Applying Project Management Methods to the Creation of a Start-up Business Plan: The Case of Blendlee

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Abstract

The importance of entrepreneurial ventures in economic development is undeniable. The trend in recent years has shown that the increasing number of small, innovation-driven start-up companies that operate through internet platforms are shaping the future of business. It seems that, nowadays, everyone can become an entrepreneur; nevertheless, nine out of ten start-ups fail. Scientists are attempting to find solutions to increase the success of early stage start-ups. One of the main methods suggested is to devote a lot of effort to business planning. However, in order to create a ‘winning’ business plan, entrepreneurs need to have, or develop, management skills and use the most effective methods. Project management is acknowledged as a discipline that greatly increases the efficiency of the implementation of projects. Therefore, if the creation of a business is seen as a project, then that discipline can be used to increase the success rates of this kind of project, with beneficial methods arising in the areas of planning, budget, risk control, time management and the creation of a teamwork culture within the organization. To manage a dynamic start-up creation process, project management can be used to create a management system for the whole business (starting with the creation of a business plan). The aim of this article is to research the possibilities of using project management methods in the creation of a start-up business plan. The empirical research was designed by combining the literature study and the single case study of applying project management methods in creating the Blendlee start-up business plan.

Keywords: Start-up, Project Management, Business Plan, Entrepreneurship

Introduction

The trend in recent years has shown that the increasing number of small, innovation-driven start-up companies that operate through internet platforms are shaping the future of business. Favourable conditions for creating a start-up company suggest that, nowadays, anyone can become an entrepreneur. Nevertheless, nine out of ten start-ups fail. Scientists have discussed the main reasons for these failures, with the primary reason (around 42% of cases of failure) being that there is no market demand for the products or services created (CB Insights, 2014: 2). The majority of other failure cases are caused by a lack of solid business management skills as even ventures that have great business ideas fail when faced by their first challenges. Scientists are attempting to find solutions to increase the success rate of early stage start-ups. One of the main methods suggested is to devote a lot of effort to business planning. A highly beneficial tool to implement this process is a well-prepared business plan that defines the whole business idea, managerial approach and business

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1 This paper was originally presented at International Research Conference 2015 at the Dortmund University of Applied Sciences and Arts, 25-26 June 2015. It is republished here with the permission of the authors and conference organizers.
strategy in one document. However, in order to create a ‘winning’ business plan, entrepreneurs need to have, or develop, management skills and use the most effective methods.

Project management is acknowledged as a discipline that greatly increases the efficiency of the implementation of projects. Therefore, if the creation of a business is seen as a project, then that discipline can be used to increase success rates for this kind of project, with beneficial methods arising in the areas of planning, budget, risk control, time management and the creation of a teamwork culture within the organization (Nixon, 2015). Therefore, the author raises the main question of this research: What combination of project management methods could increase the success rate of start-up business plans?

Aim of the research: To research the possibilities of using project management methods in the creation of start-up business plans. The author has defined the following objectives to address the aim of this research:

1. Identify the key success factors in start-up business creation.
2. Analyse project management methods that can be used for the creation of start-up business plans.
3. Define the combination of project management methods for Blendlee’s successful creation of a business plan.

Methodology: The empirical research design is a combination of a literature study and a single case study.

Scope: In the case analysed, the creation of the business was divided into four project cycles. The scope of this master’s thesis is limited to an analysis of the first cycle in the creation of a start-up, in this case the development of a ‘business plan’.

The case: For the empirical research, Blendlee was chosen as a successful case because its business concept and business plan won first place in an open international competition: The Ericsson Innovation Awards 2015. The task of the competition was to create an innovative solution to solve a problem which would be sustainable and applicable to the global community. The topic was: “Innovation for the future of learning” and 370 projects were submitted, in total. Blendlee’s victory in the competition confirms that the approach of combining project management methods in creating a start-up business plan was successful and, thus, this case may be used as an example of good practice.
1. Key success factors in start-up creation

“The world of startups today offers a preview of how large swathes of the economy will be organized tomorrow. The prevailing model will be platforms with small, innovative firms operating on top of them. This pattern is already emerging in such sectors as banking, telecommunications, electricity and even government (The Economist, 2014: 2)”. Graham (2012) defined it thus: “A start-up is a company that from its roots is designed for fast growth (quick scaling). All other characteristics of a start-up are followed by a tendency to grow, for example, it can be a newly founded venture”. He added that the main focus of this growth is its unconstrained geographical nature, which is the main difference between a start-up and a small business, thus start-ups are mostly associated with technological business ventures. Neil Blumenthal, co-founder and co-CEO of Warby Parker, stated that “A start-up is a company working to solve a problem where the solution is not obvious and success is not guaranteed.” Graham (2012) agreed to this approach and noted that an entrepreneur who starts a start-up is committed to solving a more challenging type of problem than ordinary businesses. He added that “As entrepreneur you're committed to searching for one of the rare ideas that generate rapid growth.”

The concept of a start-up is closely interconnected to entrepreneurship and entrepreneurs. Schumpeter (1942: 81-86) defined entrepreneurship with the following: “It is a carrying out of new combinations of firm organization — new products, new services, new sources of raw material, new methods of production, new markets, new forms of organization”. Dollinger (2008: 4) defined it thus: “In the new millennium, the ideas, talents, skills, and knowledge that promote entrepreneurship are evident in people all around the globe, but especially in today’s generation. This new direction is a change from previous times when the forces for economic growth tended to favor more established business persons from the corporate world. But the face of the world economy has shifted, and young people today are well suited for entrepreneurial activity”. Economic and social shifts have provided added momentum for start-ups. According to a recent survey of 12,000 people aged between 18 and 30 in 27 countries, more than two-thirds see opportunities in becoming an entrepreneur (The Economist, 2014: 2). Dollinger (2008: 4) summarized that entrepreneurs of the 21st century are technologically precocious, immersed in technology and have internalized its power. The main reason why they are so successful and not afraid to risk creating new business ventures is that this generation is passionate, inquisitive, challenging, and is comprised of entrepreneurs who welcome change, embrace the idea of progress and have portable skills. Scientists suggest that entrepreneurs have a certain profile of personal traits, characteristics, skills, knowledge and experience necessary in order to succeed in creating new ventures. Nevertheless, there are many challenges along the way and entrepreneurs often do not have the skill-set required to create and run a business, and thus the rate of failure increases.

An assessment of entrepreneurial and management skills and the composition of the team’s skills is the first thing to consider before initiating a business: Passion for starting a company is important, but entrepreneurs should also have skills and experience in key business areas such as cash flow management, marketing, financing, inventory control, and others (Scarborough, 2012: 14). Titus (2004: 4), analysing the reasons why businesses fail, stated: “Ninety percent of business failures are associated with “management inadequacy”, which consists of either management inexperience or incompetence”. He also states that only a person with developed management skills is able to implement and monitor the strategic and operational plan of the start-up. The efficiency of a strategic plan is strongly dependent on the management’s ability to implement the changes needed in day-to-day operations. Many factors need to come together to start and grow a successful new
venture. However, a great idea comes first and is followed directly by the people who can realize it. It is generally believed that start-ups thrive and prosper when standing on the shoulders of more than one person, especially science-based and high-tech start-ups (Timmons, 1994: 89). Start-ups risk failing if the majority of team members have a very similar perspective on things and cannot develop critical thinking, have low levels of motivation and dedication, or have insufficient or outdated skills in the areas affecting the success of the venture. This reason for the failure of start-ups is highly interconnected with a lack of certain skills in the team. For example, balanced teams with one technical founder and one business founder raise 30% more money, have 2.9 times more user growth and are 19% less likely to scale prematurely than technical or business-heavy founding teams (Marmer at al., 2012: 5). Composing a venture team, according to Seifert et al. (2008, p. 90), is one of the most important success factors in the creation of new business ventures. Scientists point out that team members must complement and balance each other, while another very important aspect is how people operate effectively as a team. Key points to consider are the ability to establish trusting working relations with clearly defined roles and responsibilities, the effectiveness of communication processes, the culture of the team (even the working atmosphere) and the ability to share constructive criticism. Overall, compared to homogeneous teams, diverse teams are recognized as being more effective in accomplishing versatile tasks. Nowadays, the importance of a complementary team composition is more relevant: “In the past, startups almost universally began with an idea for a new product. Now the business usually begins with a team, often two people with complementary skills who probably know each other well (The Economist, 2014: 3).”

The business plan – a beneficial tool for the process of creating a start-up business: Without a business model and business plan a company exists without a clear vision and direction, increasing the risk of failure when the start-up faces its first challenge. Some entrepreneurs start their business without a clear business concept or clearly defined target customers and without fully investigating the industry. If the entrepreneur doesn’t undertake market research, he or she has no perception of the trends in the industry, the opportunities and threats, the positioning of the business, or how to target customer needs and expectations, thus he or she has no opportunity to prepare a realistic business model and plan (Pendrith, 2014). Creating a comprehensive business plan allows entrepreneurs to determine whether a business idea is likely to succeed and to identify the steps they must take in order to create a successful company (Scarborough, 2012: 14). A good business plan helps identify the mission, cost structure, market, external influences, and strengths and weakness of a business. The business plan can separately include a marketing plan, operating plan, etc. (Titus, 2007: 4). Scarborough (2012: 14) stated that the problems of an under-funded venture may occur from the very beginning as entrepreneurs starting a business with too little capital is a sure recipe for failure. Experts suggest that entrepreneurs should have the cash equivalent of 6 months of expenses at their disposal. Pendrith (2014) explains that if a start-up is under-funded, it is a result of poor planning as a properly developed business plan indicates precisely how much money is required for both start-up expenditures and the operation of the business until the cash flow is positive.

A business plan is a planning tool for transforming an idea into reality. It builds on the foundation of the feasibility study, but also provides a more comprehensive analysis than a feasibility study. It functions primarily as a planning tool, taking an idea that has passed the feasibility analysis and describing how to turn it into a successful business. Its primary goals are to guide entrepreneurs as they launch and operate their businesses and to help them acquire the financing needed to launch (Scarborough, 2012: 160). There are two primary objectives to preparing a business plan. The first
is external, to obtain funding that is essential for the development and growth of the business. The second is internal, which is to provide a plan for early strategic and corporate development. This helps guide an organization towards meeting its objectives, by keeping the business entrepreneur and all its decision-makers headed in a predetermined direction, and by setting out how the company will be run for the next two to three years. (IFAC, 2006: 4). Gumpert (1997: 120 – 147) outlined more reasons why a business plan is an essential tool for start-up success. He showed that business plans help to plan the future of new ventures, including raising entrepreneurs’ self-awareness of owning a business, serving as a prerequisite for convincing potential investors to finance the new venture, motivating team members and helping them to connect with the vision and goals of the business, which might help potential employees decide whether or not they want to join the team. A detailed business plan also raises credibility in making contracts and arranging strategic alliances, and in the case of mergers and acquisitions, a business plan serves as a company résumé, helping to demonstrate that the value of the business is the highest possible. A 2007 study by Babson College found that start-ups with a well-written business plan raised twice as much capital during first 12 months (Lundlam, 2015). Researchers reviewed 20 random business plans that were submitted to venture capitalists and found the following main pitfalls of a business plan (Dollinger, 2008; 180): Founders failed to define a specific business strategy (30%), discuss technical idea protection (55%), identify the details of the competition (75%), or provide adequate details on the financial projections (80%). Furthermore, the teams lacked marketing experience, and the marketing sections of the plans were weakly developed (40%), while 10% of business plans had no financial projections at all and 15% omitted balance sheets. This shows that entrepreneurs must use certain management techniques in order to not only successfully run the business but also deliver such deliverables as a business plan.

2. Project management methodologies for start-up creation

Project management in the modern sense began in the early 1950s, driven by businesses that realized the benefits of organizing work around projects, and the critical need to communicate and coordinate work across departments and professions (Haughey, 2014:1). Over the years, the discipline evolved, providing many different methodologies to choose from in order to find the best solution for the organization. To manage a dynamic start-up creation process, project management can be used to create a management system for the whole business (starting from the creation of a business plan), but the topic is relatively new and there has been no previous research. Experts on project management and business practitioners agree that several project management methodologies are already being used in start-up businesses, especially in software development projects, but these are mostly focused on software development and not on project and business management processes. However, there is another possibility of benefitting from this discipline in start-up creation – the combination of different methodologies in order to find the best methods to address the specific issues of different types of start-ups beyond software development.

Mulcahy (2009: 29) noted that in order to complete a project there is a need to choose two main methodologies: the first is a project life cycle with actions that the project manager needs to undertake in order to complete the work, and the second is the project management methodology or the project management process for defining how the project should be managed. There are many different project cycles, depending on the industry where projects are being implemented. As the scope of this research is only the initial phase of the start-up (the first cycle, i.e. business plan creation) the analysis of project management methodologies carried out below is limited to methods and principles that could be used in this phase. These methodologies certainly have a large variety
of methods and tools that can be used (and that are not analysed in this paper) in later start-up phases, such as Agile and Lean in the software development cycle.

**Project life cycle approach:** According to PMI (2013: 38) the project life cycle (Figure 1) is the series of phases that a project passes through from its initiation to its closure. These phases are generally sequential and can be broken down into functional or partial objectives, intermediate results or deliverables, specific milestones within the overall scope of work, or financial availability. Phases are generally time bound with a starting and ending or control point. A life cycle can be documented within a methodology. The project life cycle can be determined or shaped by the unique aspects of the organization, industry, or technology employed. While every project has a definite start and a definite end, the specific deliverables and activities that take place in-between will vary widely with the project. The project life cycle approach provides the basic framework for managing the project, regardless of the specific work involved. Even projects that vary in size and complexity can be mapped by following the generic life cycle structure (Figure 1): *Starting the project, organizing and preparing, carrying out the project work, and closing the project.*

![Typical cost and staffing levels across a generic project life cycle structure (PMI, 2013)](image)

Figure 1. Typical cost and staffing levels across a generic project life cycle structure (PMI, 2013)

This generic life cycle structure is often referred to when communicating with upper management or other entities less familiar with the details of the project. It should not be confused with the project management process groups, because the processes in a process group consist of activities that may be performed and recur within each phase of a project as well as for the project as a whole. The generic project life cycle is mostly used in various projects, but for more specific projects, such as IT infrastructure or software development, other types of project cycles may be applied. Examples of predictive life cycles are: Waterfall - the linear ordering of the phases which can be strictly sequential or overlapping to some extent; Prototyping - functional requirements and physical design specifications are generated simultaneously; Rapid Application Development (RAD) - based on an evolving prototype that is not thrown away, etc.; or adaptive life cycles such as Adaptive Software Development/ASD - mission driven, component based, iterative cycles, time boxed cycles, risk-driven, and change-tolerant; Spiral - repetition of the same set of life-cycle phases such as plan, develop, build, and evaluate until development is complete; Agile and SCRUM - similar to above adaptive life cycle models with iterations called ‘sprints’ that typically last between one week and 30 days with defined functionality to be achieved in each sprint; active management role...
throughout (Archibald, 2012; 5-6). Scientists agree that a well-defined project life cycle enables the application of a systematic mind-set to create, plan, schedule and manage the project through all phases and, in addition, to evaluate the success and the value of the whole project and its results (the outcome). Without a clear view of the project life cycle, it is challenging to reach the full potential of systematic and structured project management. In the case of start-ups, the whole business creation process can be divided into different cycles with intermediate deliverables (milestones). The extent of the length of the cycles depends on the specifics of the venture as it is dependent on the resources and knowledge of the founders.

**Project management process groups by the guide to the Project Management Body of Knowledge (PMBoK):** This guide is well-known and widely-used in the project manager community as a standard guide to provide and define established norms, methods, processes, practices, skills, tools and techniques that can have a significant impact on increasing the rate of project success. Furthermore, it includes a common vocabulary for project managers to use in project management concepts and practice that is recognized as an essential element of the discipline and as a universal language for professionals. The purpose of the guide to the Project Management Body of Knowledge (PMI, 2013; 1) is thus: “The Fifth Edition provides guidelines for managing individual projects and defines project management related concepts. It also describes the project management life cycle and its related processes, as well as the project life cycle.”

The standard is based on the application and integration of the 47 logically grouped project management processes that are categorized in five process groups (Figure 2):

- **Initiating:** definition of a new project or a new phase of a project that exists with authorized permission to start it (project or phase).

- **Planning:** establishment of the scope of the project, definition of objectives and set of actions in order to achieve these objectives.

- **Executing:** performing the tasks that are defined in the project management plan, the performance has to meet the project specifications.

- **Monitoring and Controlling:** tracking, review, regulation of the processes and the performance of the project, identification of areas where the changes are needed.

- **Closing:** formal finalization of all activities throughout all process groups.

Mulcahy (2009: 30) explained the connection and transaction between project process groups. She stated that Initiating has to be approved using high-level planning in order to perform project selection if this is feasible (Figure 2).
Once the project is approved, the process moves to a detailed planning process group (1) which is dedicated to establish the entire scope of the effort, define and refine project’s objective, and define the course on how those objectives will be met. The outcome of this process group is project management plan. Then the project moves to execution (2) where the work is done according to the plan and taking into account all processes and procedures that were detailed in the project management plan. During execution the work results are being monitored and controlled (3) to ensure that the project follows the plan (baselines). If there are any variations that require changes, these changes are approved and the action moves to the execution to implement the changes (4) in order to fix the variances. When the changes are approved, a revision of the project management plan is necessary in order to identify the impact on the baselines (5). Following the rearrangement of the project management plan, the actions continue to be executed according to the new plan and, furthermore, monitored and controlled according to the revised baselines (3). If there is too great a deviation from the baselines, the project may require an analysis of whether it is reasonable to be continued, so the process returns to initiating (6) to make a decision. When the project work is completed, or it faces the deadline (terminated project), it moves to the closing process group (7). For small projects there is usually only one set of project management process groups for the whole project and which can be repeated throughout the project cycle. Complex and large projects often require the distinction of different phases and each of these has its own project management process groups.

When defining the value of PMBoK in start-up business creation, it is important to compare business creation with a project, even though the guide is very comprehensive and suggests many methods of how to manage projects, from the small to the very complex, it can also be applicable for small business ventures. Regarding knowledge areas, these can all be addressed during start-up venture creation as they cover a wide range of areas such as planning, stakeholders, communication management and many more. If the founders lack sufficient management experience, this guide can help to build the whole management culture in the organization because it provides step-by-step
actions in order to create a management system, starting from initiation to closing process groups. As the start-up environment is very dynamic and changing, founders can often choose which methods, tools and techniques from the methodology they would like to incorporate in their start-up management.

The Lean approach in start-up management: The Lean approach originated in the Toyota manufacturing environment in the 1940s. Its main principle is to conduct work in the most efficient manner by ‘eliminating waste’. In practice, this means avoiding anything that does not create value for the customer (Pharro, 2011:6). In the context of a start-up, waste can be described as anything that inhibits the team of the start-up from learning about how to deliver value to the customers (Ries, 2011).

‘Lean’ principles appear in applications under different names, such as ‘Lean Manufacturing’ (LM), ‘Lean Production’ (LP) and ‘Lean Thinking’ (LT), addressing different application domains, ranging from manufacturing systems to organizations in general (Putnik, 2012; 248). These definitions include five pillars that enable Lean thinking and production (Womack and Jones, 1996), namely specify value, identify the value stream, flow, pull and perfection. From the perspectives of the team and the organization, Lean methods include standardization, discipline and control in order to create the uniformity of work; the continuous process of training and learning and an organizational approach based on teamwork; encouraging the participation and empowerment of people by extending functions. The need for multiskilling and adaptability in the team is one of the main principles, while common values in the team help to unify the mind-set (Arbós et al., 2006, 219). To achieve the main goal of Lean, a number of tools and techniques are used, such as: Kanban, 5 S’s, Visual control, SMED (single minute exchange of dies) (Melton, 2005).

Over time, Lean has expanded from tools and techniques to a whole philosophy that is expressed through ‘Lean Behavior (LB)’ and ‘Lean Thinking (LT)’. As the Lean approach is strongly based on people, it addresses this aspect by identifying the seven skills that make people Lean (Howardell, 2011). The seven Lean people skills are prerequisites for effectively applying Lean enterprise tenets and tools: 1. Understanding value; 2. Identifying and working the value stream; 3. Being adaptive; 4. Taking the initiative; 5. Innovating: Changing things for the better; 6. Having a collaborative outlook; and 7. Leading from below. These skills are closely interconnected to the 14 principles of Lean Management (Table 1).
Table 1. The Toyota Lean Principles (Liker, 2004)

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle 1</td>
<td>Base your management decisions on a long-term philosophy even in expense of short-term financial goals</td>
</tr>
<tr>
<td>Principle 2</td>
<td>Create a continuous process flow to bring problems to the surface</td>
</tr>
<tr>
<td>Principle 3</td>
<td>Use ‘pull’ systems to avoid overproduction</td>
</tr>
<tr>
<td>Principle 4</td>
<td>Level out the workload</td>
</tr>
<tr>
<td>Principle 5</td>
<td>Build a culture of stopping to fix the problems, to get quality right the first time</td>
</tr>
<tr>
<td>Principle 6</td>
<td>Standardised tasks and processes are the foundation for continuous improvement, employee empowerment</td>
</tr>
<tr>
<td>Principle 7</td>
<td>Use visual control so no problems are hidden</td>
</tr>
<tr>
<td>Principle 8</td>
<td>Use only reliable, thoroughly tested technology that serves your people and processes</td>
</tr>
<tr>
<td>Principle 9</td>
<td>Grow leaders who thoroughly understand the work, live the philosophy, and teach it to others</td>
</tr>
<tr>
<td>Principle 10</td>
<td>Develop exceptional people and teams who follow your company’s philosophy</td>
</tr>
<tr>
<td>Principle 11</td>
<td>Respect your extended network of partners and suppliers by challenging them and helping them to improve</td>
</tr>
<tr>
<td>Principle 12</td>
<td>Go and see yourself to thoroughly understand the situation</td>
</tr>
<tr>
<td>Principle 13</td>
<td>Make decisions slowly but consensus, thoroughly considering all options, implement decisions rapidly</td>
</tr>
<tr>
<td>Principle 14</td>
<td>Become a learning organization through relentless reflection and continuous improvement</td>
</tr>
</tbody>
</table>

The Lean Project Management concept evolved from the Lean manufacturing and construction industry (Figure 3). Standardization of processes is one of the Lean approaches in large scale projects. Lean Project Management is a comprehensive outcome of other Lean principles and they have many ideas in common. The main definition of Lean Project Management remains delivering more value with less waste, but in the context of the project (Azharul, 2010: 2). Suggesting an approach on project as a value stream, Azharul (2010: 10) showed that a project should be seen as a process, i.e. a stream of activities and inputs, processing and outputs. Lean principles reflected as processes become work packages. From the perspective of value stream in Lean Project Management, weak links in the project chain need to be identified and eliminated, mainly focusing on tasks or deliverables and dependencies but not on deadlines. In order to achieve this, a strong routine needs to be built in the form of a ‘Work Breakdown Structure’, which consists of responsibilities with deliverables and milestones and visibility in order to detect the relations.

The fourteen Lean principles (Table 1) are the core pillar of Lean Project Management and they can be easily adapted into each of five project processes groups by PMBoK. For example, in the planning process group principles 2, 3, 4, 6 can be used to organize planning, as in Lean Project Management the planning processes are carried out by the whole team (not only the project manager). The team creates the structure and processes describing how a project will be delivered in a simple, efficient and repeatable way. Principle 12 is revealed in the execution process as team members need to feel their value in the team so that they can contribute to achieving organizational goals. A very important aspect is the assignment of tasks according to team members’ strengths, whereby a person can perform well and become motivated simply by executing tasks that he or she likes. Monitoring and controlling in a Lean team is led by constant improvements, which is based on a whole philosophy: according to principle 14, the Lean team will never be satisfied with the ‘status quo’ and will always try to find ways for continuous improvement in order to make it easier, faster and safer.
**Agile project management for start-up creation:** This methodology was founded, and still is widely used for, software development projects in the product development cycle. Over years of practice the methodology has developed into whole project and business management concepts that use the ‘Agile Manifesto’ and its main principles. According to the Merriam-Webster on-line dictionary, ‘agile’ means: “1: marked by ready ability to move with quick easy grace; 2: having a quick, resourceful and adaptable character.” In Agile software development, ‘agile’ tends to mean ‘the ability to respond to change’ (Hodgetts, 2004: 7). In the context of organization, according to PricewaterhouseCoopers’ 11th Annual Global CEO Survey (PWC, 2008), executives all over the world evaluated their companies in the area of agility: 76 % stated that their ability to adapt to change will be a key factor of competitive advantage in the next few years, as they assume that the environment will change constantly, thus their organizations will keep on developing their agility. Agile theory assumes that changes, improvements and additional features will be incorporated throughout the product development life cycle and that these changes are perceived as an opportunity to improve, not as a failure (ESI International, 2010: 2). There are several different approaches to the Agile methods, but they all have some basic concepts that, from the wider perspective, are based on the core principles defined in ‘The Manifesto for Agile Software Development’ (Cervone, 2011:19):

**The core Agile principles:** “Our highest priority is to satisfy the customer through early and continuous delivery of value:

- Changing requirements should be welcomed, even late in development. Agile processes harness change for the customer’s competitive advantage.
- The delivery of working [products] should be frequent, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- Business people and developers must work together on a daily basis throughout the project.
- Projects should be built around motivated individuals. Give these individuals the environment and support they need, and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- Working [products] is the primary measure of progress.
- Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- Continuous attention to technical excellence and good design enhances agility.
- Simplicity — the art of maximizing the amount of work not done — is essential.
- The best architectures, requirements, and designs emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.”

Even though the Agile Manifesto was dedicated to software development, the main principles are widely applied in other management areas, for example in project management. This is the origin of the concept of Agile Project Management as an approach to how projects should be managed, which often contrasts to traditional project management but, at the same time, can complement it. Agile Project Management is an approach to project management based on agility, however it maintains the concept of a project, its delivery and its project management. The methodology applies a very flexible, but also controlled, process that is used to deliver solutions, and it combines the effective and efficient use of the knowledge of the project team with techniques such as
iterative development and modelling in order to fit into strict project delivery timescales (Pharro, 2011: 4).

Agile Project Management methods contrast with traditional project management methods as Agile is focused on delivering working products (or prototypes) for client evaluation and optimization while ‘predictive’ project management methods suggest that defined requirements and sets of activities can be planned and forecast at the very beginning of the project. This is mostly applicable for software development projects. One of the advantages of Agile Project Management for the organization is that it need not replace the existing project management methodology in order to successfully implement projects in the corporate environment. Agile Project Management can complement other methodologies by bringing in a more team or customer based approach. As Pharro (2011: 6) stated: “There is no need to develop and integrate company-specific Agile management processes, the organization can simply adopt a tried and tested approach”.

There are few core benefits to incorporating Agile Project Management in start-up business creation because it incurs incremental development process and constant customer and stakeholder feedback, is more simple and flexible in organizational structure, and ensures the efficient communication and direct involvement of the entire team in the project delivery. And, according to the scope of the thesis, Agile can complement the traditional project management approach in the area of Project Process Groups by PMBoK. One of the advantages of Agile Project Management for the organization is that it need not replace the existing project management methodology in order to successfully implement projects in the corporate environment. Agile complements other methodologies by initiating a more team or customer based approach. As Pharro (2011: 6) stated: “There is no need to develop and integrate company-specific Agile management processes, the organization can simply adopt a tried and tested approach”. However, Agile approaches might be in contrast to traditional project management as they are mostly based on planning and lighter on execution and control and there is an assumption that the execution of defined activities (in the project plan) should be an easy task after a properly prepared project plan. However, in software development, projects have higher risks and uncertainty in their planning from the beginning until the end of the first planning round, thus it is always useful to divide a project into different cycles, with different approaches to planning (and other process groups) in each of these. Denning (2012) stated that: “Most Agile Methodologies do not define any project management processes. Whether we’re agile or not, we need to manage project scope, planning, budgets, strategies, and reporting. But Agile approach in Project Management helps to solve a specific management issue - how to combine disciplined execution with creativity and innovation.” Collet (2009) pointed out: “Unless you choose an agile methodology that encompasses all needed processes, you should combine it with a methodology that defines these processes and relies on agile for day-to-day team management.

In conclusion, the start-up creation process could be considered a project in order to apply project management methods. One of the most used methodologies is the PMBoK guide, which suggests dividing projects into cycles and these cycles into processes. The guide contains step-by-step actions and techniques gathered from best project management practices throughout the knowledge areas. In the creation of internet start-ups (especially those that are software development based) other methodologies such as Agile Project Management and Lean Start-up are also being used. The principles of these two methodologies can also be easily applied in overall start-up business creation, depending on the type of start-up and the management approach of the founders. Overall, all these methodologies suggest many beneficial methods, therefore founders have to indicate which
would be the most suitable for their start-up. Those methods can be combined by creating a customized management system, as some are more focused, for example, on strict procedures and documentation, while others focus on a flexible and customer needs based approach. But, in order to be able to create a project management approach, the founder has to have certain management knowledge and skills. The next section contains a short overview of how founders can gain management and entrepreneurial skills.

3. Methodology of the research

The research in this paper is based on a qualitative research method - a case study of the start-up project Blendlee. The empirical research is based on data from primary sources: direct observations of one of the founders of Blendlee (the author herself) and an open-ended interview with the second founder. Moreover, the author has full access to all strategic, operational and planning documents of Blendlee – this is the third primary source for data. The secondary data sources are scientific literature (books, articles, degree thesis, publications, etc.), data from statistical databases, research reports, informational internet portals, interviews, on-line courses, etc.

unit of analysis: The case of Blendlee has all characteristics of an object for a case study as it is a complex and functioning unit, it was investigated in its natural context with a multitude of methods, and it is recent and still on-going, thus it is contemporary (Johansson, 2003: 2).

The case of Blendlee: For the empirical research, the case of Blendlee was chosen as a successful case study because its business concept and business plan won first place in the open international student competition “Ericsson Innovation Awards 2015”. The task of this competition was to create an innovative solution to a problem that is applicable to the global community. Its topic was: ‘Innovation for the future of learning’, and 370 projects were submitted in total. Blendlee’s victory in the competition verifies that the approach of combining project management methods in creating a business plan for the start-up was successful and that the case can be used as an example of good practice. The concept of the competition was designed as a business plan competition because during the phases of competition the teams had to submit:

1st phase: A detailed analysis of the problem and the concept of an innovation to provide a solution; a video that would illustrate both the problem and the suggested solution.

2nd phase: A market research report of the market research conducted to verify the feasibility of the concept (customer needs, competitor analysis, market size and potential, etc.); a detailed product description; a business plan.

Participating in the competition were two students from the European Master’s in Project Management at the Fachhochschule Dortmund, University of Applied Sciences and Arts. These were double master’s degree student Jolita Kiznyte from Kaunas University of Technology and Marcos Welker. These students created a very comprehensive and integrated solution of an internet platform: “Blendlee is an integrative internet platform for personal and professional development, talent discovery and job matching. It blends personal elements, focused learning material and the requirements of the market. At the same time, it considers the never-ending need of individuals for development and the steadily growing demand for talented professionals. It is the first and only platform which takes a comprehensive approach to individual development – it combines high quality information, human connection, equal access, an individualities approach, personal
strengths, guidance and interaction between people - physically and virtually" (Blendlee product description document).

The case reliability: All submitted documents were evaluated by a six-member jury of experts in various fields. The excellent evaluation of the Blendlee business plan by the expert jury testifies to the success of the case and, taking into account the fact that all jury members were from different areas of business (sustainability and corporate responsibility, business creation and development, education, marketing and communication, business intelligence), it means that the business plan was evaluated and analysed from a number of different perspectives. The feedback about the concept was that: “Blendlee did a great job of structuring a combination of educational activities into personal goals and strength assessment. Bringing in a coaching community, taking a lifetime learning approach and mixing in certifications and goal mapping was appreciated by the judges.”

The research questions:
- What were the goals and benefits of the business plan in this case?
- Why was the start-up creation process based on the project management approach and what was the approach?
- What was the approach regarding the use of project management methodologies in the business plan cycle?
- What was the approach to using project management methods in each of the business plan cycle process groups?
- How important was the teams’ skill-set in the Blendlee start-up business creation?

Sources of evidence (Yin, 1994): direct observations, interviews, archival records, documents, participant observations, physical artefacts. For this case study, the following sources of evidence were selected:
- Documentation: strategic, operational and planning documents of Blendlee;
- Interviews: the interviewee - one of the Blendlee founders, Marcos Welker; the interview was designed to answer research questions with additional comments by the interviewee;
- Participant observations: as the author is one of the founders of the start-up, she provided participant observations from her own experience in working with the project.

The interview: In order to reveal the combination of project management methods used in the Blendlee business plan cycle, the author conducted an interview with one of the founders, Marcos Welker. He is a PMP certified project manager with over that 10 years’ experience in leading projects in Brazil and Germany, thus he was a credible expert on this topic. In each of the topics the research question was defined and the interview structure was created accordingly. The interview was conducted soon after the business plan cycle had concluded, thus the comments and the authors’ direct observations (she participated in the whole process) were accurate.
The framework for the case analysis: The analysis of the Blendlee case is based on the PMBoK project process groups and project cycle approach for start-up business development. The founders compared the creation of a start-up to a project. Figure 3 illustrates the project cycle approach that was chosen by the Blendlee founders. Overall, they created four cycles: the business plan cycle, the business establishment cycle, the platform development cycle and the business growth cycle. The scope of analysis is the business plan cycle – each of the process groups will be analysed in order to discover which type of project management methods, principles, tools and technique combination were chosen in the case of the successful creation of a business plan.

Figure 3. The framework of the case analysis (created by the author)
4. Research results and discussion

The influence of team composition on the success of the deliverable: In the case of the Blendlee business plan creation, one of the main success factors was a balanced team from the perspective of profile. Both of the founders have an entrepreneurial profile and a knowledge of business management. Also complementary was the skill-set, whereby Marcos has an IT background with more hard skills and Jolita has an administrative background with more soft skills. These profiles were combined with project management knowledge and, therefore, created a very good combination for the business. In addition, both founders were highly dedicated and had a self-directed learning mind-set that helped them to acquire new skills crucial to delivering the business plan.

The project management approach to the Blendlee start-up creation: As a basis for their start-up creation, the founders of Blendlee chose an approach to project management suggested by the PMBoK. Firstly, the project cycle method was applied to the overall business creation process. According to the type (IT start-up) and size of the company, the founders divided the process into four cycles: business plan cycle, company establishment cycle, platform development cycle and business growth cycle. The main reason was to aid in the achievement of the main goal by setting transitional milestones, or, in other words, by doing what needed to be done to complete the work. In the Blendlee case, the transitional milestones were: business plan document delivered, company established, platform fully developed, and business exited (initial public offering - IPO). Recently, the start-up successfully finished the business plan cycle and is currently in the following cycle, so the scope of the deeper analysis was limited to the finished business plan cycle. As a result was reached, the author could make the assumption that the approach used by the founders was successful and could also be applied to other start-ups.

Another method that was suggested by the PMBoK, the project process groups approach, was also applied in the Blendlee case. The founders decided to use five process groups: Initiating, Planning, Executing, Monitoring and Controlling, and Closing. The process groups describe what actions have to be taken in order to manage the project. The PMBoK suggests detailed guidelines and outputs (documents) for each of the process groups and the team used many of these in their business plan cycle to create a sequence of actions that needed to be done in order to deliver a winning business plan. Furthermore, Lean Start-up creation phases were used in the Blendlee case: the business model canvas, which was used as a tool to create a draft version of the business plan, was changed and rearranged many times during the creation process, each time undergoing an improvement; customer development was used in the form of market research which contained a global survey in order to receive feedback on the solution from potential users/customers. The survey and feedback enabled the definition of the main problems and, according to these problems, the creation of a solution that would address and satisfy the needs of the users/customers. The ‘Minimum Viable Product (MVP)’ is very complex, which was the reason the founders decided to create a MVP in the future cycle that would attract first users/customers, generate first cash flow, enable the testing and improvement of the feature, gather more feedback on the solution, etc.

The application of project management methods in the Blendlee business plan cycle: This paper is focused on a deeper analysis of the Blendlee business plan cycle, of which the main deliverable was the business plan document together with smaller transitional deliverables (for example, market research report, financial forecast, product description, etc.). In each of the cycles the founders chose to use the project process groups approach which was developed by combining
three project management methodologies: PMBoK, Lean Start-up and Agile Project Management. Each of the process groups was analysed step-by-step in order to discover the combination and proportion of each of the methods used that are suggested by these three methodologies. The basis for all process groups were PMBoK methods (for example, creating a project charter, project plan and schedule, project status reports, etc.), but they were also complemented by Lean Start-up and Agile Project Management methodologies. The main reason why the founders chose to combine these three methodologies was the type of business (an IT start-up), as Lean and Agile approaches are widely used in software development projects and the goal was to create a company management culture based on the principles of these methodologies. In the business plan cycle there was no software development so the number of methods used compared to PMBoK is smaller. However, it is important to mention that, for example, in further cycles (platform development cycle), the basis will remain the project process groups by PMBoK, although the processes will be managed using more methods from Lean and Agile than from PMBoK. This combination of different methods helped to adapt to a fast changing environment and to choose the most efficient tools and techniques to carry out the work. PMBoK is criticized by practitioners as a methodology that lacks flexibility, but managers can always choose which methods they want to use and, as an example, the founders of Blendlee created their own framework, one that was a combination of several methodologies.

The combination of project management methods in the Blendlee business plan cycle: PMBoK was the main pillar for the implementation of project process groups, and it provided the whole procedural framework with the possibility of choosing from a wide range of management methods. The founders chose to create their own framework, taking into account PMBoK knowledge areas, which helped them to follow the course of the project. Lean and Agile methods and principles helped to create a solution that was based on user/customer needs that were revealed by receiving feedback, conducting a survey, and conducting market research. Both methodologies provided methods that helped to stay flexible on scheduling but strict on controlling in order to improve the results and efficiency. Lean principles helped to create a team culture that was based on learning and the constant improvement of the results, and the founders gained many new skills during the process in order to be able to deliver the tasks. The working environment was built on teamwork and collaborative decision-making, and team members provided open feedback and constructive criticism to each other (this aspect also is applicable in Agile Project Management). Agile enriched the combination of project management methods by bringing technical excellence approach to execution, such as the choice of an innovative approach to business plan design. Furthermore, techniques such as ‘mini scheduling’ were used to structure daily tasks, which was followed by iterative controlling and ‘daily standup meetings’ that enabled the founders to organize an efficient workflow. After the analysis of the case, the author summarized the results in a step-by-step actions framework. The full framework of the combination of project management methods in the Blendlee business plan cycle can be seen in Figure 4, which shows the specific actions taken and reveals the proportion of methods in each of the cycle process groups.
**Figure 4.** Combination of project management methods in Blendlee business plan cycle (created by the author)

**Conclusions**

1. This research has shown that one of the key start-up success factors is the evaluation of the feasibility of the business idea and creating a realistic business model. Many entrepreneurs fail in the early stages of a venture because their business planning is poor, or there is no business planning at all. According to scientists, one of the most valuable tools when creating a new venture – the business plan – if often left out, being considered as an unimportant or costly document which takes too much time and effort to create. Research has shown that this happens primarily because the founders do not have the skills necessary to create such a document or they are not aware of the value and benefits of a well-prepared business plan. This is another success factor, namely skills evaluation. In order to prevail with their businesses, entrepreneurs have to possess or develop a certain profile that is a combination of knowledge, skills/know-how and personality traits. However, in many cases this combination is not fully achieved. The same is applicable for the teams’ composition.

2. The scientific literature review showed the possibilities of applying project management methods and methodologies in start-up business creation. One of the most widely used methods for project management is the project cycle approach, which can be easily compared to phases of business creation, and where the whole process can be divided into several phases, or ‘project cycles’. The PMBoK also suggests five process groups with step-by-step actions and methods on how to
efficiently manage the tasks, in order to achieve the intermediate deliverables of the project cycle. Because the start-up business environment is highly dynamic, other scientists argue over the usage of the PMBoK methodology in this field, suggesting it might not be flexible enough to provide a full combination of methods that would fit start-ups in all areas of management. This is why they suggest a combination of several different methodologies in order to find the best fit for each specific start-up.

The literature review concluded that Agile Project Management and Lean Start-up methods can bring more flexibility and a more customer-oriented approach to project management, and that PMBoK is highly beneficial in defining and efficiently managing the business processes. The research suggests that these methods, when combined, can be used for a more comprehensive management process, thus leveraging the possibilities of success in start-up creation.

3. In accordance with the theory that project management methods can be combined to offer a more customized solution for start-ups, Blendlee used the combination of PMBoK, Agile and Lean, each with a different weight and role.

The largest part of the combined methods of project management in the Blendlee case were derived from PMBoK. According to the project cycle approach of that methodology, the founders divided the start-up creation into four cycles: the business plan cycle, the company establishment cycle, the platform development cycle and the business growth cycle. This approach helped to create an overall business management approach and to structure the business creation processes using the project process groups.

Another part of the combination was supplied by Lean Management principles and methods, which formed the basis of the whole Blendlee culture. The main characteristics were thus: the solution was created directly in response to the market and user/customer needs; the work was primarily carried out by working in the team; the team was highly dedicated to the project vision and had a learning and knowledge sharing mind-set; the whole process of execution was driven by constant improvement in efficiency and quality of results.

The last factor in the combination came from Agile principles and methods. Even though Agile is commonly used for software development, it has also been employed for overall project management. This was confirmed in the Blendlee case, where it was used in the initial business and non-software development phase, by the fact that work was organized in iterative cycles and in a collaborative decision-making manner; that there was constant result improvement; that excellence was cultivated in the execution of all tasks; that there was an atmosphere of open feedback and that constructive criticism was created (as a principle).

Recommendations

- Before creating a business venture, it is important for the person to assess whether he or she has potential, motivation and an entrepreneurial profile that is a combination of the knowledge, skills and personal traits needed to create and run the business.

- Another important aspect is the composition of skills in the start-up team. The perfect combination is a complementary skill-set, whereby, for example, a person with a profile of dominating hard skills complements a team member who has developed more soft skills. In
addition, the mind-set of constant learning and knowledge sharing is highly beneficial in start-up creation as the environment changes very fast and there is a high demand for gaining new skills throughout all phases of the business.

- An approach to applying project management methods in start-up creation can vary depending on the type of the start-up. In order to tailor the most suitable approach, an essential action is to gather information on different methodologies. Following this, there must be an evaluation of what is most important for the start-up (i.e. the goal), after which there should be an identification of the methods to be applied (which can be used and which should be left out or modified).

If the founders are planning to use the project cycle approach for dividing a business into different cycles, they have to define their own cycles according to their case, considering, for example, timing (lengthy cycles have side effects), resources (large cycles need more resources and greater capacity to deliver the result), and knowledge (to manage large cycles more knowledge is required).
References


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The main areas of interest and research:

• Applying project management methods in start-up business development
• Agile in non-software development projects
• Cross-cultural project teams’ management
• The importance of cultural intelligence in project management
• Public and cultural diplomacy

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