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The New Venture Manifesto: Redefining the Success Standards of New Ventures with the Agile Methodology

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ABSTRACT

This is an exploratory study on the characteristics of the agile methodology and its possible contribution to the success of new ventures within an entrepreneurial orientation. We explore this relationship by asking three research questions. First, what characteristics of the agile methodology can be adapted for entrepreneurs starting and managing new ventures? Second, how can the synthesis of the characteristics of the agile methodology and the core concepts of strategic management become a tool for new ventures to achieve success within an Entrepreneurial Orientation? Third, can the Agile Manifesto be adapted to the context of "new ventures"? This study answers these questions through a review of the literature and qualitative data collection from agile experts within the IT function and entrepreneurial professors. We have discovered that the agile characteristics of a *lean mentality, acceptance of uncertainty*, *communication, team composition* and *iterative development* can be adapted to assist entrepreneurs in operating successful new ventures within an entrepreneurial orientation. Also this produced *New Venture Success Standards* and a *New Venture Manifesto* in order to further support new ventures in their objective to become successful, sustainable enterprises. Through this study we see that the methodology of agile may not only be beneficial to the field of entrepreneurship, specifically to new ventures, but other business disciplines.

THE FLORIDA STATE UNIVERSITY

COLLEGE OF BUSINESS

THE NEW VENTURE MANIFESTO:
REDEFINING THE SUCCESS STANDARDS OF NEW VENTURES WITH THE
AGILE METHODOLOGY

By

KAI EVELYN SMITH DANIELS

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3

<u>Acknowledgement</u>

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

This is an exploratory study on the characteristics of the agile methodology and its possible contribution to the success of new ventures within an entrepreneurial orientation. We explore this relationship by asking three research questions. First, what characteristics of the agile methodology can be adapted for entrepreneurs starting and managing new ventures? Second, how can the synthesis of the characteristics of the agile methodology and the core concepts of strategic management become a tool for new ventures to achieve success within an Entrepreneurial Orientation? Third, can the Agile Manifesto be adapted to the context of "new ventures"? This study answers these questions through a review of the literature and qualitative data collection from agile experts within the IT function and entrepreneurial professors. We have discovered that the agile characteristics of a *lean mentality, acceptance of uncertainty*, *communication, team composition* and *iterative development* can be adapted to assist entrepreneurs in operating successful new ventures within an entrepreneurial orientation. Also this produced *New Venture Success Standards* and a *New Venture Manifesto* in order to further support new ventures in their objective to become successful, sustainable enterprises. Through this study we see that the methodology of agile may not only be beneficial to the field of entrepreneurship, specifically to new ventures, but other business disciplines.

Introduction

In 2001, the Agile Manifesto was the formal introduction of agile software development to the world. Since that time we have seen agile revolutionize software development through methods and practices that are centered on teamwork and communication. Agile also has greatly impacted the field of process management due to its practical approach to managing objectives and uncertainty. As a methodology, agile is beginning to branch out into other areas outside of the software development sphere. However an area that the research community has yet to explore in depth is the agile methodology applied to the field of Entrepreneurship and specifically new ventures.

As we look at the business environment it is clear that entrepreneurship is at the center of economic growth and development. Entrepreneurship creates avenues of innovation that are perpetually changing our world through the creation of new ventures. However, to become an entrepreneur and have a successful new venture has statistically been proven to be a challenging task (Gartner, 2012; Grant, 1992)

The academic community has examined why new ventures struggle to reach a level of maturation where the venture is considered to be a sustainable business (Gartner 2012; Mosakowski, 2002; Sapienza, 2006). Yet, it appears efforts to find innovative and creative solutions to address the issue of failing new ventures within the literature are limited.

This study address the issue by merging together the characteristics of the agile methodology with strategic management to establish that the agile methodology does have the potential to benefit new ventures by creating a New Venture Manifesto. As an adaptation of the original Agile Manifesto, the principles will be forged from the research and designed to help new ventures by improving overall operational management. This consequently should result in more new ventures being able to maturate into successful and sustainable business ventures.

Literature Review and Theory

Section 1: Definitions

This section provides a brief overview of the methodology of agile, strategic management principles, and agile management. I will also discuss the core functions of new ventures and entrepreneurship orientation in order to highlight the importance of new venture growth. In order to provide clarity to this body of work I have provided a table that defines several terms centered on agile.

Table 1: Agile Definitions

Terms	Definitions
Agile Methodology	An approach to software development that is people centered and has a low level of documentation requirements.
Agile Methods	Processes that support the agile development methodology. (e.g. Scrum)
Agile Characteristics	Features or qualities, of the agile methodology.
Agile Principles	Guidelines for delivering high-quality software in an agile manner.
Agile Core Values	- Individuals and their interactions - Delivering working software - Customer collaboration - Responding to change
Agile Manufacturing	Manufacturing processes and procedures that follow the agile approach.
Agility	The ability to sense and respond to change.

Section 2: The Agile Methodology

Section 2.1: History of Agile

The literature on the agile methodology has given us the opportunity to explore the methodology's potential in areas outside of software development. The history of agile starts in the mid 1990's as a community of methodologist started to take shape who called themselves the Agile Alliance (Kong, 2007). At the time software development and process management, were dominated by traditional plan-driven or "heavy weight" methodologies. This new community developed a collection of "lightweight methodologist highlighted the differences from the preexisting heavy weight methodologies" (Kong, 2007, pg. 17). The two methodologies were in essence the antithesis of one another based on devolvement and management styles. The lightweight methodologist were representatives from "Extreme Programming, SCRUM, DSDM, Adaptive Software Development, Crystal, Feature-Driven Development, Pragmatic Programming, and others sympathetic to the need for an alternative to documentation driven, heavyweight software development processes" (Agile Manifesto, 2001, pg.1).

We see the first conceptualized version of the agile methodology on February 11, 2001. The Agile Manifesto was composed in the Wasatch Mountains of Utah by seventeen lightweight methodologist from the Agile Alliance (Agile Manifesto, 2001). This simply written document consists of twelve foundational principles (see Appendix A and B) and four core values that define agile software development. The Agile Manifesto states *individuals and interactions*, *working software*, *customer collaboration*, and *responding to change* are the basic core values (Agile Manifesto, 2001). These values are also the

cornerstone of the twelve foundational principles of agile development. The agile

methodology emerged from industry, was quickly brought into the academic community

for study. Theoretical perspectives of the agile methodology were developed to provide

academic insight into this new collaborative and lean model of software development that

directly challenged the traditional heavyweight methods and models of development and

are discussed next.

Section 2.2 Theoretical Perspectives of Agile

One of the academic struggles in the study of agile is that there is no unified manner in

which theoretical perspectives were accepted, methods were defined and practices were

executed. However, the agile methodology has the ability to be flexible while adapting to

uncertainty based on its previously mentioned core values and characteristics. In Cao's

(2005) review of theoretical perspectives he chose dynamic capability, coordination and

double-loop learning to understand the core characteristics shared by the agile methods

(Cao, 2005). It is important to understand the characteristics of agile and their connection

to these theoretical frameworks and we detail these theories next.

Dynamic Capabilities are defined as "the firm's ability to integrate, build and reconfigure

internal and external competences to address rapidly changing environments"(Teece et

al., 1997). In contrast, Operational Capabilities are the organizational routines that turn

inputs into outputs. This supports the present operations of the firm by focusing on a

firm's resources (Denford, 2013). Denford (2013) expresses the importance of

understanding both operational capabilities and dynamic capabilities and how they

interact with one another. So to provide further emphasis, operational capabilities act

based on resources and, dynamic capabilities act on operational capabilities by changing

and reconfiguring them (Zahra *et al.* , 2006).

The ability to sense shifts within a firm's internal or external environment as well as

respond in a precise and effect manner is a key factor into firm success. (Haeckel, 1995,

2013) "Similarly, a key concept in the sense-and-response approach (Haeckel, 1995) is a

governance system that provides coordination" (Cao, 2005, pg.16). The coordination

mechanisms and methods of governance are not the focus of dynamic capabilities.

However, coordination theory focuses on these mechanisms and how they can benefit a

firm.

Coordination theory "is a body of principles about how the activities of separate actors

can be coordinated"(Crowston & Osborn 1998, pg.7). This definition of coordination

theory is also apart of the conceptual fabric of the agile methodology, which we discuss

later in this section.

Double Loop Learning theory is based on a "theory of action" perspective outlined by

Argyris & Schön (1974). One of the most common problem solving learning styles is

single loop learning. Single loop learning begins with *strategies and techniques*, which is

equivalent to what we do, then leads us into *results and consequences*, which is

equivalent to what we obtain. By looping through problems or projects in this manner we

are able to learn the direct results of the actions and decisions we make. However, we are

missing a key component, "*why*". In the double loop theory we examine governing variables that explore why we make the decisions. An important aspect of the theory is the distinction between an individual's "espoused theory" (*what an individual thinks that s/he would do*) and their "theory in-use" (*what s/he actually does*)" (Cao, 2005, pg.23). This is important because as stakeholders we must be able to look through our defensive reasoning to get to the core of why we make certain decisions that possibly lead to negative (or positive) results. We now detail characteristics of the agile methodology to establish a connection with the theoretical perspectives we have discussed.

Section 2.3: Common Characteristics of Agile

Dingsoyr (2012) explains that the core values of agile do not create a formal definition of the methodology but, "are guidelines for delivering high quality software in an agile manner" (Dingsoy, 2012, pg.1213). Since the publication of the Agile Manifesto, systems development teams across the globe have adopted these principles and values (Dingsoyr, 2012, pg.1213). There also have been several agile methods that have been developed to help team productivity and increase the quality of their project deliverables. While agile methods have a direct connection to core values of the Agile Manifesto they have slightly different characteristics.

Dingsoyr (2012) highlights *collaborative development, a lean mentality, involvement of customers and stakeholders, and the acceptance of uncertainty* as the main characteristics of agile methods. Ovcharenko's (2003) version of the characteristics of agile methods include *iterative development, communication, a focus on team members and people, and*

14

simplicity and leanness. Although, these sets of characteristics may slightly differ from one another they all fall under the overarching four core values given to us by the Agile Manifesto.

According to Dingsoyr (2012) Collaborative development is centered on communication and collaboration within software development teams. This focus on collaboration through communication involved in processes provides better clarity to requirements and expectations. In traditional methods we see a heavy emphasis on formality and documentation to help gain an understanding of the requirements and expectations. In contrast, Dingsoyr highlights a *lean mentality*, which has an emphasis on the exact opposite; low levels of documentation and a more relaxed environment. This lean mentality and a more relaxed atmosphere also contribute to innovation and the creative process for teams (Steinlicht, 2010). Another characteristic of agile looks at the *involvement of customers and stakeholders*, because it is important in the effort to understand user requirements and how a project is progressing. Agile methods frequently involve stakeholders in the development processes in order to ensure that the requirements are and objectives of the project are properly being understood, developed, and met. Yet, with such a large contribution of highly volatile factors like people and the ever-changing technological environment we must be able to expect and *accept uncertainty*. Everything does not always go according to the plan. It is critical for teams to be adaptive to problems. Ovcharenko also has four points that explore other contributing common characters to the agile methods.

Ovcharenko first agile characteristic is *iterative development*, which encompasses phases from the System Development Lifecycle and establishes a feedback loop between stakeholders. This feedback loop allows developers to quickly respond to change as well as reduce risk (Ovcharenko, 2003). An important component of iterative development is the team's ability to express different points of view and perspectives. This feedback becomes critical in meeting the overall objectives and deliverables for a project that results in providing high levels of utility and value.

Communication is a compliment to iterative development because without communication you cannot develop in that manner nor really achieve must else in a project. It is an absolute necessity for agile methods and practices and appears to be one of the key foundations to working effectively on agile teams.

Team members and people as a method characteristic, encourages members to foster learning and mentorship as well as set the tone for equality and ownership within teams (Ovcharenko, 2003). Having a well-composed team that has the ability to communicate well can potentially create a high level of value through high quality project deliverables.

Lastly, *simplicity and leanness* "deemphasizes detailed systems documentation, contract negotiations, detailed and strict projects and work breakdown schedules in favor of a free and relaxed atmosphere that will promote creativity and ingenuity" (Ovcharenko, 2003, pg.3). These kinds of environments may also help to strengthen team collaboration, communication and overall performance.

A key element not mentioned by Dingsoyr or Ovcharenko is *team composition* which, "addresses the elements of size, mix, interpersonal skills, and task related knowledge and skill" (Sharp, 2011). Sharp (2011) contributes a global agile team configuration framework that conveys this idea of team composition in greater detail. In Sharp's framework he explains that in order to have a successful team a set of core norms must be established along with well-constructed team processes and task design (Sharp, 2011).

By triangulating this data we identify four characteristics from the literature that we will use moving forward in this research. These characteristics are the *acceptance of uncertainty*, *communication, team composition* and *iterative development.* These four characteristics were chosen because on the review of literature they are the most critical in providing high quality agile development (Sharp, 2011; Ovcharenko, 2003; Dingsoyr, 2012). It must be noted that there are a series of other agile characteristics that Dingsoyr, Ovcharenko, Sharp nor I have mentioned. This is due to the broad inclusive nature of the four characteristics that were chosen and their ability to represent characteristics with a smaller scope.

Separately, it must be notate that these agile characteristics are by no means revolutionary. Yet, together when applied within the environment of software development and process management, these characteristics have begun to revolutionize how we manage teams and processes within this software development arena and beyond. To truly understand these characteristics within context we must further develop

through literature their connection with the theoretical perspective of the agile methodology.

Section 2.4: Theoretical Perspectives Connections to Characteristics

We previously defined and examined three theoretical perspectives; *dynamic capabilities, collaboration theory, and double loop learning*. All three of these frameworks connect to the agile methodology through the common characteristics that the agile methodology shares.

As previously stated an outcome of having the dynamic capabilities is the ability to sense and respond to environmental changes. One of the key characteristics of the agile methodology is the acceptance of uncertainty. This flexibility with a strategic focus is a powerful element not only for agile software development or process management but also in the daily operations of the firm. So, in order to accept uncertainty in internal and external environments the communication and collaboration of a team is important for the success of the project and the firm, which we will emphasize next.

Communication and team composition are two of the core essentials of successful teams. Collaboration theory attaches to these characteristics because the theory focuses on how well individuals can come together and be managed (Crowston & Osborn 1998, pg.7). Communication can be the most important factor to the team's success (Gandee, 2014). Well-composed teams are much better at communicating and being effective, which

allows the collaboration theory to function at high levels and consequently produce higher levels of success.

Lastly, double loop learning and its method of iterative examination on how we execute objectives, the results from our execution and why we chose to execute in such a manner is a dynamic way of processing information. This introduction of "*why*" creates the opportunity for firms to have a deeper understanding of their processes. It also allows for firms to evaluate if there is room for further efficiency within these processes. Iterative development, as a characteristic of agile, involves stakeholders to enter this double loop of learning as well. This results in more lean processes and successful high preforming project deliverables and teams.

All of these characteristics and theoretical perspectives together capture the essence of the agile methodology. See Table 3 below for the mapping between agile characteristics and agile theoretical perspectives. In the next section we will focus on strategic management and the ability of strategic management principles to be a catalyst for the agile methodology to assist young new venture firms in terms of growth and financial success.

Table 2: Agile Characteristics & Theoretical Perspectives

Agile Characteristic	Theoretical Perspective
Uncertainty	Dynamic Capabilities
Communication	Collaborative Theory
Team Composition	Collaborative Theory
Iterative Development	Double Loop Learning

Section 3: Strategic Management

Section 3.1: History of Strategic Management

The term Strategic Management first appears in the early 1960's in major works such as

Chandler (1962) and Ansoff (1965). In Sridhar's (2007) study he provides a historic

account of the development of strategic management that highlights three pivotal events:

Schendel and Hofer's (1979) publication, Porter's (1980) book, and the launching of the

Strategic Management Journal in 1980. Arguably, these three events are what have

shaped this dynamic and growing academic field.

Schendel and Hofer's book identified areas of research and opportunities, in which they

brought together leading scholars of the time to create a research agenda in management

for the next two decades (Sridhar, 2007; William, 1990). Within this agenda the authors

note the importance of further study of entrepreneurship. On the topic of entrepreneurship

and strategic management (Schendel and Hofer, 1978, pg.526) state, "the birth process is

necessary; and survival, regardless of size requires a renewal of key ideas on which the

origination was built".

The next major event is the history of strategic management was the publication of

Porter's book "*Competitive Strategy*" in 1980, which "became the foundation for much

of the strategy curriculum and marked a transition from the reliance on toolkits developed

by consulting firms (such as the BCG matrix) to a systematic, theoretical analysis of

firm-level strategy" (Sridhar, 2007, pg.320). The book was revolutionary and presented a

breakthrough theory within the field of management. The book historically introduced

Porter's Five Forces as well as the three organizational strategies of lowest cost, differentiation, and focus.

The third event was the introduction of the "*Strategic Management Journal"* also in 1980. The journal is an academic outlet in which scholars and researches can publish their strategy-oriented work. The importance and relevancy as the leading strategic management journal remains true today. The journal has doubled the number of issues per year and opened the door for other leading journals to allocate space for strategic management research. (Sridhar, 2007)

These events lead us to believe that this young academic field is filled with an array of concepts in fields from economics to psychology that makes it diverse and dynamic. However, we still must define what exactly is strategic management and how does it connect to the agile methodology.

Section 3.2: Defining Strategic Management

According to Nag (2007), it is a common belief that strategic management is fragmented and lacks a coherent identity. This belief most likely stems from the fact that there is no universal definition for strategic management. There are two reasons for this lack of a universal definition. The first, as previously stated, strategic management is a relatively new academic field of study. It is possible that as research in this area continues we may one day have a standard definition for strategic management. However, with an academic

field like strategic management that has such a variety of topics to consider, defining it will simply need more time to mature and grow as an academic field of study.

The second reason behind this lack of consciousness is that there is an overlap of the relevant topics. These topics lead to multiple definitions that have a heavy focus on the topic from which the definition orients from. This leaves room for the research community to be ambiguous and diverse in the disciplinary and philosophical research orientations that contribute to defining strategic management. (Nag, 2007)

Rajiv (Nag, 2007, pg.942-943) defines strategic management as "the major intended and emergent initiatives taken by general managers on behalf of owners involving the utilization of resources to enhance the performance of firms in their external environments." We will use this definition of strategic management because it is one of the more encompassing definitions.

It must be noted however, that although strategic management may not have a universal definition or a long literary history, strategic management has been extremely successful since its inception in academia and within its application in business. "The success of strategic management thus suggests an alternative view—as entities that are dynamic and malleable, yet at the same time held together by a common, underlying, but permeable core" (Nag, 2007, pg.952).

In the next section we will bridge the gap between the agile methodology and strategic management. We also will introduce the concept of Entrepreneurial Orientation and its relationship to new ventures and their measurements of success.

Section 4: Utilizing the Agile Methodology and Strategic Management for New Ventures

4.1 Introduction to Entrepreneurial Orientation

Entrepreneurial Orientation (EO) refers to a firm's strategic orientation, capturing specific entrepreneurial aspects of decision-making styles, methods, and practices (Lumpkin and Dess, 1996). According to Miller (1983), "entrepreneurially-oriented firms uncover and pursue possible avenues for achieving growth through an emphasis *on innovation, proactiveness* and *risk-taking* within their strategic processes and behavior" (Messersmith, 2013, pg. 37). The key emphasis on innovation, proactiveness and risk–taking has been confirmed in the positive relationship between entrepreneurial orientation and firm performance (Messersmith, 2011; Rauch et al., 2009; Wales et al., 2011).

Yet, in order to capture the success of new ventures the connection between Entrepreneurial Orientation and competitive strategy must be established. Lechner and Gudmundsson, (2014, pg.47) compare this relationship to a boxer and his or her trainer, stating, "… competitive strategy adds content to EO and channels it (similar to how boxing training and tactics channels a boxer's aggressiveness)". So in plain terms entrepreneurial orientation has no ability to have a positive effect on new ventures without incorporating a competitive strategy.

4.2 New Ventures and New Venture Success

A new venture can be defined as a stage of a company's maturation from its inception to no longer than five years (Hu, 2011). In this stage of a company's maturation, new ventures often face similar challenges. Younger firms face a distinct set of challenges, including the attainment of social legitimacy, resource stability and operational efficiency (Messersmith, 2011; Stinchcombe, 1965). According to a survey by Barringer *et al.* (2005), which focused on about 70 new enterprises in the U.S, "only 3.5 percent realized the fast growth and evolution into big enterprises" (Hu, 2011, pg. 303). The difficulty with finding success in new ventures does not come from the process of creating a new venture but from fostering growth. By overcoming the elements of social legitimacy, resource stability and operational efficiency companies can begin their transition out of the new venture stage to a sustainable business. This is a level of success most entrepreneurs hope to achieve. Therefore, we must note that the definition of success has slight differences for each new venture as well as for each individual entrepreneur. However, there are certain areas within a new venture that can define success with an entrepreneurial orientation. These entrepreneurial orientation areas of success are venture growth, organizational agility, and creating sustainable competitive advantage. The remaining elements of new venture success vary in definitive quantifiable levels of success because every entrepreneur is different and applies a personal experience and or reasoning to their definition of the level of success for their new venture.

It has been a long standing axiom in the research community that the level of growth of a new venture is based on the expectations of the entrepreneur and the size of the business while it is in the new venture stage (Brush, 2009; Cassar, 2007; Stanworth and Curran, 1976; Wiklund et al., 2003). In addition, "most practitioners would probably agree that there is nothing "normal" about growth patterns, as each business takes its own pathway to development; moreover, the academic literature has not studied the various pathways in great detail" (Brush, 2009, pg.482). However, we identify growth as a key element to the success of a new venture with an entrepreneurial orientation. So by overcoming the challenges of new ventures to achieve venture growth, organizational agility, and a sustainable competitive advantage a new venture can achieve entrepreneurial oriented success. This success is heavily contingent on the firm having an entrepreneurial orientation and a strategic plan. "Firm survival is lowest when firms are small and young; thus, the development of effective business strategies is critical for the continuity of the business" (Messersmith, 2013; Thornhill and Amit, 2003).

Section 4.3: Agile and Strategic Management

The combination of the methodology of agile and strategic management is a new concept. Davidson (2013) explains that there are benefits connected to the strategic management of firms emulating agile. Davidson claims this is due to, "parallels between the evolution of strategic planning into strategic management and the evolution of agile best practices" (Davidson, 2013). We can continue this evolution by not only imitating the agile

methodology's best practices, but also by fusing the agile methodology with strategic management practices.

Referring to Table 3, there are four core characteristics of the agile methodology identified. We can connect the agile methodology to strategic management concepts through three theoretical perspectives. This fusion of theory and characteristics allows us to develop new strategic management methods to overcome the challenges new venture companies face.

In Addleson's book (2011, pg.113), he expresses the importance of this fusion stating, "by looking for practices that are good for knowledge-work, which break the stranglehold of management on how to organize work, we can learn a lot from a mini-revolution in software development known as 'agile methods.'… Agile methods offer a way out of this impasse, with a far reaching, even radical solution to building good software."

In this body of work we will continue to support this literature and provide evidence that this union of the methodology of agile and strategic management principles or practice has the potential to influence the success and growth of new ventures with an entrepreneurial orientation.

The previous discussion leads to our three research questions:

1. What characteristics of the agile methodology can be adapted for entrepreneurs starting and managing new ventures?

2. How can the synthesis of the characteristics of the methodology of agile and the core concepts of strategic management become a tool for new ventures to achieve success within an Entrepreneurial Orientation?

3. Can the Agile Manifesto be adapted to the context of "new ventures"?

Method

Section 5: Data Source & Analysis

This qualitative data collection and analysis has been structured to explore the adaptation of the agile methodology to entrepreneurially oriented new ventures.

Section 5.1: Data Source

The participants for this study were divided into two groups. Both groups were designed to strengthen the research with erudite knowledge and information outside of the review of the literature. Group 1 participants were current employees for the American automotive company General Motors. General Motors was founded in 1908 in Flint, Michigan and is a multinational company that designs, manufactures and distributes automotive vehicles. At the time of the data collection General Motors had over 210,000 employees and 152 billion dollars in revenue. During this time period General Motors began an IT transformation in which they reversed their technology business model from 90% outsourcing and 10% insourcing to 10% outsourcing and 90% insourcing. General Motors and their use of the agile methodology added to the relevancy of the participants from its group.

The second group of participants came from the Jim Moran Institute of Global Entrepreneurship at Florida State University in Tallahassee, Florida. The Jim Moran Institute at Florida State was established in 1998 and is committed to the edification of young people with the desire to learn more about entrepreneurship. In addition, the institute is also committed to supporting small business owners in the northern region of

Florida by providing applied training as well as consulting services. Each participant from this group comes from an elite association of educators within the field of entrepreneurship. All have either devoted their academic careers to the study of entrepreneurship, or have previously been successful entrepreneurs themselves. These participants were able to provide insights about new ventures due to extensive experience and expertise.

Section 5.2: Data Collection and Analysis

This study utilized two mediums of communication to conduct semi-structured interviews which were by telephone and face-to-face. These two mediums were chosen in order to create an informal environment and ensure each participant was comfortable and relaxed. This was designed for the participant to be able to answer all the questions without feeling pressured. It also encouraged each participant to be candid.

For the General Motors participants I first discussed and received formal written consent from the Governance and Planning Lead within the IT function at General Motors to conduct interviews with employees in his department. Once I was given consent to interview General Motors employees I received a short list of available employees within the IT function and began recruiting participants via email. The total number of participants from General Motors was three and they were asked a series of questions relative to their experience within their field and this body of work. The interviews were scheduled during the workday for all GM participants. The job titles for the participants were SCRUM Master, Project Lead, and Agile Coach. On average the participants had

about 25-30 years of experience within their field. The interviews on average lasted 20-25 minutes and all questions were answered within this timeframe.

The participants from the Jim Moran Institute of Global Entrepreneurship (JMI) at Florida State University were solicited differently. The list of professors within JMI along with their contact information was acquired from the Jim Moran Institute website. I then contacted the professors within the program via email. Once I received their agreement to be a part of the study, I scheduled face-to face interviews with each participant. The participants have an average of 35 years of experience between business and academia, and the three participant interviews took between 20 -25 minutes.

Each participant within the study was notified that all of the interviews would be recorded for transcription purposes and that their identity would remain confidential. The purpose of using these data sources is to answer the research questions. In the development of the interview questions, provided in Appendix D and E, my thesis director and I developed an initial set of questions. The questions were grounded in the literature on the agile methodology and both of the researchers experience with agile development. Since the JMI participants would most likely have little to no prior knowledge of the agile methodology, new venture success questions were added. Again questions were grounded in the strategic management literature. The interview protocol questions were approved through the Institutional Review Board at Florida State University (IRB number IRB00000446).

Once the interviews were transcribed, analysis of the texts commenced. Responses were analyzed using the sentence as the unit of analysis. Similar concepts were grouped together into themes. The qualitative data collected has given us themes to consider as we explore the possibility of the agile methodology being applied to new ventures. Through the systematic examination of interviews three reoccurring themes were identified: *Acceptance of Uncertainty*, *New Venture Success Standards*, and the *Importance of Meeting a Need.* These themes will be discussed in detail in the next section.

Results and Discussion

In this study we have learned from the literature and the participants that difficulty can arise in the acceptance of agile as a management style for preexisting ventures and project teams. We also have discovered, through the major themes and findings of our research, that by developing a set of new venture success standards and the creation of a New Venture Manifesto we may be able to facilitate adaptation of the agile methodology with less organizational resistance. Consequently, this creates an opportunity for more new ventures to transition into being a sustainable business enterprise.

Section 6: Research Themes

We will begin the analysis of results with the examination of major themes that emerged from the interviews. The first theme, *Acceptance of Uncertainty* arose from both groups of participants. When planning a project or a new business there is a level of difficulty that is involved when preparing for the known challenges. However, as entrepreneurs and projects leads, in order to be successful while following through with their scheduled objectives and plans one must be able to accept that unforeseen events will occur. It is the nature of organizational leadership to believe that we can manage uncertainty. However, participant 2 from the JMI group alludes to the fact that as leaders we have little control over uncertainty by stating, "The sense of forcing it when you say manage sounds like you can control it, when you really just have to dance with it." The acceptance of uncertainty creates an opportunity to leverage this uncertainty in a new ventures favor by "dancing with it" and remaining flexible and open to finding more innovative and creative solutions. This ability is key within the agile methodology as well. According to

GM participant 2 agile methods, "plan for the changes to happen and then adapt to them". This ability to accept and adapt to uncertainty verses denying and resisting uncertainty is a core characteristic of the agile methodology and key to the success of new ventures.

For example when in the software development process, if a business user wants an additional feature (outside the initial scope) developers using an agile methodology respond differently than those using a traditional (i.e., heavy weight) methodology by embracing the unexpected change. The benefit of this unexpected change (i.e., uncertainty) is that embracing it may create a software application that will better meet the need of the business user. If we apply this same logic to new ventures, accepting uncertainty and embracing the changes that arise may strengthen, and/or enhance the venture. JMI participant 2 said, "as far as new ventures – it's a lot of uncertainty." New ventures are vulnerable to mistakes and failure due to high levels uncertainty in their quests for attaining social legitimacy, resource stability and operational efficiency (Messersmith, 2011; Stinchcombe, 1965). A successful new venture must be able to respond to change and accept uncertainty. Accepting uncertainty is the first action a new venture can take in order to manage challenges through critical thinking, innovation and creativity.

The second theme identified was *New Venture Success Standards*. Currently within the academic community there is no standardized metrics (quantitative or qualitative) that define success for new ventures. However, this study has produced a collection of new venture success standards that have been accumulated from the literature and participants.

The standards are designed to assist new ventures in defining and achieving success. The seven New Ventures Success Standards are listed in Table 3 below. We know from the literature that having a universal standard of new venture success is impossible because entrepreneurs define success differently. However, entrepreneurs can benefit from the new venture success standards, because no matter what the industry, without meeting these standards at some level a new venture will surely fail. Furthermore, by providing the new venture success standards, entrepreneurs starting new ventures can have a better idea of what areas to gage their success in.

In one of the interviews conducted with GM participant 3, a definition of agile was provided that is essential to understand agile's connection to this theme of new venture success standards. "A lot of people think agile means you just do whatever you want and that's totally incorrect. It is a lightweight process but it is very prescriptive." By engraining this prescriptive nature of agile characteristics within the culture of a new venture, it may become easier to promote high levels of performance. The agile characteristics that came from the literature and participants are as follows: *Continuous Improvement, Incremental Delivery, Collaborative Effort, Iterative Development, Acceptance of Uncertainty, Consistent Communication and Team Composition.* These characteristics of the agile methodology all have the ability to reach beyond software development, and the potential to revolutionize the manner in which we start new ventures due to its fusion with agile characteristics.

Table 3: New Venture Success Standards

New Venture Standard	Quote	Literature
Growth	"Your company is going to grow into something you want to see it become."	"Researchers have found that growth is an important objective for most firms" (Barringer, 2005)
Meeting a Need	"Is someone hurting because I am not in business, that determines if there is a need."	"Our highest priority is to satisfy the customer through early and continuous delivery of valuable software." (Agile Manifesto, 2001)
Cash Flow	"Yea well really if you look at most companies there really two criteria that are valuated in terms of, the big criteria in terms of your valuation. About half or it is based on growth and about half of it is based on cash flow efficiency."	"Cash flow ratios can be used to predict failed vs. non-failed firms." (Zordan, 1998)
Communication	"Communication is that one tool we have that links our company to our customer."	"The most efficient and effective method of conveying information to and within a development team is face-to-face conversation." (Agile Manifesto, 2001)
Accepting Uncertainty	"The agile project is going to plan for the changes to happen and then adapt to them."	"Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage." (Agile Manifesto, 2001)
Team Composition	"The teams the do well are the ones that work together to do what they need to do to be successful"	"Human resources play an integral role in the entrepreneurial process, as people ultimately represent the active element which drives the process forward." (Baron, 2007)
Profit	"The money is the side effect of finding success in business."	"The mission of profit oriented organizations should not be 'making a profit'; the real mission should be 'deciding what to do to make a profit." (Lambert 2011)

The third theme is the *Importance of Meeting a Need*. For a venture to be considered a venture it has to make money, and selling to customers is one way new ventures make money. In order to acquire and maintain a steady influx of customers a venture must be able to consistently meet the needs of those customers. While conducting interviews participant 1 from the JMI group spoke on how he determined if there was a need present. "Is someone hurting because I am not in business? - That determines if there is a need." He makes an addition point saying, "It is a wonderful trait that entrepreneurs have and that is opportunity recognition. It is the driving force behind being a successful business, being able to see what the next step is." As an entrepreneur, knowing what the next step is means understanding how to meet the unmet needs of your target market. The recognition of this opportunity can be one of the deciding factors on how well a venture meets a need.

As we look at the characteristics of agile, the theme of meeting a need seem to parallel the concept of iterative development. In the Agile Manifesto one of the twelve foundational principles is, "Our highest priority is to satisfy the customer through early and continuous delivery of valuable software" (Agile Manifesto, 2001 pg.1) The goal of agile software development is no different than the goal of new ventures, to meet the needs of the customer (which is an accomplished iterative development process). By developing software in this manner and continuously working with the customer, the agile methodology meets customer needs.

Section 6.1 Research Questions

Initially within this study we set out to answer three-research questions. What resulted was a series of connections that provided us with the three themes of *accepting uncertainty, new venture success standards* and *the importance of meeting a need* detailed previously. Through the review of literature, data from participants, and the themes that have emerged from research we have been able to answer our research questions.

Our first research question asked what characteristics of the agile methodology can be adapted for entrepreneurs starting and managing new ventures. In order to answer this question we began with the core values of the agile methodology (*individuals and interactions*, *working software*, *customer collaboration*, and *responding to change)* from which the agile characteristics flow (Agile Manifesto, 2001). We began with the core values of the methodology because the characteristics of agile are derived from the core values. Next we examined the agile characteristics identified by Dingsoyr (2012) and Ovcharenko (2003). Dingsoyr (2012) listed *collaborative development, a lean mentality, involvement of customers and stakeholders, and the acceptance of uncertainty* as the main characteristics of the agile methodology, while Ovcharenko (2003) diverged by highlighting is *iterative development, communication, team members and people and simplicity and leanness.*

All of these characteristics are true of the agile methodology yet based on further review, this study found *acceptance of uncertainty*, *communication, team composition* and *iterative development* as the key characteristics of agile. However, the question of whether these characteristics could be used by entrepreneurs in new ventures still remained. So we asked our entrepreneurs and agile experts, "Do you foresee startup businesses implementing agile process management?" Responses from both groups of participants indicated that these characteristics could be beneficial when applied in a new venture environment even without a technical skillset or background. This is a critical aspect that must be noted due to the software development (i.e., technical) origins the agile methodology. One of the responses from GM participant 1 made it clear, "The concepts are very well understood, and whether you're tech… non tech, whether it's software or starting up a bakery shop...you can use this."

We also discovered that the agile characteristic of a *lean mentality* is beneficial to creating teams that can face uncertainty and challenges with critical thinking and innovation. JMI participant 2 makes the point that must be addressed in lean environments noting, "There are times to be formal but those times are few and far between." For every new venture that practices a lean mentality the occurrences of formality must be based on the culture of the new venture team. For example, clothes and appearance can be key indicators of how 'lean and lax' a new venture culture is. This lax (i.e., less stressful) environment allows for new ventures to potentially have more flexibility to think creatively and critically. Due to this discovery we have amended the

original four characteristics to include a *lean mentality* along with *acceptance of uncertainty*, *communication, team composition* and *iterative development*.

The second research question sought to answer how the synthesis of the characteristics of the agile methodology and the core concepts of strategic management could be a tool for new ventures to achieve success within an entrepreneurial orientation. We must first revisit the concept of entrepreneurial orientation, (EO) in order to ensure the contextual veracity of this result. In the literature review we learned that EO has an established connection to strategic management through competitive strategy (Lechner and Gudmundsson, 2014). Competitive strategy, as a strategic management concept, is the connecting thread between the agile methodology and new ventures. Lechner and Gudmundsson (2014) elaborate by adding "competitive strategy adds content to EO and channels it." Furthermore, according to Miller (1983), "entrepreneurially-oriented firms uncover and pursue possible avenues for achieving growth through an emphasis *on innovation, proactiveness* and *risk-taking* within their strategic processes and behavior" (Messersmith, 2013, pg. 37). Due to these unique strategic processes and behaviors, success standards and metrics should be adapted and tailored to each new venture.

By reviewing the core characteristics of agile, we see they are also focused on meeting the need of either the customer or team. GM participant 1 expressed this theme clearly, "The goal is not making money, the goal is satisfying the customer and when you do that the money takes care of itself." This statement is why meeting a need is so significant. It is a mistake as a new venture to allow profit and growth to be your first objective as a

39

new venture. JMI participant confirms this by sharing, "The last thing that I look at in determining if a company is successful or not is profit." The foundation of a new venture's success is meeting a need because without the venture meeting a need it is useless to a customer base.

We provide a set of concepts grounded in the literature and our data for new ventures to use in order to assess their performance. The new venture success standards allow flexibility, so that each new venture can define its own mixture of success metrics within the guidelines of the new venture success standards.

Our final research question asked whether the Agile Manifesto could be adapted within an entrepreneurial orientation context of new ventures. The review of the literature explained that the core characteristics of the agile methodology are not a formal definition of the methodology but rather, "are guidelines for delivering high quality software in an agile manner" (Dingsoyr, 2012, pg.1213). We argued that these guidelines can go beyond the development of software to help foster the sustainability and success of new ventures. The theme of *new venture success standards* took the core characteristics of the agile methodology, along with strategic management concepts as a guide in the creation of the New Venture Manifesto. Through the use of this New Venture Manifesto entrepreneurs may be able to develop more sustainable new ventures. The importance of this is evident in the survey by Barringer (2005), which focused on about 70 new enterprises per year in the U.S, and found "only 3.5 percent [of new ventures] realized the fast growth and evolution into big enterprises" (Hu, 2011, pg. 303).

In the creation of the New Venture Manifesto we combined research themes, new venture success standards and characteristics of the agile methodology to create a manifesto that may be equally as revolutionary in the field of entrepreneurship as its predecessor has been in agile software and process development. The resulting Manifesto is closely modeled after the Agile Manifesto and is listed below and in Appendix C.

The New Venture Manifesto

In our pursuit of creating more sustainable/successful new ventures by utilizing the agile methodology we have come to value:

Acceptance of Uncertainty over resistance to change
Consistent Communication over ambiguous expectations
Collaborative Venture Teams over multi-level management
Lean and Lax Organization over heavy and formal organization
Iterative Development over large one-time releases

Nine Principles behind the New Venture Manifesto

We follow these principles:

❖ Meeting the needs of your stakeholders is of the highest importance for new venture success.

❖ Welcome change and challenges. They create opportunities to strengthen your new venture.

❖ Grow your venture by effective agile management and decision making rather than focusing on profit.

❖ Fill your team with highly motivated and skilled individuals, who believe in the same operational philosophy.

❖ In order to continue to grow and generate profit a venture must maintain a positive cash flow.

❖ Clearly communicate your values and expectations consistently and frequently.

❖ Continuous improvement is the most effective method to prevent stagnation in your new venture.

❖ Pursue iterative development and deliver incrementally to achieve higher customer satisfaction and business project success.

❖ The best results will come from collaborative self-organized teams.

Section 6.2 Limitations & Future Research

Within this study there are three limitations that offer us the opportunity to conduct further research. The first limitation was the study's small sample size. It would behoove the academic community to pursue this line of research with a larger sample that would include practitioners of both the agile methodology as well as the traditional waterfall method. We believe this would provide a higher level of clarity on the key differences between the two methodologies while placing emphasis on the elements that may make the agile methodology suited for new ventures. We also would recommend expanding the sample to include entrepreneurs throughout various business industries, in order to test and verify the New Venture Manifesto. The agile methodology was forged to create new efficiencies within software development. In comparison, the New Venture Manifesto is attempting to create new efficiencies within the field of Entrepreneurship, specifically for new ventures. By expanding the context of the study it would give us a larger pool of data to interpret and understand in order to further this research.

The second limitation of this study was its use of qualitative data. Future research would be enhanced by having a mixture of both quantitative and qualitative data in order to raise the study's validity, and generalizability. Both the business and academic community respond well to empirical numeric data. As this exploratory study enters a new stage of refinement, the addition of quantitative data will be a positive addition to the research.

The last limitation this study encountered was a lack of time to test the *New Venture Success Standards* and the *New Venture Manifesto.* It is important that we test that the

New Venture Manifesto and the New Venture Success Standards can be applied to non-technical ventures in an array of different industries. This is the logical next step in the research is to solidify this newly formed bond between the agile methodology and entrepreneurship.

In this research a few unexpected findings are worth noting. In contrast to a lean mentality there is a possible need of heavy documentation to be used as the exit strategy of entrepreneurs to leave a venture at the level of maturation in which they feel comfortable. We furthermore believe that new ventures have an advantage over existing mature ventures when adopting the New Venture Manifesto and Standards. This advantage is the lack of organizational resistance. In preexisting ventures with a well-established management system, making large scale changes in management approaches methodologies and practices can be very difficult. For example, participants 2 and 3 from the GM group were expressing some of the challenges that can arise for companies trying to make large scale shifts. GM participant 2 stated, "When you think about things like change management there are resistors and there are early adopters**.**" Yet, with a new venture if the entrepreneur establishes an agile- strategic management approach at inception the only approach stakeholders within the new venture would know is agile. The last unexpected finding was that the importance of meeting a need is also a critical element of the agile methodology as well as in new ventures. This finding adds to our understanding of agile software development.

Section 6.3 Significance of this Study

The creation of a New Venture Manifesto and New Venture Success Standards can be of service to future research and to variety of new venture endeavors. To the best of our knowledge this is the first exploration of the capabilities of the agile methodology as applied to new venture management. If given our findings it is possible to see substantial changes in the manner in which we approach and manage the challenges new ventures face. Furthermore, if agile continues to thrive outside of its origins of software development it may also provide benefits for other fields, potentially creating an creating a more agile business environment.

This study makes a contribution due to the possible financial benefit of more successful new ventures. Entrepreneurship is a pivotal piece of the global economy, and as technology continues to advance our interdependencies as a global economy will only further develop. We believe that the findings from this study can provide benefits to new ventures and also to the global economy that we all share.

Lastly, within this study, the results encourage new ventures to remain conscious of the importance of meeting the needs of stakeholders over growth and profit. In our world with its relatively new access to virtually an infinite amount information and data, ventures must adapt. The tools provided in this study may help new ventures best meet the needs of consumer markets.

Conclusion

In this study we discovered that by utilizing the core characteristics of agile: *acceptance of uncertainty*, *communication, team composition*, *iterative development and lean mentality* along with the strategic management concept of entrepreneurial orientation and completive strategy, it is possible to assist new ventures in their goal of maturation into a successful company. The first tool presented in this study is the *New Venture Manifesto*, which was closely modeled after the Agile Manifesto. This Manifesto includes five core values along with nine foundational principles (See Appendix C)

The second tool produced from this study is the *New Venture Success Standards* (*Growth, Meeting a Need, Cash Flow, Communication, Accepting Uncertainty, Team Composition and Profit*). These new venture success standards have been designed to standardize the areas of success a new venture should be preforming in without standardizing the level that a new venture must perform at. This gives entrepreneurs a concrete set of practices to use as a guide toward. We believe these tools will become vital in meeting the unique set of challenges that many new ventures face (e.g., struggling for social legitimacy, maintaining cash flow, etc.).

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Appendix A. The Agile Manifesto

Manifesto for Agile Software Development

We are uncovering better ways of developing
Software by doing it and helping others do it.
Through this work we have come to value:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on right, we value the items on the left more.

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Appendix B: Twelve Principles of the Agile Manifesto

We follow these principles:

Our highest priority is to satisfy the customer
through early and continuous delivery
of valuable software.

Welcome changing requirements, even late in
development. Agile processes harness change for
the customer's competitive advantage.

Deliver working software frequently, from a
couple of weeks to a couple of months, with a
preference to the shorter timescale.

Business people and developers must work
together daily throughout the project.

Build projects around motivated individuals.
Give them 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 software 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.

Appendix C. The New Venture Manifesto

In our pursuit of creating more sustainable/successful new ventures by utilizing the agile methodology we have come to value:

Acceptance of Uncertainty over resistance to change

Consistent Communication over ambiguous expectations

Collaborative Venture Teams over multi-level management

Lean and Lax Organization over heavy and formal organization

Iterative Development over large one-time releases

Nine Principles behind the New Venture Manifesto

We follow these principles:

* ❖ Meeting the needs of your stakeholders is of the highest importance for new venture success.

* ❖ Welcome change and challenges. They create opportunities to strengthen your new venture.

* ❖ Grow your venture by effective agile management and decision making rather than focusing on profit.

* ❖ Fill your team with highly motivated and skilled individuals, who believe in the same operational philosophy.

* ❖ In order to continue to grow and generate profit a venture must maintain a positive cash flow.

* ❖ Clearly communicate your values and expectations consistently and frequently.

* ❖ Continuous improvement is the most effective method to prevent stagnation in your new venture.

* ❖ Pursue iterative development and deliver incrementally to achieve higher customer satisfaction and business project success.

❖ The best results will come from collaborative self-organized teams.

Appendix D. General Motors IT Function Subgroup Interview Question

1.   Tell me about yourself. For example, what your is your current business or job and how long have you been doing it?

2.   Think about one of your more successful businesses or projects.

   a. How do you define success for that business/project?

   b. What made the business/project successful?

3.   What key areas of your business or project had to excel in order for you as the leader to feel successful?

4.   Which working environments have been the most successful and productive for your businesses?

   a. Formal environments or Less formal environments

   b. Has documentation of processes ever been beneficial during a successful business?

   c. Has documentation ever been beneficial after the completion of the project or venture?

5.   As a leader would you rather list your project requirements and see a finished product or iteratively develop the project section by section?

6.   If you could rate managing uncertainty on a scale of 1 to 10 (10 being the highest) how important is the skill in order in order to have a successful venture?

       i. Why ___ ?

7.   Do you currently use Agile Process Management in your job?

8.   How would you define/describe Agile Process Management to a novice?

9.   How did your group respond to its acclamation and first use of Agile?

10.   In what business areas might Agile Process Management be the most impactful?

11.   In what business areas might Agile Process Management be the least impactful?

12.   Do you foresee start-up businesses implementing Agile Process Management?

13.   What are the potential positive/negative aspects for a start-up?

Appendix E. Jim Moran Institute Subgroup Interview Questions

1.   Tell me about yourself. For example, what your is your current business or job and how long have you been doing it?

2.   Think about one of your more successful businesses or projects.

   a.   How do you define success for that business/project?

   b.   What made the business/project successful?

3.   What key areas of your business or project had to excel in order for you as the leader to feel successful?

4.   What are the key requirements for a New Venture to transition into a successful company?

   a.   What are characteristics of a New Venture?

   b.   What are characteristics of a successful company?

5.   Recall one of your least successful businesses or projects.

   a.   What made it unsuccessful?

   b.   In hindsight, what could you have done differently?

6.   How important has team composition been in your businesses or projects?

   a.   Did communication play a significant role in this success or failure?

7.   Which working environments have been the most successful and productive for your businesses?

   a.   Formal environments or Less formal environments

   b.   Has documentation of processes ever been beneficial during a successful business?

   c.   Has documentation ever been beneficial after the completion of the project or venture?

8.   As a leader would you rather list your project requirements and see a finished product or iteratively develop the project section by section?

9.   In all of your businesses and projects how often have you experienced project uncertainty or surprises?

10.   If you could rate managing uncertainty on a scale of 1 to 10 (10 being the highest) how important is the skill in order in order to have a successful venture?