

St. Petersburg State University
Graduate School of Management

Master in Management Program

An Investigation of the effects of the Simplicity concept on performance

Master Thesis by the 2nd year student

Master in Management, CEMS

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Saint Petersburg
2021

ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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АННОТАЦИЯ

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Направление подготовки	Master in Management (MiM)
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Описание цели, задач и основных результатов	<p>Цель исследования - изучить важность концепции Simplexity и ее связь с производительностью. Конкретные вопросы исследования следующие:</p> <ul style="list-style-type: none"> - Как концепция Simplexity связана с производительностью? - Какие из инструментов, представленных в существующих методологиях, являются наиболее важными для повышения производительности? - Как можно более эффективно сочетать элементы различных концепций для повышения производительности? <p>Одним из основных результатов исследования является обнаружение существенной разницы между различными типами неэффективности, обусловленной сложностью: неэффективность, обусловленная отсутствием фокуса и хрупкостью была продемонстрирована как не</p>

	<p>связанная с неэффективностью, обусловленной бюрократией и самоуспокоенностью.</p> <p>Другим фундаментальным результатом исследования является создание нового фреймворка <i>Simplexity</i>, который эффективно объединяет элементы существующих подходов в логическую матричную структуру.</p>
Ключевые слова	<p>Complexity, <i>Simplexity</i>, управление производительностью, Smart Simplicity, Anti-Complex, Founder's Mentality, Simplicity-Minded Management</p>

ABSTRACT

Master Student's Name	Mikhail Erkulev
Master Thesis Title	An Investigation of the effects of the Simplicity concept on performance
Educational Program	Management
Main field of study	Master in Management (MiM)
Year	2021
Academic Advisor's Name	Ioannis Christodoulou, Academic Director of CEMS MiM Programme, Associate Professor of Strategy
Description of the goal, tasks, and main results	<p>The objective of the research is to investigate the importance of the concept of Simplicity and its relation to performance. Specific research questions are as follows:</p> <ul style="list-style-type: none"> • How is Simplicity connected to performance? • Which of the tools introduced in existing frameworks are the most important for improving performance? • How can elements of different frameworks be combined more effectively for improving performance? <p>One of the main results of the study is the discovery of a profound difference between different types of complexity-driven non-performance: non-performance driven by lack of focus and fragility has been demonstrated to be unrelated to non-performance driven by bureaucracy and complacency.</p>

	The other fundamental result of the study is the introduction of the novel Simplexity framework, which effectively combines elements of existing approaches in a logical matrix structure.
Keywords	Complexity, Simplexity, performance management, Smart Simplicity, Anti-Complex, Founder's Mentality, Simplicity-Minded Management

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Introduction

Constituents of the problem

Despite significant technological advancements (Roco & Bainbridge, 2003) the performance of people and organizations has not substantially risen in the last couple of decades (Damanpour, Walker, and Avellaneda, 2009). Both people and organizations are struggling to meet their targets in an increasingly complex environment, which often has drastic negative consequences (Lin & Lee, 2011). People burn out or lose their jobs due to non-performance, and organizations go into decline, failing to achieve their vision, and in the case of corporations, losing profits and market share.

When it comes to performance, there are four main aspects of organizations that we need to consider: Structures, Processes, People, and Products/Services (Ashkenas, 2007). The four are intimately intertwined and a lack of proper management in any one of them can become the cause of non-performance of the entire organization.

Traditionally, the organizational structure was either hierarchical or flat. However, both of these types of structures have problems (Jacobides, 2007). Hierarchical structures with multiple layers of control prevent vital information from going from the bottom to the top and reaching senior management, which often results in the escalation of crises that could have been avoided otherwise. Another issue with hierarchical structures is the ever-growing amount of bureaucracy, which is introduced as a means of control and ends up stifling productivity and preventing the introduction and spread of innovation in the lower echelons of power (Tirole, 1986). These problems are further exacerbated in complex environments where bureaucracy and a lack of information-sharing lead to runaway complexity (Siggelkow & Rivkin, 2005).

Flat structures work better while organizations are small and require lots of flexibility. However, as organizations grow, they become much more difficult to manage. Once the number of employees is in the thousands, flat structures do not allow the efficient tracking of the responsibilities of employees, which blurs the KPIs of organizational performance. As it becomes unclear, what the people are doing, it becomes impossible to measure and manage their

performance. This, in turn, leads to decreasing productivity and increases undesirable complexity (Carzo & Yanouzas, 1969).

An attempt to solve the issues with the two classical structures was made with the introduction of matrix structures. However, they too have many problems (Davis & Lawrence, 1978), the most fundamental one of which is the lack of a clear chain of command. Because each employee has to answer to two managers within the matrix, conflicting interests of the two can lead to conflicting orders, which creates ambiguity in the prioritization of tasks. Moreover, these conflicts can also lead to power struggles between the managers, which takes the focus off the real issues at hand. These problems can be deadly in a complex environment and, if left unchecked, will almost inevitably lead to non-performance.

When it comes to processes, the situation is somewhat better. The most common approach to process organization used today is Business Process Management (Jeston, 2017). BPM is an effective method of optimizing business processes by using a clear structure and objective performance metrics. BPM can be further split into two main categories: Business Process Improvement (BPI) and Business Process Reengineering (BPR). The former refers to analyzing and gradually improving processes within an existing system, whereas the latter means redesigning the whole system from scratch.

This approach works well when systems are linear and predictable. However, as systems become more complex, BPI becomes increasingly difficult. After a certain point, using BPI to manage complexity only creates further complicatedness, which makes the system unmanageable. Using BPR to reduce unnecessary complexity within the system can resolve this issue but within traditional approaches that is seldom done, as BPR is seen as a rare one-off event while BPI is used continuously.

However, the most problematic of the four components when it comes to complexity is managing people. People work more than ever before, spend a disproportionately large amount of time in unproductive meetings and engaged in other useless activities, and struggle at getting the job done on time (Morieux, 2018). This development not only decreases productivity in and of itself but also results in a decrease in employee job satisfaction, which in turn creates a positive feedback loop of decreasing productivity and personnel turnover. All of the above results in a less than optimal experience for business owners and employees alike.

In traditional managerial practices, there have been two approaches to managing and motivating employees: the “hard” approach and the “soft” approach (Kirk, 1995). However, in light of the observations mentioned above, the “hard” and “soft” approaches to management have largely failed in their endeavor to increase productivity in a complex environment, albeit due to different factors.

The “hard” approach to management attempted to tackle the productivity problem by introducing Key Performance Indicators (KPIs) and corporate structures, as well as people responsible for them. To a large degree, this approach evolved from Scientific Management and was chosen to allow managers to measure, optimize, and control business functions within the organization.

One of the problems with this approach is that in a complex environment, it creates too much bureaucracy and introduces complicatedness, which makes it impossible for employees to get anything done without jumping through an ever-growing number of hoops. It simply takes too much time and effort to agree on anything. Top managers often don’t recognize this problem, as they are typically exempt from going through the proper channels to pursue their objectives.

Another issue with this approach is that the interests of key stakeholders responsible for a particular KPI or function can often be misaligned with the interests of the organization as a whole. Those stakeholders are only concerned with their specific area of responsibility and will often try to improve it even at the cost of sabotaging other departments, as seeing the bigger picture is not included in their list of responsibilities.

Finally, it is important to remember that large organizations are complex systems. Therefore, like any complex system, they have emergent properties that cannot be captured by a fundamentally reductionist process of introducing KPIs and measures. All of these issues introduce inefficiencies and prevent employees and teams from being as productive as they could be, making the “hard” approach to management insufficient for successfully increasing productivity in a complex environment.

The “soft” approach to management takes a different route: it seeks to empower workers by allowing them to define their work process on their own. At a glance, this may seem like a good idea to deal with bureaucracy and empower employees to optimize their work process themselves. However, this approach comes with its own set of problems.

The first of the aforementioned problems is that it causes ambiguity and makes it difficult to determine who is responsible for what. The approach leaves lots of room for slackers and does not provide a clear structure for employees to fulfill their responsibilities. Without a structured workflow, employees are left to their own devices and will often fail to meet deadlines or produce sub-par work due to a lack of standards.

Moreover, it is well known, that what cannot be measured cannot be optimized, which means that due to a lack of KPIs, processes within the organization that employs the “soft” approach often remain sub-optimal, resulting in a lower quality of work and decreased productivity.

The problems with the traditional two approaches prevent them from maximizing productivity in a complex environment. Therefore, a new approach needs to be developed to solve the problems above, one which ensures that KPIs are met without introducing new layers of bureaucracy and thus increasing complicatedness within the organization. The best approach would also account for complexity within organizations and use the properties of complex systems to adjust the solution for the specifics of every company.

Simplexity frameworks

A possible solution to this problem was proposed by Yves Morieux (2014), a BCG Managing Director, who introduced six simple rules that can help managers reduce complicatedness in their organizations (Morieux, 2014). The concept at the core of the framework is called Smart Simplicity. This concept relies on the properties of complex systems and can be used to align the interests of stakeholders with those of the organization, while simultaneously simplifying the organizational structure and increasing productivity. The approach mostly focuses on the people part of the problem and has already demonstrated success in several practical applications.

Another approach to complexity was proposed by Rend Stephan (2021), a colleague of Morieux (2014). Unlike Morieux (2014), Stephan (2021) does not make the distinction between complexity and complicatedness. His position is that all complexity becomes counter-productive after a certain point, which he calls the Complexity trap. Stephan’s (2021) Anti-Complex mindset is probably the most comprehensive framework to date. It addresses all three parts of the problem and proposes several methods of reducing complexity.

One more fundamental framework was introduced by Bain consultants Zook & Allen (2016). It is called Founder's Mentality and introduces tools of dealing with complexity on the fronts of Structure, Governance, Ways of working, and Accountabilities. The parallels between these elements and the Structures, Processes, and People classification used in this paper are fairly obvious.

There also exist a number of other approaches to complexity in business and academia, some of which offer different views on the subject and tools of overcoming non-performance. This master thesis aims to analyze the effectiveness of these frameworks further as compared to other managerial approaches, as well as to investigate which of the proposed solutions are most relevant for achieving the goals of increasing performance and reducing complicatedness. It further aims to analyze, which additional tools can be introduced to increase the effectiveness of existing approaches.

Research questions

The broader objective of the research is to investigate the importance of the concept of Simplicity. Some of the specific initial research questions are as follows:

- How is Simplicity connected to performance?
- Which of the tools introduced in existing frameworks (Smart Simplicity, Anti-Complex, Founder's Mentality, and others) are the most important for improving performance?
- How can elements of different frameworks be combined more effectively for improving performance?

To answer these questions, a singular case study will be performed. As the phenomenon of Simplicity is still developing, a deep qualitative investigation is required. This approach will allow us to answer the research questions most effectively. More information on the research methodology will be provided in the corresponding chapter.

By answering the research questions, this master thesis can enrich the existing body of research with new perspectives on Simplicity and introduce a new framework for dealing with complexity in organizations. Using a high-level approach of analysis of existing tools will allow me to overcome some of the biases of their authors and establish a clearer perspective on what

works and what does not. The proposed framework will have multiple academic and practical applications and can serve as a basis for further research into the subject.

Research structure

The structure of the rest of the thesis is going to be as follows: Literature Review, Research Methodology, the Case Study, Analysis of Simplexity tools in relation to the case, Findings and Discussion, and Conclusion.

In the literature review, we will look at some of the existing frameworks of Simplexity. We will start by examining Simplexity as it applies to management and deriving a definition of the phenomenon. We will then proceed to examine the existing Simplexity frameworks in detail and analyze their strengths and limitations. At the end of the literature review, we will synthesize the scope of issues that the existing literature fails to address and define the research gap.

In the research methodology section, the tools and methods of the investigation will be discussed in more detail. The section will begin by postulating the specifics of the research design, describing and justifying the chosen methods of research. After that, a justification of the case choice for the study will be provided. Data collection and analysis methods will be discussed in the following subsection, allowing us to understand how data is going to be gathered and analyzed and why those are the optimal methods.

The Case Study section will be dedicated to analyzing the problems that a company has faced due to complexity and how Simplexity methods have been used to overcome them. The section will begin with a short overview of the company's history and market position, followed by a closer examination of the crisis.

A thorough analysis of the Simplexity tools used by the company's leaders to overcome the crisis will be performed in the corresponding section. These tools will be examined both in terms of their relation to existing frameworks and within the scope of the new framework proposed in this work.

The aforementioned new framework is going to be proposed in the findings and discussion section. It is planned, that the framework will organically incorporate elements of existing methodologies, allowing leaders to utilize the most powerful tools of all of those methods together without having to cope with the blind spots of each of those frameworks.

In the conclusion section, a summary of the thesis and key takeaways will be provided. The section will also include suggestions for further research on the subject.

Literature Review

Concept definitions

It is important to begin the literature review with the definitions of key concepts related to the research subject. Clearly defined concepts will allow us to avoid ambiguity related to the terminology. Once the concepts have been defined, we can proceed with a critical review of existing Simplicity frameworks and an analysis of the research gap.

Organizational performance is a complex and multi-dimensional construct. At the same time, the concept of performance is often taken for granted and its definitions are rarely justified in scientific literature. Richard, Devinney, Yip, & Johnson (2009) state that, based on their analysis of the measures of performance used by various authors, organizational performance contains three main aspects: financial performance, product market performance, and shareholder return.

The authors also highlight a different definition of organizational effectiveness, which, in addition to performance, also contains the plethora of internal performance metrics, such as corporate social responsibility.

Analysis of these effectiveness metrics is an important and interesting subject. However, this analysis lies outside of the scope of this thesis. Therefore, for the purpose of this work performance can be defined in the narrower sense of financial indicators.

Performance – a measure of organizational effectiveness based on financial indicators, product market performance, and shareholder return.

Based on this definition, we can conclude that an organization is performing well if its sales, revenue, market share, and profit margin are growing sustainably year over year and are expected to continue growing for the foreseeable future.

Likewise, we can assume that an organization is experiencing non-performance if it is losing market share, experiencing decreasing profit margins, has dwindling sales, or is incurring losses. Moreover, market shocks that have already influenced the industry but have not yet been reflected in the company's financial reports and to which the company has not adapted, can also be considered an indicator of non-performance.

The goal of this research is to investigate how complexity influences performance according to the definition above and how Simplicity can be used to reduce the types and degrees of complexity where this influence is negative.

Before jumping into what Simplicity means, a few other concepts need to be introduced first. In particular, it is important to understand what complex systems are, what different types of complexity they exhibit, and what it means to simplify them. However, it is first of all important to introduce the concept of systems.

System – a group of interacting or interrelated elements that act according to a set of rules to form a unified whole.

To better understand what complexity means, we must turn to the definition of complex systems in mathematics and natural sciences. There exists no universally accepted definition of complexity, but an informal definition can be derived from listing the major properties of complex systems.

Complexity in mathematics and natural sciences – non-reductionist properties exhibited by systems, which include nonlinearity, emergence, and adaption.

These three properties of complex systems require their own definitions.

Nonlinearity – also known as Chaos, the sensitivity to initial conditions, which means that the change in the size of the input is not proportional to the change in the size of the output (Strogatz, 2001).

Emergence – behaviors and properties exhibited by the system as a whole, which cannot be explained by or derived from examining its elements in isolation (O'Connor & Wong, 2012).

Adaption – the ability of systems to change and learn based on experience (Skrimizea, Haniotou, & Parra, 2019).

Not all complex systems exhibit all three properties, but at least one of them should be present for a system to be considered complex. Based on these definitions, it is evident that markets are complex systems and organizations can be complex systems depending on their size, structure, and managerial policies. The key takeaway for managers is that complex systems are unpredictable, as predicting the future of a complex system is impossible without reconstructing

the entire system from its inception, at least based on the best science that we have today. This, in turn, means that complex systems are impossible to manage, at least in a linear top-down way.

According to Stephan (2021), organizations can be subdivided into three types: simplistic, complex, and simple. It is particularly important to understand the distinction between the first and the third. Stephan (2021) sees the evolution of organizations through these three stages as the processes of sophistication and simplicity.

Sophistication – the process of making something more complex or refined.

Simplistic organizations are typically small and have not yet achieved a level of sophistication that is required for the appearance of complexity. As they develop their offerings and the organization grows, they introduce complexity to the system via the sophistication process. At this stage, complexity is beneficial to performance, as it allows companies to grow, innovate, and introduce new, enticing features to their products and services.

However, after a certain point, organizations stop being simplistic and become complex. At this stage, the number of elements of the system and their interactions reaches a critical point and organizations begin exhibiting emergent phenomena, which cannot be easily explained by simply looking at the elements of the system. Once organizations are complex, introducing more complexity stops being productive and can lead to unforeseen consequences, which are impossible to predict and can often be detrimental to the organization.

Moreover, organizational complexity also depends on the variety in its environment. For instance, serving multiple market segments with different needs is more complex than serving a homogeneous set of customers. The same is true for multiple geographies, sophisticated supply chains, complicated regulatory settings, fierce competitive environments with many players, etc. Turbulent changes in all of the above introduce further complexity.

Based on the above, we can derive a definition of complexity in the managerial context.

Complexity in management – the structural, processual, and interpersonal sophistication of the organization, which reflects the turbulence and variety in the environment (McDaniel, 2000).

An argument can be made, that some forms of sophistication can still be beneficial to complex organizations. Particularly, sophistication in less developed areas, which remain simplistic relative to the overall organization, can continue to increase performance.

Yves Morieux (2014) introduces a further distinction between the actual complexity of the organization and the complexity perceived by the company's staff, naming the latter complicatedness.

Complicatedness – the level of complexity experienced by managers and employees of an organization when performing their tasks (Morieux, Tollman, 2014).

A study by Cara et al. (Cara, M., Birkinshaw, J., & Heywood, S., 2017) shows that complexity increases innovation, whereas complicatedness reduces it. It is reasonable to assume that the same relationship is true for performance, which itself to a certain extent depends on innovation. This assumption is precisely what Yves Morieux (2014) suggests in his framework, Smart Simplicity. Other authors typically do not make a distinction between complexity and complicatedness and see both as simply different aspects of complexity.

Rend Stephan (2021) in particular sees further increases in complexity as the main cause of poor performance. He calls this phenomenon the complexity trap: managers try to manage complexity instead of reducing it, which inevitably leads to mistakes and, therefore, non-performance. According to Stephan (2021), the way out of this precarious situation is to apply the Anti-complex mindset and reduce unnecessary complexity on the way to the third stage of organizational progress, a Simple Organization.

Based on the views on complexity mentioned above, we can derive a definition of Simplicity.

Simplicity – the process of improving organizational performance by removing unnecessary complexity.

The methods of applying Simplicity can vary from framework to framework. It can mean removing complicatedness based on a people-oriented approach or a more comprehensive way of dealing with complexity in all three of the main organizational components.

However, there is a fundamental issue with how people approach problems, which prevents Simplicity from being implemented using traditional frameworks and managerial practices.

According to Adams et al. (2021), people always think of additive changes first and systematically overlook subtractive changes. Managers are no exception to this rule, which creates a tendency to increase organizational complexity as a means of addressing issues. As has been discussed above, this approach does not solve the problem of non-performance but only exacerbates it.

Therefore, any attempt to improve organizational performance in a complex environment must be preceded by a shift in mindset from one of sophistication to one of Simplicity. With the current state of understanding of complex systems and barring significant technological breakthroughs in the area in the near future, a path of Simplicity remains the only effective method of improving performance.

Now that Simplicity has been defined, we can take a look at how different authors approach the problem, what methods of dealing with complexity they recommend, and what results they have achieved in practice by applying those methods.

Smart Simplicity

In his article “Bringing managers back to work”, Yves Morieux (2018) begins by analyzing innovative approaches to team organization, such as agile, lean, and holacracy, and continues to discuss how managers fit into this new picture of the self-managed workplace. He concludes that these new approaches to team organization do not make managers obsolete, but without a shift in their approach to management, leave them unable to create value for the organization. He proceeds to strengthen his argument by introducing the concept of complexity and discussing its influence on management.

Morieux (2018) further argues that creating new rules and KPIs to manage complexity adds complicatedness, which achieves the opposite effect and hinders productivity. He concludes that managers need to learn and do three basic tasks: framing through action, integrating around the job, and shaping the organizational context. In the light of game theory, these tasks can be seen as aligning the payouts for all stakeholders to achieve optimal results.

At this point, the article dives deeper into how and why incentives need to be designed by managers. Morieux (2018) identifies the main task of the new approach as shifting the responsibilities of managers from commanding to integrating, which allows them to influence

the behavior of employees more effectively without introducing complicatedness. He uses the example of product owners of apps to illustrate how the interests of the team can be opposed to those of the company. The need for senior managers and what they can bring to agile teams are then further investigated in the article. After that, Morieux (2018) describes how organizations should be managed as behavioral systems and introduces his six simple rules for doing so. The rules themselves originate from one of Morieux's books "Six simple rules: how to manage complexity without getting complicated" (Morieux, Tollman, 2014) and were summarized in the article "Why Managers Need the Six Simple Rules" (Morieux, Tollman, 2014).

The Six Simple Rules of Smart Simplicity are as follows:

1. Understand What Your People Really Do.
2. Reinforce Integrators.
3. Increase the Total Quantity of Power.
4. Increase Reciprocity.
5. Extend the Shadow of the Future.
6. Reward Cooperation.

Understanding what Your People Really Do means knowing not only what employees do, but also why they do it and what hurdles they face in the process. It also means understanding how these behaviors influence performance and how changes to the organizational context will change these behaviors. Understanding something is the first step towards managing it, which is why this rule comes first and is of particular importance.

Reinforcing integrators refers to giving power to people who play an important role in facilitating cooperation between different departments within the organization. Integrators are critically important for cohesion within the organization and for ensuring the alignment of interests and objectives of its parts. By reinforcing integrators, managers ensure that they can perform these functions effectively.

Increasing the Total Quantity of Power means empowering employees without taking that power away from managers. It means allowing people to make a difference by expanding their behavioral options. According to Morieux (2014), this not only allows people to do a better job

and find more meaning in their work but also improves cooperation and allows people to satisfy multiple requirements of complex tasks.

Increasing Reciprocity refers to convincing people within a complex system that their interests are mutually aligned. The key here is to strengthen the interdependencies between people and teams by constraining the resources that they can access, as well as making sure that the individual objectives of employees are interdependent with those of others. This forces people to cooperate and prevents the emergence of siloes.

Extending the Shadow of the Future means ensuring that whatever future consequences the organization faces as a result of someone's work are reflected in that person's outcomes. This is akin to Taleb's (2020) concept of "Skin in the Game", which refers to people having an active interest in the future outcomes of what they're doing today. This ensures that people actively pursue the outcomes that are best for the project instead of personal short-term gains and that the interests of other people in the team aren't ignored.

Rewarding Cooperation is the logical conclusion of the previous five rules. By factoring cooperation into rewards, managers can ensure that people are incentivized to cooperate. It also means penalizing those who do not cooperate, at least in the sense that they will not get the same rewards as those who do.

At the end of the essay, Morieux (2014) emphasizes the importance of managerial judgment, particularly that that judgment needs to be informed and concludes that this is one of the critical reasons for changing what managers do and how they do it.

The research problem of this article is how managers fit into the picture of new organizational structures, why they are needed, and how their behavior needs to change to increase productivity and align the goals of agile teams with those of the organization. It is an essential issue because managers in most companies in their current state do not contribute to organizational success and often introduce complicatedness, which hinders productivity. This conclusion is similar to what Anderson (1999) came up with in his study "Complexity Theory and Organization Science", in which he discovered that productivity could be increased by altering the fitness landscape of the organization in a way that enables local agents to evolve effective adaptive solutions. Anderson also found out that Complex adaptive systems are characterized by four key elements: agents

with schemata, self-organizing networks sustained by importing energy, coevolution to the edge of chaos, and system evolution based on recombination.

As has been mentioned above, Morieux (2014) uses Game Theory and his six simple rules method to solve this problem. An alternative approach to this method would be to study successful organizations that have previously tackled the problem of complexity and try to discern the business practices that make them successful. Many other authors do just that, and the fact that Morieux (2014) opted to ideate the rules first and only then apply them to real-world situations can be considered a major weakness of Smart Simplicity. It will also be interesting to examine each of the six rules in more detail and see how they contribute to decreasing complicatedness.

Likely, ideas for other rules that could be just as effective will also emerge in the process of this research. For instance, in the article “Knowledge worker fitness in the workspace: self-managing at the edge of chaos,” Cameron Guthrie (2020) found that designing workplaces in a way that encourages exploration and adaptation can increase the productivity of knowledge workers in complex environments. These findings can be directly correlated to Morieux’s (2014) rule “Increase the total quantity of power”, as having the flexibility to explore and adapt also means having the power to make decisions about approaching one’s tasks and work environment.

The essay is efficient, and the methods described in it have already successfully been used by BCG to improve productivity and reduce complicatedness for many of their clients. Three such cases, The Case of the Software Startup, The Case of the Media Company, and The Case of the Luxury Goods Company, are cited in the paper. BCG’s track record of successfully implementing the findings of this research in many real-life scenarios serves as proof of their effectiveness.

However, some concerns regarding the universal validity of the findings and their generalizability still need to be addressed. For instance, while Morieux (2014) makes a strong argument in favor of the need for senior managers, it remains unclear whether frontline managers and middle managers still have a place in the agile organization. What tasks should they now perform? Perhaps, modern organizations ought to get rid of those roles altogether? These questions remain unanswered. Moreover, it is also unknown how this methodology translates

across different regions. It has been proven effective in the West, but whether it applies to organizations in other markets, with vastly different cultures, remains to be seen.

In another paper, “Fighting Hunger and Other Complex Problems with Smart Simplicity,” (Morieux, Caines, Meerkatt, Assery, & Dunford, 2020) Yves Morieux examines how the same methodology can be used to tackle some of the world’s biggest challenges.

Chronic hunger is a global challenge, which threatens the development of entire nations. According to the article, Smart Simplicity can help address this challenge, as well as the challenges of access to clean water, healthcare, and quality education. The stunting of children is a particularly severe problem, as it prevents children, and therefore entire nations, from reaching their full potential. Smart Simplicity can be used to create feedback loops between mothers, government agencies, NGOs, and health workers. Merely increasing the number of inputs isn’t enough. As Yves Morieux (2020) puts it, the decisions of stakeholders need to be aligned with the overall objective.

There are cases of countries that have successfully reduced child hunger. These include Brazil, India, Malawi, Mauritania, Peru, Senegal, and Vietnam. Examining these success stories can provide valuable insight into the problem. Some of the factors include the availability of good data, a taskforce, the sole purpose of which was to address this problem, access to decision-makers, and strong feedback loops across all relevant stakeholders.

In Tanzania, government sponsorship and a committed national integrator, both of which are essential factors of smart simplicity, were already present. However, other important factors, such as a single source of nutrition data and localized stunting data, were not. BCG and the WFP decided to work in Tanzania to improve the situation. They collaborated with government agencies and created catalyst teams. Data collection, analysis, and sharing were vital to the success of the initiative.

Stakeholders in Tanzania include mothers, religious leaders, and government agencies. Making sure that all of them work productively towards a common goal was the essential factor for success. The success of the program in Tanzania demonstrates how the concept of smart simplicity can be applied to solving some of the world’s greatest challenges at the highest level.

The next article by Yves Morieux et al. is called “Simplify First—Then Digitize” (Messenböck, Morieux, Backx, Jahn, Martin-Rayo, Ramjee, 2019). In it, the authors introduce the problem of complicatedness rooted in bureaucracy and an excessive number of managers who are responsible for a KPI or function. They then proceed to describe how this inefficient mess can be solved by using smart simplicity. The article examines the case of a bank that, in the face of competition both inside and outside the financial industry, needed to digitize quickly to remain relevant. Despite an elaborate plan of implementation and full support of top management, the digitization effort stalled due to excessive complicatedness within the organization. The symptoms included high administrative hurdles, vague IT requirements and governance, blurred accountabilities, and unclear ownership of cost centers.

BCG compared organizations based on their level of complicatedness. The study revealed that simple organizations are more than twice as likely to be successful in their digitization efforts and typically have higher revenue growth and profit margins. Moreover, employees in simple organizations are three times happier and two-and-a-half times more likely to stay.

Morieux (2019) highlighted eight areas of complicatedness in organizations:

1. Leadership
2. Strategy and the transformation agenda
3. Organizational structure
4. Activities and roles
5. Processes, systems, and IT
6. Decision-making
7. Performance management
8. People and interactions

Each of these areas can introduce complicatedness in their way, and all of them need to be considered when implementing smart simplicity. Another problem is that top managers often don't see the complicatedness in their organizations because they don't have to follow all the rules and procedures that are expected from lower-level staff.

Morieux (2019) proceeded to divide the process of digital transformation into four steps:

1. Identifying the problems that have arisen from complicatedness.

2. Diagnosing what's behind the complicatedness.
3. Crafting targeted solutions.
4. Implementing the solutions.

In addition to these steps, addressing complicatedness in the eight areas above is required for a successful digital transformation initiative. As the case of the bank demonstrates, successfully implementing all of these practices can provide organizations with a sustainable competitive advantage.

In the Article “How Complicated Is Your Company?” (Messenböck, Morieux, Backx, Wunderlich, 2018) Morieux et al. examine some of the factors that influence the complicatedness of organizations. This article lays out the theoretical groundwork, atop of which Morieux (2018) built the case studies mentioned above.

BCG surveyed top managers to assess the complicatedness of companies. The survey revealed some interesting findings regarding which organizations are threatened the most by complicatedness. For instance, there was an initial hypothesis that larger organizations are more complicated than smaller ones. However, this was proved not to be the case, with even the tiniest organizations sometimes having a staggering amount of complicatedness. On the other hand, there does appear to be a connection between complicatedness and industry: healthcare companies and the public sector encompass significantly more complicatedness than media and telecom companies.

Finally, the authors related how respondents in different positions within a company view complicatedness. Here, the conclusions are particularly prominent. Overall, the perceived complicatedness directly matches the level of managerial responsibility of the respondents: complicatedness scores from workers without administrative duties are 70% higher than those from the board of directors' members.

The rest of the findings of the survey are consistent with the conclusions made from previously described articles.

Yves Morieux (2014) was one of the first to bring the attention of managers to problems related to complexity. As a pioneer in the area, he coined the term “complicatedness” and developed an original framework for managing it. His approach to complexity proved to be effective in a

number of practical cases and laid out the foundation for further research. However, Yves Morieux's (2014) understanding of the problem is fundamentally limited in scope, which limits the applicability of his method.

Despite its proven track record, Smart Simplicity has several key weaknesses, some of which have been addressed by subsequent authors. Firstly, the distinction between complexity and complicatedness, i.e., actual and perceived complexity, is arbitrary and can trick managers into believing that complexity is a good thing and that it can be managed. As has been demonstrated by Stephan (2021), neither of these two assumptions is necessarily correct. Therefore, using Morieux's (2014) method exclusively can lead managers to introducing more complexity than they can handle.

Secondly, the six Simple Rules proposed by Morieux (2014) focus exclusively on managing people. This makes his approach lopsided and prevents managers from seeing and addressing issues with products/services, processes, and structures, the three other critically important areas. Ignoring these areas can and often does lead to sub-optimal performance.

Lastly, the rules come from practice, but their exact formulation, number, and structure appear to be arbitrary. The only evidence in their favor provided by Morieux (2014) is anecdotal, which means they are easily variable. According to Deutsch (2011), this makes the Smart Simplicity a bad explanation, as good explanations are hard to vary. This means that Smart Simplicity cannot serve as a valid explanation of what complexity is or how it affects performance, but only as a practical method of approaching it at best. The latter, however, was put in doubt by the previous two issues, which leads to a limitation on the practical application of the method as well.

In conclusion, Smart Simplicity gives us a glimpse at the problem of complexity and attempts to provide a solution but is in itself insufficient. We can now turn to examining the works of other authors to see what they can contribute to the subject.

Anti-Complex

The next approach to complexity was proposed by Rend Stephan (2021) in his book "Anti-Complex: The Leadership Mindset for Ultimate Performance". According to Stephan (2021), the distinction between complexity and complicatedness is a purely academic one. Instead of making

such a distinction and subsequently trying to manage complexity by reducing complicatedness, Stephan (2021) proposed a hypothesis that complexity itself is the source of the problem.

To test this hypothesis, Stephan (2021) conducted a Global Complexity Survey, in which he asked managers at all levels questions about their experience with complexity. The survey consists of just four questions regarding the level of complexity in the organization, its impact on the organization, its impact on the respondent's performance and wellbeing, and how the respondent believes the level of complexity is going to change within the next 2-3 years.

Based on the results from five hundred respondents, the level of complexity is already high to very high in 77% of organizations, it has a negative impact on 83% of organizations and 43% of managers, and is expected to increase in 63% of organizations. The results of the Global Complexity Survey demonstrate that excessive complexity is a problem for organizations, that it is already high and keeps increasing. For individuals, the situation is somewhat different: while some see it as a problem for themselves, others realize that if they can handle complexity, it can be a source of competitive advantage.

From this survey, Stephan (2021) concludes that everything that clouds one's vision, distorts one's judgment, and hinders one's actions can be attributed to complexity. This conclusion is too strong for the supporting evidence and may be an oversimplification of reality. Nevertheless, it is reasonable to conclude that at least some, and possibly most, of the problems that managers face, can be attributed to complexity.

However, Stephan (2021) does make a distinction between performance-enhancing complexity and performance-degrading complexity. The former is manifest in the form of the sophistication force when organizations transition from simplistic to complex and is characterized by refinement, improvement, and innovation of the structures, offerings, and processes of the organization. The latter is called the complexity trap and prevents organizations from performing and advancing further. Stephan (2021) believes that there is no qualitative difference between the two types of complexity, but that one turns into the other once a critical mass is reached and complexity becomes unmanageable.

To draw a parallel with Greiner's (1989) model of organizational growth, the problems related to complexity often first arise in the crisis of red tape and persist throughout the fifth phase of

growth through collaboration and the sixth phase of growth through alliances, which introduces its own set of complexity due to conflicts between different parts of the organization, as people and structures take center-stage. This is what differentiates Anti-Complex and other complexity-based approaches from BPM, which is more useful at the fourth stage of growth through coordination, in which processes are the most important factor.

Stephan (2021) also makes a clear distinction between a leader and a manager. While a leader will try to reduce complexity and improve the performance of the team, a manager that is not a leader will often choose the way of least resistance, trying not to rock the boat and acquire personal benefits while the rest of the organization struggles.

To tackle complexity, Stephan (2021) proposes the Anti-Complex mindset, which consists of four parts: The Causes, The Symptoms, The Remedies, and The Weapons. As the name suggests, The Causes section introduces three main causes of non-performance. The Symptoms part describes three issues faced by managers when dealing with runaway complexity. The Remedies section proposes three things that need to be done to alleviate the problem. Finally, The Weapons chapter offers three tools to help leaders deal with complexity. The approach resembles how doctors approach a sickness, which is not only aesthetically appealing in a symbolic sense but also identifies complexity as a sickness and suggests a cure.

Stephan's (2021) Anti-Complex framework is as follows:

1. The Causes
 - a. Complexity Fallacy
 - b. Incremental Paradox
 - c. Explosive Mix
2. The Symptoms
 - a. Non-Performance
 - b. Fragile Systems
 - c. Blind Illusion
3. The Remedies
 - a. Take the Red Pill
 - b. Reframe. Redefine. Redesign.
 - c. Lead with Courage

4. The Weapons
 - a. Economies of Small
 - b. Irrelevance of Average
 - c. Advantage of Focus

The three causes of non-performance are what Stephan (2021) believes to be the reasons, why complexity becomes unmanageable, leading to the complexity trap.

The Complexity Fallacy refers to seeing the world as inherently complex, unpredictable, and unmanageable. The complexity fallacy means that some people give up before they even tried to solve the problem. It is a defeatist mentality, which, if left unchallenged, can bury a company. As Henry Ford put it, “Whether you think you can, or you think you can’t – you’re right”.

The Incremental Paradox means following a continuous improvement mantra and constantly chasing opportunities that can provide incremental performance improvements, adding more and more clutter. Each of these opportunities leads to increased complexity, eventually making it unmanageable.

The Explosive Mix refers to listening to experts who often unnecessarily overcomplicate things and are too bogged down by existing theories to imagine how things could work differently. Experts can get organizations from Simplistic to Complex, but moving to Simple is something that they can seldom do. Therefore, leaders that surrender to experts often fall into the complexity trap. “Always listen to experts. They’ll tell you what can’t be done, and why. Then do it.” – Robert Heinlein (2003).

The symptoms of the complexity problem are the issues, which managers encounter when complexity runs amok. Subsequently, they also constitute the reasons why runaway complexity should be avoided.

Non-Performance, as the name suggests, is the main issue that the Anti-Complex mindset is designed to address. As complexity within the organization increases, the sophistication force changes from performance-enhancing to performance-reducing. This change is what Stephan (2021) refers to as the Complexity Trap. Anti-Complex organizations escape the complexity trap by using the Remedies and Weapons proposed in subsequent sections of the framework.

The next symptom, Fragile Systems, means that due to excessive complexity systems become prone to failure. This is caused by a lack of energy, which is drained to manage complexity. When systems are fragile, any sudden shocks from the environment can cause system-wide failures, leading to the collapse of the organization as a whole.

The Blind Illusion refers to underestimating the complexity that we create without realizing it. The consequence of this is our desire to manage complex systems, which are no longer modellable, no longer predictable, and no longer manageable. The Blind Illusion is the opposite of the Complexity Fallacy: based on unjustified optimism, it is a tendency to ignore the data and other people's opinions and just go with what you believe to be right. It is the pitfall of many a leader and needs to be avoided at all costs.

The Remedies of the Anti-Complex mindset are the necessary actions that leaders need to take to move from Complex organizations to Simple ones.

Taking the Red Pill means accepting that complexity cannot be managed, overcoming the Blind Illusion, and being aware of the key causes of complexity (the Complexity Fallacy, the Incremental Paradox, and the Explosive Mix). To Take the Red Pill is to deeply question whether one or more of the causes has crept into the organization and to avoid them going forward.

Taking the red pill means having the causes of complexity in mind and making the Anti-complex mindset a cornerstone of organizational culture. This can be seen as Plato's (375 BCE) allegory of the cave, in which people base their observations of the world on shadows projected on a wall. Taking the red pill is akin to leaving the cave and seeing the world for what it is for the first time. According to Schein (1990), culture is a critical aspect of any company: if an initiative goes against the corporate culture, it will almost inevitably fail. Therefore, making Simplicity a cornerstone of organizational culture is instrumental for success.

Reframe, redefine, redesign is the primary implementation step. It is the path from reframing the problem to redefining the goal and, as a result, redesigning the strategy. The three elements need to be applied in this order and, if implemented successfully, can help organizations avoid the complexity trap. This approach is opposed to the classical framing of a problem, defining a

purpose, and designing a solution, which cannot work for existing structures and processes within organizations. This Remedy is at the heart of Anti-Complex.

By acquiring a deep understanding of the problem, a company can disrupt an entire industry, in which its competitors are focusing just on alleviating the symptoms. A great example of such a disruption comes from the early days of eCommerce (Stone, 2018): at the time there existed a plethora of coupon aggregating websites and catalogs where users could find information on the best deals on a product. The problems that their creators saw were “How can we increase the profitability of our service?” and “How can we compete with every other coupon site out there?”. Because all of them focused on these problems and came up with virtually identical solutions, the rivalry within the industry intensified. But then Amazon came along and completely changed the meaning of eCommerce. Instead of focusing on these narrow problems, Jeff Bezos asked, “Why do people go to all these websites for their shopping needs?” and followed up with “How can we make them shop with us instead?”. As a result, in just a few years, Amazon grew from a small online bookstore to the dominant online shopping platform in the Western world, while coupon websites grew increasingly irrelevant. None of this could have been achieved without reframing the problem and asking the right questions.

Redefining the goal comes naturally after the problem has been reframed. After all, the goal needs to match the problem and will therefore a priori need to be redefined. To continue with the Amazon example, Jeff Bezos defined the goal of setting up a marketplace that could cater to all of the customer needs without relying on third-party websites. This decision differentiated Amazon from the coupon websites and enabled its success. To draw a parallel with the Strategic Analysis framework of prof. Tovstiga (2015), redefining the goal allows a leader to better understand the unique competing space of the company and to adjust its positioning accordingly.

Finally, redesigning the strategy is the part that changes the direction in which the company is heading. In this stage, the “What if?” question is answered and alternatives to the existing strategy are found based on the new goal. Amazon’s strategy was to entice merchants to come to their platform instead of selling goods on their own websites, which brought in more customers and created network effects.

A key method to the “Reframe. Redefine. Redesign.” remedy proposed by Stephan (2021) is “Flipping the Pareto rule”, which means that instead of doing incremental improvement 80% of

the time and redesigning solutions 20% of the time, the opposite ratio should take effect. This allows organizations to stay ahead of the curve by constantly disrupting themselves and avoiding the Incremental Paradox. Here, it would be beneficial to draw a parallel with Business Process Management (Jeston, 2017). In BPM, there are two distinct ways of optimizing business processes: Business Process Improvement and Business Process Reengineering. The former takes an incremental approach based on existing processes, whereas the latter is used to design new business processes from scratch. So, the 80/20 rule could also be flipped in BPM by doing more BPR and less BPI. The difference here lies in the first two steps of the “reframe, redefine, redesign” method: without reframing the problem and redefining the goals first, and reengineering of business processes would only decrease complexity temporarily, without enabling the company to escape the complexity trap altogether.

Leading with Courage, the final remedy, is tied to the ability to execute the strategy from the previous step. It consists of Focused Action, Balanced Action, and Decisive Action. Stephan (2021) believes that all three together are necessary for truly courageous leadership.

As Michael Porter (1996) famously said, “The essence of strategy is choosing what not to do”. And focused action is just that – the ability to choose options that are best aligned with the strategy and goals of the company. The opposite is sometimes called “shiny object syndrome”, the never-ending pursuit of new opportunities, which seem more exciting than the previous ones. This lack of focus can have disastrous consequences and is the reason many enterprises fail.

Balanced action refers to knowing when it’s best to do nothing and not making unnecessary changes. It is important for the same reason as Focused Action, as in many cases not doing anything is the best strategy, and making rash decisions without thinking them through usually does not end well.

Finally, decisive action refers to the ability to follow through with your plans once a decision is made. It refers to not questioning one’s decisions and actions at the implementation stage of the process. This point can be challenged based on the fact that this is only true as long as no new information, which would have a strong impact on the decision, has come to light.

The weapons of the Anti-complex mindset, namely Economies of Small, Irrelevance of Average, and Advantage of Focus exist to make sure that the strategy that had been planned in the previous step does not fall into one of the many pitfalls of unnecessary complexity.

“Economies of small” takes the assumption of economies of scale that bigger is better until proven otherwise and reverses it. By putting the burden of proof on justifying scaling, it allows one to avoid creating unnecessarily complex systems, i.e., systems that introduce a lot of complexity while providing little to no benefit from scaling. In a way, this is a method of thinking about the world in terms of networks instead of isolated entities. By reducing the centrality of a network, one can achieve a higher degree of redundancy and drastically decrease the chance of catastrophic failure by allowing for more small-scale failures locally.

Smallness is always easier to manage, and it allows more flexibility in approaching problems by introducing emergent solutions that were not purposefully architected. This point was amazingly illustrated by Manfred Max-Neef (1992) in his book “Barefoot Economics”, in which he described two of his projects of improving the lives of people living in extreme poverty in Latin America, one at the level of a network of villages, and one at the level of a city, by empowering small local communities, creating opportunities for the people, and allowing these small groups to communicate between each other.

Irrelevance of Average refers to drilling down on the problem and focusing on its specific details instead of aggregated high-level data. Averaging data is an attempt at simplifying things, which degenerates the organization back to the simplistic stage. Drilling down on the details while ensuring only the relevant information receives attention, on the other hand, allows one to enrich the system by making data-driven decisions. This approach has long become a standard in consulting: whenever you don’t know how to approach a problem, try breaking it down into pieces and see where specifically the issue originates.

The example of GDP greatly illustrates this point: the use of GDP as a measure of economic growth is flawed for many reasons, the most prominent of which is that different sectors and even different companies within a sector can show tremendously different results. Ignoring this disparity would leave us under the impression that economies are governed by general trends and political developments instead of technological breakthroughs in specific industries, market

shifts, and supply chain disruptions. Needless to say, this impression would be completely disconnected from reality.

Advantage of Focus means limiting one's actions to the pursuit of only the most relevant opportunities that are aligned with the vision and mission of the organization. Advantage of Focus is the most controversial weapon of the three. In the opinion of this author, it simply repeats what has already been said in the Focused Action part of the Leading with Courage remedy and is, therefore, redundant.

Stephan (2021) calls leaders that lead organizations from Complex to Simple Complexity Warriors. He concludes the Anti-Complex framework with The Outcomes, a number of mindsets that Complexity Warriors must attain to be successful. These include Ultimate Leadership, Ultimate Performance, and Ultimate Resilience.

Stephan (2021) warns his readers of the prescriptive danger of leadership, saying that no particular leadership style is more effective than others. While various authors may recommend a particular style of leadership, it is evident that leaders can be successful (or unsuccessful) regardless of their style. Therefore, the best leadership style is one that fits the corporate culture, the situation, and the leader himself. An Ultimate Leader is a Complexity Warrior who has the awareness, insight, and impact not to get trapped by complexity.

Ultimate Performance is, according to Stephan (2021), is the ability to remain focused while always battling complexity. He introduces the Concentration Matrix to illustrate this point. The takeaway from the matrix is that leaders who concentrate on fewer performance dimensions and activity areas can achieve better performance than those who spread themselves too thin. The positioning strategy matrix seems intuitive and is important to consider when making strategic decisions. The consideration that extreme performance is not always necessary or even desirable is insightful. Based on it, we can conclude that Multi-Focused and Balanced strategies can be preferable in certain circumstances.

However, there exists an alternative view frame, which Stephan (2021) did not consider when creating the matrix. If one were to select the point of focus as a function to be optimized and other focus points as constraints that need to remain within certain bounds, this would allow one

to achieve better performance on the function than a multi-focused or balanced approach, provided that these bounds are sufficient for one's needs.

Ultimate Resilience is an escape from old fragile contexts through continued shared experiences. By flipping the Pareto rule, leaders can create new, more resilient organizational structures outside of the main organization and then transfer the people to them. Taking people from situation A and putting them into situation B creates adaptability. This is the reason so many innovative companies create a skunkworks department outside of the main organization and give them free rein to innovate.

Stephan (2021) concludes the book with nine principles that Complexity Warriors need to adopt to be successful. The principles are a recap of what was previously introduced in the framework and do not provide any new information on the subject.

The Anti-Complex mindset is a much more comprehensive framework than Smart Simplicity. It addresses issues related not just to managing people, but also to redesigning structures and processes. This holistic view of complexity allows more control over the various issues that one faces when moving towards Simplicity. Nevertheless, Anti-Complex has its own set of shortcomings.

Firstly, there is a problem with the general structure of the framework. In particular, the elements of the structure follow the same pattern: three causes, followed by three remedies, three weapons, and more threes in their implications. Admittedly, this could occur naturally, but that is very unlikely. So, the question is: was the framework structured to suit the contents, or were the contents arranged in a way that suits the structure? The latter presents a problem, as it creates an incentive to add redundant elements to some parts of the structure while ignoring potential additional elements of others. For instance, focused action, balanced action, and decisive action could easily have been three separate elements but appear to be squeezed into "leading with courage" just to fit the structure. This suggests that the elements of the framework were adjusted to suit the structure, which is not only disingenuous but also makes the overall solution weaker.

This also means that the elements of the framework are easily variable, which limits their explanatory power. Moreover, the difference between organizations in the Simplistic and in the Complex stage is often unclear. This creates a problem of demarcation, as we cannot always

effectively tell the difference between the two stages. With the benefit of hindsight, the distinction becomes obvious, but this is a fallacy, as is any theory can only be used to explain the past. What distinguishes a good theory is its ability to make predictions. And this is only possible if we can, with a high degree of certainty, distinguish between simplistic and complex at the moment that we cross this line, as even a slight delay can be catastrophic.

When faced with the question, Stephan (2021) admits that the issue is ultimately insoluble, and suggests that whenever organizations face non-performance, complexity should be assumed to be the cause. However, it stands to reason that an organization in the simplistic stage can also face non-performance, which, according to Stephan's (2021) theory, would be caused by a lack of complexity. Therefore, it could be counter-productive to always attempt to reduce complexity even when the performance issues experienced by the organization are complexity-related.

Furthermore, the hypothesis that increasing complexity after a certain point always leads to non-performance is an oversimplification. While runaway complexity can undoubtedly easily become unmanageable, it is important to distinguish where exactly complexity is introduced and what the implications are of its introduction. It can remain an enriching process in some respects while being detrimental in others. Therefore, trying to reduce complexity everywhere can be suboptimal from the perspective of performance.

On a more general note, using complexity to explain all non-performance is reductionist in nature and can be seen as an attempt to hide the bigger picture. Organizations can face a plethora of different issues, ranging from market shocks and legal action to disruption by competitors and financing issues. Using complexity to explain failures in each of those cases is a gross oversimplification. Admittedly, excessive complexity does cause performance issues and can be the cause of non-performance in many, possibly even most, cases, but ignoring other possible explanations leaves leaders vulnerable to be blind-sighted by other problems.

Blaming fragility on complexity alone is also an oversimplification. Fragility is an important aspect in systems theory and is often a direct function of network centrality: the more centralized a network is, the more prone it is to catastrophic failure. While decentralized systems have more local failures, workarounds are often found organically and the system as a whole remains stable. On the other hand, if the central node of a centralized network fails, it brings down the whole

system. Nassim Nicolas Taleb's (2013) book "Antifragile" greatly illustrated this issue and how it can be overcome by allowing systems to partially fail.

In conclusion, Anti-Complex is a comprehensive framework, which addresses many issues related to complexity. However, its reach is overstated by the author, while its limitations are not sufficiently addressed. Examining those limitations, as well as the practical applicability of each of the tools within the Anti-Complex mindset remains a task for future research.

Founder's Mentality

Founder's Mentality is a framework proposed by Bain consultants Zook & Allen (2016). The core idea of the framework is that to handle complexity, executives need to think like the founders of the organization and not like its custodians.

Unlike Greiner (1989), Zook & Allen (2016) distinguish just three crises of growth experienced by organizations: overload, stall-out, and free fall. The authors argue that these three crises account for the majority of non-performance issues encountered by organizations.

Overload refers to loss of momentum due to internal dysfunction experienced by young companies as they try to scale. Building new systems and designing processes bogs down productivity and prevents companies from performing as they used to. This is caused by leader undermanagement, forgetting about the company's purpose, and encroaching complexity.

Overload is exacerbated when founders leave the company and new management loses touch with the Founder's Mentality.

To overcome Overload, the authors suggest several methods. Some of them, such as Opening up lines of communication, Celebrating and rewarding front-line heroes, and Keeping staff focused on core principles and customer needs are logical and perfectly in line with other theories. Codifying best practices is also a reasonable measure for knowledge-based organizations.

Other suggestions are more controversial. For instance, making constant improvement a focus often means relying on incremental improvement, which can introduce unnecessary complexity and prevent organizations from disrupting themselves. This is in direct conflict with Flipping the Pareto rule of Anti-Complex.

Introducing measures of employee engagement, partner satisfaction, and customer advocacy is another controversial suggestion. On the one hand, measuring these things is important, on the other, an excess of measurements is a characteristic of the hard approach to management, which can lead to bureaucracy and non-performance.

The same issues can be raised with the recommendation to commit to Monday meetings. Regular meetings that have no specific agenda can be enormous timewasters, preventing employees from doing their job. Having a policy of openness and mechanisms in place for employees to come forward with any concerns they have can be a much more effective way of spotting problems and sharing ideas and initiatives.

Stall-out happens when complexity reaches a critical point in maturing organizations and is akin to Stephan's (2021) Complexity Trap. Stall-out is caused by growing levels of bureaucracy and internal dysfunction. Leaders are often caught off-guard by this crisis, as the methods they had previously relied on stop working due to growing complexity. Stall-out is most commonly faced by incumbents who are disrupted by more agile newcomers. The crisis is characterized by stagnant growth and internal dysfunction, which prevent the company from being as profitable as it used to be.

The authors recommend narrowing, simplifying, and rebuilding the core business as a means of remedying stall-out. This process involves a renewal of the founders' values and practices, including front-line obsession, insurgency, and the Owner's mindset. A strong focus on the core business is also key. Out of the three crises highlighted in Founder's Mentality, stall-out is the one that is most related to complexity and, coincidentally, the one that is solved using methods most similar to other complexity frameworks in general and Advantage of Focus in particular.

Free fall refers to a crisis experienced by organizations that have already plateaued and are no longer experiencing growth. The root causes of this crisis are often hard to identify. Mature incumbents that face competition from newcomers are most likely to experience this crisis. Free fall is a more severe form of stall-out, in which, instead of stagnation, companies experience a rapid decline. Free fall is deadly: according to the authors, only 10 to 15 percent of companies ever recover from it. This comes in stark contrast with Anti-Complex, where the decline experienced by companies was usually temporary until the leaders got out of the complexity trap.

Unlike Stall-out, Free fall is usually triggered by external factors but is in reality the result of long-brewing internal issues combined with a lack of adaptability. The authors recommend several methods of surviving and reversing free fall. These include building a refounding team, focusing on the core business, redefining insurgency, rebuilding the company at the front line, investing massively in new capabilities, and considering taking the company private. The first four of these methods are identical to the ones used against stall-out. Massive investing in new capabilities means identifying and developing a novel core capability that is better suited for the changing market than the company's existing capabilities. This is the differentiator that helps companies alleviate free fall and survive in turbulent times. Shifting to private ownership, the last of the proposed solutions is a temporary fix that can give the company time to recover and renew its capabilities. This method can also be used to divest parts of large companies that struggle within their bureaucracy. but could accelerate outside of it.

The Founder's Mentality is an attempt at helping organizations understand the causes of and overcome the impact of these three crises. The authors identify three main elements of the Founder's Mentality: an insurgent's mission, an owner's mindset, and obsession with the front line. Zook & Allen (2016) discovered that companies led by founders or where the clear influence of the founders remains, maintain these three mindsets and typically outperform their peers. The latter is demonstrated in a comparison between founder-led companies within the S&P 500 and the rest of the index. Founder-led companies appear to outperform their peers by 3.1X.

However, by making this comparison and assuming that founder-led companies perform better, the authors confuse correlation with causation. The difference could just as easily be explained by the desire of founders to stay at prospering companies and to leave dwindling ones.

An insurgent mission means "waging war" against the industry, challenging the status quo, and redefining the rules by which an industry operates. This is similar to the concept of Exponential Organizations as described by Salim Ismail (2014). At the core of both concepts lies the idea of disruption, a novel approach to existing problems, which has the power to make existing players obsolete by offering vastly superior in price and quality products and services. Exponential Organizations do this by leveraging the power of exponential technologies, which enables companies to scale at a rate that is unattainable by traditional organizations.

An insurgent mission consists of three elements: a bold mission, spikiness, and a limitless horizon. A bold mission is what fuels the company's growth by motivating its leaders to make a difference in the market. Spikiness is a company's competitive advantage; it is the differentiating factor that makes its value proposition unique. A Limitless Horizon refers to the ability for a company to scale exponentially, if successful. All of these concepts are also present in the Exponential Organizations framework, where each of them (MTP, SCALE, and IDEAS) is explained in more detail.

An obsession with the front line is the ability to make decisions based on instincts that came about during the early days of the venture when the founders were actively engaged with sales and/or operations. This element of Founder's Mentality is similar to Smart Simplicity's "Understand what your people really do", as previous front-line experience enables leaders to relate to what the current front-line workers are doing.

Front-line Obsession consists of relentless experimentation, front-line empowerment, and customer advocacy. Relentless experimentation refers to the ability to constantly try new approaches and practices, which effectively means disrupting yourself on a continual basis. This allows the company to stay ahead of the innovation curve and remain innovative. Front-line empowerment refers to giving front-line employees to have the decision power over their own work, which increases innovativeness on the front line, and imbues the employees' work with meaning, increasing their motivation. This element is analogous to "Increasing the total quantity of power" from Smart Simplicity. Finally, customer advocacy means paying attention to the desires, needs, and pains of the customers, which ensures that the offerings that the company provides are in line with what the market desires.

The Owner's Mindset is a state of mind that employees have, it is a feeling of connection with the company and what it does. With the owner's mindset, employees feel and act like owners, which ensures the alignment of their interests with those of the company. This concept is similar to Taleb's (2020) Skin in the Game, as the latter also ensures the alignment of interests of various stakeholders.

The three elements of the Owner's Mindset are strong cost focus, a bias to action, and aversion to bureaucracy. A strong cost focus means treating expenses and investments as if they were one's own money. Instilling a strong cost focus in employees ensures that costs are optimized

and justified, which improves the bottom line. A bias to action is the autonomy given to employees and regional managers to act without endless consultations with top management. This instills a sense of ownership in the employees and gives them the power to solve issues as they arise, saving time and resources. Aversion to bureaucracy brings the concept of the Owner's Mindset together by ensuring that employees have sufficient power to do their job quickly and effectively.

Apart from explicit elements of the framework, Founder's Mentality provides some implicit recommendations to executives. One of these implications is a distaste for bureaucracy, something that can be seen as a red thread going through all of the frameworks discussed in this section. Another implication is that the net benefits of Founder's Mentality outweigh the net benefits of size, which can often be counter-productive. This conclusion is identical to the Economies of Small principle of Anti-Complex.

The authors also emphasize the importance of speed in everything: speed of making decisions, speed of implementation, speed to market, speed in solving operational problems, etc. Without speed, even the best strategy is going to fail, outpaced by competitors.

Zook & Allen (2016) also provide a matrix of fifteen core capabilities that companies can develop to obtain a competitive advantage. These are subdivided into management capabilities, operating capabilities, and proprietary assets. The matrix looks like a handy tool for leaders deciding on their strategy. However, the capabilities are only discussed briefly and the difference between some of them remains unclear.

Unlike the previous two approaches, Founder's Mentality does not lump all problems into one pile but highlights three distinct types of crises: overload, stall-out, and free fall. This is a more nuanced approach than those of Smart Simplicity and Anti-Complex. However, the framework itself is insufficient in capturing all of the methods that need to be employed to combat complexity. The authors see this themselves and appear to provide more tools throughout the book, which, however, remain unstructured and therefore difficult to comprehend.

The cases of various companies throughout the book provide perspectives of the executives of those companies, which sometimes contradict each other, making it even harder to conclude, which of the elements of the framework are applicable to those cases. Overall, the approach of

Allen & Zook (2016) is insightful and valuable, but somewhat incomplete. While providing more nuance and additional methods of overcoming crises, it lacks the clarity of the more structured approaches of Smart Simplicity and Anti-Complex.

Simplicity-Minded Management and other approaches

Ron Ashkenas (2007) also views complexity as a threat to productivity. In his article “Simplicity-Minded Management”, Ashkenas (2007) lists several major sources of complexity. These include time-wasting managerial habits, incremental changes in organizational structure, endless new product launches, and undisciplined processes. He does not divide complexity into structural and perceived but from the context of the article, it is evident that the complexity described by Ashkenas (2007) is what Morieux (2014) calls complicatedness.

Ashkenas (2007) distinguishes four areas, in which complexity can be reduced: Organizational Structure, Products/Services, Processes, and Managerial Habits. These areas perfectly correlate with the structures, processes, people, and products classification used in this work.

To reduce complexity, Ashkenas (2007) recommends flattening the organizational structure, consolidating structures with similar functions, getting rid of unprofitable SKUs, rewiring, or eliminating processes to induce discipline, and helping managers simplify their behavior. In other words, leaders must get rid of things that no longer work or aren't in line with the company's core and consolidate the rest.

The conclusion is similar to elements of Anti-Complex and Founder's Mentality but lacks the additional nuances and tools of those frameworks. Ashkenas' (2007) view is slightly different from those frameworks in that he recommends doing simplification on a continuous basis, whereas Stephan (2021), Zook, and Allen (2016) primarily focus on transformational projects.

Other researchers view productivity as a function of an emergent collective intelligence in the setting of information resources and evolving technologies (Kudyba, Fjermestad, and Davenport, 2020, Woolley, Aggarwal, & Malone, 2015, Woolley, Chabris, Pentland, Hashmi, & Malone, 2010). This c-factor is highly correlated with the social sensitivity of group members and isn't correlated with individual intelligence. These findings suggest that performance depends not only on workflow within the organization but also on group dynamics between workers and on how effectively people with different personalities can work with each other.

Theoretical conclusions and the research gap

The three main frameworks investigated above have all been a great contribution to Simplicity as a practice. However, each of them has its own limitations, which not only render those frameworks incomplete but also raise the question of their predictive power and applicability in practice.

Smart Simplicity, while providing a detailed framework for managing the people aspect of complexity, completely ignores other important areas, such as structures, processes, and products. Due to this limitation, the difference between complexity and complicatedness presents a further problem, as harmful complexity in areas other than people would not always be perceived as complicatedness and could, therefore, go unchecked. Finally, the rules themselves are easily variable and the applicability and relevance of each of them in isolation remains unproven.

Anti-Complex also suffers from the aforementioned variability problem, which makes it a bad explanation. Moreover, Stephan (2021) himself admits that the demarcation between the sophistication process in going from simple to complex and the runaway complexity of the complexity trap is an insoluble problem. However, this limitation only exists due to Anti-Complex's reductionist assumption that after a certain point all additional complexity becomes counter-productive, regardless of its area and origin. This assumption is demonstrably incorrect and limits the applicability of the framework. Anti-Complex, while being a more comprehensive framework than Smart Simplicity, overstates its reach and its contents appear to be fitted to its structure, which raises additional doubts about the validity of each of its elements.

Some of the limitations of those two frameworks had been overcome by Founder's Mentality. It is much more flexible and attempts to incorporate more general managerial practices, as well as specific complexity-reducing techniques. However, the flexibility of this framework is also its downfall, as it is not specific enough in its approach and many of the recommendations in the book fall outside the scope of the framework and, in some cases, even contradict it.

Another fundamental limitation of all three frameworks is their lack of time-based differentiation between the elements. It often remains unclear which tools are transformational, and which are continuous. And, among the transformational tools, a further distinction needs to be established

between ones that are used to plan the transformation, ones that are used to implement the transformation, and ones that are used to analyze the results of the transformation.

Moreover, the three frameworks approach complexity in completely different ways. Smart Simplicity creates a differentiation between complexity and complicatedness with the former seen as mostly beneficial and the latter seen as harmful. Anti-Complex sees all complexity as beneficial up to a certain point and harmful after it becomes unmanageable, whereas, in Founder's Mentality, the authors describe complexity as harmful in the context of the three crises. These contradictory positions on the relation of complexity to performance leave room for a more comprehensive investigation of the subject. And because Simplicity is a method of handling complexity, the contradiction also creates a research gap for the first research question of this study.

Methods provided by other authors, while adding some additional tools to the Simplicity toolbox, also fail to address the limitations mentioned above. The significant difference in the approach, methodology, and conclusions of different authors demonstrates the existence of a research gap. As no comparative studies of these approaches have been published and most of the existing research into Simplicity has not yet been consolidated around a single paradigm, further studies are required to investigate, which frameworks are the most effective.

A new framework that consolidates the findings of all the methodologies comprehensively while also demonstrating resistance to variability and time specificity would be of great benefit to Simplicity practitioners. The creation of such a framework based on a case study is the goal of this research and the optimal way of answering the second and third research questions.

Research Methodology

In the previous section, we examined the existing body of research on the subject of Simplicity and found a research gap, which can be filled by this study. It became clear that there exists no clear paradigm of research on this subject, which indicates that a new study can create value for Simplicity practitioners by consolidating the most relevant findings of existing research and supplementing them with new observations.

In this section, we will take a look at the methodology that can be used for novel research on the subject. To do this, we need to address three key areas within the section: Research Design, Data Collection, and Case Selection.

Research design

There exist three types of research strategies: descriptive, explanatory, and exploratory (Van Wyk, 2012). Descriptive research refers to collecting data about a particular phenomenon without trying to find any underlying patterns in the collected evidence. Explanatory research refers to a method aimed at trying to create a causal relationship between an observed phenomenon and hidden underlying principles. Finally, exploratory research is employed when the existing body of research in the area proves to be insufficient to propose reasonable hypotheses and attempt at testing them (Bryman & Bell, 2011).

The two main types of research that can be conducted are qualitative and quantitative studies (Van Wyk, 2012). Quantitative studies are best suited for subjects that already have a significant body of existing research and can therefore be structured easily. On the other hand, qualitative research is better suited for studies that are relatively novel and require a more flexible approach (Akhtar, 2016).

According to Myers (2013), qualitative research is better suited for understanding a subject at a deeper level. Therefore, qualitative research is best suited for conducting this exploratory study. The reason this study is exploratory is that it is designed to investigate Simplicity as a phenomenon and examine how it can influence performance, as opposed to explanatory studies, which attempt to explain the reasons for phenomena and descriptive studies, which are concerned with phenomena that have already been sufficiently explored. Moreover, as has been

shown in the previous section, the existing body of research on the subject has proven to be insufficient, which eliminates the possibility of conducting an explanatory study.

The method of research selected for the investigation is a single case study of a company that has experienced non-performance at some point but was able to overcome the problem by employing Simplicity. This method will allow the investigation of how Simplicity can be used to improve the productivity of employees, structural and processual efficiency of the organization, the relevance of the company's product offerings, and company performance as a whole. Another reason for choosing a case study as the preferred approach is that the organizational context, in which Simplicity is implemented, is vital for the research and inseparable from the phenomenon itself (Zainal, 2007).

To address the research problem, in-depth interviews with multiple company representatives at all levels will be conducted. Additional interviews with Simplicity experts can serve as supplementary evidence. By using this approach, it will be possible to find out how the implementation of these methods affects different stakeholders within the organization and what are some of the difficulties that they face during and after the transition (Goodman, 2001).

Unlike quantitative methods, this approach is sufficiently flexible and is the most appropriate strategy for exploratory research (Zainal, 2007).

Case selection

Several important factors have to be considered when selecting the case for the study. These include the size and structure of the company, the timeline of the case, publicity of the incident, and the outcome for the company (Seawright & Gerring, 2008).

Most importantly, the company needs to have experienced a drop in performance (as defined in the literature review) and was able to recover afterward, bringing its performance to new all-time highs. These are the only types of companies suitable for a Simplicity investigation, as without a crisis it is impossible to tell with any degree of certainty, whether any new initiatives affected performance (Stephan, 2021).

Even though complexity can exist in organizations of all sizes (Zook & Allen, 2016), choosing a large company is preferable because more complexity-inducing structures and processes are in

place at those companies and they have the ability to actively pursue multiple opportunities at once, which also contributes to complexity.

It is also important that the company is sufficiently large for secondary data on it to be available and for it to have had enough employees at the time of the case to find enough suitable candidates for interviews. This is also why the incident must be public, with lots of resonance in the media, without which secondary data would be unavailable.

For the investigation to be conclusive, it is vital that the problems that the company had experienced have already been resolved at the time of the investigation and at least a few years have passed since the incident (Harrison et. al, 2017). This will ensure that the Simplicity implementation was successful and that the financial rebound of the company is not a temporary anomaly.

The case of Marvel fits this research perfectly based on all of the above criteria (Raviv, 2002). The timeline of the case spans from 1994 to 1999, allowing more than enough time for it to be conclusive. The company was sufficiently large at the time of the case, having 1700 employees at the beginning (Leonhardt, 1996). Marvel had successfully recovered from bankruptcy in 1997 (Adam, 1998) and was acquired by Disney in 2009 for \$4Bn., a valuation much higher than anything seen before or during the case (Wilkerson, 2009), which indicates excellent performance in the years following the incident. All of the above makes Marvel a perfect target for the case study.

Data collection and analysis

As has been mentioned in the Research Design section, exploratory research requires a deep understanding of the subject based on qualitative data (Zainal, 2007). The extent to which these qualitative data can be structured is limited, which makes in-depth interviews the optimal way of data collection for this research (Goodman, 2001).

Quantitative research is not suitable for this study because the nature of exploratory research prevents us from creating structured questionnaires. Unstructured in-depth interviews, unlike surveys, will allow us to discover case-specific details that would not have been otherwise discoverable (Zhang & Wildemuth, 2009). These details are crucial for the investigation and will serve as the groundwork for the findings.

The interviews can be conducted with stakeholders at the company used for the case study, as well as with Simplexity experts. Interviews with the former will allow us to get a better understanding of the situation and the issues that the company experienced at the time, as well as the perspectives of those stakeholders. Interviews with the latter will allow us to add more nuance to the investigation by shedding light on their perspective on the case (Goodman, 2001).

The sample size for qualitative research is typically smaller than for quantitative research. However, the information collected from each interview is deeper and more detailed. Therefore, the number of in-depth interviews can be limited to 10-15. This number will be sufficient to gather data about the interests of and problems encountered by stakeholders at all levels of the organization, as well as about the perspectives of Simplexity experts (Baker & Edwards, 2012). This sample size is also in line with those of similar studies that are investigating similar-sized companies (Sandelowski, 1995).

In-depth interviews with company representatives can be conducted in a variety of formats, including in-person meetings, online VoIP interviews, telephone interviews, and text-based IM interviews. The choice of a particular format or combination of formats depends on external factors, such as the location of the interviewee, their availability, company policies, etc (Bampton & Cowton, 2002). Therefore, the format can vary on a case-by-case basis to best suit the circumstances of all interviewees.

The collection of primary data will allow us to ensure that these data are suitable for answering the specific research questions posed in this study (Hox & Boeijs, 2005). Secondary data can be used to supplement primary data and to compare the findings of this investigation to those of others (Ruggiano & Perry, 2019). Potential sources of secondary data include but are not limited to scientific and popular articles, open-access databases, and books related to the case study. These sources can be used to gather additional information on the subject, which may have otherwise been inaccessible, as well as shed light on the perspectives of stakeholders that are unavailable for interviews (Johnston, 2017).

Once the data are collected, an analysis of the findings can be performed. This analysis will include cross-examination of the data from different sources and an investigation into how the evidence is related to theoretical concepts discussed in the Literature Review section.

Cross-examining the data from different sources, including interviews with different stakeholders and secondary data, will enable us to get a clearer understanding of what was happening within the company at the time of the case and eliminate as much bias and subjectivity from the story as possible (Lowry, 2015).

Investigating how the events of the case are related to theoretical concepts will allow us to understand the influence of Simplicity on performance as it relates to the case. This analysis will give root to the explanation about how and why the company overcame performance difficulties and will provide a more generalizable theory of Simplicity best practices.

The Case of Marvel

Together with DC Comics, Marvel is one of the two leading Comic Book franchises. Today, it has become a household name and movies and series based on its universe are loved by millions (Shaulova & Biagi, 2020). Yet in the 1990s, it had experienced one of the most turbulent times that ever befell a company. The events of the time led to Marvel's bankruptcy in 1996 (Stevenson, 2021), followed by a miraculous recovery in subsequent years.

The plot of the story behind the case would have made an excellent movie (Raviv, 2002). It contains a comic book bubble, high-level moves by activist investors, multiple lawsuits, and unprecedented growth following the instability. But most importantly for this study, the case is a great illustration of company performance based on how complexity is handled by the executive team.

Within this section, we will first take a look at the background and history of the company. This will be followed by a description of the crisis that Marvel experienced. The section will conclude with an investigation into how the company got out of the crisis and improved its financial performance.

Company background

Marvel Entertainment, LLC, is one of the worldwide leading character-based media and entertainment corporations. Since 2009, Marvel Entertainment is a wholly-owned subsidiary of The Walt Disney Company (MARVEL, 2021). Over seventy-five years, the company has developed a library of more than eight thousand proprietary characters (MARVEL, 2021). Nowadays, Marvel uses its character franchises in entertainment, licensing, and publishing on an international market level.

Since 1993, the firm creates its own feature films through its subsidiary Marvel Studios, a film and television studio that produces "Marvel Cinematic Universe" films based on characters of Marvel comic publications (MARVEL, 2021). In 2015 Marvel overtook Harry Potter as the most successful film franchise in history when publishing the 11th movie of the "Marvel Cinematic Universe": Avengers, The age of Ultron (Savage, 2015). Moreover, the company is involved in the production of video games that are leveraging fictional characters. Additionally, Marvel's

characters are being licensed to a variety of corporate partners within the toy, apparel, and food industries (MARVEL, 2021). The firm's comic book publications are taking up nearly 50 percent of the worldwide comic book market today (Salkowitz, 2019). All comic book operations are nowadays combined under the Marvel Entertainment subsidiary "Marvel Comics".

Marvel Comics represents the start and the foundation of the international entertainment group. In 1939, Martin Goodman, a New York publisher of pulp magazines, was convinced of the potential of comic books as a profitable future investment and founded Timely Comics. The company's first issues were titled "Marvel Comics" and were a huge success (Lavin, 2013). Soon after, Goodman hired his nephew, the future legendary comic writer, Stan Lee, and other prominent figures, such as Joe Simon and Jack Kirby.

Iconic characters such as Captain America, the Fantastic Four, the Incredible Hulk, and Spider-Man were developed throughout the decades, especially within the 1960s (Bell & Vassallo, 2013). Lee's innovative method of comic book production, upon which the writers only provided artists with a general overview of the plot and then filled in the dialogue in the resulting art, allowed Marvel to create new issues faster and increased collaboration between the writers and the artists (Lavin, 2013). The character development of superheroes and a signature art style were also among Marvel's innovations at the time. Even more importantly, Marvel was the first to introduce comic books with a continuing storyline, leaving readers in anticipation of new issues.

Due to a generational change of Marvel's editors and executives, the company started to experience financial issues in the 1970s. This performance decline was fostered through a shift in the industry, which had been booming the previous years, but seemed to have reached its peak and faced a decline in sales (Bell & Vassallo, 2013).

The company went public in an attempt to overcome financial hardship in 1991 (Stevenson, 2021). Furthermore, facing the declining comic industry, Marvel engaged in a series of diverse acquisitions and market expansions that led to some temporary performance improvements. However, this development was not sustainable, and the firm had to file for chapter 11 bankruptcy in 1996 (Stevenson, 2021).

The following subsection will analyze this period of non-performance in-depth and explain how the company's acquisition by Toy Biz in 1998 represents the crossing of the simplicity gateway to new performance curves for Marvel.

The crisis

To understand what caused Marvel's downfall and eventual bankruptcy, it is of paramount importance to first introduce the key stakeholders that played a part in the company's crisis in the 1990s.

Ronald Perelman

Owner of MacAndrews & Forbes Incorporated, Perelman had years of investment experience at the time. His conglomerate of businesses, which at the time of the incident was worth \$6.5Bn, spans from groceries and cigars to cars and television, as well as several other sectors. His usual strategy is to acquire a company, optimize its cost structure by getting rid of unprofitable segments, increase profits, and resell it (Bryant, 1998 & Pogrebin, 2015).

Carl Icahn

The founder of Icahn Enterprises, Carl Icahn is, in many ways, alike Perelman. Standing at \$2Bn at the time, his net worth was much lower than Perelman's. However, the same could not be said about his tenacity. Icahn is an expert in executing hostile takeovers and has the reputation of a corporate raider. Swooping in on companies that experience financial distress, he takes control of them through strategic investments, initiates a corporate turnaround, and resells them (Forbes, 2021).

Comic book "investors"

In the 1990s, after seeing the substantial increase in speculative prices of some of the rarer comic books, many comic book fans saw comic books as an investment opportunity. They had no financial education or experience in asset management and did not have a clear understanding of what they were doing (Bryant, 1998).

Toy Biz

Toy Biz was a toy manufacturing company that specialized in action figurines, role-playing games, and stuffed toys. Founded in 1988 in Montreal, it expanded into the US and eventually came to play a critical role in the future of Marvel (Pederson, 1997).

Now that the key stakeholders have been established, let us dive deeper into the chronology of what happened at Marvel in the 1990s. The series of events that followed began in 1989 when Perelman acquired Marvel for \$82.5M, of which only \$10M was his money while the rest was financed by debt (Bryant, 1998). After the acquisition, Perelman focused on higher prices and product quality, improving the quality of the paper, ink, and content.

Marvel went public in 1991, raising \$82M. Perelman used this opportunity to funnel the money out of the company and into MacAndrews & Forbes, immediately recouping his initial investment (Pederson, 1997).

In 1992, Marvel acquired a trading card company called Fleer and started producing trading cards with its characters, as well as those related to Fleer's existing business (Shapiro, 1992). At about the same time, Marvel partnered with Toy Biz for a royalty-free production of Marvel characters in exchange for a minority stake of around 40% in Toy Biz (Bryant, 1998).

At this point, the comic book industry was in a bubble, with individuals buying entire stacks of the same issue, hoping to resell them later at a profit. Marvel saw its profit soar, fueled by the bubble (Bryant, 1998). Seasoned investors and financial analysts had warned that the bubble was bound to burst soon and that the consequences of this event would have a dramatic impact on Marvel's financial health. Marvel management ignored the experts and kept increasing the production volumes of their comic books.

The bubble burst in 1994, causing Marvel's stock to plummet. Company management attempted to save the situation through a series of acquisitions in adjacent and non-adjacent product categories (Bryant, 1998).

In 1995, Marvel reported its first annual loss under Perelman. Writers and artists began to leave the company, which resulted in a decrease in the quality of comic books (Raviv, 2002).

In 1996, attempting to salvage the situation, Marvel decided to diversify its portfolio even further. Marvel studios started their own film production, Marvel Mania opened a chain of

themed restaurants, and the shopping spree of acquisitions continued. By the end of 1996, having hemorrhaged losses from its main business atop a pile of unfinished projects, Marvel had become financially insolvent (Bryant, 1998).

In an attempt to salvage the situation, Perelman tried to use an influx of cash to ensure the survival of the company. However, at this point, Carl Icahn saw the opportunity to take over. He made a strategic investment, buying \$40M of Marvel bonds, and offered his own rescue package to the company, which was seen as more desirable than Perelman's by the other investors. Perelman understood what Icahn was doing and to avoid a loss of control, brought Marvel into Chapter 11 bankruptcy (Norris, 1997).

However, Icahn wasn't planning to give up so easily. In fact, Chapter 11 opened a new opportunity for him: acquiring shares of the restructured Marvel as collateral during the bankruptcy process. Those shares were enough for Icahn to take control of the company (Bryant, 1998). After a court hearing, Icahn went even further, replacing Marvel's board and effectively isolating Perelman (Norris, 1997).

But the battle for control was far from over. A new clash over Toy Biz between Icahn, Perelman, and the bankers resulted in Icahn's loss of control over Marvel. As a result, a trustee of Toy Biz was charged with running the company (Bryant, 1998).

Under new management, a turnaround in Marvel's performance was finally possible. In 1998, after almost a decade of instability, Marvel was on a path to recovery (Raviv, 2002). In the next subsection, we will take a look at what happened during this period and the milestones that the company was able to achieve under the management of Toy Biz.

The outcome

In December 1998, after a long court case, Toy Biz and Marvel Entertainment Group have finally merged, and Marvel came under the control of two Toy Biz executives, Isaac Perlmutter and Avi Arad. The preceding legal battles, the burst of the comic book bubble, and performance issues left Marvel in a dire situation: many of the company's most talented writers and artists have left, the plethora of side projects was sucking money out of the company, and comic book fans were turning their back on Marvel en masse (Raviv, 2002).

While the new CFO, Peter Cuneo imposed strict financial guidelines at the company, which led to decent cost-saving by 2001 (Teampay, 2019), Marvel had to find their own strategy to develop. This included focusing on a select few businesses and consciously managing the budgets for every project.

With the help of Gareb Shamus, the organizer of Comic-Con, Avi Arad had refreshed the comic book genre and its characters, starting with Spider-Man. The teenage version of the character from the new “Ultimate Spider-Man” series was much more relatable for fans and became one of the best-selling comic book series of all time (Levy, 2021).

But comic books weren’t the only thing that Avi Arad was focusing on. At the time, he was also the head of Marvel Films, the branch responsible for Marvel's cinematic aspirations since 1993. As it later turned out, Marvel Films was the core business unit that defined the direction of restructuring, as Marvel turned its attention to the movie business in the following years (Raviv, 2002).

However, Marvel Studios controlled only pre-production parts of the process, including commissioning the scripts, casting actors, and hiring directors. The main production process, including filming and distribution, was left to studio partners (such as Fox in the case of X-men). These production agreements left Marvel only a small percentage of the vast profit of the movies. Avi Arad was quoted “we are giving away the best part of our business” (Lambie, 2018). To capture a larger share of the profits, he strived to expand Marvel's film production strategy. The goal was to make it feasible for Marvel to make the movies under their own brand.

The self-sufficiency of Marvel Studios became possible in 2005 after Marvel received a loan of 525 million dollars to establish in-house movie production. This influx of cash was the catalyst to the real turning point in Marvel's story. It is important to note that Marvel offered their intellectual property as collateral, which included the distribution rights for some of the company’s most popular characters, such as Thor and Captain America. This agreement was a massive risk on Arad’s part, as character IP is Marvel’s main asset and the source of the company’s competitive advantage. However, the gamble paid off when Marvel's first own production, Iron Man, was instantly financially successful after its release in 2008 (Teampay, 2019).

The success of the film had drawn the attention of Disney to Marvel Studios. As a result, Marvel was acquired by Disney for 4 billion dollars in 2009. This deal can be regarded as proof of Marvel successfully turning the tide and is a good point to end the timeframe of the case.

In the next section, we are going to examine the key factors that brought about Marvel's downfall and what Simplicity tools the company's leaders used to overcome the crisis and turn the company around.

Analysis of the case

In this section, we are going to perform a detailed analysis of what went wrong at Marvel at the time of the case and how the company's new management team managed to save Marvel from bankruptcy. There are two main foci of analysis within this section: the issues that Marvel faced and their relation to complexity and the steps that the company leaders took to overcome those issues. The latter will be analyzed through the lens of Simplicity frameworks and compared to the tools that those frameworks propose.

Causes of non-performance

Based on the interviews, we can conclude that the causes of Marvel's non-performance can be divided into two broad categories: external and internal. External non-performance factors exist in the company's environment and are typically secondary to internal factors insofar as without the presence of the latter, the former could have been overcome without suffering a period of non-performance. Non-performance in light of external factors is a symptom of the Free Fall crisis within the Founder's Mentality framework (Zook & Allen, 2016).

Internal factors, on the other hand, are present in every case of non-performance, regardless of which of the three Founder's Mentality crises the company is experiencing. The causes of Marvel's non-performance during the time of the case can be summarized as follows:

1. External factors
 - a. The comic book bubble bursting.
2. Internal factors
 - a. Struggle for control over the company.
 - b. Lack of focus.
 - c. Loss of top talent.
 - d. Fragility of the company to external shocks.

Now that the causes of non-performance have been established, we can take a closer look at each of them and determine how they correlate with performance issues highlighted in the theoretical frameworks of the Literature Review section.

The bursting of the comic book bubble was the external shock that sent Marvel on its downwards spiral. In the 1990s, secondary market prices for some of the rarer issues of comic

books skyrocketed, driven by high demand from collectors and low production volumes of those issues. Many comic book enthusiasts saw that as an investment opportunity: in hopes of reselling issues later at a higher price, they bought entire boxes of the same comic books. This had created a bubble in the comic book industry, driving demand for comic books through the roof.

However, even more dangerous than the situation itself, was Marvel's reaction to this development. Despite receiving multiple warnings from economists and industry experts, the company kept increasing the production volumes of its comic books. In the short term, this had boosted Marvel's sales, creating an illusion of high performance. However, this growth was unsustainable and Marvel's dependence on comic book "investors" had created fragility within the company.

As a result, when the comic book bubble burst, Marvel owned excess inventory, which they had no way of selling. Moreover, with the speculator revenue stream gone, the company no longer had sufficient sales to sustain itself. This situation significantly contributed to Marvel's financial issues, which led to the company's bankruptcy. However, it could have easily been avoided, had Marvel chosen to pursue a more sustainable production strategy in light of the bubble.

An external shock causing internal instability, the situation described is a great illustration of the free fall crisis described in the Founder's Mentality framework. Therefore, this cause can serve as proof of the validity of the methods recommended by Zook & Allen (2016).

On the other hand, Marvel ignoring the experts who had warned company executives of the coming crisis is also an illustration of how the Explosive Mix cause of non-performance within the Anti-Complex framework is not always present, and of how the opposite can be true. This does not invalidate Stephan's (2021) methodology as a whole, but it puts into doubt certain parts of it, particularly when it comes to diagnosing the causes of non-performance.

The struggle for control over Marvel can be considered the centerpiece of the case. During the legal battles between Perelman, Icahn, and the Toy Biz executives, the company was faced with a lot of uncertainty. This struggle further destabilized an already explosive situation, resulting in an exodus of talent and added fragility.

However, the key issue with the power struggle was not the uncertainty and direct financial impact that it brought, but the fact that it took the focus of executives away from running the

company. With all eyes on the legal battle, there was no one left to steer the company towards better performance, which is why other issues faced by Marvel were not handled in time to prevent disaster.

Due to managerial neglect, the negative effects of complexity were able to creep into the company unnoticed, which led to non-performance. This issue perfectly correlates with the Complexity Fallacy cause within the Anti-Complex mindset. The management of Marvel did not even try to understand complexity, which was one of the causes of the crisis. This proves that despite its shortcomings in the previous issue, Stephan's (2021) methodology has merit and can predict some of the causes of non-performance.

A lack of focus on the core business can be seen as Marvel's critical strategic mistake when it comes to managing complexity. Instead of stabilizing the situation after the bubble burst and ensuring that the quality of comic books remains high, Marvel attempted to fix the situation by acquiring seemingly random businesses, which only introduced more complexity, making the company even more unmanageable.

Due to the lack of focus, the quality of Marvel's core product, comic books, declined, leading to the alienation of their fans and employees. This alienation exacerbated Marvel's financial shock from the bursting of the comic book bubble and made a speedy recovery from the crisis impossible. Moreover, the plethora of opportunities pursued by the company at the time siphoned resources out of the main business, making it even more difficult to fix the aforementioned issues.

Stephan (2021) addressed all of the underpinnings of these issues in detail in his Incremental Paradox cause of complexity. According to his theory, the pursuit of too many opportunities which promise incremental gains does not account for the complexity toll that the company suffers as a result. Runaway complexity, in turn, diminishes the managerial capabilities of managers within the company, leading to non-performance, which is precisely what happened in Marvel's case.

The loss of top talent, particularly the most talented writers and artists that Marvel had was a direct result of the previous two issues. The uncertainty brought about by legal battles and a lack

of vision for the comic book business unit have driven away Marvel's best creators. This, in turn, decreased the quality of comic books published by the company.

Because this issue is a second-order implication of the previous ones, it is not directly related to complexity and is therefore not covered by the frameworks.

Fragility of the company to external shocks was also an issue brought about as a result of the legal battles and lack of focus. This left the company vulnerable to the bursting of the bubble. According to Stephan's (2021) classification, the fragility of systems is a symptom, rather than a cause, of complexity. The fact that, in Marvel's case, it was caused by underlying issues supports this point.

According to the interviews, the causes above constitute the main reasons for Marvel's non-performance. Now we can analyze how each of the main theoretical frameworks from the literature review did in diagnosing the problems.

Smart Simplicity (Morieux et al., 2014) did not provide any valuable insight into the problem. There was no substantial level of complicatedness within Marvel, the organization was relatively simple in terms of employee interactions and was not sufficiently bureaucratic to raise performance issues due to red tape. As Smart Simplicity lacks other explanations of performance, it was completely irrelevant for the issues above.

The same can be said for Simplicity-Minded Management (Ashkenas, 2007). The framework lacks any reasons for the non-performance of organizations in complex settings apart from complexity itself, which prevents it from making meaningful predictions about performance.

Founder's mentality (Zook & Allen, 2016) does a slightly better job at predicting potential issues. According to the classification of the authors, Marvel had experienced the crisis of Free Fall, which was characterized by fragility and vulnerability to external shocks. This does align with Marvel's case and provides some insight into how the crisis could have been avoided. However, the framework lacks the granularity of the causes of complexity and, because of that, fails to account for some of the main causes of the crisis, such as the struggle for control and lack of focus.

Anti-Complex (Stephan, 2021) is the most comprehensive framework when it comes to diagnosing the causes of non-performance. Two out of the three causes highlighted in the framework, the Complexity Fallacy and the Incremental Paradox, perfectly describe the main causes of the crisis. The Fragile Systems symptom adds further detail to the issue.

However, the third cause proposed by Stephan (2021), the Explosive Mix, predicts the exact opposite of what happened in the case. The experts had warned Marvel about the comic book bubble long before the crisis and had the company's management listened, things could have gone differently and many of the worst outcomes could have been avoided. This demonstrates that while Anti-Complex is better than other frameworks at diagnosing the causes of non-performance, it too is far from perfect and in the case of Marvel would have made mixed predictions.

Now that the causes of non-performance have been examined, we can proceed with the analysis of how Marvel's new management had overcome the crisis, bringing the company back out of bankruptcy, and how the methods that they used relate to those proposed in the theoretical frameworks.

Solution to non-performance

Marvel's new management took several crucial steps to turn the company around. These were primarily concerned with financial management and product quality, ensuring that the company had a focused strategy that was executed efficiently. The list of key decisions that improved Marvel's performance can be divided into two main categories: decisions related to financing Marvel's operations and decisions related to the company's strategy. The list of these decisions is as follows:

1. Financial decisions
 - a. Strict financial guidelines.
 - b. Investing in talent.
 - c. Leveraging key assets.
2. Strategic decisions
 - a. Focus on the core business.
 - b. Improvement of comic book quality.
 - c. Successful pivot towards the film industry.

Now, we can take a look at each of these decisions in more detail and see how they are related to the theoretical frameworks of Simplicity.

Strict financial guidelines implemented at the behest of Peter Cuneo ensured that money was invested where it can have the most impact on company performance. This was done in stark contrast with Marvel's previous policy of random acquisitions and ensured that the company was no longer wasting money on incremental opportunities.

This decision can be best described as the Owner's Mindset from the Founder's Mentality framework. Having strict control over the company's financials is one of the things that the real owner of the company would do to ensure profitability. By implementing strict financial guidelines, Peter Cuneo thought like a founder and turned a budget deficit into a surplus.

Investing in talent was the one area of financial management where Marvel spared no expense. This allowed the company to regain its leadership position in the comic book market and bring the quality of its offerings to a new level. By actively investing in talent, Marvel not only brought back some of the writers and artists who had previously left the company but also attracted new employees. Moreover, by boldly investing in actors and directors with little to no prior comic-based film experience, the company was able to bring a breath of fresh air to the genre.

This decision is closest to the Front-line Obsession of Founder's Mentality. By investing in its employees and making sure that Marvel's talent is valued, the company was able to improve the quality of its offerings. This emphasis on quality not only brought Marvel's comic book business unit back to life but also enabled the company to successfully pivot towards the film industry.

Leveraging key assets was a risky, big-bet decision that paid off in the end. By taking loans against their intellectual property in the form of superheroes, Marvel was able to successfully finance its strategic decisions. Had something gone wrong and Marvel was forced to default on the loan, it would lose its key asset and would become worthless. However, without taking this risk, the company would never have been able to finance Marvel Studios, which enabled its transition into film production.

Due to the risky nature of this decision, it most closely resembles the Leading with Courage remedy of Anti-Complex. Indeed, a significant amount of courage was required to make the leap,

but doing it enabled Marvel to achieve new levels of performance. Both Focused Action and Decisive action were critical components of the decision. The action was focused due to how the finances were allocated, and it was decisive because Marvel was able to follow through with it and take the loan.

By **focusing on the core business**, Marvel had significantly reduced the amount of unnecessary complexity that was plaguing the company at the time while simultaneously increasing the value proposition of its prime offerings. Instead of dozens of different opportunities, now only two remained: comic books and movies. The former was the industry in which Marvel had excelled the most up to this point. The latter was the industry with the highest growth potential. By eliminating projects in other industries, Marvel was able to maintain its core, increasing comic book quality, and pivot towards film production, which brought in most of the company's future profits.

This decision is an example of the Advantage of Focus remedy of Anti-Complex. As Stephan (2021) put it, focusing on few indicators in few areas enables ultimate performance, whereas trying to focus on too many of either prevents people and companies from achieving extreme results.

Improved comic book quality was a direct result of Marvel's decisions discussed above. By making comic books a priority, attracting top talent, and securing financing, Marvel was able to not only bring the quality of its comic books back to what it was during the golden age but achieve new heights to the joy of the company's fan base. High-quality comic books were what made Marvel successful in the first place, so it was only natural that they were also what brought the company out of bankruptcy.

Because improved comic book quality was a result of decisions analyzed above, the synthesis of the theoretical underpinnings of those decisions is also the root of the matter here. Namely, comic book quality increased thanks to the Advantage of Focus, Front-Line Obsession, and Owner's Mindset blended together. This demonstrates how elements of different Simplicity frameworks can be used in conjunction with one another to produce a successful strategy.

Successfully pivoting towards the film industry had made Marvel successful beyond what was possible with any of its previous pursuits, including comic books. Marvel Studios, the

department specializing in film production, had existed before the crisis and could arguably be considered one of the things that brought the company down due to poor execution. What differentiated its success under new management from its failure under the old, was the focus on self-produced films and the ability to execute on that vision. This was made possible by a redefined go-to-market strategy and secured financing from IP-backed loans.

The success of this initiative can be attributed to the Reframe, Redefine, Redesign remedy of Anti-Complex. It is related to the fact that Marvel clearly redefined its purpose in this period. Marvel understandably decided to exploit its cinematic value. In other words: they recognized that they are not selling comics, they are selling superheroes. Marvel executives recognized that the franchise is the most important asset, and the best way to exploit it is by entering the emerging superhero movie industry.

And later on, Marvel reinforced their role in the movie industry by taking the whole process under its control, including distribution instead of just licensing. This can be interpreted as redesigning the path, and the result speaks for itself. This was the riskiest element of the recovery, both in strategic and financial terms. One of the key pitfalls of redesigning the path was eliminated by the fact that Marvel Studios as a division has existed since 1995, only its scope was expanded. Therefore, there was no need for deep restructuring which could have led to increased organizational complexity.

In terms of theoretical frameworks, the results appear to be mixed with some frameworks demonstrating more insight for the case than others. In particular, Anti-Complex and Founder's Mentality both suggest several tools that have been successfully used by Marvel's management in the case, whereas Smart Simplicity did not. Recommendations based on Simplicity-Minded Management could be applied to the case but were less specific than those of the two most effective frameworks.

Perhaps most surprisingly, all of the methods suggested by Smart Simplicity proved to be completely irrelevant for the case. The reason for that is that Smart Simplicity is concerned with a very specific type of problem that was not present in the case. Namely, it aims to help large bureaucratic organizations that experience performance issues due to power distance, a lack of communication between departments, and alienation of workers from the outcomes of their work. All of those are presented under the umbrella of complicatedness by Morieux (2014).

In Marvel's case, the company was small enough and flat enough to avoid encountering such issues. As has been discussed in the previous subsection, Marvel's problems stemmed from fragility and lack of focus instead. This different set of issues is not addressed by the people-focused Smart Simplicity framework, which made it irrelevant for the case. It must nevertheless be noted, that based on the cases provided by Morieux et. al (2019), the framework can still be helpful for a specific subset of cases and should not be discarded completely.

Anti-Complex, on the other hand, has once again proven to be the most relevant framework for the case. Out of the six tools provided by the framework, three (Reframe. Redefine. Redesign, Leading with Courage, and Advantage of Focus) have proven to be helpful for Marvel's management team in overcoming the crisis. It could also be argued that ignoring another one of them, Economies of Small, was part of what caused the problem in the first place when Marvel tried to optimize costs by printing as many issues as possible.

Founder's Mentality has also demonstrated its relevance for the case. In particular, Front-Line Obsession and Owner's Mindset were both instrumental in Perlmutter's, Arad's, and Cuneo's approach to saving Marvel from bankruptcy. A case could also be made that Marvel had an Insurgent Mission in the film industry, which was, to a certain extent, disrupted by the company.

Perhaps most importantly, we can conclude that while elements of Anti-Complex and Founder's Mentality demonstrated their effectiveness on their own, it was the synergy between the two approaches and using those tools in conjunction with each other that truly brought Marvel to the next level of performance. Therefore, this case demonstrates that the methods proposed by different frameworks can be successfully combined, allowing the creation of a comprehensive framework that encapsulates within itself the best tools from several Simplicity frameworks. The possibility and specifics of this combination are precisely what will be discussed in the next section.

Findings and discussion

Based on the analysis in the previous section, we can conclude that existing frameworks provide valuable tools for dealing with complexity. In particular, Anti-Complex and Founder's Mentality have proven to be highly relevant for the case of Marvel. Smart Simplicity and Simplicity-Minded Management were not relevant for the case study, but have a demonstrated track record of working in other settings, which gives value to the tools proposed by those frameworks.

Indeed, all four of the examined frameworks can be considered to have provided valuable tools for managing complexity. Nevertheless, due to the limitations discussed in the literature review section, none of the methodologies can be considered comprehensive enough to make other approaches redundant. Therefore, the creation of a new framework that overcomes these limitations can be highly beneficial to the Simplicity field.

To be considered comprehensive, the proposed framework needs to have the following properties:

- It needs to be hard to vary, making it a good explanation.
- It needs to make falsifiable predictions about how complexity can be approached effectively.
- It needs to be time-specific in when each of the tools can be used.
- It needs to distinguish between areas in which each of the tools can be used.
- It needs to incorporate elements of existing frameworks in a way that maximizes synergies while minimizing redundancies.

The usage of a two-dimensional matrix structure as the basis of the framework can in and of itself satisfy three of these five requirements. Firstly, a matrix structure provides a canvas for the framework, which is incredibly hard to vary due to simple geometrical properties, as the number of cells and their corresponding row and column values have to remain fixed. Secondly, using a time measure for the horizontal axis of the matrix satisfies the corresponding requirement. Lastly, using a categorical distinction between the elements of organizations provides the necessary guidance to where each of the tools can be applied.

Within the Simplicity-Minded Management framework, Ron Ashkenas (2007) has already provided us with such a categorical distinction. His classification of organizational elements as

Structures, Processes, People, and Products can serve as the basis for the vertical axis of the proposed framework. This classification has already been applied in Simplicity frameworks and has proven to be useful in thinking about which methods can be effective.

As for the horizontal axis of time, this measurement has not been previously applied to Simplicity but can be derived from its application to similar fields of management. In particular, the PDCA cycle used in Business Process Management (Deming, 1986) satisfies the requirements and can be integrated into the framework. As the cycle has already been successfully used for classifying the methods of organizing processes, it is reasonable to assume that it can also be used for classifying tools for managing Simplicity in relation to Structures, People, and Products over time.

The PDCA cycle is designed to differentiate the stages of implementing an initiative and consists of four stages: Plan, Do, Check, and Act. The first stage, planning encompasses understanding what the problem is, how it can be approached, and what actions can be taken to address it. The doing stage is the one in which the initiative is implemented in practice. The checking stage allows managers to review the results of the initiative and come to conclusions about its effectiveness and possible further steps. Finally, the acting stage encompasses the processes of constant improvement and monitoring, which can exist long after the initiative had been realized. Once the cycle is completed, it can be started once again with new and revised initiatives.

Together, the four stages of the cycle create a comprehensive way of classifying project steps over time. This makes the PDCA cycle an ideal candidate for the proposed framework. In conjunction with the Structures, Processes, People, and Products classification, this creates a four-by-four matrix, which will serve as the structural base of the framework.

The actual contents of each of the sixteen resulting cells should be composed of the methods proposed by existing frameworks. This classification of those methods will allow leaders to better understand how the various tools from different frameworks can be used together and where they fit in the Simplicity transformation process.

In this structure, some of the tools can be present in multiple slots in case they can be applied to two or more categories of organizational elements and/or be present at multiple stages of the transformation process. Other existing framework elements may be absent if they are made

redundant by the tools proposed in other frameworks. It is also possible, that some of the cells of the framework remain empty if no tools are found to be suitable for them.

The final property required to make the framework comprehensive, that of falsifiable predictions, has partially been addressed by the case. Based on the study, we can conclude that the Simplicity tools used by Marvel’s management team had a profound effect on the company’s performance. This makes those tools a good predictor of organizational success. Other cases examined by the authors of existing frameworks similarly demonstrate the usefulness of all of those tools. Nevertheless, further research into the topic may be required to examine the falsifiability of predictions made by the proposed framework in more detail.

Now that the details of the framework have been established, we can take a look at the result of combining the proposed structure with the tools of existing frameworks. See Table 1.

Table 1. The proposed Simplicity framework.

	Plan	Do	Check	Act
Structures	Take the red pill Irrelevance of average	Reframe. Redefine. Redesign.		Economies of Small Streamline the organizational structure
Processes	Take the red pill Irrelevance of average	Reframe. Redefine. Redesign.		Build disciplined processes
People	Understand what your people really do	Increase the total quantity of power Lead with courage	Extend the shadow of the future Reward cooperation	Reinforce integrators Increase reciprocity Front-line obsession
Products	Take the red pill Irrelevance of average Insurgent’s mission	Reframe. Redefine. Redesign.		Advantage of Focus Owner’s Mindset

Smart Simplicity | Anti-Complex | Founder’s Mentality | Simplicity-Minded Management

Based on the resulting framework, we can observe some interesting patterns in the distribution of methods across the matrix. Perhaps most notably, very few elements are present in the Check column. This finding suggests that existing frameworks that were used as the basis of the research are seldom concerned with controlling whether the initiative was successful and what

the results of the project are. This is concerning, as without explicitly measuring the results, it can be difficult to assess the effectiveness of the methods employed. Studying the ways of quantifying Simplicity outcomes can be a compelling basis for further research.

Other notable findings are related to the frameworks themselves. As had been noted in the literature review, a major weakness of Smart Simplicity is that it only focuses on the People aspect of Simplicity, which limits its scope and applicability. This has been demonstrated by the case of Marvel where Morieux's (2014) framework was not relevant.

Anti-Complex, on the other hand, has once again proven to be the most universal framework. Many of its elements are present in multiple cells simultaneously, which means that those methods apply to many different parts of the organization. Founder's Mentality methods add richness and nuance to the framework but are less comprehensive than Anti-Complex. Finally, most of the tools of Simplicity-Minded Management are made redundant after other frameworks have already been considered. Nevertheless, it adds some important tools to the continuous part of the toolset.

Now that the novel framework has been proposed and analyzed, we can move on to the Conclusion section of the thesis, in which a summary of answers to the research questions will be provided.

Conclusion

Summary of the findings

Throughout this research, we have analyzed existing Simplicity frameworks based on the literature, in which they were introduced. We then established the methodology for the case study and introduced Marvel as its target. The case of Marvel was then examined in the corresponding section where both the causes and the ways of handling non-performance were analyzed. Based on this analysis, a new Simplicity framework was introduced in the Findings and discussion section.

This analysis has allowed us to answer the research question posed at the beginning of the study. A summary of the answers can now be provided:

- How is Simplicity connected to performance?

The case of Marvel has demonstrated that ignoring the issue of unmanageable complexity can lead to non-performance, which in Marvel's case resulted in bankruptcy. Employing several Simplicity tools to reduce unnecessary complexity has allowed Marvel's management to save the company and bring its performance to a new level. This demonstrates the direct positive causal connection of Simplicity to performance and justifies its usage in managing complexity.

- Which of the tools introduced in existing frameworks (Smart Simplicity, Anti-Complex, Founder's Mentality, and others) are the most important for improving performance?

For the case of Marvel, Anti-Complex and Founder's Mentality have provided the most value, whereas Smart Simplicity and Simplicity-Minded Management were not relevant. However, it can be seen from the literature (Morieux et al., 2016) that those frameworks can be useful in other settings where complexity is more closely tied to people.

This discovery emphasizes the importance of taking organizational context into account when designing Simplicity-based initiatives. Based on the fundamental differences between different types of cases, we can conclude that a universal Simplicity framework, all elements of which could be applied to all organizations regardless of their circumstances, cannot exist. The optimal solution is a framework that encompasses tools for multiple contexts, which can be effectively selected at the managers' discretion based on the specific situation and organizational goals. The novel framework proposed in this research is the closest thing to such a solution at the time of writing.

- How can elements of different frameworks be combined more effectively for improving performance?

This research has become the basis of a new framework, which combines the tools used by existing frameworks within a novel matrix structure. The combined framework can serve as a better guide for leaders in understanding where and at what point each of the tools can be used for implementing Simplicity.

Nevertheless, as has been stated above, organizational context needs to be considered when choosing the particular Simplicity methods. However, when implemented effectively, the synergy between the elements of the different frameworks that were combined within this work can have a positive effect on performance, as has been demonstrated in Marvel's case.

Theoretical implications

The study has revealed several important findings that can have a profound effect on the Simplicity field of research and managerial science in general. As such, the study can not only provide insight into Simplicity in its own right but can also serve as the basis for future research.

The field of Simplicity remains understudied by academics, with very few publications available. The addition of this research to the body of available knowledge will contribute to the development of the field and help establish Simplicity as a managerial paradigm. Moreover, the use of academic methods of research in conjunction with practical Simplicity frameworks will help bridge the gap between academia and business that has arisen within the field.

The case of Marvel has revealed the existence of a profound difference between the different types of complexity-driven non-performance. In particular, non-performance driven by lack of focus and fragility has been demonstrated to be unrelated to non-performance driven by bureaucracy and complacency. Some of the examined Simplicity frameworks, including Smart Simplicity and Simplicity-Minded Management, have proven to be completely irrelevant when dealing with the former type of non-performance. This finding opens up a new avenue for potential research aimed at examining the differences between the types of complexity-driven non-performance and the effectiveness of different Simplicity approaches concerning each of them.

The introduction of the new framework proposed in this research also lays the foundation for one such avenue by enabling researchers to examine its applicability to different kinds of complexity-driven non-performance across multiple cases. If proven to be effective, the framework could become the new standard for Simplexity research and drive further advancements within the field.

Moreover, due to the flexibility of tools within the framework, new Simplexity tools discovered by futures research can be effectively retrofitted into the structure of the framework. This modification would enrich the Simplexity toolkit while maintaining the clarity of the framework's structure.

Practical implications

The findings of the study have important implications for the leaders of organizations that are experiencing non-performance or for those striving to future-proof the growth potential of their companies. As most cases of non-performance are caused by runaway complexity (Stephan, 2021), the usage of Simplexity frameworks is instrumental for overcoming it.

The case of Marvel has revealed the most effective instruments of dealing with complexity in companies that are experiencing Free Fall due to fragility and lack of focus. Leaders of other companies facing similar issues can employ the analysis within this study to overcome the issues that they're facing by assuming a strategy similar to that of Marvel. The classification of Simplexity tools concerning the case within the Solution to non-performance subsection can be used as a guide in such cases. Takeaways from the case can also help leaders avoid the most crucial mistakes made by Marvel, such as neglecting product quality and losing top talent.

In a more general way, the novel framework proposed in this thesis can be used as a more comprehensive way of dealing with counter-productive complexity in all organizational contexts. By combining insights of multiple existing frameworks into a coherent matrix structure, the novel framework can facilitate Simplexity-based transformation planning within organizations and provide leaders with valuable insight into what they need to do to improve performance. Combining this approach with insights from the case regarding different types of complexity-based issues will allow practitioners to effectively concentrate on the most relevant Simplexity tools for their organizations.

Nevertheless, it is important to note that the framework proposed in this study, as a whole, remains untested as a Simplexity method. Despite containing individual elements that have been proven in multiple cases, the synergy between different methodologies within the framework still needs to be investigated in practice. This investigation remains a potential avenue for future research and practical applications of the framework and can be considered the main limitation of the study at the time of writing.

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