The mindful project manager

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Abstract

The goal of this thesis is to bridge the gap between the topics of: a) Leadership competences as a success factor in project management, b) The benefits of mindfulness meditation in the context of management and leadership. A literature review of both topics is presented. The convergence point of these two topics is then analyzed in order to shed light on if and how mindfulness meditation practice of project managers could potentially enhance key leadership competences for project managers and thereby influence the success of projects. Based on literature analysis I theorize that mindfulness training can be of potentially high significance in developing and enhancing self-awareness, interpersonal sensitivity, motivational and influential capabilities and the conscientiousness of project managers, all of which are highly correlated with project success. Furthermore it may potentially (perhaps indirectly) influence managerial competencies, especially ones ability to efficiently engage in communication, a critical competency for project success. I conclude that mindfulness meditation is something project managers should be encouraged to practice as there is a clear association between the benefits of mindfulness and key leadership competences for project success. I however warn against seeing mindfulness as a cure-all solution or a super-method for developing super-leaders but rather as a relatively simple method that can be used supplementary alongside education and general leadership training.

Keywords: Project management, Leadership, Mindfulness, Emotional Intelligence
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1 Introduction

Project management is a growing discipline worldwide and an increasing number of businesses are focusing their operations around projects. While there are numerous approaches to managing projects they all aim for the same core principal; to achieve all set project goals and objectives while honoring the preconceived boundaries of scope, time, quality and budget (Ingason & Jonasson, 2013). A project that is finished in accordance with overall project objectives, time and cost and in an ethical manner is a successful project.

Although project success factors have been studied for many decades it is only recently that attention has been put on the leadership- and management competence of project managers as a project success factor, predominantly by Ralf Muller and J. Rodney Turner. Turner and Muller (2010) state that this is in contrast with preceding literature that largely ignored the leadership style and leadership competency of the project manager as a success factor. Even though leadership competencies of project managers are a relatively novel research subjects, the general public and the scientific management literature considers effective leadership as an important factor in the performance of organizations. Because of this, a plethora of literature and other medium of information exists, on how managers can become better leaders. Throughout the last century, leadership literature and theories have progressively emphasized how emotional capabilities are not less important for successful leadership than intellectual capabilities (Turner & Muller, 2005). Daniel Goleman is a leading authority in this area, which is commonly referred to as the emotional intelligence school (EQ) of leadership. Turner and Muller’s work, on the topic of leadership as a success factor in project management, is an example of work established on Goleman’s theories (J Rodney Turner, 2005; Müller & Turner, 2010a).

Among novel leadership related subjects is “mindful leadership”, an ideology that spurs from the rise of the concept of mindfulness meditation in Western culture and as a topic of scientific research. Mindfulness mediation focuses on practicing nonjudgmental attention to and awareness of moment-to-moment experiences. Mindfulness meditation has been shown to have various beneficial effects on the physical and psychological health of its practitioners as well as positively altering the process of thoughts, emotions and behavior. The scientific and educational literature on project management acknowledges the importance of certain behavior and there are numerous books that on the “softer” aspects (e.g. behavior, personality, conflict) of project management and how these may be developed, such as Sharon De mascia’s Project psychology (Mascia, 2012). However, in the context of these “softer” aspects, the scientific and educational literature for project managers seems to be largely unaware of mindfulness meditation and its potential benefits. Even though there is some project management literature that acknowledges mindfulness meditation as a possible source of enhanced emotional intelligence (Jónasson & Ingason, 2011), none of them go into detail on exactly how it could possibly enhance separate key competences for project success.

The goal of this thesis is to bridge the gap between the topics of:

1. A) Leadership competences as a success factor in project management
2. B) The benefits of mindfulness meditation in the context of management and leadership

To do this I review the literature surrounding each topic before examining the area where these two topics converge. By doing this I hope to be able to shed light on if and how mindfulness mediation practice of project managers could potentially enhance key leadership competences for project managers and thereby influence the success of projects.

2 What makes a project manager a successful project manager?

The general management literature accepts leadership as an important success factor in the performance of organizations (Müller & Turner, 2010a). The same is true for projects; project managers with certain personal qualities will yield more successful projects than others (Müller & Turner, 2010a; Victor Dulewicz & Malcolm Higgs, 2005). As previously stated, this thesis aims to answer the question of whether mindfulness meditation can possibly enhance the leadership prowess of project managers, and thereby yield higher project success rate. In this chapter an overview of the scientific literature concerning leadership qualities of effective project managers is presented.

2.1 Leadership in projects

Although commonly used interchangeably, leadership and management are two different things. A successful business owner or director needs to be to both a good leader and a good manager. Leadership is about getting...
people to understand and believe in a vision, and to motivate them to work together to achieve goals. Management on the other hand is more about administering and making sure the day-to-day processes are in place and working. The difference between leadership and management in the context of project management can be described in terms of competencies. A project manager must have the ability to apply knowledge and skills, as well as tools and techniques effectively. That, however, will only make him a good manager. To be effective as a leader, which inspires his team, takes responsibility and guides people in the same direction, he or she must encompass certain personal competencies (Müller & Turner, 2010a).

Leadership research in recent years has focused on studying leadership in terms of competencies (Müller & Turner, 2010b). Theories on leadership that analyze leadership performance through competencies belong to the competence school of leadership. The work of predominant authors on the subject of leadership as a success factor in projects, Turner and Muller, is largely based on the competency school.

2.2 The competence of leaders

Over the last centuries new dominant schools of leadership theory have appeared, succeeding the previous ones. The main schools of leadership theory over the past century have been, in rough chronological order (J Rodney Turner, 2005):

1. The trait school
2. The behavioral or style school
3. The contingency school
4. The visionary or charismatic school
5. The emotional intelligence school
6. The competency school

With the focus of these schools moving gradually towards increased emphasis on soft factors in leadership, the emotional school of leadership, appeared just before the break of 21st century. Predominant figures in this school, such as Goleman, Mckee and Boyatzis, have proven there to be clear correlation with emotional intelligence of managers and the performance of their organization (Boyatzis & McKee, 2005; Goleman, 2011).

The competency school puts emphasis on identifying the competences of effective leaders. Competences, unlike traits, can be learned and enhanced. Different combinations of competencies are appropriate for leadership in different circumstances. This thesis focuses on the 15 leadership competencies identified by Victor Dulewicz and Malcom Higgs. Dulewicz and Higgs grouped the 15 competencies into three categories; 5 managerial (MQ), 3 Intellectual (IQ) and 7 emotional (EQ) competencies. Furthermore Dulewicz and Higgs created three leadership styles, based on different combinations of leadership competencies; Goal oriented, involving and engaging style (Victor Dulewicz & Malcolm Higgs, 2005).

This thesis looks to identify the potential benefits of mindfulness meditation for project managers using Dulewicz’ and Higgs’ competencies. In order to be able to make clear distinctions on the possible link between the leadership competences and their potential interaction with mindfulness meditation, it is helpful to have a clear understanding of what each competence encompasses and how each one can be applied in the context of project management. This chapter is largely based on a similar chapter in Turner’s and Muller’s book project oriented leadership (2010a).

2.2.1 Intellectual dimensions (IQ)

Critical Analysis and judgement

A leader who possesses this competency is:

*Who probes the facts, identifies advantages and disadvantages and discerns the shortcomings of ideas and proposals. Makes sound judgments and decisions based on reasonable assumptions and factual information, aware of the impact of any assumption made.* (Dulewicz & Higgs, 2005)

In a project managerial context this competency does for example encompass the ability to quickly analyze information regarding risk factors and make sound decisions on how to react. This is competency is central to management rather than leadership as it plays a large part in the project managers ability to utilize analytical tools, etc. Muller and Turner (2010) found that critical thinking is expressed highly in successful project managers in all types of projects.
Vision and imagination

A leader who possess this competency is:

“Imaginative and innovative in all aspects of one’s work. The leader establishes sound priorities for future work. He possesses a clear vision of the future direction of the organization to meet businesses imperatives. Foresees the impact of changes on one’s vision that reflect implementation issues and business realities.” (Dulewicz & Higgs, 2005)

In a project managerial context this competency does for example encompass the ability to understand how finishing a project successfully will affect an organization’s future and why that would be important. A project manager who possesses this competency will be able to think outside the box on how to ensure project success. Turner’s and Muller’s (2006) findings however indicate that this competency is not a particularly critical for project success.

Strategic perspective

A leader who possess this competency:

Sees the wider issues and broader implications. He explores wide range of relationships, balances short- and long-term considerations. He is sensitive to the impact of one’s actions and decisions across the organization. He identifies opportunities and threats. Is sensitive to stakeholder’s needs and the implications of external factors on decisions and actions. (Dulewicz & Higgs, 2005)

In a project managerial context this competency impacts the project manager’s ability to see the big picture in projects. He will understand how different project parameters will effect decisions and tasks in projects. Interestingly Muller and Turner (2006) have shown that this competency does have a negative impact on project success in general projects. Strategic perspective does however positively impact project success in IT projects.

Resource management

A leader who possess this competency:

Plans ahead, organizes all resources and coordinates them efficiently and effectively. Establishes clear objectives. Converts long-term goals into action plans. Monitors and evaluates staff’s work regularly and effectively, gives sensitive, honest feedback. (Dulewicz & Higgs, 2005)

Resource management is a key managerial competency in projects as it encompasses the proficiency in tasks that are central to project management such as planning, goal establishment and performance monitoring. Resource management is important across all types of projects and coupled with motivation it explains about 9% of success in projects (Turner & Muller, 2006).

Engaging communication

A leader who possess this competency:

Is a lively and enthusiastic communicator, who engages others and wins support. Clearly communicates instructions and vision to staff. Communications are tailored to the audience interests and are focused. Communications style inspires staff and audiences, conveys approachability and accessibility. (Dulewicz & Higgs, 2005)

Although this competency is important for all managers it is not hard to imagine how it is of high significance for project managers. Project managers often have limited time frame to get messages instructions across. As project staff is rarely subordinates of the project managers he needs to be a proficient communicator to win trust and inspire. Muller and Turner (2006) showed that engaging communication is an important success factor in projects. The significance of this competency is especially high in projects of medium complexity and in innovation and maintenance projects.

Empowering

A leader who possess this competency:
Gives staff autonomy, encourages them to take on personally challenging demanding tasks. He encourages them to solve problems, produce innovative ideas and proposals and develop their vision and a broader vision. Encourages a critical faculty and abroad perspective, and encourages the challenging of exciting practices, assumptions and policies. (Dulewicz & Higgs, 2005)

Muller and Turner (2010) have shown that empowering does not necessarily lead to project success. Empowerment may even have a negative impact on project success in some cases. Muller and Turner conclude that giving too much freedom to team members in projects that involve high level of communication between people or where clients pay hourly fee, can lead to them missing focus on project goals.

Developing

A leader who possess this competency:

Believes others have the potential to take on ever more-demanding tasks and roles, encourages them to do so. Ensures direct reports have adequate support. Develops their competencies, and invests time and effort in coaching them so they contribute effectively and develop themselves. Identifies new tasks and roles to develop others. Believes that critical feedback and challenge are important. (Dulewicz & Higgs, 2005)

A crucial success factor for projects is to keep the project team motivated. A good way to motivate staff is to give them a chance to develop themselves. Turner & Muller (2006) showed that the ability to develop others is important in project management. This ability is especially important in IT projects and mandatory projects.

Achieving

A leader who possess this competency:

Is willing to make decisions involving significant risk to gain an advantage. Decisions are based on core business issues and their likely impact on success. Selects and exploits activities that result in the greatest benefit to the organization and its performance. Unwavering determination to achieve objectives and implement decisions. (Dulewicz & Higgs, 2005)

2.2.3 Emotional and social dimensions (EQ)

Self-awareness

A leader who possess this competency:

Awareness of one’s own feeling and the capability to recognize and manage these in a way that one feels that one can control. A degree of self-belief in one’s capability to manage one’s emotions and to control their impact in a work environment. (Dulewicz & Higgs, 2005)

The ability to recognize one’s feelings and understanding how thoughts and emotions are interconnected and how one influences the other in determining one’s mood. Self-awareness is a key ability in emotional intelligence (Goleman, 2011). A manager who possesses self-understanding will be level and take decisions based on understanding one’s emotional boundaries. This ability also contributes greatly in understanding how other people’s minds work, allowing one to communicate competently based on heightened empathy. Turner and Muller (2006) have shown that self-awareness is important for project leaders, but is especially important in maintenance projects and projects with fixed price contracts.

Emotional resilience

A leader who possess this competency:

Performs consistently in a range of situations under pressure and adapts behavior appropriately. He balances the needs of the situation and tasks with the needs and concerns of the individuals involved. Retains focus on the course of action or need for results in the face of personal challenge or criticism. (Dulewicz & Higgs, 2005)

The stress which accompanies being responsible for projects is commonly high. Project managers commonly encounter stressful events where sound decisions need to be taken swiftly and where adverse emotions may arise in the project manager and project team members. The high focus on finishing projects successfully within
set scope and in an ethical manner creates circumstances that does not allow for prolonged periods of panic and emotional turmoil. The ability to be able to recover quickly from adverse experiences is important for project managers. An emotionally resilient project manager will stay calm in stressful situations and be able to take calculated decisions under pressure. Turner and Muller (2005) showed that emotional resilience is important for all projects while being especially important in IT projects and organizational change projects.

**Intuitiveness**

A leader who possess this competency:

> Arrives at clear decisions and drives their implementation when presented with incomplete or ambiguous information using both rational and emotional or intuitive perceptions of key issues and implications. (Dulewicz & Higgs, 2005)

Intuitiveness basically links rational thinking with gut feeling. It’s often hard to pinpoint exactly why people take certain decisions and often we have to go with our “gut feeling” which is based on life-time accumulation of learning from all decision take through our lifetime and the feelings we associate with them (Müller & Turner, 2010a) This ability is increasingly important the higher one is in the management ladder of organizations. However in the context of project management, research has shown that intuitiveness is the only competency that is not significantly higher in project managers of high performing projects when compared to managers of lower performing projects (Turner & Müller, 2006).

**Interpersonal sensitivity**

A leader who possess this competency:

> “Is aware of, and takes account of, the needs and perceptions of others in arriving at decisions and proposing solutions to problems and challenges. Builds from this awareness and achieves the commitment of others to decisions and action. A willingness to keep open one’s thoughts and possible solutions to problems and to actively listen to, and reflect on the reactions and inputs from others.” (Dulewicz & Higgs, 2005)

This competency is closely linked to empathy and allows the one who possesses it to be aware of the needs, emotions and concerns of others. The ability to closely listen to others as well as being aware of non-verbal cues is a critical factor for anyone who interacts frequently with others. To build strong relationships with others based on trust and mutual respect it is crucial to be sensitive to the emotions of those you interact with, for example by not communicating in a hurtful and demeaning manner. As project managers will in most cases need to interact with numerous stakeholders in projects, often under stressful circumstances, one would expect this competency to be important to project managers. The research of Muller and Turner (2006) confirms this as they showed a strong correlation between interpersonal sensitivity and project results in all high-performing projects.

**Influence**

A leader who possess this competency:

> Persuades others to change views based on an understanding of their position and recognition of the need to listen to this perspective and provide a rationale for change. (Dulewicz & Higgs, 2005)

Leaders who are strong in the leadership competency are therefore able to shape the outcomes of their interactions with other problems. This ability is based on leaders self-awareness as well as his or hers interpersonal sensitivity. By being well aware of his own feelings, thoughts and emotions and by being able to correctly read the emotions of others, he can influence the feelings of others, and thereby their reaction. It is important for leaders who possess this competency to make sure to utilize it ethically.

Muller and Turner (2010) describe influence in the context of project management in the following way:

> Influence is exercised in project management when the project manager uses the formal power of their role to make team members or other stakeholders listen, and then tune into their emotions and convey his or her own position on an issue, and finally appeal to the rationality of a given solutions.
Turner and Muller (2006) have shown that the influence competency correlates positively with project success, especially in highly complex organizational change projects. Muller and Turner’s (2010) results indicate high expression of influence in successful managers in all types of projects.

**Motivation**

A leader who possess this competency:

*Has drive and energy to achieve results and make an impact. Balances short- and long term goals with the capability to pursue demanding goals in the face of rejection of questioning.* (Dulewicz & Higgs, 2005)

Motivation is a critical factor for leadership (Ghosh & Chakraborty, 2008; Müller & Turner, 2010a)

Muller and Turner (2010) state that projects managers can motivate by:

“Providing the project with meaningful work, autonomy, potential for success and significant impact on the outcome, via recognizing the mood and self-motivation of individuals within the projects. To do that the project manager should link the dreams, ambitions and values of team members with the project at hand.”

The research of Muller and Turner (2006) showed that the motivational competency is positively correlated with project success across all types of projects. It becomes increasingly important with increased need for interaction within projects.

**Conscientiousness**

A leader who possess this competency:

*Displays clear commitment to a course of action in the face of challenges and to match words and deeds encouraging others to support the chosen direction. Shows personal commitment to pursuing an ethical solution to a difficult business inside the business.* (Dulewicz & Higgs, 2005)

One who is conscientious takes responsibility seriously and is self-disciplined, ethical, committed and careful in striving to reach a set goal. Turner’s and Muller’s (2006) showed that this competency is a key competence for project managers as it correlates highly with project performance in all types of projects.

### 2.3 The leadership competencies of successful project managers

Which leadership competencies are the most important ones when it comes to managing projects successfully? Research on this matter shows that different project manager leadership competency is important on different types of projects.

Higgs and Dulewicz (2005) studied how the 15 leaders competences influenced project success in 400 organizational projects. Their results showed how the composition of competency profiles varied based on the complexity of projects. Goal oriented leaders were most successful in low complexity projects while engaging leaders are most successful in high complexity (Victor Dulewicz & Malcolm Higgs, 2005).

Muller and Turner took the research of Higgs and Dulewicz further. They showed that all of the 15 competences are significantly stronger in managers of successful projects compared to managers of less successful projects (Müller & Turner, 2010a). They showed that one IQ competence (critical thinking) and three EQ competences (influence, motivation and conscientiousness) have a high positive impact on all projects (Müller & Turner, 2010b). Furthermore, the MQ leadership competency of engaging in communication and the EQ competences of conscientiousness and sensitivity correlate positively with all high-performing projects (J Rodney Turner, 2005). The importance of other competencies varies between project types. Turner and Muller (2010b) showed how project managers of successful engineering and construction projects show strong critical thinking and score highly in conscientiousness and self-awareness. Managers of successful IT projects are strong in critical thinking and the MQ competencies of managing resources and empowering, as well as the EQ competencies of sensitivity and conscientiousness. Project managers in organizational change projects do unlike the other two application areas show medium or high strength in all competences. The same study also measured the importance of the 15 competences for projects of different importance and of different complexity. The results indicate increased importance of EQ competencies as projects grow more complex and if their importance is increased. When these results are compared to the leadership profiles of Higgs and Dulewicz they indicate that the engaging leadership style as the most suitable style for project managers overall except for engineering and...
construction projects. The engaging style shows high expression for all EQ competences. This is in line with Muller and Turners previous research results which shows strong correlation between EQ competences and project success, except for engineering and construction projects (Müller & Turner, 2007). Muller and Turner (2010) studied the importance of leadership competences for project success based on different success criteria. This study showed that strong EQ competences impacted project success in general, the correlation between EQ and project success was especially strong in projects that focus on long term success. Their 2010 study furthermore showed a high correlation between strategic perspective and success in projects measured by the traditional time, cost and quality while success from the point of view of stakeholders was highly correlated with management of resources.

2.4 Summary
It is clear by the above that a leader that is highly competent in all of the 15 competences will overall deliver more successful projects. It is therefore clear that leadership competences do indeed matter. Different competencies are however more important than others for different types of projects. However the literature shows that for project success in general, there are a few leadership competencies that have a stronger correlation with high project performance then other. It is clear is that the competences related to emotional intelligence are important to project management success. In the following chapters we will review the scientific literature surrounding the benefits of mindfulness meditation before analyzing how mindfulness practice might boost project success. In that context we will focus on the competencies that are shown to be of great importance in projects in general. The focus of this study will be on the following competencies:

- IQ competency: Critical thinking
- MQ competency: Engaging communication, managing resources
- EQ competencies: Self awareness, influence, motivation, conscientiousness, interpersonal sensitivity

3 Mindfulness and its effect on practitioners
In this chapter the concept of mindfulness is explained and discussed. The mindfulness concept is defined and its recent rise in Western culture portrayed. The practice of mindfulness meditation is explained before a literature review of empirically supported benefits of mindfulness is put forth.

3.1 The unexpected rise of mindfulness meditation
Methods of developing a nonjudgmental attention to and awareness of moment-to-moment experiences and events have been practiced since ancient times. This state of consciousness is commonly referred to as mindfulness. Although having been virtually unknown to the Western general public a few years ago it has now reached mainstream attention. A simple way of underlining the increased interest in mindfulness is to analyze Google search results of the term. In 2011 a Google search of the word mindfulness yielded roughly 6 million results while such a search yields 26 million results as of March 2015. Also, the popularity of mindfulness as a search word has tripled since January 2011, relative to total searches of all words made using Google.

On first glance it might seem easy to dismiss mindfulness as a new-age fad but the fact is that an ever-increasing body of scientific research suggests such dismissal would be unwise. The scientific community, like the general public, has become increasingly interested in mindfulness meditation and its potential benefits. For example a Medline database search in 2011 yielded 640 scientific articles with the word mindfulness in its title while the same search yields over 2400 articles in March 2015. Many might be surprised to learn that this ever-growing body of research, most of which is in the area of psychology, medicine and neuroscience, proves what meditators throughout the ages have believed; that mindfulness meditation has significant benefits for the physical and psychological health of its practitioners (Brown & Ryan, 2003; Goyal M, Singh S, Sibinga ES, & et al, 2014; Grossman, Niemann, Schmidt, & Walach, 2004).

Following the surge in research activity surrounding mindfulness, numerous distinguished corporations and universities around the world have implemented mindfulness-training programs to motivate employees to practice mindfulness. These are organizations like Google, General Mills, NASA, Harvard University and MIT (Tan, Goleman, & Kabat-Zinn, 2014). It is reasonable to assume that these prominent organizations base their decisions on the science of mindfulness that indicates how its practice may improve attributes related to task performance, management and leadership (Aiken, 2006; Boyatzis & McKee, 2005; Glomb, Duffy, Joyce, & Yang, 2011).
It is clear from the above that the Western general public, organizations and the scientific community have taken interest in mindfulness. But how exactly does one become mindful? What happens when one practices mindfulness meditation?

3.2 Mindfulness and Mindfulness meditation practice

There are numerous definitions on mindfulness. These definitions all have the same core concept. Mindfulness is the process of paying attention to what is happening in the moment – be it internal (emotions, thoughts, bodily sensations) or external stimuli (from the physical and social environment, such as sounds, touch, etc.) – and to observe this stimuli without judgement and without assigning any meaning to them. Let’s give an example, using standing in a long line as a scenario. When standing alone in a long line, most of us will automatically start ruminating about the past or the future and many will become agitated with the time it is taking to reach the end of the line. We will be in “auto-pilot” mode. If one is mindful in this circumstances one would for example notice the sensation of the feet touching the floor, the shape of the line, and experience the surrounding sounds and scenery as well as noticing what thoughts pop up and what feelings surface. But just as importantly as being aware of internal and external stimuli, one would not impose any judgement on what he or she is experiencing. So the mindful person would notice smell of the person in front and notice how slowly the line is moving, but would refrain from evaluating it negatively.

Mindfulness is a state of consciousness. This state of mind comes more naturally for some people than it does for others. It is therefore essentially a trait. However this trait can be cultivated and developed through various acts, most notably mindfulness meditation. Mindfulness meditation develops this state of nonjudgmental awareness of, and attention to, external and internal stimuli. The central outcome of mindfulness practice is improved self-regulation of thoughts, emotions, behaviors, and psychological reactions (Glomb et al., 2011). Despite its roots in Eastern religion and philosophy, the practice of mindfulness meditation has no religious connotation.

Mindfulness meditation is normally practiced in a sitting position. The author of this thesis has practiced mindfulness meditation for over a year, initially to help fight anxiety. The meditation is commonly practiced over 15 minutes up to an hour. There are numerous different ways to practice mindfulness but this description is based on the practices of the author. During the meditation session the meditator goes through a few phases. The initial phases focus on noticing external stimuli and bodily sensations. The main phase which commonly takes up to 50% of the time of the session is where the meditator focuses on his breath. The breath is not controlled but simply noticed. During this phase the mind will involuntarily wonder away from the breath and thoughts, emotions and other stimuli will disrupt the focus on the breath. The meditator simply notes the distraction, whether it is a thought or a feeling and applies a label to it, such as “this is anxiety”, “this is a thought that came after this or that experience”. The focus is then diverted back to the breath. Over time the meditator will learn notice common themes in his thoughts and how different thoughts trigger different emotions, as well as understanding what bodily sensations are accompanied with different emotions.

The benefits of this simple practice are numerous. Although meditators have stated benefits for ages, it is only now that scientists have empirically proven the validity of the positive effects of mindfulness.

3.3 Core mental and neurobiological processes of mindfulness

But how exactly can this simple practice able to deliver numerous and diverse benefits, ranging from increased working memory to increased empathy? Mindfulness has been proven to actually change the brain of meditators. Marchand, W.R. (2014) provided evidence from neuroimaging studies that show how mindfulness impacts the medial cortex as well as the insula and amygdala. Such studies furthermore depict changes in lateral frontal regions, basal ganglia and the hippocampus. Theresa M. Glomb et. al. (2011) delineated a model of the mental and neurobiological processes by which mindfulness meditation improves self-regulation of thoughts, emotions, and behavior. As previously noted, the mindfulness literature converges in identifying improved self-regulation as the central outcome of mindfulness.

Glomb et al. (2011) explained how the basis of the diverse benefits of mindfulness lies in three core processes mental and neurobiological processes: Decoupling of Self from experiences and emotions; Decreased use of automatic mental process; Awareness of psychological regulation. The three processes which by Glob et al. (2011) described are summarized in the following sections 3.3.1 – 3.3.3.
3.3.1 Decoupling of self from experiences, events and mental processes
This is a fundamental factor in allowing mindfulness can increase self-regulation. As was previously stated, a key aspect of the mindfulness meditation practice is to notice, observe and name internal and external stimuli without assigning any kind of judgement or evaluation to it. What this process essentially does to meditators is that it creates a distance between the ego and experiences, events and mental processes. This process is also known as “de-centering”, which leads to being able to see thoughts as events in the mind rather than an accurate picture of self-view (Feldman, Greeson, & Senville, 2010).

Let’s imagine a person who asks another one out for a romantic date. The other person declines the invitation. Most of us will feel bad about ourselves in such situation as we feel our self-worth is under attack. A meditators de-centered mind might however be able to separate the ego from the situation. Heppner & Kernis (2007) showed mindfulness training increased the separation between self-worth and negative experiences such as rejection. It has also been shown how 8 week mindfulness training taught practitioners to decouple the directly experienced self from the narrative self, essentially improving their meta-awareness (Hargus, Crane, Barnhofer, & Mark, 2010).

3.3.2 Decrease Use of Automatic Mental Processes
The second core process identified by Glomb et al (2011) is decreased automaticity of mental processes. Automaticity of thought is something everyone can relate to. It is essentially when our brain goes to “autopilot” (Segal, Williams, & Teasdale, 2012). Present moments are relatively brief and people spend far more time unaware of the present moments than aware of them. It takes a lot of energy for the brain to process information and calculate responses to the endless stimuli our brain encounters on a day-to-day basis. Most of our thoughts are the same as yesterday and most tasks have been performed before (Csikszentmihalyi, 1997). Going into automaticity offers a clear survival benefit as it essentially recycles old thoughts, and prior experiences, saving energy in the process. Automaticity however hijacks our ability to fully experience the present moment and diminishes our present-moment awareness, control and intent (Bargh, 2013).

Mindfulness meditation disrupts the “auto-pilot”. Meditators focus on the breath and notice when the mind is disrupted when the brain wants to go to automatic mode. When stimulants such as sound, physical pain, thoughts and emotions arise meditators simply observe them and then go back to focusing on the breath. Siegel (2007) noted that by doing this it allows meditators to disengage from; 1) automatic thought patterns and, 2) perceptual filtering driven by emotions and schemas from the past, as cited by Glomb et al. (2011). This essentially allows meditators to increase their ability consciously sense and understand their thoughts and to increases the cognitive flexibility in how they respond to their thoughts (Siegel, 2010).

3.3.3 Awareness of psychological Regulation
The third and final core process identified by Glomb et al (2011) is increased awareness of psychological regulation. As previously stated in the description of the mindfulness meditation practice, one does not only observer thoughts that arise, but also the bodily sensations that accompany thoughts and emotions. This eventually allows the meditator to gain an increased understanding of the bodies psychological response systems. Numerous undesirable psychological (anger, depression, anxiety) and physical (inflammatory issues, gastrointestinal distress, heart palpitations) consequences stem from the overloading of the brains limbic system, which coordinates the brains psychological response systems (Siegel, 2007). By observing the physical sensations that accompanies psychological responses individuals can learn to better interpret and respond to messages from the body, resulting in a better balanced respond system (Glomb et al., 2011).

3.4 Secondary benefits mindfulness practice
Above, the core processes, which influence increased self-regulation in mindfulness meditators, were described. These processes are the basis of numerous beneficial secondary processes that are commonly associated with mindfulness meditation. In this sub-chapter these processes are described. This chapter is, like the preceding one, largely based on Glomb’s et al (2011) mindfulness and self-regulation model although additions are made to their review based on novel research findings. Table 1 provides an overview of the secondary benefits of mindfulness as well as defining the central process induced by the practice.
Table 1: Overview of the secondary benefits of mindfulness practice. Furthermore provides a definition of the effected process.

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved empathy</td>
<td>Empathy is the capacity to understand what another person is experiencing from within the other person's perspective.</td>
</tr>
<tr>
<td>Improved response flexibility</td>
<td>Response flexibility is the ability to pause and think before responding to stimuli with physical or verbal action. (Glomb et al., 2011)</td>
</tr>
<tr>
<td>Improved affective regulation</td>
<td>Affect regulation is a set of processes that individuals use to manage emotions and their expressions to accomplish goals. (Bell CC &amp; McBride DF, 2010)</td>
</tr>
<tr>
<td>Decreased rumination</td>
<td>Rumination is the focused attention on the symptoms of one's distress and its possible causes and consequences. (Broderick, 2005)</td>
</tr>
<tr>
<td>Increased working memory</td>
<td>Working memory is responsible for transient holding and processing of new and stored information. (Cowan, 2008)</td>
</tr>
<tr>
<td>Ethical decision making</td>
<td>Ethical decision-making refers to the evaluation and choice of alternatives on the basis of ethical principles. (Ruedy &amp; Schweitzer, 2011)</td>
</tr>
<tr>
<td>Increased self-determination and persistence</td>
<td>Self-determination and persistence refer to the processes by which a person chooses to behave in accord with his or her underlying values and interests. (Evans, Baer, &amp; Segerstrom, 2009)</td>
</tr>
<tr>
<td>Increased intentional focus</td>
<td>Refers to the ability to focus attention on stimuli that is relevant to the task in hand and filtering out distracting stimuli. (Joel Brockner, 1978)</td>
</tr>
<tr>
<td>Improved accuracy in affective forecasting</td>
<td>Affective forecasting refers to a person's ability to accurately predict their own emotional response to future events. (Emanuel, Updegraff, Kalmbach, &amp; Ciesla, 2010)</td>
</tr>
<tr>
<td>Stress reduction</td>
<td>Stress is a feeling of strain and pressure. Excessive stress may lead to physical and psychological harm. (Goyal M et al., 2014)</td>
</tr>
</tbody>
</table>

### 3.4.1 Improved response flexibility

Improved response flexibility is essentially the ability to pause and think before we respond to stimuli with verbal or by physical action. Mindfulness meditation has been proven to improve this ability (Bishop et al., 2004; Chatzisarantis & Hagger, 2007; Lakey, Campbell, Brown, & Goodie, 2007). People commonly respond in a highly reactive and impulsive manner. By cultivating the ability to pause before responding one can find space to reflect and consider a response that aligns with one’s goals, values and needs (Lakey et al., 2007). All three of the core processes of mindfulness meditation described above, play a role in generating this improved capacity for response flexibility (Glomb et al., 2011).

### 3.4.2 Decreased Rumination

Rumination is the focused attention on the symptoms of one’s distress, and the possible causes and consequences, as opposed to its solution (Nolen-Hoeksema, 1991). Several studies have shown that mindfulness meditation decreases rumination (Chambers, Lo, & Allen, 2007; Ramel, Goldin, Carmona, & McQuaid, 2004). By decoupling of the self from emotions, events and experiences and by reducing automaticity the meditator will ruminate less and be able to handle stressful events better (Broderick, 2005). Individuals who frequently
ruminate are more likely to suffer from poor concentration (Ingram & Smith, 1984), low self-efficacy (Joel Brockner, 1978) and depressed mood (Nolen-Hoeksema, 1991).

### 3.4.3 Increased Empathy

Empathy is the capacity to understand what another person is experiencing from within the other person’s frame of reference (Bellet PS & Maloney MJ, 1991). Individuals are able to step out of “survival mode” through empathy and instead consider the larger social picture and what is best for others (Siegel, 2007). Numerous studies have shown that mindfulness promotes empathy (Aiken, 2006; Shapiro, Schwartz, & Bonner, 1998). Glomb et al. (2011) note how all of the three core processes of mindfulness meditation (previously described) lead to increased empathy. With meditation one over time learns to better perceive the self through decreased automaticity and learn to understand one’s internal processes and psychological responses which in turn can help them better understand the emotional processes of others (Segal et al., 2012).

### 3.4.4 Affective regulation

Affective is the behavioral expression of emotion and affect regulation is a set of processes that individuals use to manage emotions and their expressions to accomplish goals (Bell & McBride, 2010). Mindfulness has been proven to down-regulate negative emotions when they rise as well as the generating and maintaining positive emotions (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). Glomb et al. (2011) assert that decoupling of self from emotions and experiences combined with awareness and regulation of one’s psychological state, play a key role in affect regulation. Individuals who practice mindfulness may develop a cycle of positivity due to enhanced experience of and engagement with positive emotions (Erisman & Roemer, 2010; Tomarken, Davidson, & Henriques, 1990). Furthermore, mindfulness has been shown to reduce felt and expressed negative emotions through the simple act of observing and labeling them (Glomb et al., 2011).

### 3.4.5 Increased self-determination and persistence

Mindfulness meditation has been shown to increase the self-determination and persistence of practitioners (Brown & Ryan, 2003; Shapiro et al., 1998). What this means is that mindful individuals are likely to behave in accord with their underlying values and interests. The reduced automaticity associated with mindfulness, allows for increased recognition of what is valued, ultimately creates increased correspondence between values and actions (Glomb et al., 2011). With increased self-determination (i.e. alignment between values and actions and goals) one will show greater persistence in reaching goals and empirical evidence shows that mindfulness increases persistence (e.g., Evans et al. (2009)). Also, with decoupling from emotions and events a mindful person will not see the potential of a failure as an indication of their failure. Instead he or she will be able to focus on achieving the goals (Lakey et al., 2007). Mindfulness furthermore improves people’s ability to maintain cognitive focus under pressure. Glomb et al. (2011) suggest that this is result as mindful people are pursuing goals that are well aligned with their values and because their mindfulness helps them deal more effectively with barriers.

#### 3.4.5.1 Ethical decision making

Many unethical decisions stem from lack of awareness. Scientists have studied how and individuals awareness of his or hers present moment (i.e. being mindful) impacts ethical decision making. Ruedy and Schweizer (2011) demonstrated how individuals high in mindfulness are more likely to value upholding ethical standard and to use a principled approach to ethical decision-making. Ruedy’s and Schweizer’s study furthermore showed that students who are high in mindfulness cheated less that those who were not. There is therefore a clear and important connection between mindfulness and ethical decision-making. I suggest that this relationship is a result of increased empathy and compassion coupled with increased self-determination.

### 3.4.6 Increased working memory

Working memory (also called short term memory) is responsible for transient holding and processing of new and stored information, and important process for reasoning, comprehension, learning and memory updating (Cowan, 2008). Improvements on working memory appear to be another benefit of mindfulness, research finds. Highly stressful or demanding situations have been shown to reduce working memory because the body releases cortisol in order to cope with the situation. The cortisol however inhibits working memory (Oei, Everaerd, Elzinga, van Well, & Bermond, 2006). Jha et al. (2010) studied two groups of soldiers at a highly stressful period; one who received mindfulness training while other did not. Soldiers who had received mindfulness training showed increased working memory over the period while it deteriorated for the non-meditators. This was at least partly down to reduction in unhealthy surplus generation of cortisol (Glomb et al., 2011).
3.4.7 Increased focus
Studies have shown that mindfulness training enhances numerous cognitive functions, other than working memory. Mrazek et al. (2013) studied the effect of mindfulness training on student’s scores from standardized cognitive tests (SAT and GRE scores). The results showed clearly that students with mindfulness training showed increased accuracy on standardized tests (as well as increased working memory). Analysis indicated these results were down to reduced mind wondering during the task. I, the author, would theorize that this is likely related to decreased automaticity. Ortner et al. (2007) found that meditation practice helped people disengage from emotionally upsetting pictures and enabled them to focus better on a cognitive task as compared to non-meditators.

3.4.8 More Accurate affective forecasting
A person’s ability to accurately predict their emotional response to future events commonly referred to as affective forecasting. Mindfulness practice has been shown to increase people’s ability to do this (Emanuel et al., 2010). This improves performance via improved decision making, as well as improving wellbeing due to greater alignment between reality and expectation (Glomb et al., 2011).

3.4.9 Stress reduction
Although perhaps an underlying factor for some of the above benefits, the reduction in stress with mindfulness practice is a benefit on its own. Hoffman et al. (2010) conducted a meta analysis of 39 studies that explored the use of mindfulness practices for stress reduction and as a cognitive therapy. Hoffman’s study reviled that mindfulness-based therapy is indeed useful in altering affective and cognitive processes that underlie multiple clinical issues, such as depression and anxiety. Goyal et al. (2014) furthermore concluded that mindfulness programs reduce multiple negative dimensions of stress.

3.4.10 Other benefits
Mindfulness meditation has been shown to have numerous physical health benefits. Among other benefits of mindfulness practice is:

- Mindfulness meditation improves immune functioning. (Davidson et al., 2003; Grossman et al., 2004)
- Mindfulness meditation can be efficient in reducing symptoms of fibromyalgia (Tobin, 2014) and various other somatization disorders (chronic fatigue syndrome, irritable bowel syndrome). (Lakhan & Schofield, 2013)
- Mindfulness meditation can be efficient in treating various addictions ranging from tobacco (de Souza et al., 2015) to binge eating (Godfrey, Gallo, & Afari, 2015).
In this chapter I will hypothesize whether and how mindfulness training could affect project success. This paper has until this point focused on providing sound review of the scientific literature surrounding: 1) leadership competencies and their effect on success in projects and 2) Mindfulness and mindfulness practice and its effect on the meditator. The chapter starts with a theoretical analysis on how and in what capacity mindfulness training could impact leadership competencies. Based on that analysis I will theorize how mindfulness could be expected to affect success in projects based on its effect on key leadership competencies for project success.

4.1 Potential impact of mindfulness practice on leadership competences

Although numerous studies have been done regarding the effect of mindfulness on leaders (Sauer et al., 2012) none of them have focused on studying their effect on the separate competences that constitute the leaders proficiency. In this chapter I will evaluate the potential effects that mindfulness training could have on each of the 15 leadership competencies as identified by Dulewicz and Higgs (2003). Note that the proposed potential impact of mindfulness on each competence is based entirely on the author’s observations of literature and logic.

Table 2 shows the potential of using mindfulness to enhance leadership competences

<table>
<thead>
<tr>
<th>Leadership dimension</th>
<th>Leadership Competency</th>
<th>Potential enhancement from mindfulness practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self awareness</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Emotional resilience</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Intuitiveness</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Influence</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Motivation</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Conscientiousness</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Interpersonal sensitivity</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Managing resources</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Developing</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Achieving</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Empowering</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Engaging communication</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Vision and imagination</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Strategic perspective</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Critical analysis and judgment</td>
<td>Medium</td>
</tr>
</tbody>
</table>
4.1.1 Potential effects on emotional (EQ) leadership competencies

Self-awareness (High)

As shown in previous chapters, increased self-awareness is a direct consequence of mindfulness training. Increased self-awareness is a result of the core processes of decreased use of automatic mental processes and increased awareness of physiological response systems. Mindfulness training has the potential to greatly improve the self-awareness of project leaders. Although an important benefit on its own sense, increased self-awareness furthermore influences numerous other competencies.

Emotional resilience (High)

Mindfulness training has been proven to significantly reduce stress (Chiesa & Serretti (2009). Leadership can be highly stressful and when stress reaches excessive heights and left unmanaged it can cause the leader to become dissonant (Boyatzis and McKee (2005). A dissonant leader is driven towards attitudes of aversion, intolerance, irritability, fear and excessive control. Stress is therefore a significant leadership issue. As mindfulness allows leaders to better manage stress it can directly increase the emotional resilience and allow project leaders to prevent becoming dissonant under high-pressure circumstances.

As previously mentioned mindfulness training can decrease rumination which could allow leaders to better cope with stressful events as well as allowing them to recover faster from negative events. The same benefits could be expected from improved affective regulation.

Mindfulness training could therefore be expected to allow a leader to better cope with pressure and stay calm and keep his focus and performance under stressful circumstances.

Intuitiveness (None)

Research indicates there is no link between mindfulness and intuitive processes (Remmers, Topolinski, Michalak (2015).

Interpersonal sensitivity (High)

Although not exactly the same thing, empathy and interpersonal sensitivity are closely related. Being empathetic includes the ability to be interpersonally sensitive (Carney & Harrigan, 2003). As previously noted, mindfulness is proven to increase empathy. Thus a more empathetic leader will have a higher level of interpersonal sensitivity. A project leader who is capable to put him-or herself in the shoes of his colleagues will take their needs and perceptions into account. Furthermore, mindfulness training improves response flexibility, which allows a leader to think before he reacts, thus being better poised to respond to colleagues in a measured and sensitive manner.

Influence (medium)

A thorough review of mindfulness related literature, on its effect on influence, was fruitless. Although there has perhaps been no research done on the connection between mindfulness and influence I believe there to be a clear link. If one considers how influence is practiced it becomes clear that two core benefits of mindfulness practice feed directly into this competence.

Influence is practiced by being persuasive and managing the emotions of others. This is done by sensing the emotions of others and responding carefully to move an interaction towards a desired outcome. (Turner & Muller, Project-Oriented Leadership, 2010)

The ability to be empathetic and to be flexible in responses, both of which are a result of mindfulness practice, is therefore a key in being influential. I would also state that the mindfulness-benefits of increased self-determination and persistence would have a positive effect on how influential a leader is. I would argue that a project leader whose goals are well aligned with his values (self-determinant), is empathetic and able to think carefully before he communicates (response flexible) is likely influential.

Although not supported by empirical data I argue that mindfulness could improve key aspects of influence.

Motivation (medium)
As with the influence competency, I was not able to find any empirical information linking mindfulness practice to the ability to motivate. I will however argue that increased empathy and response flexibility, both of which are improved by mindfulness practice, would allow a leader to be a better motivator. A project leader who is empathetic and able to listen mindfully might be better able to understand what matters to those he wishes to motivate, than one who has neither of these capabilities.

Conscientiousness (high)

Giluk (2009) showed there to be a strong relationship between mindfulness and conscientiousness. Their research does not propose which processes could lay behind this relationship. I however argue that this is due to the main goal of mindfulness meditation, i.e. improved self-regulation and hence capacity for improved self-discipline. The relationship could also be established due to the above-mentioned mindfulness-effect of increased self-determination and persistence. I suggest that a project leader who is working towards goals which are well aligned with his or hers values (self-determined) and who is able to do so even under negative circumstances or outlook (persistence and increased focus) would display conscientiousness.

Furthermore, mindfulness has been showed to enhance ethical decision-making, a commonly undervalued trait in project management literature.

4.1.2 Potential effects on intelligence (IQ) leadership competencies

Critical judgment and analysis (High)

As previously stated, mindfulness practice can enhance working memory. There is a relationship between higher working memory and superior decision-making under risk (Cokely & Kelley, 2009). As Kirk et al. (2011) showed, meditation appears to impact directly on one’s quality of decision-making. Furthermore, mindfulness improves affective forecasting that in turn decreases impact bias. It is thus fair to state that mindfulness could potentially enhance critical judgment in project leaders.

Vision and imagination (medium)

There is no research that looks into the effect of mindfulness on vision of leaders. One could however articulate imagine that increased self-determination (alignment between values and goals) could potentially enhance visionary performance of a leader. Furthermore, I argue that with improved affective forecasting comes reduced impact bias, which means project leaders won’t their overestimate their own and others reaction to future occurrences. I therefore argue that mindfulness training could sharpen leaders vision as well as helping him or her better foresee the impact of changes on one’s vision.

Mindfulness has also been shown to have a direct relation with creativity. This is due to mindfulness reducing influence of habitual verbal-conceptual processes on the interpretation of ongoing experience, thus facilitating insight problem solving (Ostafin & Kassman, 2012). Mindfulness therefore appears to enhance one’s ability to think outside of the box.

Strategic perspective (Low)

There is no research that looks directly into the effect of mindfulness on the strategic perspective competency of leadership. It is however not hard to connect beneficiary processes of mindfulness to aspects of strategic perspective. For example, one could suggest that to improve affective forecasting would allow a project leader to more accurately forecast the impact of decisions and actions on his organization and colleagues. Additionally, increased empathy might allow the leader to see wider issues and broader implications.

4.1.3 Potential effects on managerial (MQ) leadership competencies

Managing resources (Low)

There is no research that looks directly into the effect of mindfulness on the managing resources competency of leadership. Although not easily seen at first glance I believe there to be connection between mindfulness and managing resources. Although I don’t think mindfulness will enhance general planning I believe people oriented leaders will benefit from being mindful. Being empathetic might help the project leader better identify where people will be able to make best use of their capabilities. Furthermore, improved affective forecasting might allow the leader to reduce bias when assigning people to future tasks.

Engaging communication (High)
Mindfulness facilitates improved communication in leaders through various processes. Burgeon et al. (2000) showed that greater mindfulness prior to and during communication could accrue substantial benefits in a variety of important practical communication contexts. A mindful leader will be better suited to listen keenly (via reduced rumination and increased empathy, facilitated by reduced automaticity) before responding in a well thought out manner (via improved respond flexibility). As mindfulness improves self-awareness, a mindful leader could be more aware of his body language. I furthermore suggest that a mindful project leader might have an enhanced understanding the perspective of his audience and therefore be able to better tailor communication to their interests and informational needs, resulting in a more focused and stimulating information exchange. Additionally, with enhanced empathy a leader can improve interactional and informational justice (Glomb et al., 2011).

Empowering (Low)

There is no research that looks directly into the effect of mindfulness on the empowering competency of leadership. I suggest that increased empathy and mindful listening might allow a leader to better understand the capabilities of subordinates and hence perhaps be more trusting and willing to assign responsibility to them.

Developing (Low)

As is the case with empowering, there is no research that looks directly into the effect of mindfulness on the developing competency of leadership. I however believe this competency may be enhanced by mindfulness practice in the same way it enhances empowering.

Achieving (medium)

Mindfulness has been shown to decrease affective forecasting. This means that a mindful project leader will be less likely to overestimate the emotional impact of a future event. With a potentially less pessimistic outlook on future events a project leader will be able to focus on performance. Another previously mentioned benefit of mindfulness practice is increased self-determination (improved alignment between values and goals) as well as increased persistence. A series of studies have linked the persistence and self-concordance to increased effort, improved goal attainment, and greater satisfaction with goal attainment (Sheldon & Elliot, 1999).
5 How could mindfulness training impact project management success?

Mindfulness training has a clear potential to significantly enhance certain leadership competences. The potential impact on competences varies considerably. In a previous chapter, the literature regarding which leadership competences attribute to project success is reviewed. In this chapter light will be shed on how mindfulness could enhance these critical competencies in the context of project management. The competencies previously identified from the literature are the following.

- IQ competency: Critical thinking.
- MQ competency: Engaging communication, managing resources.
- EQ competencies: Self-awareness, Influence, motivation, conscientiousness, interpersonal sensitivity.

In Table 3 the potential enhancement, of key leadership competencies, from mindfulness practice is summarized. This is described in higher detail in the following sections.

Table 3 gives an overview of the enhancement potential of mindfulness on key leadership competences of successful project managers.

<table>
<thead>
<tr>
<th>Leadership dimension</th>
<th>Leadership Competency</th>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQ</td>
<td>Self awareness</td>
<td>Medium</td>
<td>Maintenance projects</td>
<td>High</td>
</tr>
<tr>
<td>EQ</td>
<td>Emotional resilience</td>
<td>Medium</td>
<td>IT Projects, organizational change projects</td>
<td>High</td>
</tr>
<tr>
<td>EQ</td>
<td>Influence</td>
<td>High</td>
<td>Organizational change projects</td>
<td>Medium</td>
</tr>
<tr>
<td>EQ</td>
<td>Motivation</td>
<td>High</td>
<td>All types of projects</td>
<td>Medium</td>
</tr>
<tr>
<td>EQ</td>
<td>Conscientiousness</td>
<td>High</td>
<td>All types of projects</td>
<td>High</td>
</tr>
<tr>
<td>EQ</td>
<td>Interpersonal sensitivity</td>
<td>High</td>
<td>All high-performing projects, all highly complex projects, engineering projects, IT projects</td>
<td>High</td>
</tr>
<tr>
<td>MQ</td>
<td>Managing resources</td>
<td>High</td>
<td>All types of projects</td>
<td>Low</td>
</tr>
<tr>
<td>MQ</td>
<td>Engaging communication</td>
<td>High</td>
<td>Medium complexity projects, Innovation and maintenance projects</td>
<td>High</td>
</tr>
<tr>
<td>IQ</td>
<td>Critical analysis and judgment</td>
<td>High</td>
<td>Medium complexity, Innovation and maintenance projects</td>
<td>Medium</td>
</tr>
</tbody>
</table>
5.1 The mindful project manager – Emotional intelligence

As the literature review reveals, high scores in emotional intelligence competencies (except intuitiveness) correlate positively with increased project success. Thus it appears that the importance to read, understand and manage oneself and one’s relationship with others reflects one’s ability to successfully manage projects (Müller & Turner, 2010a). For example, the EQ competency of motivation explains about 9% of project’s success, while conscientiousness and interpersonal sensitivity correlate positively with all high-performing projects (Müller & Turner, 2010a).

**Self-awareness**

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Maintenance projects</td>
<td>High</td>
</tr>
</tbody>
</table>

Increased self-awareness is a core process of mindfulness meditation. Although not correlated with especially high project success, it however serves as a critical basis for other emotional intelligence competencies.

**Emotional resilience**

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>IT Projects, Organizational change projects</td>
<td>High</td>
</tr>
</tbody>
</table>

Project management can be a stressful profession. Emotional resilience is crucial for a project manager to cope with unexpected shortcomings, conflict within project group and with other stakeholders and to handle high pressure that comes with responsibility. By training mindfulness the project manager will potentially be able to decouple his ego from events and experiences, better understand and regulate his physiological responses, keep focus under stressful situations and maintain constructive communication under pressure (via improved response flexibility). Mindfulness practice has also been shown to decrease rumination tendencies.

**Influence**

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Organizational change projects</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Project managers exercise influence when using formal power to enhance alignment of the goals and actions of stakeholders and team members to the goals of the projects. Influence may be enhanced through mindfulness practice as it has the potential to improve the self-determination of the project manager. Furthermore it may boost his or hers empathy through which the project manager may better understand how to tune in to the emotions of his audience.

**Motivation**

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>All types of projects</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Motivational capability is of exceptional importance for project managers. The project manager must be able to link the dreams, ambitions and values of team members to the project in hand. It is easy to see how a project team, and project manager, that is not motivated to strive towards project success will be less successful than a highly motivated group. Motivation is affected by mindfulness by two processes. First, increased empathy will help a project leader to find “soft spots” on his team members and stakeholders. By being able to understand the perspective of his team a project manager is better suited to motivate his team effectively. An important aspect of motivation is self-motivation. A mindful project leader is likelier to have his or hers goals aligned with his values (via improved self-determination). As long as the project goals align with his values, his self-motivation will be higher.
Conscientiousness

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>All types of projects</td>
<td>High</td>
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</tbody>
</table>

As previously stated, mindfulness has been shown to improve conscientiousness. Conscientiousness is a key competence for project management. Higher conscientiousness translates directly into higher performing projects. A mindful project manager will possess higher persistence and self-determination, increased focus, reduced rumination. Furthermore, and no less importantly, a mindful project leader is likelier to value upholding ethical standard and to use a principled approach to ethical decision-making. Thus, a mindful project leader will be better equipped to pay sufficient attention to details of planning and execution of projects as well as being more committed to deliver project outcome, even under high pressure, while upholding ethical standards.

Interpersonal sensitivity

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>All high-performing projects All highly complex projects Engineering projects IT projects</td>
<td>High</td>
</tr>
</tbody>
</table>

Mindfulness training may help project managers to develop enhanced empathy. Many projects require project managers to interact with numerous stakeholders, often under difficult emotional circumstances. To maintain effective relationships in projects, empathy is a key trait. It may allow the project manager to listen thoroughly to the point of view of others, recognize the needs of stakeholders and to stimulate a spirit of co-operation. Furthermore, mindfulness can improve response flexibility, thus potentially allowing the project manager to interact more effectively. As the project manager can, through mindfulness training, develop enhanced understanding of his own emotions, thoughts and mental responses to stimuli he will with time be able to understand and forecast the emotions and behavior of project stakeholders.

5.2 The mindful project manager – Managerial competencies

Turner and Muller (2006), have highlighted the importance of managerial competencies for project success for all projects. Two managerial competencies seem to have the especially strong effect on project success; managing resources and engaging communication.

Managing resources

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>All types of projects</td>
<td>Low</td>
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</table>

Managing resources is important in all projects. The link between this competency and the benefits of mindfulness is limited. However an important aspect of resource management is the management of human resources. Improved empathy may allow a project manager to more efficiently assign tasks and roles to the right people based on increased understanding of their interests and capabilities.

Engaging communication
Mindfulness prior to and during communication accrues substantial benefits in a variety of important practical communication contexts. A mindful project manager will be better suited to listen keenly (via reduced rumination and increased empathy, facilitated by reduced automaticity) to his team and other stakeholders, before responding in a well thought out manner (via improved respond flexibility). As mindfulness improves self-awareness, a mindful project manager could be more aware of his body language as well the body language of others. I furthermore suggest that a mindful project manager might have an enhanced understanding the perspective of his audience and therefore be able to better tailor communication to their interests and informational needs, resulting in a more focused and stimulating information exchange.

5.3 The mindful project manager – Intellectual competencies

Critical analysis and judgment

<table>
<thead>
<tr>
<th>Importance for project success</th>
<th>Special importance</th>
<th>Potential enhancement from mindfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Medium complexity</td>
<td>High</td>
</tr>
<tr>
<td>Innovation and maintenance projects</td>
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</tbody>
</table>

Mindfulness has been proven to enhance decision-making and short term memory (i.e. working memory). A mindful project manager might be better suited to make decisions under high pressure, as indicated by the studies of Jha et al. (2010). I however doubt that the enhancement would be on a large scale.

5.4 Could mindfulness enhance project success?

In this chapter I considered the potential impact of mindfulness training on leadership competencies most highly correlated with project success. The greatest impact could be anticipated on EQ competencies. In particular I suggest that mindfulness training can prove highly valuable in developing self-awareness, conscientiousness, interpersonal sensitivity and motivation. Motivation, sensitivity and conscientiousness are competencies which science has shown to be of particular importance for project success. The key project-success-related MQ competency of engaging communication could also improve significantly with mindfulness training. The affected competencies are all crucial for creating and maintaining positive and effective interpersonal relationships and therefore I suggest that projects that require high level of interaction with stakeholders would be the ones most affected by the project manager’s mindfulness.

As research has shown this ancient practice is more than a fad – it is an advantageous practice, shown to be capable of altering the brain of practitioners. The analysis performed in this thesis gives indication that if all project managers were more mindful, the world of project management might see increased overall project success.

In the following chapter I will look into and propose how mindfulness practice could be introduced to the arsenal of project managers.

6 Leadership training for project managers – a case for mindfulness

There are numerous project management associations and organizations worldwide that have created guidelines for basic project management. In order to be certified as a project manager by such associations, one is commonly required to showcase minimal knowledge of various subjects related to project management. The International Project Management Association (IPMA) provides such a guideline in the IPMA Competence Baseline (ICB). The ICB features information on 46 competencies that are divided into 3 contexts; technical, contextual and behavioral. The behavioral context comprises 15 competencies, most of which are among, or at least closely related, to the 15 competencies of Higgs and Dulewicz, such as; self-control, engagement & motivation, conflict & crisis and ethics. Since IPMA has acknowledged the importance of such competencies for project managers, I suggest that methods for allowing project managers to cultivate these competencies should be something project managers should be made aware of and even encouraged to study. As has been previously
displayed in this thesis, there is an extensive and ever-expanding body of scientific research that supports the notion that important leadership competencies can be enhanced via mindfulness training. The general leadership and management literature is increasingly acknowledging the potential influence of mindfulness training. Furthermore, some of the world’s leading organizations, such as Apple, Google, General Mills, Harvard University to name a few, have developed and implemented mindfulness training programs to develop leaders and to improve employee well-being (Tan et al., 2014).

The scientific and educational literature on project managers acknowledges the importance of certain behavior and there are numerous well known books that on the “softer” (e.g. behavior, personality, conflict) of project management and how these may be developed. However, in the context of these “soft” aspects, the scientific and educational literature for project managers seems to be largely unaware of mindfulness meditation and its potential benefits. Even though there are some project management focused sources that acknowledges mindfulness meditation as a possible source of enhanced emotional intelligence, none of them go into detail on exactly how it could possibly affect separate key competencies for project success. This is what I have however attempted with this thesis.

By teaching individuals, on their way to become project managers, about the science behind mindfulness and supplying them with basic mindfulness training, they might become interested in practicing it in their private and professional lives. Basic mindfulness training could for example be taught as part of leadership courses in project management programs in universities, or such programs could simply subsidize mindfulness-training courses outside the organization. Project management associations could also offer members to take part in mindfulness training programs, etc.

7 Conclusion
Based on my analysis I theorize that mindfulness is indeed capable of effecting project success.

As research has shown, this ancient practice that has in past years gained increased attention in the Western cultures, is more than a fad – it is an advantageous practice, shown to be capable of altering the brain of practitioners. By studying and comparing the scientific literature surrounding the core processes and secondary benefits of mindfulness with the scientific literature surrounding leadership competencies as success factors in projects I suggest the following:

Mindfulness training can be of potentially high significance in developing and enhancing self-awareness, interpersonal sensitivity, motivational and influential capabilities and the conscientiousness of individuals, all of which are correlated with project success. Furthermore it may potentially (perhaps indirectly) influence managerial competencies, especially ones ability to efficiently engage in communication, a critical competency for project success.

For this reason I believe mindfulness meditation is something project managers should be encouraged to practice. I suggest that if all project managers were more mindful it would positively affect project success worldwide. I however warn against seeing mindfulness as a cure-all solution or a super-method for developing super-leaders. I rather see it as a relatively simple method that can be used supplementary alongside education and general leadership training.

I propose that further research, on the potential of mindfulness training for project managers, should be done in order to further understand if and how such training can affect project success via enhanced leadership competencies of project managers.
8 Bibliography


