is starting to spread to other countries.

The topic about *Trust, courage, sharing and motivation* builds on the results of Barton's research from Section 6.3. The respondents were asked whether they understand these characteristics as a necessity for intrapreneurial environment. All respondents simply respond positively. Trust is confirmed as a connecting element. Courage is understood as a human characteristic as to go against existing things. Sharing is mostly understood in a way of collaboration, but also as knowledge and information sharing and avoidance of experienced errors. It's important to mention that this topic does not assess current environment. This one is only for confirmation of Barton's results. On the other hand, once asked, few opinions appeared that these four points are standard characteristics of all well-performing environments and thus these have nothing so specific just for intrapreneurship itself.

As an opposite to the confirmation of theoretical characteristics, there is *cross-units cooperation* topic, which is the one revealed during interviews. Here the general opinion is *tragic* followed by *distrust*, *competition*, *non-cooperation* and *lack of information sharing*. In other words the cooperation absolutely does not work at the highest level. At the level of employees themselves there are several exceptions, meaning that cooperation between individuals and outside of processes. Uniting thing is usually the customer, but again, only at the level of individual relationships.

8.9.2 Innovative Environment

As for innovative environment, at first, there was the interest in the current situation, especially how the typical project looks like. SWG confirms its position in orientation to software products and sale of licenses. Typical projects are big enterprise license agreement (ELA) contracts for big customers. Sale of new licenses is the main target. On the other hand, as part of SWG, there is also service center, which focuses on software delivery,

consulting, support, short-term including long-term projects, easily on everything, that is related to software.

In GBS, the main intention is to come to client as the thought leader, meaning that to bring some new idea and show its business value. In addition to consulting services and strategic outsourcing, there is also delivery center, which focuses on implementation and transformation services, application development and maintenance. More often, large long-term projects predominate.

Typical projects of GTS could be divided into three categories. One third is represented by long-term support projects. Second third is represented by implementation and installation of hardware systems. Finally the last third is formed by development projects and especially by integration projects.

Regarding the *investments into innovative projects*, there is no business unit, which could allocate any free money and use them just for innovation. In general this is not defined. The only unit, GBS, works in a little bit different way, since any project is a subject of request, so in this case, the investment into innovative project is understood as the same as investment into any other project. In any case, there must be some customer behind to make the things smoother. In other units this behaviour is not expected. So any proactive investment is rather ad hoc process, which has a small probability of success without any official funding. Thus these activities, if any, usually goes against the requested KPIs. Everything is rather based on the local decision and it very depends on people and one's contacts. In SWG, the innovation itself can be improved by students in unpaid Internship program and in paid Trainee program, but even so, this does not alter the fact, that they require other resources and mentoring.

One respondent said: „*There is no funding, thus there are no rules.*" This confirms the description in the paragraph above. Both things are directly related. Therefore if one asks for some funding on innovative thing, there is required absolutely perfect project plan, detailed business case and calculation of return on investment. So this makes things much harder and creates quite restrictive environment against the ad hoc innovation, because even these deliverables are prepared, there is no guarantee of approval and spent time on the preparation goes directly to costs of the business unit. Only in GBS, we can talk about the standard rules, because as said above, there is no distinction between standard and innovative project. In other business units this behaviour is not usual.

Regarding the *innovative processes* or in other words the processes, which could support and help one with realization of any new ideas, the respondents are not simply aware of any. Mostly, they do not deny their possible existence, but in any case they are not aware of possible example.

Despite the fact that these characteristics indirectly excludes innovation in such an environment, the opposite is true. There are innovative examples in all business units. In GTS the examples can be the solutions around radio-frequency identification (RFID) technology or around business process management (BPM) platform. In SWG the example is Resource Development Platform (REDEP) which combines people hiring, internal training and supervising at work. Last but not least, in GBS there is strong competence related to Big Data and building of platforms for the purpose of data processing, analysis and prediction.

8.9.3 Barriers

Almost in all interviews, one of the main subjects of the discussion were the *barriers*. These were usually discussed even at the beginning of the interviews after the introduction, since these were very often the first things, the respondents mentioned. The final list of all retrieved barriers with the probability of occurrences is summarized in Figure 8.7.

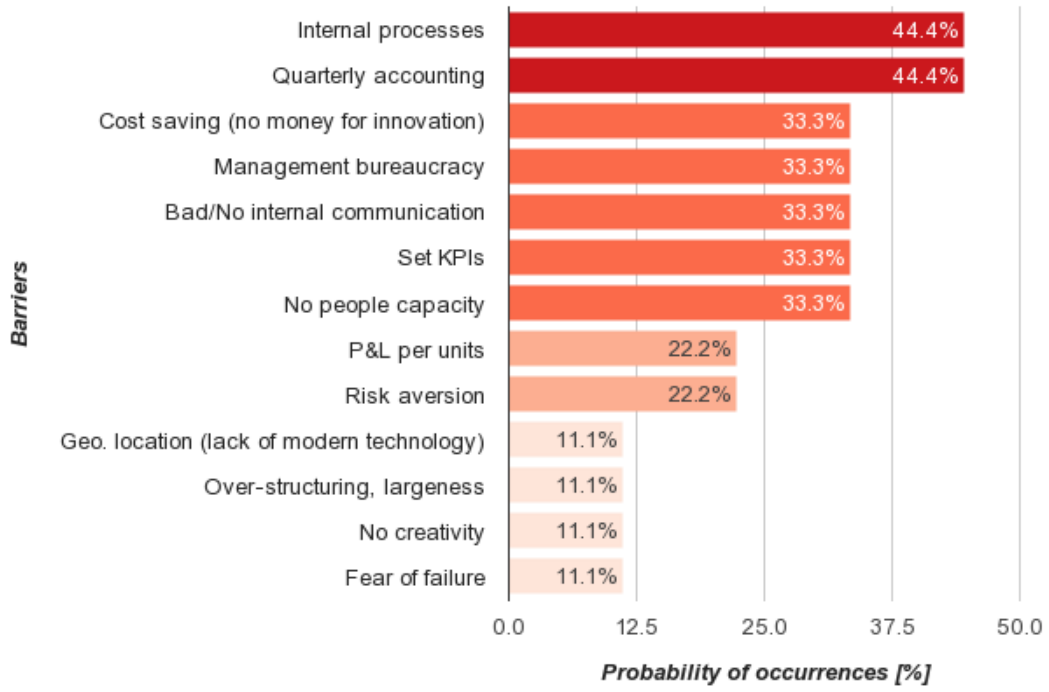

Figure 8.7: List of barriers with their probability of occurrences

In all business units the interviewees see big barriers with regard to innovation, startups or any intrapreneurial behaviour. Two biggest barriers are internal processes and quarterly accounting. Internal processes are understood as daily routines, which disproportionately burn the employee's time at the expense of normal activities. In most cases the problem is misunderstanding and never-ending finding of some exceptions. Quarterly accounting mainly complicates any proactive investments, since there is a pressure to get desired results in a given quarter. If one want to invest, the return on investment should get back „immediately" – ideally within a given quarter. But this is rarely possible. Usually everything else is derived from this.

The point, which has already been discussed, is cost saving or better to say the fact, that there are no money for innovation. Further the respondents see problems with management bureaucracy, especially with regard to the lack of interest, indifference, unwillingness to change anything or „spreadsheet" management.

Another identified barriers are related to the actual division of the units. The interviewees see problems with internal communication cross business units and set KPIs, which

drive everything. In addition to these two points, strict separation of profit and lost (P&L) of all units makes any cooperation much difficult and rather creates a kind of unhealthy competition. This usually leads to the situations of „doing nothing alone“ instead of at least „anything but small together“.

Last but not least, one third of the respondents also see the barrier in no people capacity, meaning that people have low amount of time on the things which are not a part of their KPIs. And since, in most cases, the innovation itself is not a part of their KPIs, it is simply missing.

Among less frequently mentioned barriers there are over-structuring or largeness of the company, missing creativity, fear of failure and one example, which is not directly related to the company. This one could be understood as an external factor connected to the geographical location of the Czech Republic. In this point, the respondents see problem with the presence of modern technologies.

Attitude of leaders towards mistakes is another topic, which was derived during interviews. Here individual opinions differ considerably, but as a whole this can be assessed as the expected state – in the sense that the respondents understand mistakes as the normal parts of the business. The mistakes should be analyzed and avoided next time. As one respondent mentioned: „*We have a process how to solve that.*“ On the other hand, there are cases in which the respondents rather see mistakes as something what completely stops any other attempts. Usually it depends on particular people. Opposite reactions state that the environment is too tolerant and that mistakes are not problem, since there is high degree of freedom and that mistake is easily lost. In most cases, the respondents mention a necessity to correctly work with the mistakes. Lessons learned are important, otherwise it makes no sense and it's wasted time, money and experience of people.

Regarding the *risk of innovation*, in GTS, this is something, what the respondents understand as completely prohibited. The decision is made by management. But in most cases, if it is something quite new and there is low probability of sufficient revenue, the work is stopped. More than the loss of money there is a concern about IBM's reputation and disappointment of the market, if some innovation fails. In GBS and SWG, the risk of innovation is understood in more sophisticated way. As mentioned above within the topics of *Innovative Environment* category (see Section 8.9.2), GBS does not make so big difference between the standard and the innovative project. There are clear rules on how to handle the risk, the same as in GTS and in SWG, but the understanding here is a little bit different. In SWG, the rules are understood as more opened. They can eliminate some risk by students to a certain extent. Students are focused on the innovation and they are led by their mentors. If they fail, the sunk costs are minimal (time spent by their mentors), or approaching zero. It also depends, if a student is in unpaid Internship program or in paid Trainee program.

The last topic within this category is *influences of MNE*. In general, the respondents understand the environment of MNE as a „double-edged sword“. On the one hand, this brings many positives like almost unlimited resources, shared knowledge and capabilities, opportunities and power, since the environment connects us with other parts of the company and people globally. But on the other hand, this also brings bureaucracy, strict processes, complexity and lack of transparency. One respondent understands people as an example for both sides. Number of people, ease of connection and teamwork worldwide are undoubtedly

the benefits. But on the other hand, at the same time, people are seen as the weakest link in the whole system. Summary of all points is listed in Table 8.2.

Table 8.2: Advantages and disadvantages of MNE

Advantages	**Disadvantages**
Unlimited resources	Bureaucracy
Shared knowledge	Strict processes
Opportunities	Complexity
Power	Lack of transparency
People	People

8.9.4 People

Important characteristics, which must be mentioned before the description of topics processed in this category, are people's *roles and their key performance indicators (KPIs)*. This information can provide a deeper insight and therefore it will be also easier to put things into context. Obviously, the particular sets of values will not be mentioned. More important is to provide at least overall view on this topic.

In GTS, as the abbreviation suggests, most of the people are technically oriented. There are especially architects, technical specialists and few consultants. These roles are evaluated according to quite strict rules, where the main part is made by billable work for clients. The similar rules can be also found in SWG and GBS. In SWG, there are service people who care about software installation and integration. In GBS, there are technical consultants and especially people from service delivery center e.g. for custom software development.

In addition to these technical roles, we can distinguish more business oriented people who form a substantial part of GBS. There are business solution professionals – in other words consultants, and go-to-market people – partners and associate partners – meaning that rather the internal structure of people, who behave in a similar way as the real „partner“. These people, the same as sellers from GTS or SWG, are evaluated by the metrics based on signings, revenue and profit. Another important role is so called client technical professionals in SWG. These people are a sort of sellers, who also deeply know some software technically, and who are capable to provide a solution on it. Not less important members of all business units are the project managers.

With regard to the topic about *time management* the main question is whether the respondents see, that people have enough time to realize their own innovative ideas or they have not. In GTS the responses are quite consistent. Simply: „*People do not have any time.*“ If they want to innovate, they would have to do that in their own free time. The similar view is held by the respondents from SWG. Despite the fact that official KPIs allow certain space for anything else, the innovation is not included.

„*They do not count with us as the innovators. We are not intended for that.*“, these are the words which characterize topic about *innovation and overall assessment* in GTS. On the other hand, the respondents see possible ways how to let the people work on something

innovative and thus allow that time to be counted to final overall assessment. But these cases are rare. This is based on management decision and it's a challenge to enforce it. Thus the ways exist, but they are not so common. The same applies also for GBS and SWG. The respondents in both units confirm that there are not official requirements for innovation within overall assessment of people. Since there are certain criteria for assessment, people are usually rather evaluated for what they do in addition to what they must.

Trust in people, as the last topic within the *People* category, is quite key element and therefore this must be discussed a little bit more. The only unit, where this trust is understood as absolute, is GTS. Here, without any doubts, all the respondents confirm that they trust in their subordinate employees. People are personally responsible for their behaviour and actions. Immediate trust towards upper management is also good. But in this case, it applies that the higher the structure, the lower the trust. So this brings new view to the topic, since it means that trust is applicable only in limited area. In most cases, the trust is created by mutual cooperation between individual people.

The similar results as in GTS can be also found in SWG, but only in regards to the service part. So this confirms the result from GTS. On the other hand, regarding the other parts in SWG and whole GBS, the trust a bit lower and there are also some doubts. The respondents mentioned that: „*Trust is very low.*“, „*There is the lack of mutual cooperation, discussion, information, cooperation with the higher layers,... and therefore the trust is also low.*“ Another problem, which goes against the trust, is a delegation of responsibility on the others.

8.9.5 Motivation

Motivation, as a separate category, was included in the research especially due to the reason to find whether the people working in the company are somehow motivated to innovate. From the intrapreneurial point of view, this is also linked with mentioned *bottom-up* approach – the intention to create something new or improve something, change something even the environment of the company does not explicitly ask for it.

According to the set evaluation criteria for the topic about *motivational factors of innovation*, all business units achieve the same result. In other words it means, that the respondents only partially confirm that people are motivated to innovate. Even through few respondents hold the view that: „*No, there is no motivation, this is not applicable.*“, in any case, few others hold the opposite opinion and support their view with examples.

In the end, the motivation was discussed in a general meaning, since in this category, the respondents understood innovation rather as a way how to improve things internally. There were mentioned things like improvement of automation on the projects, work simplification, etc. In this case, the respondents see the lack of ability to provide this intellectual capital further (e.g. to the market).

Typical motivational factor mentioned by the respondents is that IBM is a big company with long (famous) history and there are opportunities to work on huge projects, which one could not work on, if employed anywhere else. Another motivational factor is people with whom one works. So very important are individual relationships throughout the company. The respondents also mention an autonomy, self-improvement, a certain decision-making

power or leadership. People can simply do a career. The motivational factors are also clients – work for clients, successful relationships, satisfied clients.

What was not confirmed is an influence of the salary level. Obviously if looking for a new job, this can be a motivator. But once one already works for the company, the influence on motivation is decreasing. This approach can be used for some clearly defined points, but this will never improve one's work performance. So for instance, if people absolutely have no time to do anything else, because they are overloaded, even any other additional money will not make them perform better. The work in IBM is rather about cognitive skills or tasks, which require some conceptual or creative thinking, than about some physical or manual tasks. And in these cases, it's known, that additional remuneration does not improve the performance [74].

The last factor which was mentioned is the environment inside the company. Few respondents see this as the beneficial factor, but on the other hand, the prevailing view is that this environment is rather discouraging. As one respondent stated: „*People would like to innovate, but the company with its environment does not create adequate conditions for that.*“ So for people, this is a reason for frustration and usually an incentive to leave the company.

Regarding the topic about *remuneration & reward for innovation* the results are similar with the topic about *innovation and overall assessment*. It especially means that there are no set rules how to remunerate for innovation and the final decision is rather made by local management. Generally they are only required monitored KPIs and quarterly results. In addition to these points, anything else is based on individual assessment. On the other hand, independently out of the business units, there exists a system for remuneration. The example can be e.g. the case of the month, etc. One respondent also adds that there is the lack of praise. In his opinion, at least at this point the system should be improved.

8.10 Research Assessment

The first outcome of the research are the lists of topics within each defined category. As already mentioned, at the beginning, there was only few of them defined and then, via iterative process of data processing, new topics were revealed. This would not be possible, if the quantitative methodology was chosen with the survey as the research method. The qualitative methodology with the semi-structured interviews allowed to still work with the data and constantly adapt the research to the focused environment.

From the set of all the topics, which can be seen in Table 8.1, those, which cannot be simply assessed, were excluded. The example can be the *typical project types* in the IE category or the *roles and their KPIs* in the PE category. These are the characteristics of MNE (business units), which can provide a better insight into the environment and improve understanding of other topics and their mutual relations, but it would not be logical to build the evaluation on these auxiliary pillars. The main reason is the fact that these characteristics would be quite hard to change. And if they were changed, the results of other topics would change too, completely. Exclusion of superiority of the technical roles out from GTS would have the same impact as the similar operation with business oriented roles in GBS. Simply, the units would entirely change.

Another point which can be seen rather sceptically, is the result of *trust, courage, sharing, motivation* topic in AI category. At the beginning, the main intention of AI category was to check the awareness of intrapreneurship among the respondents and by adding this topic, there was the aim to confirm and discuss the results of Barton's research with the respondents. Although they agreed, in their opinions, these four characteristics have nothing so specific just for the intrapreneurship. Moreover, since this confirmation / rejection has nothing to do with the environment characteristics, as asked by defined research question, this point is also excluded from the final assessment. The result of this given topic rather expresses the general respondent's opinion. So, since this point was assessed, it is listed in Table 8.3, but it will not influence the final result.

Table 8.3: Final evaluation of all the topics within each category of the research

Cat.	Key Topics	GTS	GBS	SWG
(**AI**)	Intrapreneurship as a term	[−]	[0]	[0]
	Experience with intrapreneurship	[−]	[0]	[0]
	Trust, courage, sharing, motivation	[+]	[+]	[+]
	Cross-units cooperation	[−]	[−]	[−]
(**IE**)	Investments into innovative projects	[−]	[0]	[−]
	Rules for innovative projects	[−]	[0]	[−]
	Innovative processes	[−]	[−]	[−]
(**BA**)	Explicit barriers	[−]	[−]	[−]
	Attitude of leaders towards mistakes	[0]	[0]	[0]
	Risk of innovation	[−]	[0]	[0]
	Influences of MNE	[0]	[0]	[0]
(**PE**)	Trust in people	[+]	[0]	[0]
	Innovation and overall assessment	[0]	[0]	[0]
	Time management	[−]	[0]	[−]
(**MO**)	Motivational factors of innovation	[0]	[0]	[0]
	Remuneration & reward for innovation	[0]	[0]	[0]

The only advantage of *trust, courage, sharing, motivation* topic is the fact, that it brought new topic – *cross-units cooperation*. In many cases, these four characteristics rather implied the opposite – distrust, doubts, non-cooperation and lack of information sharing. The nature of the revealed topic (*cross-units cooperation*) corresponds more likely with the BA category, but since the implication was strong, the placement was not changed. This will not matter anyway, because the final assessment will be done cross defined categories.

All four categories (except the first one) were defined with the startup characteristics kept in mind (see Section 3.4). The key points are the *idea* and the *team* (people). So therefore the categories were aligned according to these two points or as their intersection. The evaluation itself also includes the characteristics of startups or intrapreneurial behaviour, since the lists of evaluation criteria as defined in Appendix Chapter D, express clear affinity

either to:

- **positive state** (marked by `[+]` and highlighted in green),
- **neutral state** (marked by `[0]` and highlighted in orange) or
- **negative state** (marked by `[-]` and highlighted in red).

Final evaluation of all the topics within all the categories is clearly shown in Table 8.3. The content of this table should be understood as the answer to the research question, which is as follows:

> **RQ**: *What are the key environment characteristics for the possibility of realization of startup principles within the multinational enterprise?*

In other words, the Table 8.3 is a combination of iteratively revealed topics and characteristics, which the respondents matter the most, with appropriate evaluation of all the points with startups and intrapreneurship kept in mind. The details about all particular topics can be found in Section 8.9.

At first glance, it is evident that the suitability of the given MNE environment for intrapreneurial behaviour in a form of corporate startups is quite bad. The environment is neutral or even rather inappropriate for these principles. This statement can be strengthened by simple calculation.

Let's assume that all the criteria (topics) have the same weight and let's replace evaluation states by the values (`[+]` $\rightarrow$ 3; `[0]` $\rightarrow$ 2; `[-]` $\rightarrow$ 1). The sum of all the values per each business unit divided by 15, which is the number of topics (one is excluded), gives us the following order: [GTS = 1.467] < [SWG = 1.600] < [GBS = 1.800]. Even if we assume any weighted sum model (WSM), the order could be maximally changed a little bit, but still, since the neutral and negative states predominate, we would hardly cross the value 2 in average (neutral state). So this supports the statement that the assessed environment of MNE, under all conditions as they were specified, is rather not suitable for intrapreneurial behaviour in a form of corporate startups.

8.10.1 Results Discussion

In this case, another points of view must be taken into account. If we consider the fact, that the results say that IBM (meaning that those three business unites the research was focused on) is not suitable for corporate startups, it's also important to ask „*why?*".

IBM is a very large multinational enterprise with over 100 years long history. Since its beginning, the company has gone through several transformations because of the market's changes. Currently the company is set to do the business in a way to best serve its clients and provide products and services that are demanded by the market. The company tries to do it as well as possible to achieve its defined goals. So, the people, the KPIs, the processes,... everything is set in a way just to achieve defined goals and to maximize efficiency. It this case, it's important to mention e.g. strict processes with no exception or strict requirements on people's KPIs with no available time just for to do „anything else" than the required

activities. The barriers the research revealed also go against anything new, which could change company's intention to do its current business well. All of these characteristics the research discusses confirm, that the company is set in a way to do its business as well as possible and it tries to exclude any major deviation from set rules. In this case, the corporate startups can be understood as something, what goes against these rules, what tries to break them and what brings rather confusion, randomness and increased risk into a functioning system. It is evident, that this is the main reason which can explain the research results.

On the basis of this research, it's not possible to anyhow assess company's current business. This was not even the goal. We can only see that the environment inside the company is not oriented to or opened to startup / intrapreneurial principles. Even though there are slight differences between the units, the results are more or less the same.

8.10.2 External Consultancy

Jan Popelka, a consultant and innovator at Direct People s.r.o. [29], is the one with whom the research results were consulted. He also helped to realize a lot of things and individual links around. Popelka adds that once the company gets into a state, when it only does what it can do best, it's quite hard to change itself, if there is no clear strategy. Popelka sees the main problem in ability to change existing practices and evolve itself. It is necessary to focus primarily on customer's needs and market's demands and thus prevent a divergence between „*what a company does best*“ and „*what the customers want*“.

It's evident, that the corporate startups can serve as an engine to be still in touch with market's demands. The agility, speed, pivoting or quickness of reaction can allow to make things in a different way. But this behaviour also requires appropriate conditions if inside the existing company. Few possible models are discussed in the next chapter.

Chapter 9

Startup Models Proposal

Based on the research results discussed in the previous chapter, here, there are provided few possible models how to incorporate startup principles into the environment of multinational enterprise.

9.1 Starting Points

As discussed in the first chapter about startups (see Chapter 3), we should not think about them only as about something, what is new. It's not so important, if the company is new. Much more important is if this new company (startup) brings *something* what is new. Obviously this can be either some products or services. So the realization of some already common things is not a real startup. There must be some evident innovation or change, the real differentiating factor.

The innovation or a kind of affinity to innovation is the main starting point for any startup as is apparent from the theoretical part of this thesis. The problem which is newly solved, the common thing which is done in a different (optimal, better, non-traditional, more easily, more friendly,...) way, etc. There are many kinds of innovation. So to conclude, if there is an intention to implement any startup inside the enterprise, some kind of affinity to innovation is the must.

The affinity to innovation inside IBM is undeniable. This can be supported by the number of patents and by twenty two years of uninterrupted leadership in this ranking [4] but also by the longstanding existence of this company. Without the innovation, this company would still produce the tabulating machines. The innovation itself is in this case ensured primarily by R&D labs. One lab focusing on voice and speech recognition is even situated in Prague [75].

Second starting point which is the must for possible implementation of startups inside the multinational enterprise is the openness to changes. In other words that the environment inside the company, by the nature of things, allows to do the same things in a different way. Startups are understood as very dynamic structures, where things can change extremely quickly, so the environment must be opened to these changes. Usually any innovation is understood as a certain change and therefore the environment of company must be opened to this. This is implied both by the literature review and also by the research, where

the corporate startup was identified as „*something what tries to go against the set rules, what tries to break them, and what brings rather confusion, randomness and increased risk into a functioning system*“. As was also concluded by the research, currently, the internal processes and the quarterly financial reports, which block any long term investment to the innovation, were identified as the biggest obstacle. One respondent of the research also sees another possible way how to allow the intrapreneurial activities: „*The company can be rotted enough that the leadership even does not recognize these activities in progress.*“

The third starting point, which originates from the culture and society of the Czech Republic (see Hofstede 6-D model in Chapter 6.1), and which is confirmed by the results of Barton's research [8] (see Chapter 6.3) is a requirement of gradual changes. The environment in the Czech Republic is characterized by high degree of conservatism and unwillingness to radical changes [16]. The society is very pragmatic [16]. This simply means that the implementation of any model, which is intended to bring some change, cannot be radical. Gradual changes in a way of step-by-step approach are the most suitable.

So to summarize the starting points for startup models, in the beginning there should be an affinity to innovation followed by openness to changes. Once these two points are confirmed, the models can be implemented, but not radically, the implementation must be gradual. See Figure 9.1.

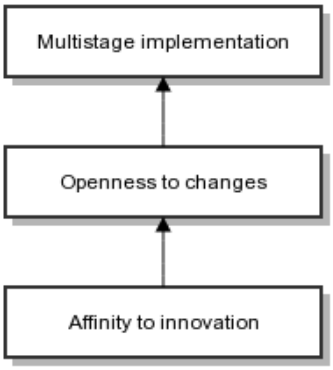

Figure 9.1: Starting points for startup models

9.2 Corporate Culture Change Model

The first model, which will be described, is based on the incorporation of certain changes into the current environment of the enterprise. By this time, in connection with the internal structure of the company, the „environment“ term was mostly used. But much better term, which generally characterizes the „climate“ inside the company, is a „culture“. The culture is what combines all pieces together. It's an ambience, an atmosphere of the internal environment. Simply the culture was actually a subject of the research and it was assessed from several points of view in the research.

Current culture of IBM is primarily associated with opportunities for flexibility, which is an indescribably benefit if one wants to combine his work with personal life or study. There are also many other benefits like strength of internal communication with huge amount of people (network) all around the world, sophisticated intranet and internal including external tools for collaboration and sharing, and many others. This is what is actually brought by the „multinationality“ of the company and what makes it so competitive and different. But talking about the ad hoc innovation and work on these innovation, or simply the culture in relation to the possibilities of internal corporate startups, this does not exist or at least this was not confirmed in the research.

The main element of intra-corporate culture are the employees, which results from the definition of intrapreneurship as the *bottom-up* approach, where „*the ordinary employees are the ones, who come up with new ideas via their proactive behaviour*“ [8, p. 25]. The focus on the employees can be seen in Figure 9.2, which provides a simplified model. There are also many other elements which either positively or negatively influence behaviour of listed employees.

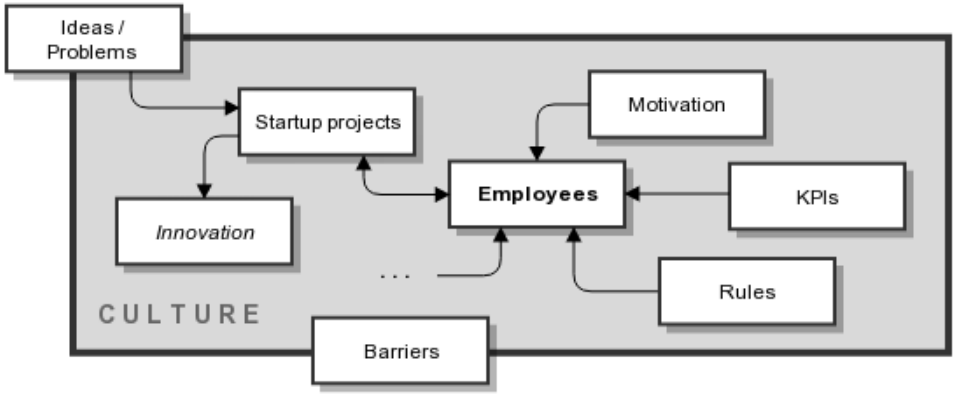

Figure 9.2: Simplified model of intra-corporate culture

Since in this model the emphasis is laid on the employees, the startups or the startup projects should be understood only as the opportunities, which the employees can participate in. And it depends only on him or her if he or she would like to contribute to the project or not. However, the intra-corporate culture must enable it.

Based on the research results and the theoretical part of this thesis, the possible changes, which could led to culture improvement in relation to the possibility of realization the startup projects inside the enterprise, follow.

- A work on innovative things should be included in the KPIs of employees. Therefore this will not limit people to participate at the expense of their evaluation criteria. As concluded from the research, time of people is strictly limited to what they „must“ do. Any other work above of this can be done only in their own free time. So if this work is not included in the KPIs, simply it cannot be expected the people will do anything else in addition to that what they must.

- Generally, a work on innovative things should be included in overall assessment, if applicable. Meaning that the innovation should not be enforced. Only if it applies (per employee) and the person tries to innovate, then this effort can be evaluated.
- If the company is driven by the processes, new specific processes should be created to support the incorporation of innovation or establishment of new startup projects and their approval or rejection inside the company. In case this step is not possible, there must be granted an exception for a sustainable quantity of startup projects, which would allow their operation outside the standard processes. As concluded by the research, the internal processes form the biggest obstacle in the internal culture, so this point must be appropriately resolved to allow intrapreneurial activities inside the company.
- Intra-corporate culture should reward ordinary people (not only the researchers) for demonstrable innovation. The emphasis should be laid on individuals or small teams who really deserve it.
- Generally, the remuneration system should be clearly defined, known by employees and should be also motivating. This will allow to also discover talents in another employees if they want to work independently on something unique and thus to innovate.
- Failures must be seen as a normal part of the business. Mistakes must be learned and avoided next time.
- A participation in the startup project should be available cross business units. This will lead to open intra-corporate culture and thus this can reduce the gap between the mutual cooperation of individual business units.
- Managers should familiarize employees with these new options that are available to them (if incorporated). As mentioned above, a participation should not be mandatory or enforced. It's important to only create an opportunity. It cannot be expected that everyone will immediately participate. But the fact, that this opportunity is in place also with the other benefits, can be self-motivating. These changes should be rather seen as a challenge than an obligation.

One of the research finding is the fact, that even if the research was done inside a multinational enterprise, local culture is rather a matter of individual subsidiaries. These have the most power to change particular things and create appropriate environment for their employees. Another important aspect here is also the trust in people. As already discussed, trust can only be found in the local scales. Certainly, it does not go throughout the company. Trust depends on the experience which one gains by mutual cooperation. On these bases, it's obvious that L1 or L2 managers, simply the target group of the research, are those, who have the most power in individual subsidiaries to decide about new things or change current environment for their subordinate employees. The higher the manager within the organizational structure of company, the less executive power to do the things in a different way.

Appropriately open culture is also important for new demographic cohort – Generation Y, also known as Millennials. These are the young people, who currently take their

first jobs, and it's the first generation of people, which was born on digital technologies. These people require an autonomy, they want own development and they ask space for their own realization. Despite the fact that few researches are rather sceptical to some specifics of this generation [6], the respondents of the research confirmed, that few young people already left company due to its internal culture.

9.3 Corporate Startups Model

Another model lays emphasis rather on the startup projects. This model can be understood as a vertical implementation of the previous model – especially of the element named as *Startup projects* in Figure 9.2. In this case, this model can serve like an additional step after intra-corporate culture change as described in Section 9.2, or these two models can be implemented simultaneously. On the other hand, the use of this model does not need to be conditioned by the presence of the previous model. But then, this model must be based on the specific conditions that are discussed separately in Section 9.3.2.

The research results show that if the environments inside the business units are rather not opened to intrapreneurial behaviour in a form of corporate startups, one of the possible solution would be to establish completely new grouping outside of any existing structures. The model would become independent and would allow collaboration of employees between individual business unites. Therefore the model should be implemented at least at the level of local subsidiaries. It means that it would be „high“ enough to allow cross business units cooperation, but on the other hand, it will not be so „high“ to lose awareness of local problems and specifics of local market. It's important to realized that the higher the model is implemented in the multinational structure, more employees from different subsidiaries can participate, but on the other hand, the harder is to push through the local interests, since more global and general ones are preferred. These aspects are summarized in the diagram in Figure 9.3.

High level diagram of possible corporate startups model can be see in Figure 9.4. This model results from the theoretical part of this thesis and takes the outcomes of the research into account. It consists of separate parts which must be discussed in more details.

- **Startup projects** – As mentioned at the beginning of this section, the model is project-centric and thus the emphasis is laid on the project itself. It's not about clearly defined business plans with deep calculations. It's rather about some hypothesis with few questions. These questions must be briefly verified in supposed target segment and based on the results, the first simple prototype can be created. This is what is called MVP (Minimum Viable Product) as defined by Ries's Lean Startup [80, p. 76-77] (see Section 3.3.2). The most important is to quickly find whether the MVP fails or there is some chance of success following the Build-Measure-Learn feedback loop [80, p. 22].

- **Customer segments** – Target segments are very important part in this model, since the interaction with people either inside or outside the company let us pivot sooner and thus create less waste of time and money which can be spent elsewhere. This statement is again based on Ries's Lean Startup [80, p. 78].

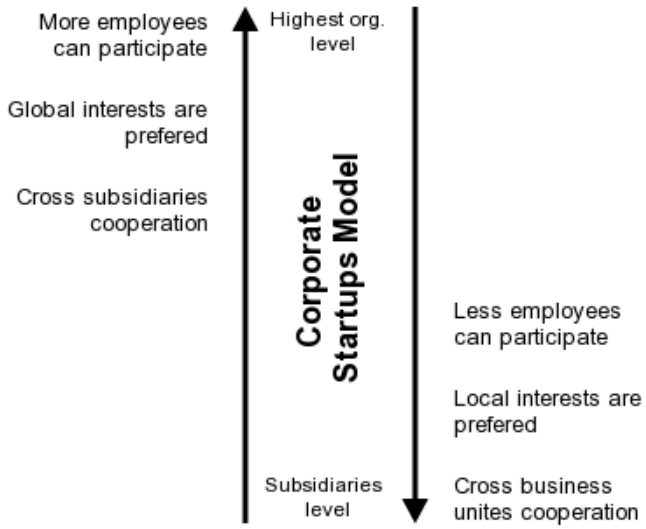

Figure 9.3: Corporate Startups Model placement inside the multinational enterprise (MNE)

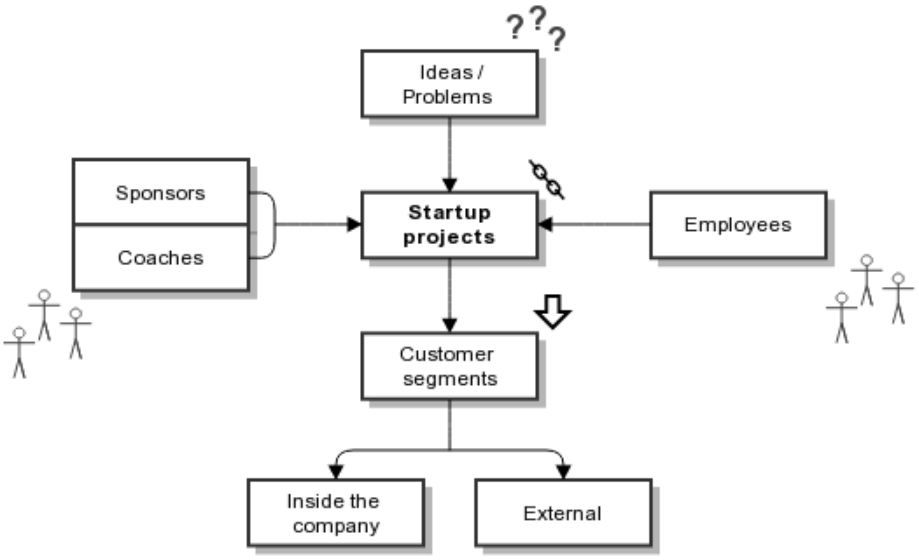

Figure 9.4: Corporate Startups Model

- **Employees** – This model assumes, that the employees will be the main makers. Since the work on these projects should be rather understood as an investment, people's KPIs must allow to participate without big impact to their assessment. The implementation of the previous model from Section 9.2 here is not mandatory, but suitable to accordingly set the appropriate conditions for employees.
- **Sponsors & Coaches** – On the opposite side of the model there are also the employees. But in this case, these are experienced leaders – usually situated higher in the organizational structure, who provide especially two things:
  - *Know-how & Leadership* – This is what a coach is intended to provide. In this case, the person does not have to be a real member (or leader) of the team, it's rather more important to give possible consultancies, a kind of training, advice and guidance to people who solve the project.
  - *Funding* – A role of sponsors in this model is evident. These „maecenases" provide budgets for projects and serve rather as mentors or protectors of the ideas which they decided to sponsor. The funds for the implementation of the projects can be ensured directly by the company or it may be arbitrary free funds of individual managers.
- **Ideas / Problems** – The key parts of this model are ideas or problems. Since they are simply prerequisites for whatever startup projects, we should appropriately take care of them. The importance of these points was discussed in the theoretical part of this thesis (see Section 3.1 and Section 3.4.1). The model assumes the existence of a system, where these ideas or problems could be at least:
  - inserted and properly described,
  - evaluated by random users,
  - accepted,
  - rejected.

  The ideas can be brought by any employees. The employees, who bring them, do not have to be the ones, who are going to participate in further projects. The ideas can be brought by the sponsors, who search for the solvers (meaning that the employees who would like to participate), or by the individuals or the teams, who found great ideas and search for the sponsors. Obviously all the ideas do not have to be solved and they can be manually rejected or can expire after some time. Individual ideas can be discussed in the respective forums or the employees can vote for them.

  To conclude, it does not matter if this system is implemented using a „spreadsheet" document or using a purpose-built community with advanced process management. In any case, it should be a place, where relevant people (sponsors, coaches, solvers) can meet each other around particular ideas or problems and give birth to the startup projects inside the company.

9.3.1 Internship program

Another possible ways how to get new ideas into this model can be using some hackathons or better using the Internship program which IBM regularly organizes (see the description in Section 7.4). Following paragraphs results from the knowledge of current Internship program and it is combined with the specifics of startups as summarized in Section 3.4. The Internship program modification of the default Corporate Startups Model from Figure 9.4 can be seen in Figure 9.5.

The topics for students are usually prepared in advance according to possible mentors and their requirements. But this flow can be modified a bit. According to the areas of focus, only general topics like *cloud*, *analytics*, *collaboration*, etc. could be opened for candidates. Individual students or small teams of students could then apply with their own ideas they would like to work on. Use of the technologies of company in the project could be a condition for application. Or at the beginning of the selection process, the students would be given a set of presentations on the particular areas with some deep dive information about the technologies the company owns. Base on the presentations, the students would then – after few days of preparation, try to come up with some ideas how to use the given technologies for some innovation or to solve some current issues.

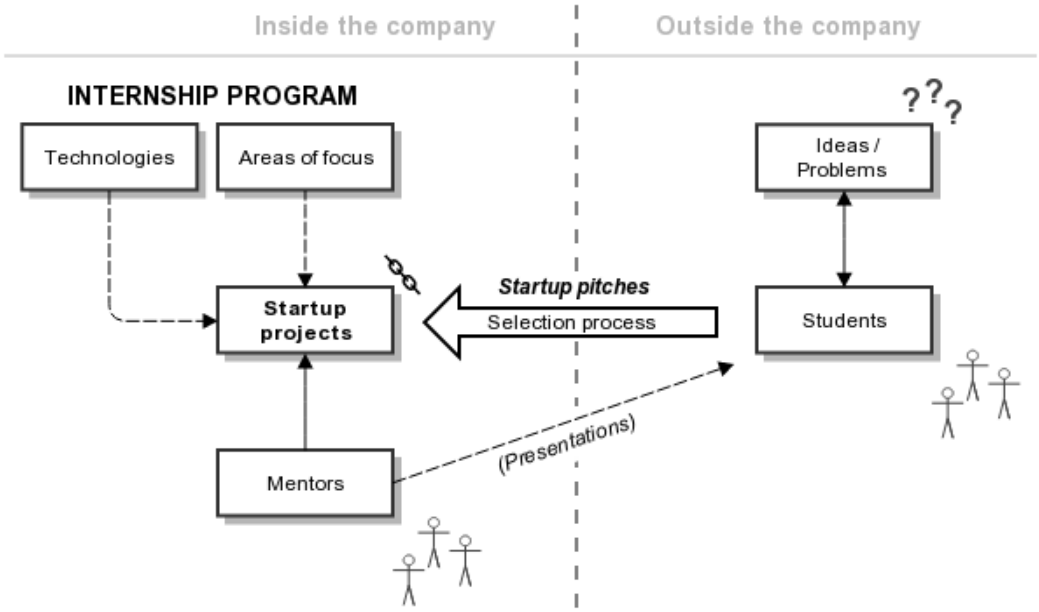

Figure 9.5: Corporate Startups Model – Internship program

During the selection process, which could be even organized in a form of short startup pitches, both individual students or teams of students and their ideas would be evaluated. The finalists would then have an opportunity to spend some time within the company working on and developing their own ideas. As it's usual for any of internship programs, the students would be supervised by one or more mentors. The same applies for the startup

projects. In this specific case, the mentors (employees) would act as the sponsors and the coaches, due to their time spent helping students on the startup projects and including the transferred know-how and provided leadership.

9.3.2 Specific conditions

Without the implementation of Corporate Culture Change Model from Section 9.2 or simply without the possibility of employees to participate due to their e.g. strict KPIs, there are still two ways how the default Corporate Startups Model from Figure 9.4 can be implemented.

- **The model is encouraged as a free time activity.** Employees can participate only in their own free time. The work done by individual employees cannot be included in their KPIs, but on the other hand, this additional activity can be included in employee's overall assessment based on the decision of his or her manager.
- **The model is implemented in a way of temporary disengagement.** The employees, who are involved and participate in the implementation and the development of startup project, must be for a certain time completely excluded from the company's internal organizational structure. They must be free from the demands on standard KPIs. For the period of time of project, they can even left corporate premises, in order to concentrate on the implementation itself. What must be added is the fact, that these employees still remain in employment relationship with the company but only for the time of project, they are completely free from the standard obligations. Their only focus is to solve the problem they were committed to. For the period of time of the project (in other words the period of time of the temporary disengagement), they will be evaluated based on its result.

After the interview with Tomáš Žďára from Česká spořitelna, a.s. [107], it can be confirmed, that the implementation in a way of temporary disengagement is possible. Žďára describes himself as a „digital punker". He tries to find new paths, which nobody has ever gone before. Innovation is his daily bread and this is what he tries to bring and apply inside the bank. He let me understand many things about the team, which he is a member of. Besides that, he called my attention to StartUP Survival Bootcamp [106] – the experiment, which allowed the employees from IT division of Česká spořitelna, a.s. to bring whatever ideas for innovation. In the end, eleven teams were formed around specific ideas and these teams tried to convince the managers, that their innovations bring some benefits in a realizable form. The winning team was allowed to work on the project. After three months and a cooperation with TechSquare (business accelerator), they presented the successful prototype.

9.4 Out-In Model

At first glance, the last model does not provide the way how to bring startup characteristics into the corporate environment. On the other hand, since this possibility arises from the corporate environment and assumes that the results will eventually return back to the company, the model is also include here among the others above.

This model results from the existence of IBM Global Entrepreneur Program (GEP) [13] (see Section 7.5) which can provide an appropriate environment for the startups from outside the company. Further, a kind of this model was also considered once the research results had been processed (see Section 8.10). There was evident that the possibilities to include intrapreneurial behaviour inside the company are quite low without any changes. And finally, this model was encouraged by speaking with Jan Popelka. Based on his point of view, in some cases, this can be the only way how to get the innovation to the company.

The model is based on the assumption that inside the company there are ideas or problems to solve. There are also unstructured plans or hypothesis how these things could be solved or made better. And of course, there are employees, who see these problems or reveal new ideas. These people put the things across, or at least they try. Obviously the ideas or problems can be from inside the company or in this case they will be rather from outside the company.

On the other side to these people with their plans and ideas, there is rigid or strict environment inside the company, which does not allow to try any realization. This fact is visualized in Figure 9.6 by crossed sponsors and coaches whose roles were discussed as part of the previous model (see Section 9.3).

Model itself assumes a few basic steps which are as follows.

- **Leave** – The first step is to leave outside the company. The employees voluntarily leave the company and bring their ideas with them. That's the reason why it was supposed that the ideas are rather from outside the company and are not confidential. By this step, these former employees become entirely independent. This has its own advantages and disadvantages too. For more information see Table 5.1 from Chapter 5.

- **Development & Cooperation** – The project is gradually developed as any other startups. It's not limited by any corporate environment and does not have to be built according to any strategic plan or focused only on specific areas of interest of former company. During this development, the startup company can cooperate with whatever incubators or accelerators. As an example, in Figure 9.6, there is mentioned GEP (IBM Global Entrepreneur Program as discussed in separate Section 7.5). Memberships in these kinds of programs can support and simplify gradual development at the beginning. There is also possible to obtain some technologies for free – in most cases especially software, either for internal use or for the realization of startup's solution, optionally for both. Another advantage for cooperation with GEP or any other program like this one, is the fact that the direction of development does not diverge so much from the former company – either due to the influence of former company or due to used technologies. At the end of this *out-in* cycle, both can simplify the next step.

- **Buyback** – Once the startup is appropriately developed and former company considers, that this is what it is interested in, the project can be bought back including its original employees.

The model can be arbitrarily modified again. One of the possible modification can be a case, where the project – even developing outside, remains in the stronger linkage to its

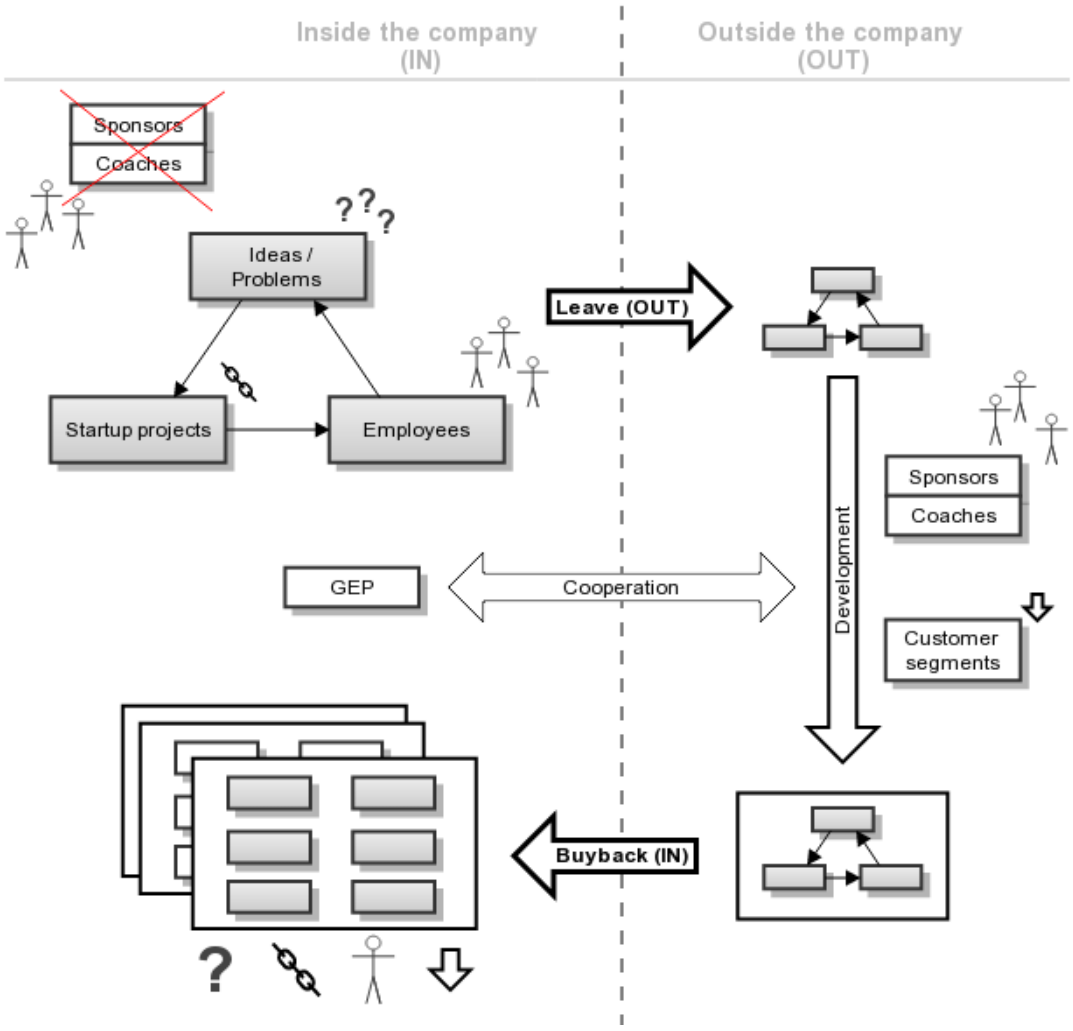

Figure 9.6: Out-In Model

original company. This can be ensured e.g. by the fact, that the people, who actively solve the project, still remain in a certain sense employed in the company. Thus the project itself is developed almost as on order and appropriate relationship can be modified by some agreement between the company itself and its participating employees. This means that the model does not have to be only a consequence of unfavourable culture within the company, but it can be even organized and implemented intentionally. In many respects, this model would then resemble the previous model implemented in a way of temporary disengagement (see Section 9.3.2).

Chapter 10

Conclusions

This thesis deals with the big enterprises, the multinational enterprises (MNEs), on one hand, and with newly formed teams or projects – the startups, on the other hand. The aim of the thesis was to try to find some possible ways how to combine a dynamism of startups with sometimes strict policies inside these MNEs. At this point, the key is if and how these enterprises allow their employees to work on the projects, which can be very risky, which in most cases rather fail than succeed, but on the other hand, which can sometimes bring a disruptive innovation and so form new markets.

In accordance with the goals as clearly defined in Chapter 2, the thesis focuses on getting required theoretical basis necessary for understanding of concepts and purposes of the startups. Chapter 3 provides a **comprehensive overview** about these newly started units. The core is formed by the description of **startup methodologies** and especially by the **step-by-step discussion** of all well-known related terms – like hackathons, incubators, accelerators, startup pitches, angel investors, etc.

As an opposite to startups, in Chapter 4, the thesis deals with the multinational enterprises. The multinational enterprise is here introduced as a **result of globalization**. But on the other hand, MNE is also understood as a **driving force** of globalization. So that's the reason why these two points are discussed together. From the point of view of startups, the globalization is what allows them to be so popular if their ideas meet desires of people all around the world.

To provide an uniform view, at the end of the theoretical part in Chapter 5, the facts about entrepreneurship are summarized. Corporate entrepreneurship or intrapreneurship is presented as a form of **entrepreneurial activities inside the enterprise**. There are also discussed the main differences between traditional and intrapreneurial culture with a help of leading academics in this field.

In the analytical part, the thesis focuses on gradual building of individual relationships, meaning that it goes from the generalities to the specifics. This approach is apparent in fulfilling of the first goal of the analytical part and it also continues within subsequent points. The most important goals of this thesis are discussed separately in the respective sections below.

10.1 Startups and Corporate Entrepreneurship in the Czech Republic

To provide a brief assessment of current intrapreneurial situation in the Czech Republic, the thesis presents the **Hofstede 6-D model** to compare the Czech Republic with Finland, which is currently understood as one of the most innovative culture in Europe – especially for its gaming industry. Deeper details of the comparison can be found in Section 6.1. From the model, it's evident, that [16]:

> *„The culture of the Czech Republic is rather hierarchical and pragmatic with a tendency to cynicism, pessimism and fear, where conflicts are rather resolved by fighting them out and uncertainty avoidance is very high.“*

From the point of view of innovation, the **Innovation barometer** of Erste Corporate Banking [108] is used to assess the attractiveness of all 28 economies of the EU in terms of their innovation capabilities, competitiveness and future prosperity. The Czech Republic is ranked almost in the middle. But from the point of view of **capital investments** into startup companies, the Czech Republic is **the second worst state of the EU**.

Deeper details about intrapreneurial society of the Czech Republic are then presented with a help of Barton's PhD thesis [8]. For the purpose of this work, her results and suggestions, as can be seen in Section 6.3.3, were taken into account and used.

Last but not least, at the end of this chapter there are summarized several examples of the institutions, which are directly related to the startups – the incubators, the accelerators, the competence centers and a venture capital firm. The list is rather simple than comprehensive – this was not even the aim. It contains the examples that were found interesting, e.g. thanks to the services they offer or due to their uniqueness.

To conclude, the current situation in the Czech Republic is as follows:

- Even the characteristics of society are rather negative, by the examples and by the results of existing research it's highly probable that the corporate entrepreneurship and the startups will develop further and gradually integrate to the present society.

10.2 IBM as a Multinational Enterprise

As a preparation for the research, a picture of IBM was drawn up. The emphasis was laid on IBM Czech Republic, the subsidiary of multinational enterprise. The thesis put this company into context of innovation and focuses on the description of IBM Smarter University and IBM Global Entrepreneur Program. Both of these parts were elaborated with a help of interviews. So the content is essentially unique and was developed just for the purpose of this work.

Since January 2015, IBM has been transforming as evidenced by many sources (e.g. [3], [7], [43], [68], [70]). „*A time of transformation*“ is also confirmed by IBM CEO Ginni

Rometty [72]. She adds that [72]: „*IBM is focused on seven distinct areas: IBM Watson, cloud, security, services, systems, commerce and analytics.*“

In this work, the **transformation was not taken into account**. Thus the structure of IBM as used for the purpose of this thesis rather corresponds to the state at the end of 2014. That's also the reason why any of new changes are not incorporated or described in this thesis.

Current division of IBM assumes the existence of seven completely new business units (including IBM Watson, launched in 2014 [24], and IBM Watson Health, launched less than month ago [91]) [79]. SWG as used and assessed within this work no longer exists.

By this change, IBM has organized itself around the way in which commercial enterprises want to consume IT [79]. And since its business units are formed around the individual competencies, this will make the company more customer-driven than before.

10.3 Research methodology under MNE and its application

The aim of the empirical research was to:

> „*assess the readiness and suitability of the given MNE environment for intrapreneurial behaviour in a form of corporate startups.*“

Since the approach that was used is not the standard one, the work is focused on detailed justification and argumentation – this can be seen in Chapter 8 and its particular sections (from Section 8.1 to Section 8.7) With a help of **semi-structured interviews** the **qualitative research methodology** was designed, developed and applied. Deeper details about proposed research methodology are summarized in Section 8.8.1.

The emphasis is laid on the research results. They are processed as per defined categories and topics, in order to allow better possibilities of mutual comparison between selected business units (see Section 8.9). Last but not least, there are explained individual deviations and the results are clearly summarized in a **tabular form**, see Table 8.3.

Overall research assessment from Section 8.10 points to the facts, that under all conditions as they were specified:

- The perception of intrapreneurial behaviour in a form of corporate startups is **negative to neutral**.
- In the current environment the corporate startups are rather understood as a **disruption** of „*what the company does best*“ and „*what it currently focuses on*“.
- Without any **change** inside the enterprise, the implementation of corporate startups is rather **not possible**.

The interview with Jan Popelka from Direct People s.r.o., which can be seen as an external consultancy, helped a lot to realize many things and individual links around. Another interview, which substantially contributed to the development of this work, was the one with Tomáš Žďára from Česká spořitelna, a.s. He outlined the basic points that helped them to

open their environment to innovation and so, in a certain sense, he provided the motivation and inspiration for the development of the last goal – the proposal of possible startup models. Another interesting information were obtained by visiting the Czech Innovation Festival 2015.

10.4 Proposal of possible startup models under MNE

In addition to the empirical research and based on its negative to neutral results, **three possible models** how the startups could be incorporated inside the multinational enterprise were worked out. These models (detailed in Chapter 9) were described on a general level and they benefit from the theoretical part of this thesis, existing researches, and also from the analytical part including the empirical research from Chapter 8. More general nature of these models allows their **wider applicability** into the particular environments.

As has been concluded (see Section 9.1 and Figure 9.1), for a successful implementation, the environment inside the enterprise:

- should have a certain **affinity to innovation**,
- should be **open to changes**.
- Moreover, if implemented in the Czech Republic, the society will rather prefer **gradual implementation** to radical change.

Brief description of proposed models follows:

Corporate Culture Change Model The first model lays emphasis on the **employees** and assumes a **change** of the rules, policies, KPIs and anything else what could block people to participate in the startup projects or even demotivate. The recommendations for the implementation are summarized in Section 9.2. The aim is to create a necessary **intra-corporate culture**.

Corporate Startups Model The second model can be understood as an additional step to the first model or its vertical implementation. The emphasis is laid on the **startup projects** themselves. The model assumes to build a system to support these initiatives. Further it assumes to perceive the new roles – the **sponsors** and the **coaches**, inside the company to help with and to supervise these projects. By following this model, another possible modifications are discussed – the **Internship program** (in Section 9.3.1) and the implementation in a way of **free time activity** or **temporary disengagement** (in Section 9.3.2).

Out-In Model The third extreme model can be either a consequence of unfavourable culture inside the enterprise or it can be even organized intentionally. It assumes that the ideas and the people **leave** the company (*Out*). Then, via external **development** and **cooperation** a product or a service is finalized, and the startup is bought **back** to the company (*In*).

All of the models can be freely adapted and additionally specified. One of the possible and obvious modification can be an approach, in which the company clearly defines the **areas of focus** – usually as part of its strategic plans. Then only the project, which falls into the given areas, can be supported and further developed. Similar approach was discussed within the model of Internship program, which can bring both **new ideas**, which are realized with company's technologies, and the **talents**.

As can be concluded from the structure of multinational enterprise and its operation, among all three models, the last one has the lowest degree of probability that it could be successfully implemented in the Czech Republic. Considering the second phase of the model (a development outside the company) where the startup is developed into a regular product or service, in most cases, the local subsidiary will never be the entity responsible for the last phase – the buyback. This loop could be successfully finished only under a condition that the startup project would cross the state borders and would get into awareness of the parent company and its „hunters", who are responsible for finding and the acquisitions of new technologies and services. But in this case, since we talk about the highest level of MNE (the parent company), these people rather follow the global interests of whole enterprise, so the startup would have to be extremely well-developed.

So therefore, the **recommendations** how to incorporate intrapreneurial behaviour in a form of corporate startups inside the multinational enterprise, which was the subject of the research from Chapter 8, are as follows:

- Since the research concluded that the perception of intrapreneurial behaviour in a form of corporate startups is negative to neutral, at the beginning, the culture inside the company must be changed.
- The Corporate Culture Change Model should be implemented which includes a change of several characteristics of current (rather inappropriate) environment. The recommendations for the implementation of this model are summarized in Chapter 9.2.
- Once the culture inside the company is changed and the previous model is implemented, further development can be based on the Corporate Startups Model.
- Corporate Startups Model must be implemented at least at the level of subsidiary to allow cross business unit cooperation (see Figure 9.3) and should not be dependent only on particular unit.
- Since IBM Czech Republic is the pioneer in the area of internship program, the adaptation of Corporate Startups Model (the Internship program) is also applicable. This will not even require much changes to implement and test.

10.5 Discussion and further research

Startups are currently very hot topic. This is confirmed by constantly evolving community of supporters both from academic and business sectors, but primarily by the interest of large corporations in innovation and further development that could flexibly respond to changing customer needs.

Nowadays, there are dedicated (innovation) teams and centers inside the enterprises, where we can find the intention to experiment with corporate startups in some form. Usually there are also many other intentions which deal with innovation internally. These are in most cases confidential and typically never leave the company. Or if so, then just in an informal way by word of mouth. The companies should be aware of hidden potential of their current employees and they should invest in creation of appropriate cultural environments (if possible and applicable), which could give birth to new ideas, support their realization and further motivate but primarily inspire the employees. What generally applies is an important prerequisite, that a failure must be perceived as a challenge, not an obstacle.

The topic, which this thesis is focused on, is extremely large and therefore a lot of even important areas were out of scope. From this point of view, it is possible to continue in further much wider research to deeper explore many other areas which could matter.

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Appendix A

List of used Acronyms

Acronym	Meaning
B2B	Business-to-Business
BI	Business Intelligence
BPM	Business Process Management
CE	Corporate Entrepreneurship
CEO	Chief Executive Officer
CF	Cash Flow
CIN	Czech Innovation
CSFR	Czech and Slovak Federative Republic
CTU	Czech Technical University
DMS	Data Management Services
DR	Disaster Recovery
EAI	Enterprise-Application Integration
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ELA	Enterprise License Agreement
EU	European Union

Acronym	Meaning
EVCA	European Private Equity and Venture Capital Association
FDI	Foreign Direct Investment
FEL	Faculty of Electrical Engineering
FFF	Friends, Family & Fools
FIM	Department of Information Technologies
FTAA	Free Trade Area of the Americas
GBS	Global Business Services
GDP	Gross Domestic Product
GEP	IBM Global Entrepreneur Program
GI	Greenfield Investment
GL	Green Light
GTS	Global Technology Services
HR	Human Resources
HTTP	Hypertext Transfer Protocol
IBM	International Business Machines Corporation
IBV	IBM Institute for Business Value
ICT	Information and Communication Technologies
IEEE	Institute of Electrical and Electronics Engineers
IIC	IBM Innovation Centers
IMF	International Monetary Fund
IoT	Internet of Things
IP	Intrapreneurship
IPO	Initial Public Offering

Acronym	Meaning
IT	Information Technology
JIC	South Moravian Innovation Centre
KPIs	Key Performance Indicators
MNC	Multinational Corporation
MNE	Multinational Enterprise
MVP	Minimum Viable Product
NAFTA	North American Free Trade Agreement
NAS	Network Attached Storage
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
P&L	Profit and Lost
PaaS	Platform as a Service
PI	Portfolio Investment
PM	Project Manager
POC	Proof of Concept
PwC	PricewaterhouseCoopers
R&D	Research and Development
REDEP	Resource Development Platform
RFID	Radio-Frequency Identification
ROI	Return On Investment
ROR	Rate of Return
SAN	Storage Area Network
SJR	SCImago Journal & Country Rank

Acronym	Meaning
SLA	Service-Level Agreement
SME	Subject Matter Expert
SO	Strategic Outsourcing
SOA	Service Oriented Architecture
SSO	Single Sign-On
STG	Systems Technology Group
SWG	Software Group
TIC	Technology Innovation Centre in Zlín
TNC	Transnational Corporation
UHK	University of Hradec Králové
UNDP	United Nations Development Programme
USA	United States of America
UX	User Experience
VC	Venture Capital
VOIP	Voice over Internet Protocol
VSB-TUO	VSB – Technical University of Ostrava
WBG	World Bank Group
WIPO	World Intellectual Property Organization
WSM	Weighted Sum Model
WTO	World Trade Organization
YC	Y Combinator

Appendix B

Business Model and Lean Canvas

For the comparison of the business models discussed in the chapter about Startup methodology (see Chapter 3.3), both canvases are attached, see Figure B.1 and Figure B.2.

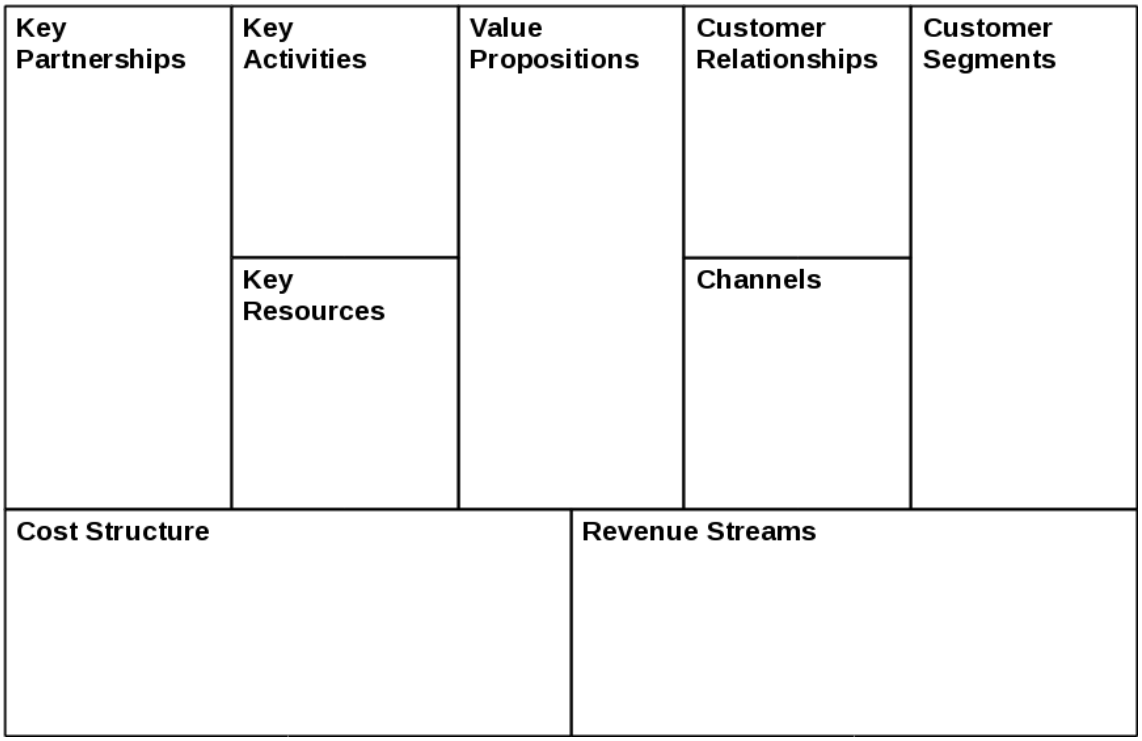

Figure B.1: The Business Model Canvas [62]

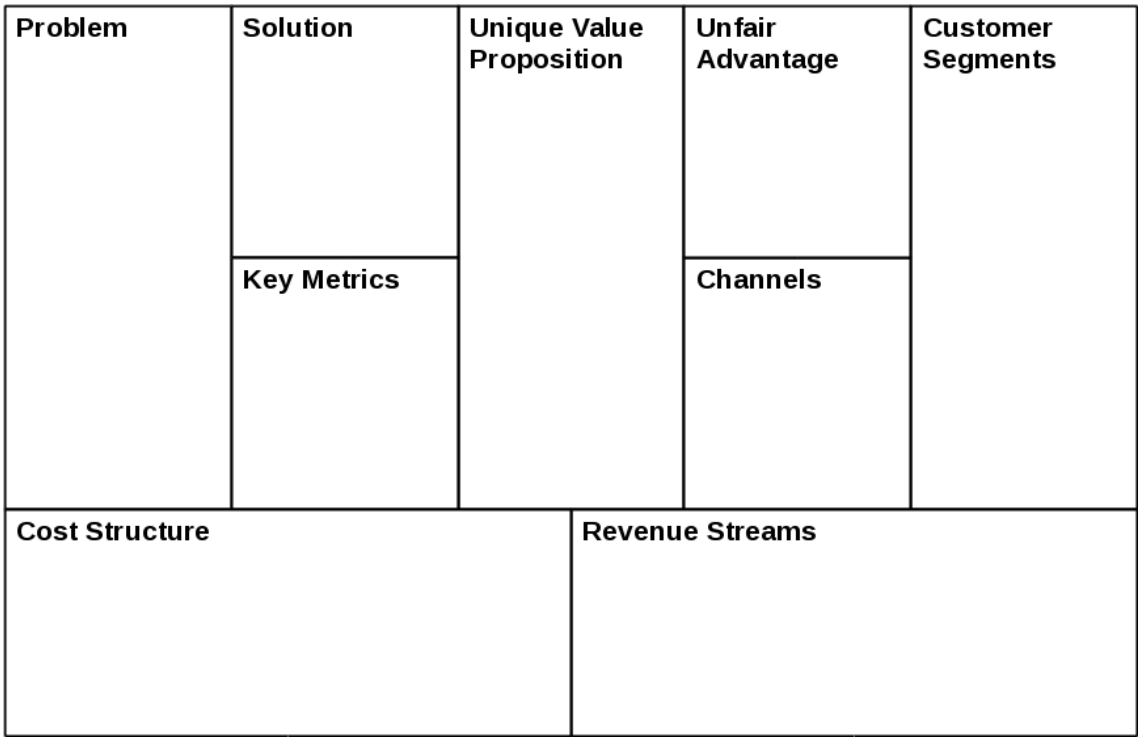

Figure B.2: The Lean Model Canvas [65]

Appendix C

Lists of Questions for Interviews

In following Tables C.1, C.2, C.3, C.4 and C.5 there are summarized lists of questions divided into the separate categories as defined in the research. They were primarily intended as an outline (the guide list) for interviews.

Table C.1: List of questions for the category: Awareness of Intrapreneurship (**AI**)

Cat.	**Questions**
(**AI**)	**AI01**: *Have you ever heard the terms „intrapreneurship“ or „corporate entrepreneurship“?*
	AI02: *Do you personally have any experience with intrapreneurship?*
	AI03: *Do you actively use intrapreneurship in your company?*
	AI04: *Do you understand trust, courage, sharing and motivation as the characteristics necessary to intrapreneurial environment?*
	AI05: *How do you evaluate mutual relationships between different business units? Do they work or could they be improved? Are they ideal?*

Table C.2: List of questions for the category: Innovative Environment (**IE**)

Cat.	**Questions**
(**IE**)	**IE01**: *How does the typical project of your business unit look like?*
	IE02: *Does your business unit invest into the innovative projects? Do you have some „free money“ for innovative things that you can use?*
	IE03: *Are there any rules for creating new innovative projects?*
	IE04: *Are there any internal processes within your business unit which can help one with the realization of new ideas?*
	IE05: *Do you remember any innovative project realized in your business unit?*

Table C.3: List of questions for the category: Barriers (**BA**)

Cat.	Questions
(**BA**)	**BA01**: *Are there any explicit barriers that may impede in creating new innovative things / projects?*
	BA02: *In what ways do the people from leadership attitude towards mistakes? Does the mistake or innovative project failure mean an opportunity to learn for a next time or the big problem and „stop“ for any other innovation?*
	BA03: *Is risk of some innovative ideas possible or completely prohibited?*
	BA04: *How does the environment of MNE contribute to some possible innovation? Do you understand it more as an advantage or obstacle?*

Table C.4: List of questions for the category: People (**PE**)

Cat.	Questions
(**PE**)	**PE01**: *What are the main roles of people within your business unit and what are their key performance indicators (KPIs)?*
	PE02: *How do you evaluate mutual trust between employees and between employees and managers?*
	PE03: *Is work on some innovative ideas included in (does it count to) the overall assessment?*
	PE04: *In your opinion, do you think people have enough time to realize their own innovative ideas? Is there any window just for some innovative work?*

Table C.5: List of questions for the category: Motivation (**MO**)

Cat.	Questions
(**MO**)	**MO01** *How are you / your employees motivated to innovative work?*
	MO02: *Are your employees remunerated for new ideas? How?*

Appendix D

Lists of Evaluation Criteria

In following Tables D.1, D.2, D.3, D.4 and D.5 there are summarized lists of evaluation criteria divided into the separate categories as defined in the research. They were used for the evaluation of the given topics within each category.

Table D.1: List of evaluation criteria for the category: Awareness of Intrapreneurship (**AI**)

Key Topics	**Evaluation Criteria**
Intrapreneurship as a term	[+] The respondents are aware of intrapreneurship and are able to describe its correct meaning. [0] The respondents are able to partly derive the meaning. [-] The respondents have never heard about this term yet.
Experience with intrapreneurship	[+] The respondents actively apply intrapreneurial principles. [0] The respondents sometimes apply intrapreneurial principles. [-] The respondents have never applied intrapreneurial principles.
Trust, courage, sharing, motivation	[+] The respondents confirm these characteristics. [0] The respondents partially confirm these characteristics. [-] The respondents reject these characteristics.
Cross-units cooperation	[+] The respondents confirm good cooperation. [0] The respondents partially confirm good cooperation. [-] The respondents reject good cooperation.

Table D.2: List of evaluation criteria for the category: Innovative Environment (**IE**)

Key Topics	**Evaluation Criteria**
Investments into innovative projects	[+] The respondents confirm proactive investments. [0] The respondents confirm investments under several conditions. [-] The respondents reject investments due to strict conditions.
Rules for innovative projects	[+] The respondents see almost no rules (openness to everything). [0] The respondents talk about standard rules. [-] The respondents talk about highly restrictive rules.
Innovative processes	[+] The respondents confirm the existence of innovative processes. [0] The respondents partially confirm the existence of innovative processes (ad hoc processes). [-] The respondents reject the existence of innovative processes.

* *Both topics („Typical project types“ and „Examples of innovative projects“) serve only as a help to provide deeper understanding of the category and they do not have any evaluation criteria. Therefore they are not mentioned in this table.*

Table D.3: List of evaluation criteria for the category: Barriers (**BA**)

Key Topics	**Evaluation Criteria**
Explicit barriers	[+] The respondents do not see any restrictive barriers. [0] The respondents see some (crossable) barriers. [-] The respondents easily identify many restrictive barriers.
Attitude of leaders towards mistakes	[+] The respondents understand mistakes as the incentives how to make the things better next time. [0] The respondents understand mistakes the normal parts which should be analyzed and avoided next time. [-] The respondents understand mistakes as something what stops any further attempts.
Risk of innovation	[+] The respondents say that any risk of innovation is accepted. [0] The respondents understand the risk of innovation as something what must be appropriately assessed. [-] The respondents say that the risk of innovation is completely prohibited.
Influences of MNE	[+] The respondents confirm that MNE brings only the positives. [0] The respondents see both the positives and also the negatives. [-] The respondents talk only about the negatives.

Table D.4: List of evaluation criteria for the category: People (**PE**)

Key Topics	**Evaluation Criteria**
Trust in people	[+] The respondents strongly trust their employees. [0] The respondents usually trust their employees, but sometimes case by case. [-] The respondents do not trust their employees.
Innovation and overall assessment	[+] The respondents confirm that innovation is a part of overall assessment. [0] The respondents partially confirm that innovation is a part of overall assessment. [-] The respondents reject that innovation is a part of overall assessment.
Time management	[+] The respondents confirm that people have enough time for innovation. [0] The respondents are able to identify few possible windows opened for innovation. [-] The respondents say that people do not have time for any innovation.

* *„Roles and their KPIs“ topic serves only as a help to provide deeper understanding of the category and it has no evaluation criteria. Therefore it is not mentioned in this table.*

Table D.5: List of evaluation criteria for the category: Motivation (**MO**)

Key Topics	**Evaluation Criteria**
Motivational factors of innovation	[+] The respondents confirm that people are highly motivated to innovate. [0] The respondents partially confirm that people are motivated to innovate. [-] The respondents reject that people are motivated to innovate.
Remuneration & reward for innovation	[+] The respondents confirm that people are rewarded for innovation. [0] The respondents partially confirm that people are rewarded for innovation. [-] The respondents reject that people are rewarded for innovation.