

L

**Leadership, Wellbeing, and Performance –
a Strategic Convergence in the Digital Age?**

Master's Thesis

Andreas Gratz

Aalto University School of Business

MSc program in Global Management

Fall 2020



**Aalto University
School of Business**

Author Andreas Gratz

Title of thesis Leadership, Wellbeing, and Performance - a Strategic Convergence in the Digital Age?

Degree Master of Science in Economics and Business Administration

Degree Programme Global Management

Thesis advisor(s) Rilana Riikkinen

Year of approval 2020**Number of pages** 127**Language** English

Abstract

It is a simple equation: employees expend their time going about their work while their company in return reimburses them monetarily. For most executives there is nothing more to it and so they can otherwise focus all their attention on the one and only business rule which is the maximization of profit for the owners of the company. Yet, since many decades an increasing number of scholars has argued that the differentiation between investments into employees and their welfare and those designed to increase profits is false because it implies a contrariety between these two purposes that does not exist. Rather, they argue, meaningful investments into a company's workforce may in themselves serve to increase profits because an employee who is better off is more productive. This idea is at the heart of the domain of Strategic Human Resource Management (SHRM) which views employees as a strategic asset and the source of competitive advantage.

It is the core premise of this thesis that the notion of SHRM has never been more relevant than today amid the onslaught of Digitalization which appears to overwhelm employees and puts them under increasing strain. To prove this premise, I in the review of literature first seek to identify suitable organizational practices which are designed to support employees to rise above the challenges posed to them, establishing the installation of responsible leadership as the most suitable approach. Second, the review then endeavours to determine a concept that encapsulates the welfare of employees whereby designating psychological wellbeing. Third and last, employee performance is foregrounded as the concept to assess the impact the chosen organizational practices unfold in respect to the organizational goals. These three concepts are subsequently brought into relation with one another whereas the thesis' four hypotheses are construed: responsible leadership positively influences both psychological wellbeing and employee performance, while wellbeing impacts performance, also in a positive manner. Thus, I expect to identify wellbeing as a full mediator of the nexus between leadership and performance which is the core of the fourth hypothesis.

These hypotheses are tested by means of Multilevel Structural Equation Modelling, employing two distinct models and using data collected from 10 companies in Finland via the Exponential research project at Aalto University. While establishing psychological wellbeing as a mediator of the relationship between responsible leadership and employee performance and thereby supporting the thesis' premise, the underlying nexus between leadership and performance in the direct model appears insignificant, whereas plausible reasons are noted. Generally, I in my thesis substantiate the value that investments in employee welfare can generate for an organization, before the particular background of Digitalization with the continuous introduction of new technology and the transformation of business models. Further, I provide a thorough account of the various disagreements among scholars in the SHRM field, scrutinizing issues such as the possibility of obverse effects of HR practices or the persistence of level issues. By addressing those issues, I furnish proof of the continuous relevance of SHRM and offer a point of departure for like studies.

Keywords SHRM, responsible leadership, Digitalization, organizational change, employee welfare

Table of Contents

I.	Introduction	p. 1
I.I.	Background and Motivation	p. 1
I.II.	How Digitalization Poses New Challenges to Employees	p. 2
I.III.	Objective of the Study and Research Questions	p. 6
I.IV.	Definitions	p. 8
I.V.	Contribution	p. 10
I.VI.	Structure of the Study	p. 11
II.	Literature Review	p. 13
II.I.	Conceptualizing Organizational Practices	p. 14
II.I.I.	SHRM Before the Background of Continuous Organizational Change	p. 15
II.I.II.	The Conceptualization of Practices in Broad vs. Narrow Terms	p. 17
II.I.III.	Leadership as a Crucial Contextual Factor	p. 20
II.I.IV.	Responsible Leadership as Key Organizational Practice Bundle	p. 23
II.II.	Conceptualizing Proximal Outcomes	p. 26
II.II.I.	Concepts of Motivation and Affect Versus Human Capital Concepts	p. 28
II.II.II.	Affective Concepts as Proximal Outcome	p. 29
II.II.III.	Psychological Wellbeing as Key Proximal Outcome	p. 34
II.III.	Conceptualizing Distal Outcomes	p. 36
II.III.I.	Analyzing the Grounds to Choose a Type of Distal Outcomes	p. 37
II.III.II.	Identifying the Right Type of Distal Outcomes	p. 43
II.III.III.	Employee Performance as Key Distal Outcome	p. 45
III.	Hypothesis Development	p. 47
III.I.	Responsible Leadership as Independent Variable	p. 47
III.II.	Psychological Wellbeing as Mediating Variable	p. 53
III.III.	Employee Performance as Dependent Variable	p. 56
IV.	Methodology	p. 59
IV.I.	Source of Data and Data Collection	p. 59
IV.II.	Methods of Statistical Analysis	p. 60
IV.III.	Measures	p. 62
IV.III.I.	Responsible Leadership	p. 63
IV.III.II.	Psychological Wellbeing	p. 64

IV.III.III. Employee Performance	p. 66
IV.III.IV. Control Variables and Descriptive Statistics	p. 67
V. Results	p. 71
V.I. Multilevel Models	p. 71
V.II. Hypothesis Testing	p. 74
V.III. Further Observations	p. 76
VI. Discussion	p. 78
VI.I. Indication for the Leadership, Wellbeing and Performance Link.....	p. 78
VI.I.I. Direct Model	p. 78
VI.I.II. Mediation Model	p. 81
VI.II. SHRM Research in the Light of this Study	p. 85
VI.II.I. Organizational Practices in the Digital Age	p. 85
VI.II.II. Employee Affective Outcomes in the Digital Age	p. 90
VI.II.III. Employee Performance Outcomes in the Digital Age	p. 95
VII. Conclusion	p. 99
VII.I. Main Findings and Contributions	p.100
VII.II. Managerial Implications	p.103
VII.III. Directions for Future Research	p.104
Bibliography	p.106
Appendix	p.127

List of Figures and Tables

Figures

Figure 1: The central relationship of SHRM	p. 14
Figure 2: The Synthesis of Best Practice and Best Fit	p. 20
Figure 3: Responsible Leaderships' Embeddedness in Scholarly Literature	p. 25
Figure 4: The Trade-off of SHRM	p. 38
Figure 5: Macro and Micro in SHRM	p. 40
Figure 6: The Thesis' Relationship Model showing its four Hypotheses and the two Levels	p. 57
Figure 7: Model Fit Indices Compared to their Respective Cutoff-Values	p. 69
Figure 8: Coefficients for the Direct Model	p. 74
Figure 9: Coefficients for the Mediation Model	p. 75

Tables

Table 1: Key Affective Concepts and their Relationships to the three Criteria	p. 35
Table 2: Overview of Types of Distal Outcomes	p. 44
Table 3: Characteristics of Organizations present in the Sample	p. 59
Table 4: Descriptive Statistics	p. 68
Table 5: Correlation Coefficients	p. 70
Table 6: Information to the two Employed MSEM Models	p. 73

List of Abbreviations

AVE	Average Variance Extracted
CFI	Comparative Fit Index
CRM	Customer Relationship Management
CSR	Corporate Social Responsibility
EBHR	Evidence-based HR
FIML	Full Information Maximum Likelihood
HPHR	High Performance Human Resources
HPWP	High Performance Work Practices
HPWS	High Performance Work Systems
HR	Human Resources
HRM	Human Resource Management
ICC	Interclass Correlation
KBV	Knowledge-based View
KSAs	Knowledge, Skills and Abilities
LMX	Leader-Member-Exchange
MCFA	Multilevel Confirmatory Factor Analysis
MEFA	Multilevel Exploratory Factor Analysis
MSEM	Multilevel Structural Equation Modeling
PANAS	Positive and Negative Affect Scale
RBV	Resource-based View
RMSEA	Root Mean Square Error of Approximation
ROA	Return On Asset
ROI	Return On Investment
SEM	Structural Equation Modeling
SHRM	Strategic Human Resource Management
SRMR	Standardized Root Mean Square Residual
SWLS	Satisfaction With Life Scale
UWES	Utrecht Work Engagement Scale

I. Introduction

I.I. Background and Motivation

In September 1970 the New York Times published an article by Milton Friedman (1970) headlined “the social responsibility of business is to increase its profits” whose impact on the popular opinion was profound, so much so that this article is still being referred to today, nearly half a century after its release (e.g. Freeman and Elms, 2018). Decrying the emergence of an ideology advocating firms’ social responsibility, Friedman (1970) argues that a firm’s executives’ sole objective should be to serve the will of its owners, which he generally assumes to center on the maximization of profits. Investing financial resources in socially desirable actions would however undermine that sole objective, he laments, which is why executives should shun such practices (ibid.).

Since then, countless scholars have pointed out that such socially desirable actions may by themselves serve to increase profits and that, therefore, both objectives may not be contrary at all (e.g. Pfeffer, 1994). Organizational scholars hereby most commonly focus on the relationship between firms and their employees. Supporting the flourishing of their employees, they argue, is not only socially desirable but also profitable (ibid.). The equation goes as follows: organizational strategies can improve employees’ motivation or human capital which both, in turn, increase profits (Jiang et al., 2012b). Hence, by doing something for their employees, firms are doing something for themselves (Freeman and Elms, 2018).

This idea is at the core of a branch of Human Resource Management (HRM) that has achieved increasing recognition, both among scholars and practitioners: Strategic Human Resource Management (SHRM) (Storey et al., 2019). SHRM views employees as strategic resources that can provide a firm with a competitive advantage (ibid.). This thesis is part of, and adds to, the steadily growing literature around SHRM.

Now, that employees can provide a company with a competitive advantage has been shown to be true for decades by American low-cost airline Southwestern. Southwestern built its vision around the understanding that its employees are the company’s most valuable resource and that by putting their needs first the employees’ superior performance would prove to be a sustainable competitive advantage (Hallowell, 1996). As a result, Southwestern has been leading the global low-cost segment since its emergence and is among the most profitable airlines in the world, counting 46 consecutive years of profitability (Zhang, 2019).

Southwestern's story has been remade again and again and companies that successfully foster employee wellbeing to achieve outstanding business results are celebrated by rankings such as Gallup's "Great Workplace Award" (Gallup, 2019). Hence, it appears that it is since quite a long time that some businesses have embraced the fact that employees represent a key resource for competitive advantage.

Yet, while focusing on employees might have been optional, if important, in the past, it is absolutely crucial today. This is because Digitalization has completely upended our lives, posing unprecedented challenges to employees: while they have to get accustomed to new technologies, process management tools and devices, they also have to comprehend that they are playing a new role, in an organization that is ever closer connected with all its stakeholders, chiefly its customers. The following subchapter will shed more light on these developments put into motion by Digitalization and how they pose additional challenges to employees.

I.II. How Digitalization Poses New Challenges to Employees

There is no doubt that Digitalization is affecting all industries and all business functions alike, albeit to varying degrees (Harteis, 2017). Therefore, all workplaces are influenced by it (ibid.). In the following, the challenges posed by Digitalization are illustrated by means of dividing them along the two categories technological challenges and business-logic challenges. Both of them are relevant in their very own right and characterize the immense adversity employees face in the Digital Age.

Technological progress is not a new phenomenon but has been a constant force accompanying human evolution throughout the past centuries and millennia. The current technological upheavals complement a series of industrial revolutions that started with the discovery of steam and water power, was followed by the invention of electricity and assembly lines, ushered in computerization and now seemingly culminates in the fusion of our physical with our digital lives (Marr, 2016). 'Digital' hereby refers to diverse forms of information being stored on memory drives which makes the information easily sharable and distributable for instance via the internet (ibid.). Thus, the term Digitalization centers on the storage, communication and usage of digital information (ibid.). Some scholars claim that the changes brought about by Digitalization are unprecedented due to the way it infiltrates all aspects of our lives, be it at

home or at work. Klaus Schwab (2016), Founder of the World Economic Forum, for instance argues that the Fourth Industrial Revolution, behind which Digitalization is the main driving force, is “much more than the sum” of the preceding revolutions. At all events, it is beyond contestation that the internet has reached omnipresence and employees’ work lives have been transformed, due to the “intermixing of humans and digital technologies” (Hagberg et al., 2016, p.705).

Due to this circumstance, office workers today spend significant amounts of their time online to access information, to send and receive mail, to enter or access data, or to buy and sell products and services. The resulting strain has been prodigious: the average employee is interrupted every 11 minutes amid an avalanche of digital communication (Wulfhorst, 2007), while internet multitasking has been linked to burnout, depression and anxiety (Reinecke et al., 2017). These are, however, not the only technological challenges: companies continuously introduce new tools and processes their employees have to get accustomed to, lest their effectiveness diminishes (Harteis, 2017). Consequently, the ability of employees to make use of digital technologies directly affects a company’s bottom-line and, therefore, it is imperative that they constantly adapt to new technologies to plan their work, to collaborate with colleagues, to communicate with customers and to be up-to-date in their own profession (ibid). The process of employees updating their skills and knowledge throughout their work life until they reach retirement age is often referred to as ‘lifelong learning’ (Van Weert, 2006). This process, which is only set to intensify, makes additional demands of employees who have to expand their capabilities beside doing their regular work. Furthermore, lifelong learning is often either not adequately facilitated by the national education system, or it is neglected by companies who often seem rather inclined to replace workers instead of helping them to attain crucial skills (Münk, 2017).

Yet, the seismic shift Digitalization has caused in our work lives goes far beyond the utilization of new tools and appliances. It has changed the core tenets of how business is being done (cp. Hagberg et al., 2016). All too often, these radical changes to the logic according to which businesses function are regarded in isolation rather than as connected effects with Digitalization as their common cause. The business phenomena servitization, customer and user centricity, BigData and digital collaboration are all linked by the central property of Digitalization which is to bring people closer together and, indeed, to bring businesses and people closer together, all through hyper-connectivity (ibid.). As digital communication and

connectivity are set to further accelerate with the dawn of 5G, these phenomena will only become more pronounced. Together, they epitomize the profound change of business logic which has been brought about by Digitalization and in order to elaborate their implications for employees the following text will take a closer look at each one of them.

First, servitization refers to the process of traditional manufacturing businesses moving towards offering services around their products, whereby increasing profit margins and seizing the opportunity for lasting commercial customer relationships beyond the purchase and installation of the respective product (Coreynen et al., 2017). One recent example of servitization is KONE, one of the globally leading manufacturers of elevators. While the provision of maintenance services for elevators of own production as well as for those produced by other companies has been a vital part of the elevator business for decades, KONE recently made significant strides in servitization through its “advanced people flow solutions” (KONE, 2019a). On its homepage, KONE (ibid.) explains its aspirations: “We combine access and destination control, communication and equipment monitoring to deliver a seamless user experience when moving in and between buildings”. Based on this concept, KONE expects to deliver all the services one may need between entering and leaving a building. More than that, a customer can use an application to give access to the building and the elevator would automatically await the guest and bring her to the requested floor, even when the customer is not present (ibid.)

Beside the increase in profit potential through offering additional, complementary services, with its servitization strategy KONE realizes two further objectives of strategic importance the first of which is the creation of a closed system of services or platform that does not depend on any additional actors. KONE (2019b) states as much on its homepage, advertising its advanced people flow solutions initiative with the phrase “everything you need from one partner” and adding that “an end-to-end solution from KONE means [...] no need to coordinate with multiple suppliers”. Now, the second objective KONE realizes through servitization is the acquisition of individual consumers as customers: While the traditional business of KONE has been B2B, its holistic services around easy and secure access to homes also has potential in B2C, even when customers do not utilize elevators or escalators at home at all or on their way there. Hence, KONE uses servitization as a key part of its strategy in the Digital Age.

Second, turning to customer and user centricity, it is evident that Digitalization has upended the relationship between businesses and their clientele in every regard. Technology makes it

possible to include customers and users at every step in the production process or, similarly, in the delivery of a service (Mintzberg and Lampel, 1996). As a result, businesses can be much closer to them and their needs. More than that, as Abrell et al. (2016, p.334) suggest, companies have to look to the end users of their products and services “in order to create long-term goals for digital innovation”. They add that, to this end, “firms must adopt new methods of acquiring, distributing, and using tacit user knowledge”.

This development also has repercussions for the central tool used to harvest, organize and make use of customer data: Customer Relationship Management (CRM). While the introduction of CRM in the first half of the past decade brought far-reaching changes to companies’ interaction with their customers and users, the acceleration of Digitalization has brought data-mining and marketing-automation into the equation (Krämer et al., 2017). For instance, many banks already offer completely automatized processes, often called digital lending, through which customers can apply for loans and mortgages (Richardson, 2017). Another example comes from Amazon which bases its pricing on algorithms, resulting in one million price changes on a Valentine’s Day (Krämer and Kalka, 2017). Digitalization has reshaped the logic according to which businesses interact with their customers and in order to optimize this relationship all organizations have to harvest, store, and analyze data at scale (ibid.).

This, then, directly leads to the third key phenomenon, which is BigData. As The Economist (2017) highlights, data has become the key resource in the global economy and today the biggest companies that harvest data, Facebook, Alphabet, Microsoft etc., have overtaken the once all-powerful oil companies in terms of market capitalization. In order to be successful, companies require data about themselves, about their competitors and about their customers. There is a key difference between internal data, primarily gathered via a company’s cloud- or software-based management systems, which depend on historical events, and external data, data that is produced outside an organization and is most commonly being accessed via the internet, which can offer real-time information on every relevant inquiry employees and their company may have. Jorn Lyseggen (2017, p.276), the founder of Meltwater which is the biggest company offering business intelligence services explains that it is these huge stocks of external data that can answer key questions such as: “What is the size and sentiment of our online brand footprint? Is it trending positively or negatively compared with our competitors? Which company has the happiest clients? Do we invest below or above the industry average?” It is clear that gathering such data and incorporating it into the decision making process represents a huge change for businesses. In their highly influential book, Mayer-Schönberger

and Cukier (2013, p.7) strike precisely this tone by stating that “the new techniques for collecting and analyzing huge bodies of data will help us to make sense of our world in ways we are just starting to appreciate”.

Digital collaboration, the fourth and last phenomenon to be discussed, has brought about profound changes in the work environment, by facilitating the increasing diversification of work and project teams. In the past, products and services were created and administered within a specific business unit with more or less permanently assigned members from different professional backgrounds who worked in close proximity. Today, the staff of such work groups is generally fluctuant with employees working on different products and services at the same time, across continents and time zones, whereas teams tend to involve a higher number of practitioners from different backgrounds amid the dawn of agile work practices (Harteis, 2017). Oesterreich and Teuteberg (2016, p.131) underscore the role of technology with this example: “social media apps like the interactive blueprint app ‘PlanGrid’ provide the opportunity for project teams to view, share, annotate and sync blueprints on tablets and in the cloud and thus to make communications easier between on-site and off-site teams”. In that vein, the possibility of digital collaboration has led to an ever-increasing number of work teams which moreover tend to last shorter due to the diminishing product and service life cycles (Christensen, 2015). As a result, digital collaboration has become the undercurrent of the digital economy and has transformed the way in which employees create value for their company (Harteins, 2017).

I.III. Objective of the Study and Research Questions

It is thus apparent that Digitalization indeed makes extensive demands of employees, to master new technologies while adapting to new patterns according to which companies create value, putting them under increasing strain in the process. In reverse conclusion, it can be expected that supporting employees, by any means necessary, to overcome these challenges should improve a firm’s bottom-line, potentially endowing it with a competitive advantage. Such an outcome would upend Friedman’s (1970) logic discussed at the onset of this first chapter. This thesis seeks to validate the truism in this assertion. Its objective therefore is:

... to provide proof of the connection between an organization’s actions, its employees’ welfare, and its performance before the background of today’s business environment.

To achieve this objective, three concepts have to be chosen and their relationships analyzed, one to represent organizational practices, one to embody employee welfare, and an additional one to capture the resulting effects from both in respect to organizational performance or profitability. In regard to organizational practices, through decades of SHRM research an abounding catalogue of such practices has been tested with the aim of identifying those that can generally be considered to improve employee outcomes as well as organizational indicators (Delaney and Huselid, 1996). Yet, this catalogue is largely inconsistent (Stavrou et al., 2010), whereas numerous disagreements persist regarding the typology of organizational practices (e.g. MacDuffie, 1995), the usefulness of bundles of practices (Boon et al., 2019), and the contrariety of best practice and best fit (Cappelli and Crocker-Hefter, 1996). Before this background, the thesis' review of literature explores the possible actions that can be taken by organizations in order to help employees cope with the challenges posed by Digitalization, while focusing on organizational change literature. Within that scope, the review zooms in on the internal organizational context whereby identifying leadership as a crucial theme. In the following, the concept of responsible leadership is adopted, given its unique focus on the ethical responsibilities of leaders (Voegtlin, 2016).

Now, when it comes to employee welfare or wellbeing, the literature review further elaborates on numerous concepts that have been introduced in order to test the success of organizational practices in respect to employees (cp. Jiang et al., 2012a), whereas scholars differ in their focus on motivational and human capital concepts (Wright and McMahan, 1992). Furthermore, there is disagreement whether or not the focus on employee outcomes should be conditional upon their relationship with organizational outcomes (Kuchinke, 2010). What is more, there is a debate if organizational practices may result in trade-offs regarding affective concepts (cp. Grant et al., 2007). Based on these scholarly discussions, this thesis deduces three criteria to ultimately identify and arrive at psychological wellbeing as the most suitable concept to capture employee welfare. Finally, the need to elaborate the success that organizational practices achieve from a bottom-line perspective has ushered in varying conceptualizations that are based on diverging rationales (cp. Jiang et al., 2012a). On the one hand, there is the recognition that distance is a crucial issue, whereas some scholars choose to analyze more immediate organizational outcomes of practices and others focus on those more distant but more relevant from a bottom-line perspective (Crook et al., 2011). On the other hand, there is a protracted debate regarding the proper level of measurement and analysis, before the background of the underlying effects that connect organizational practices with organizational outcomes (Boon et

al., 2019). Regarding this scholarly domain, too, I in this thesis establish three key criteria on which the choice for or against respective concepts needs to be based. Ultimately, the review of literature singles out employee performance as an eminently important concept.

Having thus identified responsible leadership, psychological wellbeing and employee performance as the key concepts to realize the thesis' objective by means of an empirical study, the issue of how those concepts may interrelate is of the essence. While Burke and Page (2017) in their meta-review of empiric studies leave no doubt about the existence of a strong nexus between leadership styles in general and conceptualizations of employee wellbeing, the same is true for the leadership-performance link (cp. Knies et al., 2016). Building on this basis, the first part of the research question asks the following:

Q1: How does responsible leadership relate to both psychological wellbeing and employee performance?

There is also a wealth of research regarding the connection between wellbeing and performance, whereas some studies succeeded in closely linking the two concepts (e.g. Cropanzano and Wright, 1999) and others failed to do so (e.g. Bellet et al., 2019). Based on this particular scholarly discourse, the second part of the research question enquires as follows:

Q2: How does psychological wellbeing relate to employee performance?

Asking both question in unison, the thesis in its essence seeks to establish psychological wellbeing, the chosen construct that incarnates employee welfare, as a mediating force between organizational practices and organizational performance, whereby proofing the importance of supporting employees in their struggles amid Digitalization and underscoring the central tenet of SHRM.

I.IV. Definitions

As expressed above, this thesis can be firmly placed within the domain of SHRM scholarship which Kaufman (2010, p.286) describes as the “most exciting and fastest-growing area of research in Human Resource Management since the mid-1990s”. According to Becker and Huselid (2006, p.899), “the simplest depiction of the SHRM model is the relationship between

a firm's HR architecture and firm performance". They add that SHRM at its core emphasizes the role of HR management systems or practices as solutions to business problems, underscoring that it takes a systemic view rather than an individual view as HRM scholarship does within which it exists (Becker and Huselid, 2006). It here needs to be noted that the term HRM will appear throughout the entire thesis with a meaning assigned to it that is equal to the one of SHRM. This is because scholars interchange between the two terms without an apparent principle. In that vein, Wright and McMahan (1992, p.296) in their work point out that "there is no clear delineation of the field of SHRM, particularly with regard to its definition. Thus, it has been difficult to differentiate between HRM and SHRM". Yet, as Becker and Huselid (2006) state, the determining factor of SHRM is its focus on human resources and all related concepts because they constitute a strategic asset and are a source of competitive advantage.

Now, organizational practices are at the center of SHRM literature. They are formulated to provide practical guidance as to what actions augur success (cp. Huselid, 1995). Combs et al. (2006, p.502) hold that all practices may be relevant "that SHRM theorists consider performance enhancing". Obviously, such practices need to be intertwined with human resources as clearly spelled out in the definition of Schuler (1992, p.30) who postulates that "strategic human resources management is made up of all activities affecting the behavior of [employees]". Therefore, all organizational practices can be deemed appropriate for SHRM studies as long as they affect the behavior of employees and are considered performance enhancing. Importantly, this definition also includes concepts that traditionally have not been the focus of SHRM scholarship, as long as they fit to this provided definition.

Finally, the term employee welfare will frequently be used throughout this work. The term can regularly be encountered in practice, either within the scope of employee welfare benefit plans, or in the publications of consulting firms (cp. Mercer China, 2018; Accenture, 2020). A few scientific articles could be unearthed that focus on employee welfare (e.g. Osterman, 2000), whereas the large majority of literature appears to focus on more refined conceptualizations such as wellbeing or health which are often used interchangeably (cp. Berry et al., 2010). Indeed, organizational strategies regarding welfare in theory include all actions that "support employees – and sometimes their families –" (Teti and Andriotto, 2013, p.3233). Crucially, Teti and Andriotto (2013, p.3233) highlight that "employee welfare measures must not be expressed only in monetary terms, but must also include non-monetary benefits". In line with

these observations, I postulate that anything that is ‘good’ for employees, in a most general sense, should increase their welfare.

I.V. Contribution

This thesis addresses a number of gaps in the scholarly discourse surrounding SHRM. First, through investigating the theoretical foundations of organizational practices, it establishes that there is no generally agreed-upon approach regarding their conceptualization, leading to the observed inconsistencies in their operationalization across studies (Storey et al., 2019). Furthermore, by carefully analyzing the literature around the practices of organizations, the thesis offers profound insights into the current status quo of research and how an appropriate concept may be based on fundamental scholarly principles. Additionally, the thesis in its review of literature integrates the domains of leadership and SHRM scholarship, two domains which are inherently intertwined but all too often considered separately (Marescaux et al., 2019).

Second, I in this thesis address the black box phenomenon. As of today, this phenomenon largely still eludes researchers (Sanders et al., 2013). By on the one hand elaborating on important preconditions for suitable mediating variables and by, on the other, empirically identifying employee psychological wellbeing as an important mediator, this thesis serves to illuminate the black box phenomenon. At the same time, it succeeds in supporting the central tenet of the high-performance paradigm (cp. Hughes, 2008). Third, an important research gap which scholars long struggled with is the conceptualization of organizational performance outcomes, regarding the level of measurement and analysis as well as the type of variable (Becker and Huselid, 2006). In its course, this work revisits key theories and, based thereupon, proposes the utilization of performance measures at the individual level. With that, it provides a clear account of the current impasse which it may serve to resolve. Furthermore, by the same token it helps to bridge the micro-macro divide (cp. Takeuchi et al., 2009). Fourth, through its empirical study, this work contributes to the scholarly discourse centering around leadership. By establishing a nexus between responsible leadership and employee performance, it adds to a still rather underdeveloped field concerning itself with ethical leadership conduct. What is more, it marks an important contribution to leadership scholarship in general where such causal linkages can still be considered a rarity (Northouse, 2013). Fifth and last, by highlighting the effects of Digitalization on the workforce and elaborating on SHRM as the solution, this thesis

presents a novel approach to an issue concerning which research is still in its infancy (Storey et al., 2019). Indeed, by bringing to the fore the increasing momentum of the workforce as a strategic component in the Digital Age, I expect that my work will achieve to authenticate the timeliness of SHRM. The respective conclusions reached in this work can certainly present a point of departure for both HR practitioners and members of the management suite aware of their employees' struggles but uncertain of a remedy.

I.VI. Structure of the Study

As part of its review of literature in chapter two, this text will first analyze organizational practices whereby forging a nexus between Digitalization, SHRM and organizational change theory. Thereafter, scholarly literature regarding the outcomes of HR practices is scrutinized in accordance with the writings of Jiang et al. (2012b), focusing first on proximal, that is human resource, outcomes and, second, on distal, meaning organizational performance, outcomes. As a result of these efforts, responsible leadership, psychological wellbeing, and employee performance are singled out as the most appropriate and essential concepts.

Subsequently, the third chapter rigorously analyzes the status quo of research regarding the three identified concepts so as to arrive at the following four hypotheses: first, responsible leadership has a positive influence on psychological wellbeing. Second, responsible leadership also positively influences employee performance. Third, psychological wellbeing itself has a positive effect upon employee performance, acting in fact as a mediator of the relationship between leadership and performance. The fourth hypothesis, then, lays down this assumption of a mediation, whereby expecting it to be full. These four hypotheses will be tested in the course of this thesis' study, whereas the methodological part in chapter four expands on the measures that are employed to operationalize the three concepts, and on the control variables. Each measure is tested against established indices, including those evaluating validity and reliability. To that end, the study relies on a Multilevel Confirmatory Factor Analysis. After the groundwork for the path-analysis via Multilevel Structural Equation Modelling has thus been laid, the following chapter five will present the study's results as they pertain to the hypotheses, whereas further observations are noted. Altogether, the results of two models are reported. The sixth chapter then provides a thorough discussion of the entirety of results and considers their implications. Hereby, my findings are first contrasted with the results of relevant

empirical research presented in chapter three. In the wake of this analysis, I will make broader inferences in respect to the scholarly discussions scrutinized in the review of literature. Finally, the conclusion in chapter seven will reflect upon the most consequential insights gained over the course of the thesis and the respective implications for managers, while pinpointing need for future research.

Through its empirical study, the thesis arrives at the following main results: it unreservedly establishes psychological wellbeing as a mediator between responsible leadership and employee performance. It further documents, rather curiously, that both in the presence and absence of psychological wellbeing the link between leadership and performance is not significant, possibly due to confounding influences. Overall, this thesis succeeds in providing proof that organizational practices fostering employee welfare lead to increased performance levels, shining a light into the notorious ‘black box’ (cp. Storey et al., 2019). Consequently, focusing on employee welfare appears to be a potent organizational strategy to achieving a competitive advantage amid the challenges Digitalization poses to the workforce. What is more, the results of this study imply that the core assumption of SHRM, regarding the view of employees as a strategic resource, is real.

II. Literature Review

Employees and their welfare are at the heart of this thesis which postulates that successful Digitalization is first and foremost not about technology, but centers around supporting employees to deal with the challenges it poses. In effect, all of the challenges described as part of the introduction are evidently faced by employees: *they* have to embrace new technologies to increase efficiency, *they* have to internalize the idea to always think of the customer first, *they* have to believe in collaboration, tolerance and diversity and, most importantly, it is *them* who have to drive forth innovation, the lifeline of today's companies. Hence, it seems clear that in order to successfully navigate the digital economy organizations must center their endeavors on their employees. That is why the strategic management of businesses' human resources has received ample attention over the last years: there is an increasing understanding that sustainable competitive advantage in the Digital Age comes from an organization's employees and that processes and structures need to be adapted accordingly (Schrage et al., 2019). Boudreau (2015, p.47) for example states that "organizational leaders realize they face significant strategic challenges that will depend on human capital".¹ This realization of the momentousness of the 'human factor' amid Digitalization comes on top of the widespread recognition among organizational change scholars that employees play "a major role" in the success of change initiatives and have been woefully neglected until recently (Shin et al., 2012, p.727).

Yet, it seems clear that businesses have been unable to make the necessary far-reaching adjustments (Boudreau, 2015; Cantoni and Mangia, 2018; Charan et al., 2015). As Ancarani and Di Mauro (2018, p.4) write, "[companies] fail in recognizing that the critical obstacle for digital transformation is people, not technology". It appears that many companies succumb to the illusion that one needs only implement new tools and technologies and employees will gradually adapt, without the need for the organization as a whole to change form and strategy (Kohnke, 2017). Indeed, there seems to be a huge chasm between aspiration and reality and a general confusion about the right approach to making human resources a core strategic tenet (Lawler and Boudreau, 2015).

¹ The term 'human capital' here is not to be confused with the construct human capital that will be discussed later in this work as one of the two main families of proximal outcomes of Human Resource practices, but refers to all human resources in a company, including their attributes (Boudreau, 2015)

This review of literature will in the following first examine what organizational practices may be key in extending adequate support to employees so that they may be empowered to meet the challenges they face, whereby proposing a suitable concept. After that, the review will analyze the key concepts that represent employees' circumstances, the proximal outcomes of said organizational practices, as well as the quality of their work, denoted as distal outcomes. Again, two concepts are proposed, one for each group of outcomes. Figure 1 gives an overview of the resulting relationship which is not only at the core of this thesis, but of SHRM literature in general.

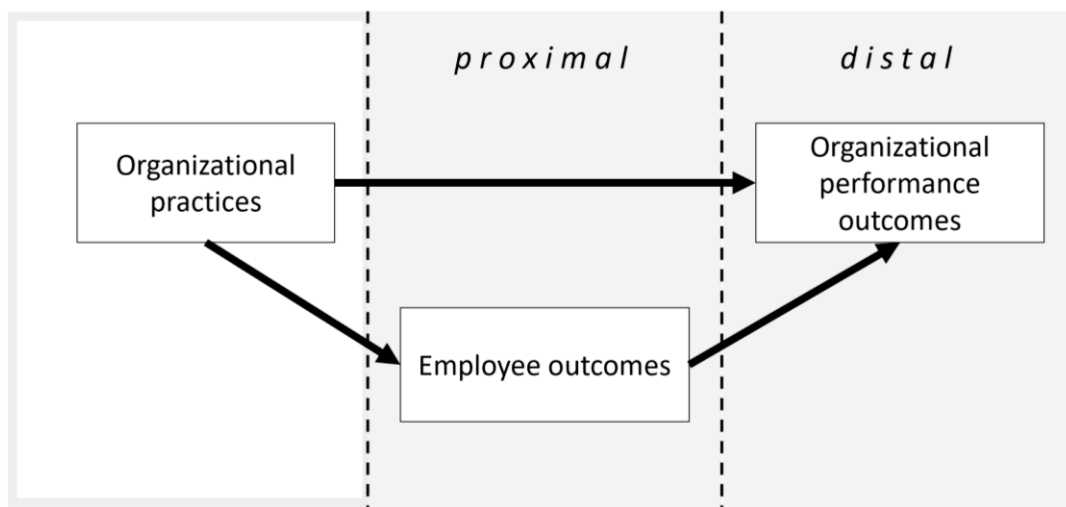


Figure 1: The Central Relationship of SHRM (based on Storey et al. (2008))

II.I. Conceptualizing Organizational Practices

This subchapter is seeking to scrutinize literature on organizational practices, also named HR practices, that in a broad sense seek to improve the circumstances of employees. As stated above, this situates the respective literature firmly within the realm of SHRM (Schuler, 1992). Yet, the particular ramifications of Digitalization, the backdrop of this thesis' elaborations, confines the selection of organizational practices to those that are suited to address continuous organizational change. The following section will explicate the links between Digitalization and continuous organizational change, and SHRM.

II.I.I. SHRM Before the Background of Continuous Organizational Change

Digitalization signifies a sweeping, ongoing and transformative change that recreates a firm's competitive environment and poses fundamental adaptive challenges that organizations need to respond to (Harteis, 2017). Therefore, the resulting challenges for employees can only be confronted with organizational practices that are employed in the context of organizational change (Kohnke, 2017). Organizational change can be defined as "alterations of existing work routines and strategies that affect a whole organization" which is precisely the outcome of Digitalization (Shin et al., 2012, p.727). There are two distinct understandings of organizational change, one arguing that organizational change is typically not an occurrence constrained in time, but a continuous phenomenon, the other viewing it as the punctuation of an equilibrium, an isolated event (Brown and Eisenhardt, 1997). Whereas the idea of organizational change as punctuated equilibrium with a start- and end-point is the more prominent (Cameron and Green, 2015), Brown and Eisenhardt (1997 p.1) write: "while the punctuated equilibrium model is in the foreground of academic interest, it is in the background of the experience of many firms. Many firms compete by changing continuously". They are certainly not alone with this presumption (cp. Tsoukas & Chia 2002; Carter, Armenakis, Feild, *et al.* 2013). Yet, Several scholars point out that both understandings of organizational change may co-exist (e.g. Balogun and Hailey, 2008). As an example, it is conceivable that implementing a new CRM or ERP software demands a different approach to organizational change than adapting to ongoing Digitalization (Robey et al., 2002; Nesterkin, 2013). Balogun and Hailey (2008 p.4) hereto state "it seems that both these models of change are right". This thesis holds that since Digitalization is a continuous phenomenon, without end date, for that reason any organizational change seeking to encapsulate it needs to be of a continuous nature, too.

Now, moving on from the discussion of the two understandings of change, organizational change has been associated with various concepts from across scholarly traditions (Self et al., 2007). In their prominent review, Armenakis and Bedeian (1999) provide a typology of all concepts, dividing them along the categories content, process, and context. Content points to the substance of organizational changes, the strategies pursued, whereas process relates to the formal procedures relied upon to instigate the change, and context refers to the internal and external factors that impact the success of the change endeavor (*ibid.*). Considering that all the challenges explored as part of the introduction are the result of organizational change prompted by Digitalization, this thesis' interest lies with the contextual factors of organizational change,

not with the content itself, or the process. To be more precise, it lies with the internal factors. According to Mowday and Sutton (1993), the internal context comprises organizational circumstances which are external to and profoundly affect employees and their behaviors or dispositions. Accordingly, all of these internal factors are directly related to the organization-employee relationship which is unsurprising, as Shin et al. (2012, p.727) maintain, since “management researchers have increasingly concluded that employees play a major role in the success or failure of change in their organizations”, a statement which echoes the central tenet of this thesis that employees and their welfare are crucial for the success of a firm amid Digitalization. Shin et al. (2012) in their study focus on organizational inducements which include both intangible factors (training, respectful treatment, performance feedback etc.) and tangible, materialistic factors (health care, medical benefits, competitive salaries etc.). They justify their focus on such inducements stating they are “a critical resource provided in the work context that assists employees in preparing for, and better coping with, the demands of organizational change” (Shin et al., 2012, p.730). These inducements and, in fact, most internal context factors fall within the SHRM domain, and may be considered as HR practices, if one applies the definition of practices by Schuler (1992) as employed above in the introduction chapter. Therefore, there is a clear connection between contextual factors of the organizational change literature and organizational practices as circumscribed by SHRM scholars.

Beside Shin et al. (2012) and their study of organizational inducements, other scholars have focused on other constructs within the internal organizational context, each providing a comprehensive argument for their approach: Furst and Cable (2008) study the influence of Leader-Member-Exchange, a leadership style, while arguing that it is not the inducements or sanctions with which a company seeks to ensure employee compliance but the leader-employee relationship that determines the success of organizational change. Their elaborations directly contradict not only the statement by Shin et al. (2012) mentioned above, but numerous other studies such as by Poole et al. (1989), who highlight the importance of imposing rewards or sanctions in guiding employee behaviors. Generally, it appears that the HR practices which are said to shape the internal context can be grouped in three domains: first, inducements (e.g. Hom et al., 2009; Shin et al., 2012), second, sanctions (e.g. Poole et al., 1989; Brass and Burkhardt, 1993) and, third, leadership (e.g. Furst and Cable, 2008; Herold and Fedor, 2008). Even within one of these three domains, scholars often use vastly different concepts, especially regarding their scope. For instance, the concepts regarding the leader-employee relationship, combined in the domain leadership, are plentiful and range from leadership styles (Furst and Cable, 2008)

to other, narrower concepts, such as supervisory participative style (Coyle-Shapiro, 1999) or influence tactics (Yukl and Tracey, 1992), such as praise (Falbe and Yukl, 1992). This begs the question of how broad, or narrow, suitable HR practices should be to be tested in this study, and what other considerations need to be made. The following section will shed light on that question, before the text returns to the three domains of internal organizational context explored in this section.

II.I.II. The Conceptualization of Practices in Broad vs. Narrow Terms

Returning to the realm of SHRM, such HR practices, as discussed in the preceding section in respect to the internal organizational context, are frequently employed as independent variables in various SHRM studies (Storey et al., 2019). In the following this review will take a closer look at their conceptualizations which will guide the decision if such HR practices should, in fact, be conceptualized narrowly, or rather broadly, and what other concerns there are.

As Schuler and Jackson (2005) write, SHRM literature has produced a vast body of conceptualizations of HR practices. Yet, there is a lack of consistency, so much so that some scholars call into question the use of cross-study comparisons of single HR practices (Saridakis et al., 2017). Delaney and Huselid (1996, p.967) for instance observe that “the relevant literature is distinguished by the fact that virtually no two studies measure HRM practices the same way”. According to this view, the superior alternative to focusing on single HR initiatives is a focus on “bundles of HR practices” (Saridakis et al., 2017, p.4). The advantages of this approach appear to be manifold: first, such bundling facilitates the horizontal integration and coherence of the HR practices combined (Schuler and Jackson, 2005). Second, evaluating the impact of single HR practices may be void because “to the extent that any single example reflects a firm’s wider propensity to invest in High Performance Work Practices, any estimates of the firm-level impact of the particular practice will be upwardly biased” (Huselid, 1995, p.641). Hereby, the term High Performance Work Practices or Work Systems (HPWP/ HPWS) may be used synonymously with bundles of HR practices (Johnson, 2000, p.69). Third, using such bundles increases the chance to link them to important organizational outcomes (Saridakis et al., 2017). Fourth, Storey et al. (2019, p.11) find that the results of studies with firms using bundles are unrivaled in comparison to those using single HR practices. They state: “studies suggest that those firms which used ‘bundles’ of HR interventions were more likely, on a

statistical basis, to enjoy better financial performance”. Fifth, some scholars expect that the common-place scholarly practice to add up the effects of individual practices to achieve firm-level estimates may be error-prone “as the sum of these individual estimates may dramatically overstate their contribution to firm performance” (Huselid 1995, p.641). Sixth and last, bundles may create synergies, increasing their effect (Kooij et al., 2013). These affirmations make a strong case regarding why it may not be warranted to study individual HR practices and that one should focus on bundles instead. While no texts could be uncovered that argue individual practices are preferable, several scholars highlight potential issues with HR bundles. As an example, there is the argument that bundles may exist beside one another, unfolding different effects upon the organization. Roumpy and Delery (2019, pp.428-429) write that “it would be erroneous to assume that each organization utilizes only one system of HRM deployments throughout the organization”. Therefore, some scholars warn of ‘deadly combinations’ of HR practices. Becker et al. (1997, p.43) elaborate: “deadly combinations develop when firms adopt HRM policies and practices that might well make sense in isolation but when evaluated within the context of *other* HRM practices deployed throughout the firm are a recipe for disaster. Simple examples can be found in firms that invest in sophisticated performance management systems only to adopt compensation policies that provide for little meaningful economic distinction between high and low performing employees”.

Overall, it certainly seems that HR bundles, meaning a broad, coherent set of HR practices based on one strategy (Huselid 1995), are most appropriate, whereas the need to ascertain their compatibility with other HRM systems is noted and will be addressed at the end of this subchapter. Yet, there is an argument among scholars pertaining to how generalizable such bundles are, the argument best fit in opposition to best practice. This argument will be examined here as it has implications for the choice of a suitable HR concept and for the inferences to be made from this thesis’ study. Best fit and best practice are two purportedly conflictive perceptions of bundles of HR practices, the choice between the two entailing important connotations for the application of SHRM in praxis. While the best practice approach postulates that successful bundles of HR practices or initiatives can readily be transferred from one organizational context to another, meaning they broadly carry a general validity, the best fit approach posits that such bundles heavily depend on the particular external and internal organizational context which impedes the generalizability of empirical findings (Bratton and Gold, 2012). In the following, a brief account will be given on the main arguments of advocates of both best fit and best practice.

In the 1990s a significant number of scholarly texts elaborated best practice approaches to HRM (Stavrou et al., 2010). Pfeffer (1994) in his seminal work proposed 7 high-level components to form a comprehensive HR bundle. He had distilled his bundle following an observation of highly successful companies, for instance Southwest Airlines which was mentioned in the introduction, who he argued built their success on competitive advantages derived from HR practices. Nearly 10 years later, Ahmad and Schroeder (2003) received scholarly attention with their article in which they empirically tested Pfeffer's proposed bundle of HRM practices. They unreservedly found that Pfeffer's bundle constitutes a universal best practice approach, noting that "the findings provide overall support for Pfeffer's seven HRM practices and empirically validate an ideal-type HRM system for manufacturing plants" (Ahmad and Schroeder, 2003, p.19). Other studies established the validity of further HRM best practices which overall tilted the scale firmly towards best practices, so much so that towards the turn of the millennium Purcell (1999, p.26) commented: "there is an emerging body of empirical evidence on both sides of the Atlantic which appears to point decisively in the direction of a model of best practice in human resource management. This has led to extravagant claims on the universal applicability of the best practice model, implying one recipe for successful HR activity".

Yet, a vocal opposition to the best practice approach formed, advocating the need to adopt a best fit approach to address a company's contextual factors (Armstrong and Brown, 2019). Several scholars point towards an inconsistency between the notion that a competitive advantage could be derived from the application of HR bundles and the idea that such bundles carried universal validity and could be applied across industries and organizational contexts (Stredwick, 2013). Stredwick (2013, p.30) writes that if that was the case such a bundle should be easily imitable and "every organization would immediately adopt it and the competitive advantage would be lost". Buller and McEvoy (2012, p.53) agree that it can only be thus that bundles are strictly distinctive for every company since "each firm's environment and requisite strategy are also unique, complex and dynamic". This claim, if validated, would have far-reaching consequences for the generalizability of SHRM findings.

However, superseding the antithetical relationship between best practice and best fit, a synthesis of both approaches has received increasing attention among scholars. As an example, Becker and Gerhart (1996, p.786) write: "best practice and contingency [best fit] hypotheses are not necessarily in conflict – they simply operate at different levels of an HR system." They

add that “if there is a best practice effect it is more likely to be in the ‘architecture’ of a system” (ibid.). Referring to Pfeffer’s (1994) work on a best practice bundle referenced above, they hold that “many of the characteristics he identified as part of a high performance work system would fit under this architectural rubric. [...] It is this architectural characteristic that would be expected to have the generalizable (best practice) effect” (Becker and Gerhart, 1996, p.786). In regard to the best fit theorem they add: “there may be a best HR system architecture, but whatever the bundles or configurations of policies implemented in a particular firm, the individual practices must be aligned with one another and be consistent with the HR architecture if they are ultimately to have an effect on firm performance” (ibid.). Armstrong and Brown (2019, p.14) paraphrase the matter with the following words: “best practices can provide a solid foundation of SHRM activities, but contingent factors must also be considered”. The synthesis of best practice and best fit has also found support in empirical studies, such as the one by Michie and Sheehan (2005).



Figure 2: The Synthesis of Best Practice and Best Fit (based on Becker and Gerhart (1996))

Now, Figure 2 gives an impression of this synthesis of best fit and best practice. There seems thus no hinderance to conceptualizing a best practice HR bundle, given that its implementation is in accord with the particular organizational structures. Hence, the next section will come back to the original discussion regarding the importance of the organizational internal context.

II.I.III. Leadership as a Crucial Contextual Factor

After the preceding section has ascertained that the use of broad bundles of HR practices should be preferred over that of single, narrow practices, this section will determine which concept

within the internal organizational context is most important in facilitating the success of organizational change. After that, the text will further expand on that concept. The next-to-last section had already identified the three domains inducements, sanctions and leadership as making up the internal context. For the purposes of this thesis, regarding the enormous challenges posed by Digitalization, it is apparent that inducements and sanctions are insufficient to deal with the situation at hand. Rather, this thesis agrees with Furst and Cable (2008) that leadership is the crucial ingredient to the success of organizational change endeavors. According to Quinn (2004) fifty percent of organizational change initiatives fail due to bad leadership, whereas leadership has become a guiding principles for effectuating change at all organizational levels (cp. Eichholz, 2014). However, in recent years a number of scholars has cautioned that leadership is not a cure-all and that its efficacy in organizational change efforts needs to be rigorously proven empirically (Hughes, 2015). Some scholars have even gone as far as to claim that leadership may in fact be culpable for perpetuating the status quo with Calás and Smircich (1991, p.568) invoking the phrase “the more things change, the more they stay the same”. Such scholarly concerns will be considered in more detail in the discussion chapter, until then it may suffice to point out that this thesis has no *ex ante* assumptions regarding leadership’s potency but does instead attempt to empirically substantiate its relevance which is precisely the request of the above-named scholarly critics. Thus, overall it stands that leadership is the appropriate construct to focus on when supporting employees in their struggles amid Digitalization. Among the different conceptualizations of leadership in the internal context, leadership styles are the broadest and most inclusive, which is why I in this thesis will focus on them, given that the previous section documented that broad bundles are preferable over single HR practices. Subsequently, the term leadership will be introduced so that in the following sections the most suitable leadership style may be selected.

Leadership has been the subject of scholarly discussions since the late 1800s and since then the perceptions around who is a leader, what exactly constitutes leadership as well as what are the desired outcomes of leadership have been ever changing (Northouse, 2013; Riggio, 2011). This has led to the formulation of a vastly inhomogeneous collection of definitions around leadership, so much so that Raelin (2016, p.2) in his work considers the concept around the term leadership as “no longer intact”. In the same vein, Bennis (1959, p.259) many decades ago famously made the following observation which today seems just as true as it was then: “always, it seems, the concept of leadership eludes us or turns up in another form to taunt us

again with its slipperiness and complexity. So we have invented an endless proliferation of terms to deal with it [...] and still the concept is not sufficiently defined”.

Yet, in order to reduce the intricacy of arriving at a definition, leadership can broadly be ascribed to three different realms, each employing a distinct approach to conceptualizing leadership: the trait approach views leadership as a matter of innate individual characteristics, the skills approach emphasizes that a leader needs to have certain capabilities which can be acquired and the style approach, in turn, understands leadership to be a process which refers to what leaders do and how they do it, including their actions toward their subordinates (Northouse, 2013). For its purposes, this thesis views leadership as a process which places it among a vast number of literature that has been authored particularly during the most recent decades (ibid.). More specifically, this work follows the definition of Doh et al. (2011, p.86) who view leadership as “a process of inclusion to attain group, organizational, and societal goals” which goes beyond a mere focus on organizational goals and includes the aspirations and needs of the internal stakeholders, meaning all members of the group or organization, as well as of external stakeholders. This definition, then, puts the employee at the center of leadership practice which is a necessity given that employees and their welfare are at the center of this thesis’ attention.

Scholarly contributions around leadership have produced a seemingly limitless number of styles (Northouse, 2013). This work will focus on relational leadership styles which represent a relatively new territory as the oldest concepts around leadership, the trait and the skills approach, exclusively concerned themselves with the leader him- or herself, without including additional actors into the consideration. Even when the first theories started to view leadership as a process, leadership was understood in terms of “periphery and content” (Cunliffe and Eriksen, 2011, p. 1428), describing a one-sided process that still very much focused on the different characteristics the leader was expected to have. In fact, Burns (1978) was the first scholar who departed from the perception that leadership was only about influencing followers such that they may willingly partake in the realization of the leaders’ vision. Other scholars realized as well that, up to that point in time, leadership theory did not answer many of the essential questions as to how leaders should react and adapt to certain situations and how they need to communicate with their subordinates (Graen, 2004). This was for instance expressed by Zaccaro et al. (2001, p.452) who state: “despite the ubiquity of leadership influences on organizational team performance [...] we know surprisingly little about how leaders create and

manage effective teams. Previous leadership theories have tended to focus on how leaders influence collections of subordinates, without attending to how leadership fosters the integration of subordinate actions”.

This fundamentally changed with the emergence of relational leadership theories in the 1990s which moved the focus away from the leader towards the relationship of different individuals that take part in the process of leadership, although the traditional perceptions continued to exist (Graen, 2004). Ospina and Uhl-Bien (2012, p.xix) for instance call this profound change the “relational turn”, specifying that “many leadership scholars now acknowledge that both leaders and followers are relational beings who constitute each other as such – leader and follower ... leader or follower – in an unfolding, dynamic relationship”. Uhl-Bien (2006, p.655) defines the attributes of relational leadership stating that “a relational orientation [in leadership] starts with processes and not persons, and views persons, leadership and other relational realities as made in process”. Relational leadership styles are generally credited with adding important groups of stakeholders to the leadership equation which so far had been disregarded, whereas employees constitute the most important group (Uhl-Bien, 2006). The following, ultimate section will focus on ethical leadership styles as those styles that center on the welfare of organizational stakeholders which is the main imperative of HR practices in the Digital Age.

II.I.IV. Responsible Leadership as Key Organizational Practice Bundle

Leadership ethics is a stream of scholarship that developed fairly recently (Voegtlin, 2016). While many relational leadership styles focus on the leader-member relationship in order to optimize work outcomes, leadership ethics assumes associated moral obligations (ibid.). Burns (1978), the scholar behind the style transformational leadership, was first in articulating the idea of moral commitments regarding professional relationships, and in presenting it to a wider audience. A little later, Ciulla (1995, p.5) in her much cited work assigned the label “good leadership” to such styles. While morality was the driving force behind such good leadership styles (Ciulla, 1995), scholars very early on emphasized the crucial connection with performance, elevated to new heights through inspired and motivated employees (Bass, 1985).

Now, while the field of good leadership has become increasingly crowded, a few leadership styles stand out from the crowd: in their works, both Bohl (2019, p.12) and Voegtlin et al.

(2012, pp.1–2) foreground the leadership styles ethical leadership, transformational leadership, authentic leadership, servant leadership, and responsible leadership. Whereas all of these leadership styles have several aspects or components in common (Voegtlin et al., 2012), numerous scholars have declared for either one of them. For instance, regarding authentic leadership, George (2003, p.9) leaves no doubt that this is the most effective style of leadership stating that “we need a new kind of leader – the authentic leader – to bring us out of the current leadership crisis”. Contrarily, Trompenaars and Voerman (2009) in their book make the case for servant leadership stating that “people are under continual pressures to produce more for less money [...]. The only way that this will be achieved is through ‘empowerment’ [and] that is precisely what servant-leadership stands for”. As these two examples indicate, none of the good leadership styles has so far achieved widespread recognition.

Yet, responsible leadership appears to occupy a somewhat distinct position among these five distinguished styles. According to Voegtlin et al. (2012), responsible leadership precisely addresses the shortcomings of other leadership styles concerned with morale and ethics. They point out that all other good leadership styles are limited in their ability to address key challenges “rooted in the economic and morale implications of globalization” adding that “an appropriately extended understanding of leadership has to take these into account with regard to the individual’s actions as well as their organizational and societal embeddedness” (Voegtlin et al., 2012, p.2). Responsible leadership, as they emphasize, is the only good style of leadership that succeeds in “bridging the organizational level of corporate responsibility and the individual level of leadership responsibility” and, in doing so, “does justice to the pluralistic and multifaceted tasks present leaders have to attend to” (ibid.). Bohl (2019, p.12) in his comparison of leadership styles makes similar inferences stating that “responsible leadership expands leadership’s ethical ground which historically was heavily influenced by studies of character and traits”. According to him, responsible leadership acknowledges that “those engaged in leadership have an ethical responsibility not only to each other but also to those who will be effected by the resulting real change” (ibid.). Figure 3 on the following page gives an overview of the embeddedness of responsible leadership within leadership scholarship as discussed during this and the preceding section.

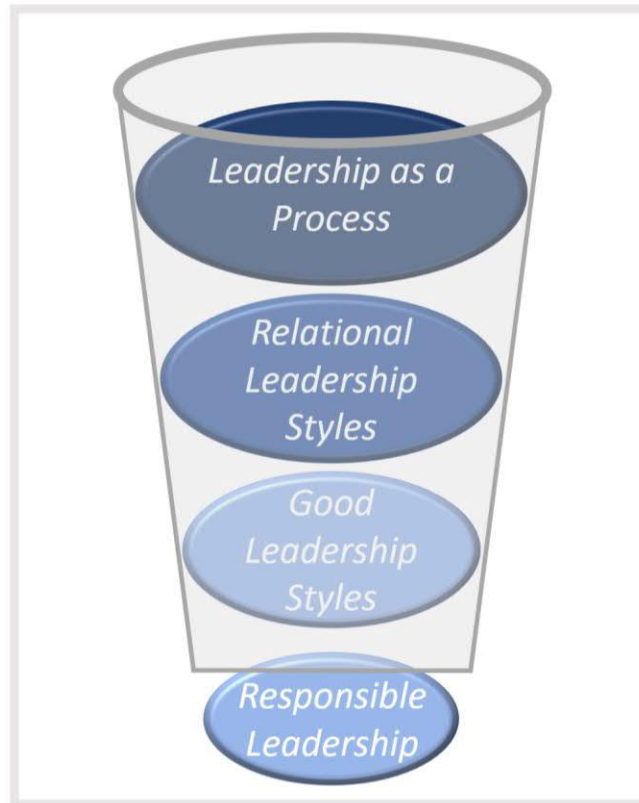


Figure 3: Responsible Leaderships' Embeddedness in Scholarly Literature
(based on Voegtlin et al. (2012))

Due to the close relationship among good leadership styles and the divided scholarly opinions, it is uneasy to single out any one of them via process of elimination. Hence, this thesis will substantiate the choice for responsible leadership as a suitable HR leadership bundle by force of theoretical argument. Given the works by Voegtlin et al. (2012) and Bohl (2019), it appears that responsible leadership is most suitable to address the challenges Digitalization poses to employees. First and foremost, responsible leaders realize the moral obligations they have towards their peers and group members, going far beyond a merely transactional relationship. It is their obligation to strive for the welfare of a diverse group of stakeholders, including employees' families as well as the society as a whole. If managers were to dispense responsible leadership considering such an inclusive group of stakeholders, the challenges employees face due to Digitalization would be addressed in a most holistic fashion. Second, as Voegtlin et al. (2012) point out, responsible leadership is a far broader concept than the other good leadership styles, marrying Corporate Social Responsibility (CSR) with typical HR functions. This makes responsible leadership an optimal candidate for a high-level HR bundles that effects all organizational levels and sub-systems. Indeed, the most widely applied measure of responsible leadership by Doh et al. (2011) includes the three dimensions 'stakeholder culture', 'human

resource practices' and 'managerial support' and thereby provides a comprehensive system of aligned, mutually reinforcing HR practices. Therefore, this thesis will employ responsible leadership as HR best practice bundle as it represents a credible "point of departure" (Becker et al., 1997, p.41) for a subsequent implementation across the organizational hierarchy according to the best fit approach. What is more, this review went to great lengths to root the particular concept representing organizational practices for its study within the literature of organizational change and, as a result, responsible leadership appears most suitable to extent the necessary support to employees so that they may meet the challenges Digitalization presents to them.

Lastly, it is important to come back to the concern of several scholars (e.g. Delery and Doty, 1996; Becker et al., 1997; Roumpy and Delery, 2019) that a HR best practice bundle may unfold adverse effects in the event that it is not in line with other organizational practices. Certainly, adopting responsible leadership demands a general commitment to making employees and their concerns a central strategic objective. If this commitment is not there, adopting responsible leadership may not be effective, or may be even harmful. Thus, if a company has in place measures that for instance seek to foster competition among employees, such measures would need to be abandoned before responsible leadership can be introduced.

II.II. Conceptualizing Proximal Outcomes

After the preceding subchapter has thoroughly investigated organizational practices that may serve to ease the strain Digitalization causes for employees, this subchapter will turn to the question of how the success of these organizational practices may be ascertained, through what concept, whereby focusing solely on the most direct outcomes for the employees' welfare. When businesses decide to enact strategic change to strengthen their human resources, whatever its substance may be, measuring the effect is crucial (Cabrera and Cabrera, 2003). Naturally, such change initiatives can only be considered successful if they improve certain key parameters. This subchapter and the following subchapter will investigate the key concepts that may be used to measure the success of HR practices. Hereby, the thesis focuses, again, on the scholarly works that have been authored in regard to SHRM. Since the emergence of the term in the 1980s, the volume of SHRM literature has burgeoned, especially in recent years, due to the widespread realization that human resources are a factor of critical strategic

importance (Storey et al., 2019). According to McClean and Collins (2018, p.187), SHRM is built on the notion that “human resource systems can be a source of sustainable competitive advantage and drive firm performance to the extent that the system creates and sustains valuable employee resources”. Hence, in order to succeed, SHRM proposes that businesses ought to focus their attention on their employees, whereas numerous conceptualizations of outcomes have been proposed.

Scholarly debates surrounding the topic of SHRM largely follow the Resource-based View (RBV) (Storey et al., 2008). This view suggests that employees are an important organizational resource which, if put to its fullest use, may present a company with a sustainable competitive advantage (ibid.). It is well understood that if a firm succeeds in attaining valuable, rare, inimitable and non-substitutable resources it can achieve a sustainable competitive advantage (ibid.). Hence, the RBV postulates that a company’s workforce has all these attributes and thus the potential to substantially increase competitiveness (ibid.). The RBV is opposed by the Knowledge-based View (KBV) which agrees that employees play a crucial strategic role (Grant, 2002). However, the KBV particularly focusses on knowledge as a key strategic asset, arguing that the key function of a firm is to create, integrate and disseminate knowledge (ibid.). Thus, both views differ in that the KBV proposes that organizations should focus on the cultivation of knowledge (ibid.), whereas the RBV advocates for a broader focus on the employees themselves, including the entirety of factors that shape their behaviors of which knowledge is but one, albeit important, factor (Storey et al., 2008). This work follows the Resource-based View since it agrees with the understanding that the strategic significance of employees goes far beyond their capacity as a carrier of knowledge. Beside knowledge, the psychological states of employees also play a major role which is oftentimes overlooked by KBV scholars as Peltokorpi (2013, p.266) admits, highlighting a “neglect [of] intrinsic motivation and important soft organizational dimensions”. Osterloh and Frey (2000), proponents of the KBV, attest that motivation is only considered relevant insofar it serves to generate and transfer knowledge. Applying the RBV allows this thesis to consider both affective and knowledge-related concepts as the determinants of organizational outcomes.

Now, within the tradition of the RBV, SHRM research aims to prove the nexus between HR practices and various outcomes that fall within the two main groups as identified by Jiang et al. (2012b): proximal organizational outcomes and distal organizational outcomes. Proximal outcomes can be divided in human capital constructs and those pertaining to employee

motivation, whereas distal outcomes can be categorized as voluntary turnover, operational outcomes or financial outcomes (ibid.). In this subchapter, prominent scholarly literature is examined to establish sound grounds on which to choose an appropriate proximal outcome concept, an outcome that represents employee welfare. Subchapter II.III. will then follow the same pattern to designate a concept among the chief distal outcomes.

Proximal organizational factors are those factors which are most immediately influenced by HR practices (Jiang et al., 2012b). There is a general agreement among scholars that, in order to help businesses maximize distal outcomes, intermediary and mediating variables need to be identified so that HRM may be refined and improved, a need that has led to the emergence of different theoretical models (Wright and McMahan, 1992). As an example, in their text Gruman and Saks (2011, p.124) state that “managing performance effectively requires achieving intermediary outcomes that precede enhanced performance” pointing out that “producing these more proximal outcomes is a vital step in the performance management process”. Some scholars have referred to this crucial connection between HR practices and organizational performance outcomes as a “black box”, stressing the need “to find an effective HRM-performance link mechanism that can help academics and professionals to clearly understand the relationship between HRM and organisational performance” (Darwish, 2013, p.15).

II.II.I. Concepts of Motivation and Affect Versus Human Capital Concepts

Jiang et al. (2012b, p.1264) in their article divide proximal factors in, first, human capital, and, second, employee motivation. This categorization coincides with the scholarly debate at large which either takes a behavioral perspective or a human capital perspective (ibid.). The behavioral perspective, on the one hand, holds that HR practices need impact employees’ psychological properties or states, also referred to as attitudes (Wright et al., 2005), affective outcomes (Kraiger et al., 1993) or motivational outcomes (Jiang et al., 2012b). On the other hand, the human capital perspective concerns itself with the question of how knowledge, skills and abilities (KSAs) can be conveyed to increase human capital in a firm (Buller and McEvoy, 2012). Several theoretical models have been devised to explain the relationship between human capital outcomes and employee motivation outcomes, whereas there is significant variance in the perception as to how both interact (Wright and McMahan, 1992). For instance, Wright and

Snell (1991, p.210) in their article employ a model with KSAs as input and behaviors as throughputs, whereas Jiang et al. (2012b, p.1274) in their work view both as separate dimensions that separately impact distal outcomes. Hence, a widely accepted integration of both the behavioral and human capital perspectives, albeit desirable, has not been achieved and academic practitioners continue to tend to either one of them. This incongruence has been noted by several scholars on either side of the argument, for instance by Kraiger et al. (1993, p.318) who decry that scholars in the training field, focusing on competencies and skills, have “ignored affectively based measures as indicators of learning”.

Yet, while there is certainly a need to investigate both psychological concepts and skills and knowledge, this thesis centers on the assumption that if companies fail to support the welfare of their employees amid the avalanche of challenges they face due to Digitalization their efforts at successful continuous organizational change will be futile. Obviously, in this respect organizations should aim higher than increasing skills and knowledge: they need to support their employees at an emotional, psychological and physical level. Consequently, KSAs and human capital in general are inadequate proximal outcomes for the purposes of this thesis which will instead exclusively focus on the vast field of affective concepts. The following sections will thus offer a thorough review of all such concepts.

II.II.II. Affective Concepts as Proximal Outcome

Employee affect combines a host of different concepts, ranging from organizational commitment to citizenship behavior and employee satisfaction (Wright et al., 2005; Jiang et al., 2012b). There are two main rationales as discussed in scholarly literature why employing such affective concepts as outcome measures to test the effect of HR strategies may be meaningful.

First and foremost, various studies have used psychological factors as dependent variables due to the fact that they are regarded as instrumental for fostering sustained performance at various organizational levels. Mossholder et al. (2011, p.33) for instance in their study that focusses on helping behavior profess that the outcome should be studied in its own right since it was a “robust predictor of group and organizational performance”, while referring to several respective studies. There are indeed several scholars who establish that, in general terms, the

relationship between employee attitudes and performance outcomes is positive and unambiguous. Subramony et al. (2007, p.1) for instance state “the link between employee attitudes and performance has intrigued organizational scholars and practitioners for several decades [and] recent meta-analytic studies have demonstrated robust effect-sizes for the relationship between attitudes and performance at both, the individual-worker and business-unit”. One such meta-analysis by Jiang et al. (2012b, p.1275) strongly supports this claim, establishing a significant relationship between employee motivation, a broad construct encompassing various affective measures, and operational outcomes which, in turn, significantly affect financial outcomes.

The theory that individual attitudes move in unison with individual and organizational performance measures is being supported by scholars who advocate the win-win paradigm (Lau and May, 1998) or the high-performance paradigm (Hughes, 2008). Hughes (2008, p.30-31) explains the underlying notion of the paradigms as follows: “The core idea here is that, through centering labor management and work organization around highly skilled, engaged, involved, and ‘empowered’ workers, it is possible to develop a ‘win-win’ situation for both employers and employees where higher performance is achieved principally through developing a more motivated workforce”. This perception is in accordance with the norm of reciprocity from social exchange theory which suggests that a supportive and benevolent conduct of the employer towards the employed draws a reciprocal response (Gutierrez et al., 2012). Therefore, according to this understanding, the close connection between psychological and performance variables supposedly reinforces the focus on the antecedent relationship between HR practices and employees’ attitudes.

Yet, several scholars have criticized the assumptions made in the high-performance paradigm. A case in point are Grant et al. (2007) who argue that employee’s attitudes, such as employee wellbeing, are not a set of consistent factors that respond to HR practices in homogeneous fashion. To the contrary, they propose that different concepts respond differently to managerial practices asserting that “our analysis of recent research suggests that managerial practices often result in employee wellbeing trade-offs, improving one dimension of employee well-being while undermining another” (Grant et al., 2007, p.52). This implies that using affective constructs as the outcome variable in a research model to test HR practices cannot prove their expediency as any one positive causal relationship may be countervailed by another. In their text Grant et al. (2007) scrutinize initiatives aimed at boosting employees’ attitudes through

the four dimensions of the organizational context task, reward, social and physical, pointing out the arising trade-offs. First, they assert that managers endeavor to enrich tasks by providing greater skill variety, by enhancing task significance, increasing task identity, autonomy, or feedback (Grant et al., 2007, p.54). However, they reference recent research which documents that such recreation of work practices may indeed improve concepts like job satisfaction, while, inadvertently, at the same time undermining health (ibid.). Second, rewards are of course aimed at increasing employees' motivation and engagement levels. Nonetheless, they may concurrently weaken interpersonal relationships, as several scholars have shown, for example by fostering a sentiment of inequity (Grant et al., 2007, p.55). Third, changes in the social dimension may also render ambiguous results. As an example, encouraging teamwork may improve social wellbeing among some employees, while reducing psychological wellbeing amongst others (ibid.). Finally, even the enhancing of physical health may at times lead to adverse results as certain safety measures may increase health at the expense of psychological or social wellbeing (Grant et al., 2007, p.56).

Godard (2004) in his work adds further arguments to the critique of the high-performance paradigm, arguing that the overall effect of such good management practices, centering around improving employees' circumstances, on performance are largely insignificant according to the various studies. On the one hand, he, too, assigns this fact to the ambivalent nature of practices that seek to embolden employees, potentially having a positive effect on some attitudes while having a negative effect on others (ibid.). Yet, on the other hand he goes further in asserting that changes associated with such HR practices are often just not having a lasting, fundamental impact on employees and their organizations (ibid.). He writes: "it is likely that the problems run deeper than proponents of the high-performance paradigm assume" (Godard, 2004, p.371). McClean and Collins (2018 p.188) argue in a similar vein as Godard (2004): while they do not concern themselves with the question if different affective concepts may unfold opposing effects, they affirm that the impact of these concepts on performance measures may be "contingent on other factors" which are not typically influenced by the HR system.

Now, the second main rationale for focusing on employees' attitudes as outcomes is that furthering the circumstances for employees at work should be a goal in itself, independent from the ultimate impact on performance at different levels. This view is rooted in HRM's traditional role as "pro-employee advocate" (Jackson et al., 2014, p.21). Kuchinke (2010 p.577) is a strong proponent of this value-based, normative perspective who refers to relevant frameworks, such

as the one for CSR, maintaining that “these frameworks [...] are explicitly value-based and derive their legitimacy not on empirical grounds but on the force of the moral argument”. Aguilera et al. (2007) in their work agree that employees’ attitudes and their relationships to antecedents merit close scrutiny as relevant initiatives have the potential to trigger positive social change, if applied at scale. While they also expect that socially responsible practices will improve organizational performance, their focus is on social change as a value in itself which they profess as follows: “an important new line of inquiry within this field is no longer whether CSR works but, rather, what catalyzes organizations to engage in increasingly robust CSR initiatives and consequently impart social change” (Aguilera et al., 2007, p.837).

There is a long history of philosophic deliberations centering on the question if businesses’ purpose should be to dispense welfare, and not only to create profit (Bowie 1998). In his pioneering article Aktouf (1992 p,426) denounces the Taylorist vision of the employee “as a cost factor and as a passive cog” and stresses the need for a new, humanist vision to create value for all. Bowie (1998 p.37) in his work supports this idea stating that societal welfare could be maximized if businesses were to follow the perspective of “Kantian moral philosophy”. Hence, the notion that all these scholars advocate is that the focus on affective outcomes to document the positive or negative impact of business practices on individuals and entire societies is an important end to research.

This notion is opposed by various scholars who, like Friedman (1970) in the introduction chapter, hold that businesses’ primary obligation is to create value for their shareholders and that, therefore, relevant business indicators should be the outcome factors in such studies. As an example, Luthans et al. (2007, p.15) in their book express the need to quantify “dollar return” asserting that “as various attractive investments compete for the scarce resources in an organization, an adequate return becomes one of the most critical factors in determining the extent to which human resource development initiatives receive organizational support”. Ryan et al. (1996, p.878) in their work argue in the same vein suggesting the relevance of the scholarly discourse was at stake: “unless human resource researchers make efforts to link interventions to the data and outcomes organizations rely upon, our ability to establish our value in a time of shrinking resources will be lessened”. To many scholars these statements seems fairly self-evident, so much so that they do not even concern themselves at all with other, non-performance outcomes in their theoretical considerations (e.g. Rousseau, 2012).

The conviction that HR practitioners have to earn their place in the executive suite in an organization, while concurrently maximizing their operational budget, through clear-cut return-on-investment (ROI) indicators, has given rise to a new discipline within HR, Evidence-based HR (EBHR) (Rousseau and Barends, 2011). In an important article Rousseau and Barends (2011, p.221) highlight the need to justify HR expenses by clearly assessing the returns, directly addressing their readers if they “know the scientific evidence for ANY of the HR practices [their] company uses” while confiding to their audience that “recent surveys of HR practitioners lead us to suspect that the frank response from many readers is ‘no’ ”. The notion of EBHR lies at the core of scholarly research around distal outcomes and will be revisited later at the respective place, yet, its assumptions make an important contribution to this discussion: whether one deems it morally appropriate or not, any investment today has to create monetary returns and, therefore, analyzing the impact of HR activities on employees’ attitudes is insufficient if one cannot expect that such activities will also influence key organizational metrics. What is more, as I documented in the academic discourse surrounding the first main rationale, establishing a causal link between HR practices and an affective outcome does not necessarily warrant an overall conclusion regarding the merits of those practices, given that their relationships to other affective concepts may be insignificant, or even obverse. Yet, beside the widespread invocation of HR’s mission to substantiate its monetary benefits for the company, which this work embraces, HR practices must primarily be concerned with the welfare of employees. Therefore, based on the moral considerations employed by several scholars as evidenced above, it is imperative to circumstantiate the high-performance paradigm which is one of the purposes of this thesis. A failure to do so would plunge SHRM research and organizational HRM into crisis by connoting the contrariety of their two main goals: to improve the circumstances for employees and to increase value for the company.

Now, at a lower level, scholars differ in their judgement in respect to different affective concepts and their usefulness regarding the evaluation of HR practices. To provide a comparison of key concepts, this text relies on the following three criteria as substantiated in the scholarly discussion in this section: first, there should be a strong indication that the concept has a positive relationship with different distal organizational outcomes, most notably organizational performance outcomes. Second, it should represent a rather broad construct that, in all likelihood, does not negatively impact other affective constructs. Third and last, the respective concept should clearly represent gains in employee welfare.

The choice of affective concepts covered in this work is based on the two comprehensive reviews of literature in the works of Jiang et al. (2012b) as well as Jackson et al. (2014). Jackson et al. (2014) in their article evidence that the majority of proximal outcomes relating to employee attitudes can be assigned to the construct psychological wellbeing. Jiang et al. (2012b) draw a finer distinction. Of their review they state: “employee motivation was reflected by collective job satisfaction, organizational commitment, organizational climate, perceived organizational support, and organizational citizenship behavior” (Jiang et al., 2012b, p.1271). All these concepts are examined in Table 1, regarding how they relate to the three identified key criteria. This table also considers work engagement, a concept not mentioned in the two underlying pieces of literature. Yet, this concept has become an important subject of HR practices in recent years (Bakker et al., 2008) and is very closely related to job satisfaction and organizational commitment which are also considered in this analysis (Bailey et al., 2017). Indeed, as Newman et al. (2010, p.54) document, an “A-factor” comprising the dimensions job satisfaction, organizational commitment and job involvement has a correlation of .77 with the Utrecht Work Engagement Scale (UWES), the most frequently applied measure of engagement at work. Due to these reasons, work engagement is included in Table 1.

II.II.III. Psychological Wellbeing as Key Proximal Outcome

As Table 1 reveals, there is only one affective concept that satisfies all the three criteria: psychological wellbeing. It is the only concept concerning which not only a strong link with crucial distal outcomes has been established but also an unambiguous relationship with other proximal outcomes, as well as a close connection to overall employee welfare. Therefore, it is clear that psychological wellbeing is the most suitable concept to measure the effects of HR practices where proximal outcomes are concerned. Furthermore, psychological wellbeing is a suitable end to HR practice bundles when considering the argument of a moral imperative to increase employee welfare (cp. Aguilera et al., 2007).

The designation of psychological wellbeing brings this subchapter on proximal outcomes of HR practices to a conclusion. The following subchapter, the last in this review of literature, will now endeavor to identify a concept that may be appropriate to represent the distal outcomes of HR practices within the particular context of this thesis.

Table 1: Key Affective Concepts and their Relationships to the three Criteria

	Criterion 1	Criterion 2	Criterion 3
Psychological Wellbeing <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> - strong indication for link with distal organizational measures - strong links to various performance measures (Robertson et al., 2012; Wright and Cropanzano, 2000) and to turnover (Wright and Bonett, 2007), innovation (Dolan and Metcalfe, 2012) 	<ul style="list-style-type: none"> - is a "context-free or global construct [which is] not tied to any particular situation" (Wright and Cropanzano, 2000, p.86) 	<ul style="list-style-type: none"> - concept clearly represents gains in employee welfare - integral part of a person's welfare (Ryff and Singer, 1998) - close link between mental and physical health (Ohrnberger et al., 2017)
Job Satisfaction <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> - "unworthy of continued research" (Roznowski and Hulin, 1992, p.124) - relationships are spurious and build on "underlying confounders" (Bowling, 2007, pp.180–181) - related to different performance outcomes (De Cuyper and De Witte, 2011; Jaramillo et al., 2005) and other distal outcomes (Ricketta and Van Diek, 2005) 	<ul style="list-style-type: none"> - is a narrow concept (Wright and Cropanzano, 2000) - contains none/ few affective items which obfuscates relationships to other affective constructs (Brief and Roberson, 1989) - commitment within an organizational context may have different foci with potentially obverse relationships to affective concepts (Redman and Snape, 2005) 	<ul style="list-style-type: none"> - "job satisfaction is not an appropriate operationalization of happiness at work" (Wright and Cropanzano, 2000, p.91) - may have negative consequences for employee welfare, through increased family strains, low work-life balance, reduced self-development or impeded career-progression (Mowday et al., 1982)
Work Engagement <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> - according to a comprehensive review, numerous studies have established strong links to various forms of performance and to other distal outcomes (Bailey et al., 2017) - for many elaborated facets of organizational climate significant effect sizes have been established for relationships with distal outcomes (James et al., 2008) 	<ul style="list-style-type: none"> - numerous empirical studies suggest that engagement has no disparate relationships to other affective constructs relevant in a work context (Bailey et al., 2017) - focus on particular facets of organizational climate has led to vastly different concepts, whereas the overall effect on other affective constructs is unclear (Schneider et al., 2013) 	<ul style="list-style-type: none"> - can undermine work-home balance (Listau et al., 2017; Halbesleben, 2011) - may "exacerbate the feelings of overwork, stress [...]" (George, 2011) - there is no generally accepted theoretical model linking individual wellbeing to organizational climate (James et al., 2008)
Perceived Organizational Support <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> - meta-analytic reviews clearly document a causal relationship with distal outcomes, most frequently turnover (Kurtessis et al., 2017; Riggie et al., 2009; Rhoades and Eisenberger, 2002) - clear link with profitability and turnover (Koys, 2001) - strong link to performance constructs (Podsakoff et al., 2000; Borman and Motowidlo, 1997) 	<ul style="list-style-type: none"> - refers to "global beliefs" and a broad perception of an organization's deeds (Eisenberger et al., 1986, p.501) - relationships with other proximal outcomes are inambiguous (Riggie et al., 2009) - high citizenship behavior may have a negative impact on job satisfaction given an abusive supervisor (Tepper, 2000) - may incur several professional costs (Bolino et al., 2013) 	<ul style="list-style-type: none"> - only few studies address a relationship with employee wellbeing, welfare which is, therefore, uncertain (Kurtessis et al., 2017) - "dark side" (Koopman et al., 2016, p.414) - may lead to exhaustion and decreased work goal progress (Koopman et al., 2016) - "escalating citizenship" (Bolino and Turnley, 2003, p.68)
Organizational Citizenship Behavior <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>			

II.III. Conceptualizing Distal Outcomes

What is the impact of human resources on key metrics that determine organizational success? This question which plays a crucial part in HRM research today came to the fore, and belatedly so, during the second half of the 20th century (Lewin, 2011). The first tentative steps toward linking the topic of HRM and organizational outcomes were made in the 1960s when researchers started to focus on the productivity effects of union membership (ibid.). The overwhelming finding of this branch of literature was that unions in fact positively contribute to businesses' productivity (e.g. Hartman, 1969). Emboldened by these and like findings, scholarship around HR practices flourished in the subsequent decades, ushering in the emergence of literature around High Performance Human Resources (HPHR) (Lewin, 2011). Over its course, HPHR offered tangible evidence for the relevance of human resources in raising organizational performance levels (ibid.). Recently, it has been superseded by the scholarly writings around Evidence-based HR (ibid.), mentioned above as it represents an important criterion for considering affective concepts as proximal outcomes. This development marks the endeavor to bring the discussion closer to HR practitioners' realm and to provide more practical guidance (Rousseau, 2012). In the words of Rynes et al. (2014, p.305), EBHR "is about making decisions through the conscientious, explicit, and judicious use of the best available evidence from multiple sources to help managers choose effective ways to manage people and structure organizations". The notion that human resources, inherently conditioned by the firm, are a key ingredient to its outcomes represents of course the sole *raison d'être* of SHRM literature (Becker and Huselid, 2006; Lewin, 2011). Therefore, EBHR is firmly rooted within SHRM, designed to quench its thirst for evidence to circumstantiate the strategic role of human resources (ibid.).

Turning towards distal outcomes as the second main group of concepts affected by HR practices, beside proximal outcomes. It is those distal outcomes that scholars focus on to corroborate the strategic importance of human resources. Most commonly, they are not immediately affected by HR initiatives, but through proximal outcome pathways (Jiang et al., 2012b). In their meta-analysis, Jiang et al. (2012b) profess that distal outcomes include three distinct types: voluntary turnover, operational outcomes and financial outcomes. Such distal outcomes have increasingly become the focus of HR practitioners, upending a discipline that

until then was not accustomed to providing evidence for the return on investment spent (Rousseau and Barends, 2011).²

II.III.I. Analyzing the Grounds to Choose a Type of Distal Outcomes

When it comes to generating crucial evidence for businesses, voluntary turnover, operational outcome and financial outcome measures may all potentially be of interest for HRM scholars (Rousseau and Barends, 2011). While the substance of voluntary turnover, encompassing its mirror-image employee retention, is rather self-explanatory, operational and financial outcomes both comprise several distinct concepts (Jiang et al., 2012b). According to Jiang et al. (2012b), operational outcomes may include diverse concepts ranging from productivity to innovation, customer satisfaction and service quality. Contrarily, financial outcomes contain concepts that reflect monetary value, such as profitability, sales or market share (ibid.). Rogers and Wright (1998, p.315) in their work further separate financial outcomes into “financial accounting outcomes (ROA, profitability) [and] capital market outcomes, (stock price, growth, returns)”. In the following, this section will analyze relevant literature regarding the reasons that are provided for choosing one type of distal outcomes over another. Thereby, it will elaborate on two eminent scholarly discussions, one focusing on the issue of distance between HR practices and the different groups of distal outcomes, and the other analyzing an important aspect that unfortunately very often goes unnoticed: the issue with prevalent methodologies’ focus on the organizational level as level of analysis.

To introduce the first of both discussions, Huselid (1995, p.638) proposes that both turnover and operational outcomes are “intermediate outcomes”, positioned between employee behaviors and financial outcomes, over which employees have “direct control”. Crook et al. (2011) share his view, arguing that financial outcomes are much more distantly related to HR practices than operational outcomes. Following from Dyer and Reeves (1995, p.6), this circumstance may be the reason that scholars so far mostly utilized operational outcomes as dependent variables, “especially productivity and quality”. This view is in accordance with the writings of Crook et al. (2011) which assert that financial performance is a much more aggregated measure, being affected by a multitude of other high-level constructs. They write

² This development has coincided with the rise to prominence of HPHR and, more importantly, EBHR

that, therefore, “performance advantages are more likely to be revealed in operational performance measures” (Crook et al., 2011, p.445). McClean and Collins (2018, p.188) subsume: “scholars have long argued the effects of a HR system on firm performance may be contingent on other factors”.

Yet, other scholars point out that financial outcomes are a lot more meaningful. Harris et al. (2011) in their article agree that it is common for empirical research to relate HR initiatives to intermediate outcomes. However, they profess that “these metrics do not necessarily translate into business results” (Harris et al., 2011, p.5). What is more, managers prefer clear-cut ROI indicators as their “strategic goals certainly extend to organizational outcomes and probably beyond these to the bottom-line” (Dyer and Reeves, 1995, p.6). Hence, there appears to be a trade-off regarding distal HR outcomes: the more immediately outcomes are affected by HR practices, the less relevant they are for corporate decision-makers, and vice-versa, as visualized in Figure 4. In their meta-analysis regarding the expected results of HR training initiatives, Alliger et al. (1997, p.346) make this point precisely, arguing that these results “are at once the most distal from training, and often perceived as the most fundamental to judging training success”.

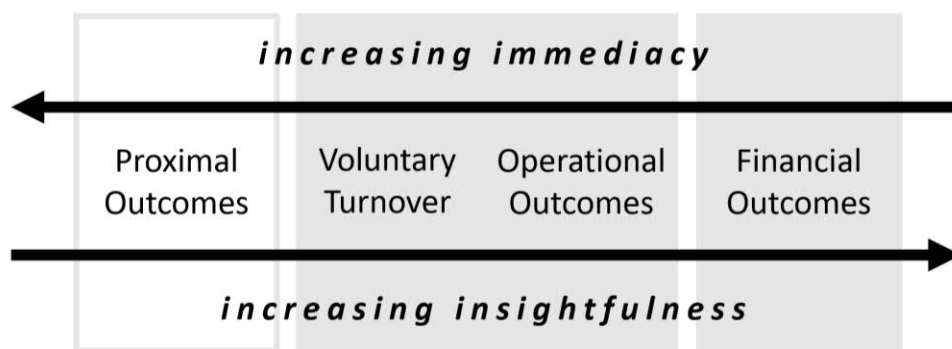


Figure 4: The Trade-off of SHRM (distal outcomes colored grey; based on Huselid, (1995))

The argument goes that, being faced with this trade-off, many scholars decide to take the middle ground, opting for operational outcomes, most prominently productivity (Dyer and Reeves, 1995). One further reason why scholars hitherto mainly confided in operational outcomes is offered by Lewin (2011): most empirical analyses have so far focused on manufacturing businesses for which productivity is a very convenient operational outcome, readily translatable into concrete financial numbers. Becker et al. (2001, p.20) state that the focus on productivity is not surprising since “ultimately any discussion of the strategic role of

human resources or human capital will implicitly focus on the productive behaviors of the people in the organization”.

However, other scholars affirm that the supposed trade-off between the immediacy of HR distal outcomes and their insightfulness is an altogether subordinate issue. In contrast, they argue that the key problem is a focus on individual, isolated HR practices that are directed at certain operational outcomes and oftentimes just cannot be related to financial outcomes (Saridakis et al., 2017). This same argument was raised above during the discussion of HR bundles as opposed to individual HR practices in subchapter II.I. While this argument presents HR bundles as a remedy to the issue of distance discussed in this first scholarly debate, it does not negate the presence of distance, whereas many scholars who use bundles still employ operational outcomes instead of financial ones (e.g. Kooij et al., 2013). The argument discussed above, that the connection between a HR system and firm performance is in fact contingent on various other factors which may mediate or moderate that relationship, also goes unchallenged by this view that researchers just need focus on HR bundles and the issue of distance will go away (McClellan and Collins, 2018). Above all, if indeed unknown mediators or moderators exist which are instrumental in making such relationships significant, then studies linking a HR system with financial outcomes will only tell part of the truth.

Subsequently, the second scholarly discussion will center on prevalent level issues in relevant studies. Organizational studies relating to strategic HR practices and their impact on distal outcomes have predominantly analyzed their subject matter at the organizational level (Buller and McEvoy, 2012; Jiang et al., 2012b), following what is often called a ‘macro’-approach (Boon et al., 2018, p.585; Roumpy and Delery, 2019, p.430). While there is a development towards measuring both independent and dependent variables at lower levels, including the individual level, analysis still occurs at the macro level, whereas “by far most theory (95%) is still focused exclusively on the organizational level”, as Boon et al. (2019, p.2516) found in their recent review. Scholars broadly invoke two kinds of arguments why locating SHRM studies solely at the organizational macro level may not be appropriate, which has important ramifications when it comes to choosing a distal outcome. The first argument is theoretical, whereas the second is statistical.

Regarding the theoretical side, some scholars profess that the exclusive focus on the organizational level is incongruent with the HRM-employee interaction inherent in SHRM

whose purpose it is to “create and sustain valuable employee resources” (McClellan and Collins, 2018 p.187). As an example, Foss (2011, p.1416) writes that “links between macro variables are always mediated by individual action and interaction” and adds that “in this sense, the micro-level has a certain explanatory primacy”. These scholars allege a “neglect of the micro level” (Abell et al., 2008, p.11) claiming that the relationship between macro and micro variables is at the heart of organizational sciences and cannot be avoided (Foss and Minbaeva, 2009). This claim is vindicated by preeminent researchers of the organizational multilevel structure, such as Klein et al. (1994) who hold that organizational studies are cross-level by design. They further elaborate that “levels issues create particular problems when the level of theory, the level of measurement, and/or the level of statistical analysis are incongruent” (Klein et al., 1994, p.198). In this regard, the level of theory refers to the level of the conceptual relationships which the study seeks to describe, whereas the level of measurement denotes the level at which data is gathered and the level of analysis concerns the level at which statistic calculations are employed and explanations are located (ibid.).

Asserting that an incongruence of levels is indeed apparent in mainstream SHRM research, scholars point to general social science theory and the long-established interrelation between macro and micro level phenomena (Abell et al., 2008; Foss and Minbaeva, 2009). Three decades ago, Coleman (1990) famously visualized the micro-macro dichotomy with his model, commonly referred to as “Coleman’s bathtub” (Foss and Minbaeva, 2009, p.9). The model characterizes how macro-level actions entail consequences at the micro-level which, in turn, compound at the macro-level (Coleman, 1990). An adapted visualization from Abell et al. (2008) is shown in Figure 5.

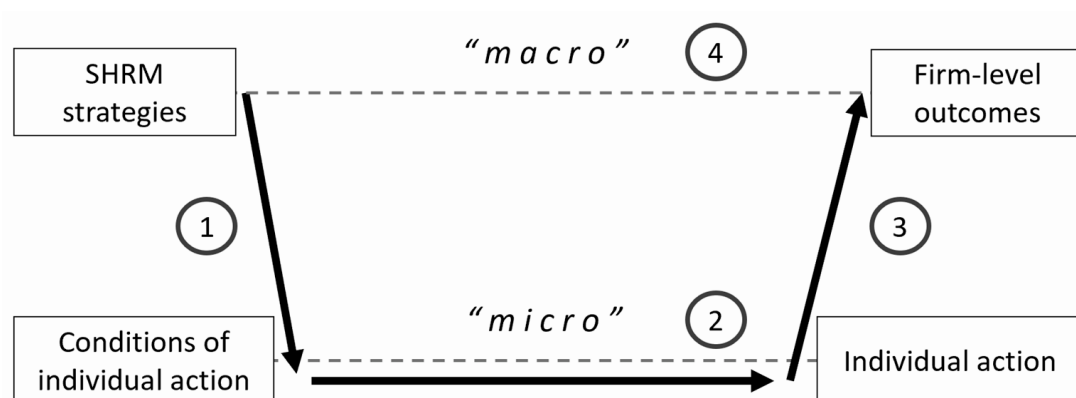


Figure 5: Macro and Micro in SHRM (adapted from Abell et al. (2008, p.31))

Abell et al. (2008) state that by focusing exclusively on relationship no.4, while disregarding no.1, 2 and 3, SHRM scholars have overlooked the fact that firm-level outcomes are inherently rooted in individual-level variables which is not reflected in their approach to theory, measurement and analysis (ibid.). They observe perceptively: “thus, in explaining collective level phenomena, reference must be made to the level of the individual (Abell et al., 2008, p.21). Foss and Minbaeva (2009, p.29) in their analysis of organizational knowledge management through HRM come to a similar conclusion, professing that “the real locus of knowledge-related competitive advantage may lie at the level of individuals and individual interaction rather than at the organizational level”. Rogers and Wright (1998) agree that the focus necessarily needs to shift away from the firm level. They argue that “empirically, the numerous complex factors that operate to determine performance at this level may make it difficult to get accurate estimates of the impact of HR practices. More importantly, theoretically, one would expect a tighter link between HR and strategy at the business rather than firm level” (Rogers and Wright, 1998, p.318).

Yet, other scholars maintain that the theoretical foundation for focusing solely on the organizational level is sound. For instance, Huselid (1995, p.639), whose break-through work inspired a huge spike in similar studies (Wright and Ulrich, 2017, pp.51–52), substantiates the adequacy of his analysis of the interrelation of organizational-level variables with the assertion that “the theoretical rationale for examining the effects of HRM practices on turnover lies in their effects on [...] individual-level factors”, meaning that the individual level is inherent.

Now, turning towards the statistical argument, why it may not be indicated to analyze distal outcomes at the firm level. There are two main narratives which scholars argue regarding the incorporation of individual level effects in their macro-level studies. The first refers to a measurement at the organizational level that seeks to reflect the accumulated effect of HR practices at the individual level. Respective measures may either be objective measures, such as company records of ‘labor hour per ton’ (e.g. Shaw et al., 2005), or subjective measures of perception gathered through management surveys, such as ‘perceived productivity’ (e.g. Way, 2002). Conversely, the second narrative is based on a measurement at the individual level with a subsequent aggregation of responses to the organizational level (e.g. Collins et al., 2001). Scholars have defended the soundness of both narratives. Regarding aggregated measures, Collins, Smith and Stevens (2001, p.16) in their article for instance aggregate individual-level responses for their outcome variable ‘information combination and exchange’ to the

organizational level based on a higher-than-suggested interclass correlation (ICC). Ployhard and Moliterno (2011) support the case for aggregation in their study on human capital, arguing that it is far superior to organizational level proxy measures. Other scholars have instead opted for measurement at the organizational level, declaring their preference for subjective (e.g. Singh et al., 2016) or objective (e.g. Wall and Wood, 2005) measures.

Wright and McMahan (2011, p.101) in their article claim that aggregation may be problematic since it implicitly assumes a “linear relationship between individual and organizational levels” which, in the event that the assumption is not satisfied, may spell a “substantial error variance” of the resulting aggregate. Rousseau (1985, p.5) argues in a similar vein elaborating that aggregation “alters the variances and covariances of the data, thereby influencing their correlations and regression coefficients, and possibly the meaning and character of the data themselves”. Yet, Mossholder and Bedeian (1983, p.548) point out that “the use of aggregate measures is in itself neither good nor bad. How and why they are used are of concern. Not all phenomena can easily be separated into different levels of meaning. Consequently, it is important that a sound rationale exists for interpreting individual measures as functional surrogates of macro constructs”. According to Mäkelä et al. (2013, p.37), the absence of such a sound rationale for aggregating data invariably invokes the prospect of committing an ecological fallacy. Regarding measures at the organizational level, Wright and McMahan (2011, p.101) observe that the narrative regarding a measurement at the organizational level may be equally erroneous as such a measure “ignores the emergence process and misses important individual level variance”. Ones et al. (2017) elaborate on a further argument why analyses conducted at the organizational level, based on both aggregates and proxy-measures, could be irretrievably flawed, referring to the disregarded influence of constructs located at the meso-level. They observe: “very little attention has been paid to the mediating role of team-level HR systems or team-level variables” (Ones et al., 2017, p.260). This view is corroborated by Chang et al. (2014, p.673) who in their multilevel study measure the four core variables at three different levels, the individual level, the team-level, and the firm level. They subsume: “we found that this macrolevel to microlevel relationship indeed depended on variability in two meso level organizational characteristics, lending support to a multilevel combination approach”.

As in the case with the study by Chang et al. (2014), numerous scholars argue that links across all levels of analysis, including firm outcomes, can and should be made, provided the use of

appropriate research models, such as Hierarchical Linear Modeling (Wright and Nishii, 2007; Choi, 2017). Wright and Nishii (2007, p.20) write that “existing theory and research in SHRM has ignored (via assumption) the individual variance and processes that are necessary in order for HR practices to impact organizational performance” and suggest a “multi-level framework for examining these issues as a means for increasing our understanding of the phenomena we seek to explain”. Choi (2017, p.98) argues in the same vein stating that “previous studies of the relationship between HPWS [High Performance Work Systems] and organizational performance typically ignored multi-level issues”. In their work, Mäkelä et al. (2013, p.37) agree that multilevel studies may address key issues raised by “quantitative research conducted at a single level of analysis”. They stress, however, one key challenge when it comes to multilevel research: the need to ascertain the alignment between the levels of theory, measurement and analysis (Mäkelä et al., 2013).

II.III.II. Identifying the Right Type of Distal Outcomes




This section will now determine which of the three types of distal outcomes as mentioned by Jiang et al. (2012b) is most suitable for this thesis’ study: voluntary turnover, operational outcomes, or financial outcomes. To achieve that end, this thesis builds on three criteria as discussed in relevant literature covered in the preceding section. This approach is similar to the one employed above when psychological wellbeing was identified as the appropriate concept to account for the affective, motivational group of proximal constructs.

The first criterion refers to the question of immediacy. As documented, numerous scholars provide convincing arguments as to why distal outcomes that are more immediately related to HR practices are preferable (e.g. Crook et al., 2011). It is this thesis’ premise that businesses’ strategy should center on their employees. The supposition hereby is that the pursuit of such a strategy will directly and significantly increase the contribution of an organization’s workforce, whereas the related effect on financial outcomes is contingent upon several other factors, at various levels, which presently may be unknown or not understood in their entirety (McClean and Collins, 2018). Therefore, appropriate distal outcomes for this thesis’ study shall be immediately relatable to proximal constructs, minimizing the amount of distance.

The second criterion, then, concerns the issue of levels, discussed at length in eminent scholarly writings. There is a strong case why outcome variables measured at – or aggregated to – the organizational level are problematic (cp. Abell et al., 2008; Ones et al., 2017). While multilevel models may serve to address this issue, aligning the level of measurement, analysis and theory still presents a challenge (Mäkelä et al., 2013). As emphasized, this thesis suggests that organizations need to improve the circumstances of every single employee in their workforce, who will reciprocate with better work outcomes. Hence, the theory of this thesis clearly centers on the individual level. Consequently, it is indicated that also measurement and analysis of distal outcomes are located at that same level which is the substance of this criterion.

The third and last criterion for the types of distal outcomes relates to the discussion of HR bundles as being contrasted to single HR practices. The argument made by several scholars that such bundles are far superior for the purposes of scholarly analyses are conclusive (Saridakis et al., 2017), whereas six distinct arguments in favor have been presented as part of section II.I.II. Bundles are expected to have wide-ranging effects which this thesis’ study seeks to capture to the maximum possible extent. Hence, after criterion 3, appropriate types of distal outcomes should account for the effects of respective HR bundles in their wider form.

Table 2: Overview of Types of Distal Outcomes

	Criterion 1 – immediate relationship with proximal outcomes	Criterion 2 – inherently located at the level of the individual	Criterion 3 – represents broad gains from HR bundles
Voluntary Turnover 	- turnover concepts are closely associated with employee outcomes and are their direct result (Holtom et al., 2008)	- employee turnover is primarily an individual characteristic (Holtom et al., 2008)	- turnover is only one of many outcomes and is not necessarily negative in general terms (Boon et al., 2018)
Operational Outcomes 	- situated between employee behaviors and financial outcomes (Huselid, 1995)	- located at the individual level, based on individual productivity or performance (Becker et al., 2001)	- represent overall changes in operational performance (Crook et al., 2011)
Financial Outcomes 	- relationship is distal and thus influenced by many other constructs (Crook et al., 2011)	- typically measured and analyzed at the organizational level (e.g. Huselid, 1995)	- broad implications for organizational success (Harris et al., 2011)

All three criteria are included in Table 2 which depicts how the three main types of distal outcomes relate to each one of them. Clearly, both voluntary turnover and financial outcomes are not suitable, financial outcomes as they are neither inherently located at the individual level nor directly related to employee outcomes and voluntary turnover since it does not capture the broad influence of HR bundles. It is furthermore important to note that there is a disagreement among scholars regarding to what extent the effect of various conceptualizations of turnover can be deemed negative as turnover can also unfold positive effects (cp. Boon et al., 2018). This leaves operational outcomes which meet all three criteria as Table 2 shows.

Therefore, by this process of elimination, operational outcomes are the appropriate type of distal outcomes for the purposes of this thesis as they address all three criteria this section distilled from distinguished scholarly literature. The coming section will elaborate on the particular concept that will be used before bringing the matter around distal outcomes to a close.

II.III.III. Employee Performance as Key Distal Outcome

According to Jiang et al. (2012b), the scholarly branch of SHRM analyzing HR outcomes at the individual level is still in its infancy. Generally, when it comes to operational outcomes scholars have focused on productivity, as emphasized above (Dyer and Reeves, 1995). Yet, measuring individual-level productivity in knowledge work is very cumbersome (Thomas and Baron, 1994). This is because “in knowledge work the majority of the cost of producing the output is due to the knowledge work itself rather than materials or equipment” (Thomas and Baron, 1994, p.15), making it difficult to quantify the input-dimension. At the same time, also the output-dimension is oftentimes not readily quantifiable (Thomas and Baron, 1994). Thomas and Baron (1994, p.17) highlight that this is the reason why “historically, knowledge work has been exempt from productivity evaluation”. Guile and Unwin (2019, p.91) agree with this assumption and subsume that “directly measuring productivity at the individual level is [...] very context specific, and it is difficult to obtain a productivity measure that allows a comparison of worker productivity across firms and across occupations”. Now, scholars therefore often resort to measuring performance rather than productivity when it comes to the individual level (Guile and Unwin, 2019). Performance is an obvious measure of choice since it encompasses productivity by its virtue of being a broader construct (Tangen, 2005).

However, rather than focusing on performance measures at the individual level, SHRM scholars have chosen to focus on higher organizational levels where productivity measurement is feasible, as documented in detail in the preceding sections (Tharenou et al., 2007).

This circumstance presents this thesis with a dilemma: the by far most frequently applied operational outcome to test the success of HR practices is not adequate for its chosen level of measurement and analysis. Yet, employee performance has its origin at the individual level and can readily be employed as a substitute for productivity (Guile and Unwin, 2019). Therefore, this thesis will rely on employee performance as its distal outcome. A few studies have recognized the importance of relating HR practices to individual-level performance, such as those by Butts et al. (2009) and Snape and Redman (2010). Several scholars have pointed out that employee performance plays a crucial role in the SHRM equation. Horgan and Mühlau (2006, p.415) profess: “a core assumption of this literature is that the direction of causality of human resource management runs through employee performance and subsequently on to corporate performance. The most immediate effects of human resource management – i.e. the effects on employee performance are, however, rarely studied”. Jiang et al. (2012a, p.74) agree, elaborating that “employee performance is a reasonable outcome directly associated with the extent of internal fit of HR practices”. They further describe employee performance as a “key outcome in the HR-performance linkage” (ibid.). Now, as in the statement by Horgan and Mühlau (2006), the need for further empirical research on employee performance at the individual level is spelled out by Zhu et al. (2018, p.19) who emphasize that “future studies may add employee performance as individual-level variables”. Hence, it is without doubt that there is a strong need to relate HR practices to employee performance at the individual level.

This brings my review of literature to a close. In its course, responsible leadership has been found to be the appropriate concept to account for organizational practices that comprehensively addresses the woes of employees as they struggle with the continuous change of their work-lives caused by Digitalization. After that, psychological wellbeing was designated as the most suitable proximal outcome to test the success of said practices, and employee performance as the preferable concept to account for distal outcomes. The following chapter will now develop this thesis’ hypotheses based on these determinations.

III. Hypothesis Development

At a time in which their employees face profound challenges brought about by Digitalization, the majority of companies has recognized the key role their workforce plays in securing competitiveness and profitability (Boudreau, 2015). Yet, scholars have struggled with the conceptualization of HR practices designed to achieve these high goals (Boon et al., 2019). What is more, the pathways through which such practices impact an organization's bottom-line are still subject to contestation (Sanders et al., 2013), as is the construct through which the success of HR practices can be evaluated (Boon et al., 2019).

This chapter seeks to address this uncertainty by postulating three relationships between the three key concepts that have crystallized in the course of the literature review: responsible leadership as key organizational practice, psychological wellbeing as proximal, intermediary outcome, and employee performance as distal outcome. Starting with the foremost antecedent, each of the three concepts will be elaborated on regarding important linkages as established in relevant studies. Concomitantly, the thesis' four hypotheses will be construed which lay the basis for its empirical study.

III.I. Responsible Leadership as Independent Variable

According to Doh and Stumpf (2005, p.87), responsible leadership has three critical components: value-based leadership, ethical decision-making and quality stakeholder relationship. These components inform the practice of a responsible leader. A definition of what exactly constitutes a responsible leader is provided by Doh et al. (2011, p.86) who state that responsible leaders are those who "create a culture of inclusion built on solid moral grounds". According to Maak and Pless (2006, pp.101–103), the critical components also inform the four key roles of a responsible leader: first, that of a servant who, in the fashion of a coach, encourages and motivates the team members and creates a sense of common purpose (ibid.). Second, that of a visionary who includes all stakeholders in the process of devising a future vision for the company that adheres to Corporate Social Responsibility standards as well as to the common good (ibid.). Third, the role of a steward who acts as a mediator between conflicting opinions, ascertains that the moral values of the company hold relevance in practice and makes sure that everybody is treated fairly and with respect (ibid.). The fourth and final

role is that of a citizen which refers to the leader not only being a stakeholder of the company but, at the same time, being part of – and situated within – society. Being part of a collective, it is the responsible leader's role to initiate change and to include everyone in making that change become reality (ibid.).

Now, responsible leadership was chosen based on the understanding that leadership in general is a crucial contextual factor that influences the ability and willingness of employees to support continuous organizational change endeavors, such as in the case of Digitalization (cp. Herold and Fedor, 2008). The choice for responsible leadership itself, as opposed to a multitude of other ethically good leadership styles, was made based on its unique capacity to encapsulate the profound responsibilities that leaders have, not only towards their employees but also to all other stakeholders including the wider society in these times of profound change and increasing complexity (cp. Voegtlin et al., 2012). If these deductions are indeed genuine, it follows that responsible leadership can be expected to strongly associate with employee welfare as well as with a company's bottom line. Unfortunately, scholarly research around employee and organizational outcomes of responsible leadership is still in its infancy and only a few articles could be unearthed (Haque et al., 2019). Therefore, this subchapter will first give an account of wider leadership literature and the links that have been established. Subsequently, the findings of studies centering on responsible leadership will be discussed.

First and foremost, the established links between various styles of leadership and employee outcomes, especially employee wellbeing, are plentiful. Burke and Page (2017, p.270) leave no doubt regarding the extent of scholarly agreement in this respect professing that “a number of reviews were conducted on the relation between leadership and employee wellbeing to summarize the abundant research, and all concur that there is (sufficient) empirical evidence to conclude that leadership is significantly related to employee wellbeing”. Yet, this shall not imply that there is no dissent whatsoever. To the contrary, numerous scholars have made plain their opposition to a generalist acceptance of a nexus between leadership styles and employee outcomes, insisting that the mechanisms through which this nexus materializes are too poorly understood: first, scholars point to numerous studies which did not achieve significant results, a prominent example being the relationship between transformational leadership and burnout, a proxy measure for wellbeing (Arnold, 2017). Here, several studies failed to support their alternative hypothesis of a causal link (e.g. Stordeur et al., 2001). Second, some academics have questioned if leadership may be significantly linked to employee wellbeing in a general

sense or whether the significance of that relationship may be contingent on other factors (Berger et al., 2019), something which has been found in empirical studies (e.g. Kalshoven and Boon, 2012). Arnold (2017) for instance states that “we still know comparatively little about *when* transformational leadership will predict employee wellbeing”. Third and last, in a similar vein there remains unclarity regarding the exact ways in which leadership translates into employee wellbeing, whereas several pathways have been proposed in eminent writings (Wegge et al., 2014). Burke and Page (2017) in their work admit that the exact process through which leadership improves employee wellbeing remains unclear. However, there are generally assumed to be five separate pathways through which leadership may affect employee outcomes, most prominently wellbeing, as Wegge et al. (2014) document in their review of studies relating to leadership behavior in general. The first pathway is person-focused, connoting a direct unfolding of influence on employee health or wellbeing through acts of leadership (Wegge et al. 2014, p.12). The second pathway hinges on system-focused action, embodying strategies or policies that harm or support an organization’s workforce as a whole, while the third focusses on moderating action that seeks to reduce the impact of environmental stressors, or to improve the resources within employees (ibid.). This third pathway is closely related to one of the oldest models that link management and leadership to employee outcomes: the job demands and resources model (cp. Parzefall and Huhtala, 2006) which follows the logic that leadership influences employee outcomes by increasing the resources employees can draw on while diminishing the demands they feel are made of them. What is more, it is closely related to the idea of contextual factors in organizational change literature which help employees cope with demanding situations, such as Digitalization (Shin et al., 2012). Rafferty and Griffin (2006), as an example, explicate that leadership is a “coping resource [...] that an individual can draw on when confronted with change“. Now, the fourth pathway relates to “climate control and identity management” (Wegge et al. 2014, p.12) which takes a broad approach to establishing a climate of shared perceptions and actions regarding welfare. Fifth and last, the enumeration of pathways is completed by the concept of modelling, the idea that employees will adapt to the behavior of peers who display a healthy lifestyle or disposition (ibid.). Hence, by themselves these pathways and the scholarly writings on which they are based show that the theoretical connection between leadership and employee wellbeing is far from uncertain or even spurious. Instead, they provide a sound basis on which to expand scholarly research as several scholars purport (e.g. Arnold, 2017).

Turning towards the effect of leadership on organizational performance variables, there appear to be two avenues through which leadership may affect such variables before the background of continuous organizational change: first, there is widespread agreement that leadership styles affect organizational performance through intermediating variables, of which employee wellbeing is the most prominent (Burke and Page, 2017). Second, there is furthermore a direct effect of leadership on organizational performance measures (Rafferty and Griffin, 2006). In fact, scholarly research regarding this link has a long history (e.g. Fiedler and Garcia, 1987), whereas doubts remain when it comes to its strength and significance. Knies et al. (2016, p.1) summarize the uncertainties with the following words: “the academic literature finds it hard to find reliable evidence for a clear association, because both main concepts (leadership and performance) are broad and difficult to define and because of many confounding variables that make it difficult to demonstrate clear cause and effect”. Yet, they nevertheless profess that “empirical studies have mainly found positive relationships between leadership and performance, although effect sizes vary considerably” (Knies et al. 2016, p.14). This statement is seconded by Wang et al. (2011) in their meta-analytic review of the connection between transformational leadership, the most often applied concept in this context (Burke and Page, 2017), and various performance variables. Hence, while there is a clear indication of a link between the two concepts, scholars generally avoid broad conclusions (cp. Wang et al. 2011).

Having thus provided a thorough account on the overall relationship of leadership with employee wellbeing as well as performance, this text now turns towards responsible leadership and the literature published so far regarding how it relates to both employee wellbeing and performance. Responsible leadership is expected to directly and positively affect “follower’s attitudes and cognitions” (Voegtlin et al., 2012, p.11). Furthermore, Voegtlin et al. (2012) proposes a direct link between responsible leadership and effectiveness and performance. These two groups of outcomes echo the frequently employed differentiation in SHRM literature between proximal and distal outcomes which this thesis applied in accordance with the work of Jiang et al. (2012b). Several scholars have affirmed the connection between responsible leadership and these two groups of outcomes, albeit rarely in a quantitative setting (e.g. Doh and Quigley, 2014; Miska and Mendenhall, 2018). The subsequent text will first focus on the relationship that responsible leadership has with employee wellbeing, and will then turn to appraising the nexus between it and employee performance.

Wellbeing is generally regarded as a key virtuous outcome of ethically good leadership, as Ciulla (2012) points out. Precisely because responsible leadership follows a decidedly normative approach that seeks to engender citizenship behavior through influencing employees' psychological states, it stands to reason that its relationship to psychological wellbeing should be firm (Pless and Maak, 2011). In that same vein, Bhattacharya et al. (2008) in their work expect a strong link between these two variables, as does Voegtlin et al. (2012). Stahl et al. (2013) in their work point out that improving wellbeing is not merely a by-product but a key objective of responsible leadership. The strength of this chain of arguments is highlighted by the fact that no scholarly text could be unearthed that marginalizes or even negates the existence of a strong nexus between responsible leadership and wellbeing. Beyond qualitative assertions, several quantitative studies have proven that a nexus between responsible leadership and variables closely related to psychological wellbeing exist (e.g. Afsar et al., 2020; Lips-Wiersma et al., 2020). Based on this literature, it can be expected that psychological wellbeing is among the affective concepts influenced by responsible leadership which informs my first hypothesis.

Hypothesis 1: Responsible leadership is positively related to psychological wellbeing (H1).

Regarding the relationship between responsible leadership and employee performance, the presence of causality is much less certain. Here, the scholarly discourse mainly revolves around the question if an effect of responsible leadership on performance levels is merely circumstantial and dependent on other factors, or if it is direct and a matter of principle. Pless et al. (2012, p.53) in their article document that studies so far have provided inconsistent findings and that the relationship between responsible leadership behavior and performance "is not altogether clear". What is more, Orlitzky (2011) in his metanalytic study finds very high variability across reported findings in studies linking companies' social with their financial performance. Highlighting the cross-disciplinary nature of research in this field, he subsequently distinguishes the studies along the lines of economics, business-and-society, and general management as they are based on divergent institutional logics (ibid.). Astonishingly, he finds that the effect sizes vary significantly between these three domains and that studies of the business-and-society group had "more than double the effect size reported by economics, finance, and accounting outlets" which he partly attributes to lower scientific rigor (Orlitzky, 2011, p.423). While Orlitzky (2011) allows that the data across the two other disciplines still indicates a positive relationship between corporate social and financial performance, his

findings certainly weaken the case for a strong, direct affect between socially responsible leadership styles and employee or organizational performance measures (Pless et al. 2012).

In spite of this, concerning research around responsible leadership several researchers insist on a solid, direct nexus with performance measures, such as Voegtlin et al. (2012) who proposition that “responsible leadership contributes directly and indirectly to the performance of an organization under the caveat of ethical or moral means”. Yet, other scholars argue that raising performance levels was not even a primary objective of responsible leaders and that, therefore, the assumption of a generalizable, direct effect is invalid (Waldman and Siegel, 2008). These scholars emphasize that leaders should only act socially responsible when there is certainty that, in so doing, they will improve their company’s performance (ibid.). This view is countered by Pless and Maak (2011, p.9), two eminent researchers in the field, who explicate that “by focusing on virtuous outcomes, the leader can achieve desirable ends, such as organizational commitment or performance”. Scholars on this side of the argument point to a number of scholarly writings that establish consistent pathways through which responsible leadership affects performance. For instance, Doh and Quigley (2014, p.256) propose that responsible leadership influences performance through a “psychological pathway and [through a] knowledge-based pathway”. More precisely, they argue that it is through favorably influencing the affective states of employees, as well as by encouraging the dissemination of knowledge, that responsible leaders raise performance levels in an organization (Doh and Quigley, 2014).

Now, giving the argument of a consistent, direct link between responsible leadership and performance a certain momentum, several studies (e.g. Wang et al., 2015) have found such a direct, causal connection (Afsar et al., 2020). Wang et al. (2015) explain their findings by invoking the research of Yukl (2008) who proposes three general ways in which leaders can generally improve financial performance levels: first, by supporting the efficiency of their employees through manifold practices, including the establishing of relevant cultural values etc. Second, leaders can ameliorate the performance of their organization through facilitating adaptation, meeting external challenges and threats focusing, amongst other things, on innovation. Third and last, Yukl (2008) argues that leaders can improve the bottom-line by fostering their human capital, focusing both on skills and motivation. Now, Wang et al. (2015) argue that, in fact, responsible leadership addresses every single one of those three ways in a profound manner and that, due to this circumstance, their findings on a firm link between responsible leadership and performance has a strong theoretical basis. While this debate is

certainly ongoing, there is no doubt that the following second hypothesis is grounded in scholarly research.

Hypothesis 2: Responsible leadership is positively related to employee performance (H2).

III.II. Psychological Wellbeing as Mediating Variable

Psychological wellbeing is one of many constructs that endeavor to capture an individual's wellbeing. As any two people in a given society may have a very different understanding regarding to what properties wellbeing pertains, so, too, have researchers elaborated numerous conceptualizations for wellbeing (Cooke et al., 2016). Now, there are mainly two theoretical approaches to conceptualizing wellbeing: the hedonic approach and the eudaimonic approach (Disabato et al., 2016). Hedonia refers to subjective wellbeing which combines emotional as well as cognitive-judgmental aspects (Diener et al., 1985). In Greek philosophy, hedonic wellbeing is understood to betoken the maximization of pleasure concomitant with the minimization of pain (Disabato et al., 2016). Waterman (1993 p.678) states that hedonia focuses on instant gratification and can generally be related to happiness. Yet, as Ryff (1989 p.1069) writes, several scholars have used the term psychological wellbeing for conceptually hedonic approaches. Within this context, measures are operationalized through the combination of life satisfaction with a positive-negative affect scale (Disabato et al., 2016). Like hedonia, eudaimonia has its roots in Greek philosophy. It is understood by many scholars to offer a more comprehensive conceptual view of wellbeing. As Disabato, Goodman, Kashdan, *et al.* (2016 p.471) explicate, "hedonic definitions of well-being are incomplete for some scholars who have argued that well-being cannot be reduced to only immediately gratifying experiences". In his article, Waterman (1993 p.679) highlights that the eudaimonic approach to wellbeing crucially incorporates feelings of personal expressiveness and self-realization, or of personal excellence. Furthermore, as purported by Ryan and Deci (2001), eudaimonia is also closely linked to personal flourishing. Therefore, eudaimonia appears to offer a more timeless account of wellbeing, whereas hedonia is rather momentary (Disabato et al., 2016). Psychological wellbeing is the main concept in eudaimonic approaches to wellbeing and, as a general rule, includes a component that captures personal meaning, while explicitly excluding an affect component (Disabato, Goodman, Kashdan, *et al.* 2016 p.472).

It is generally accepted that psychological or mental wellbeing constitutes an integral part of a person's welfare (Ryff and Singer, 1998). The very first sentence of the preamble of the World Health Organization's constitution reads as follows: "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). This statement is scientifically supported by Ohrnberger, Fichera and Sutton (2017) who document that mental health and physical health are closely linked and mutually predictive. Within the work-context, several scholars have highlighted that psychological wellbeing can be considered the most important dimension of wellbeing (Loon, Otake-Ebede & Stewart 2019). Its popularity has likewise been documented in other scholarly disciplines, such as in clinical psychology where psychological wellbeing has in recent years to an increasing extent been used to assess the success of behavioral interventions (Weiss et al., 2016).

Now, there is manifold evidence that psychological wellbeing is related to several distal organizational outcomes, including various performance measures (Robertson et al., 2012; Wright and Cropanzano, 2000). In a prominent five-year study Cropanzano and Wright (1999, p.260-261) come to the following conclusions: "[Psychological] well-being predicted job performance ratings even when the two constructs were separated by as long as 1 year", highlighting a "strong support for the happy/productive worker thesis". They subsume that "given the beneficial effects of psychological well-being, it may be time to more closely examine ways in which worker happiness can be enhanced" (Cropanzano and Wright, 1999, p.261). Yet, there are studies which have failed to produce significant effect sizes and, albeit at large appreciative of the theoretical connections that have been established, some scholars have refrained from generalizations and have highlighted the need for further research (e.g. Bellet et al., 2019). Skepticism particularly hinges on the operationalization of wellbeing: in their paper, Bretones and Gonzalez (2011) for instance evidence the distinctness of subjective wellbeing and occupational wellbeing measures, showing that the two groups are affected by organizational factors in different ways and also impact outcomes differently. Operationalization is also a point of contention on the other side of the equation where some scholars have noted that the majority of scholarly writings "has been forced to rely on subjective [performance] outcomes", in many instances as self-diagnoses (Bellet et al., 2019, p.3). Thus, while the scale is firmly tipped toward wellbeing causally influencing performance, not all reservations have been dispelled. That said, the theoretical link between the two concepts has been soundly established over several decades and multiple frequently-invoked theories exist (Schaufeli and Taris, 2014). First, there is the postulate of the happy employee

who is able to generate better output than her unhappy peers due to positive affective stimuli, which dates back as long as the 1930s (ibid.). Then, there is the effort-recovery theory which holds that fatigue resulting from sustained strain impacts workers' physical and psychological wellbeing and thereby their performance (ibid.). Hence, supporting recovery and wellness is another path toward increasing performance levels. Further, the self-determination theory purports that workers whose psychological needs are met choose to expend more personal resources for their work, highlighting the importance of the psychological contract and the management of employee motivation (Deci and Ryan, 2008). Additionally, the job demands and resources model, mentioned above as it underlines the role of leadership in employee outcomes, shows how reasonable demands paired with adequate levels of control regarding the employee's tasks lead to reduced strain, higher wellbeing and, as a consequence, to higher performance levels (Parzefall and Huhtala, 2006). Lastly, a rather recently explored theory linking wellbeing with performance explains that the thought-processes of satisfied and joyous employees are more exhaustive and profound, improving their choices, decisions and work effort (Schaufeli and Taris, 2014). This theory has come to be known as broaden-and-build theory (cp. Fredrickson, 2004). Consequently, despite some empirical reservations, there is a wealth of scholarly works underpinning the connection between wellbeing and performance.

Turning towards wellbeing as a mediating construct, there is a very substantial amount of empirical studies with a number of performance measures as dependent variables and various for the purposes of this study relevant explanatory concepts. Examples of independent variables in such mediation relationships with wellbeing are psychological capital (e.g. Hite, 2015) or management practices (Wood et al., 2012), whereas effect-sizes have not always been conspicuous as in the case of HR practices in the study of Marescaux et al. (2019). There have also been successful attempts to establish psychological wellbeing as a mediator between leadership and employee performance (e.g. Devonish, 2013). Others have studied wellbeing as an important outcome of leadership in its very own right as evidenced above in detail (e.g. Kuoppala et al., 2008). In addition to that, the sheer scale of empirical studies employing diverse conceptualizations of wellbeing in an organizational context with performance measures as outcome provides a sound basis for hypothesizing such a mediation relationship with responsible leadership as antecedent, explanatory concept. Therefore, I propose the following third hypothesis.

Hypothesis 3: Psychological wellbeing is positively related to employee performance (H3).

III.III. Employee Performance as Dependent Variable

Maximizing performance is at the heart of managerial duties: the extent to which a manager and leader is able to support or inspire her followers directly translates into productivity and, ultimately, profitability (Guile and Unwin, 2019). Employee performance, frequently also described as job performance (e.g. Sonnentag and Frese, 2005), is a multi-dimensional concept. In his milestone work, Campbell (1990) derives eight performance components which are influenced by the three key determinants declarative knowledge, procedural knowledge and skill, and motivation. Based on his work, Borman and Motowidlo (1993) identify two groups of conceptualizations of employee performance: task performance and contextual performance. According to Sonnentag and Frese (2005, p.6), task performance “refers to an individual’s proficiency with which he or she performs activities which contribute to the organization’s ‘technical core’ ”. Regarding contextual performance, they posit that it “includes not only behaviors such as helping coworkers or being a reliable member of the organization, but also making suggestions about how to improve work procedures” (ibid.). Within both of these groups, conceptualizations and operationalizations abound in scholarly literature (Sonnentag and Frese, 2005).

Performance is the pinnacle of organizational studies (Lawler and Boudreau, 2015) and also a frequently investigated concept in psychology research (e.g. Schleicher et al., 2004). Employee performance is the capstone of this thesis’ relationship which was originally visualized in Figure 1. Having introduced this last concept, the fourth and final hypothesis of my thesis can be substantiated which builds upon the three that proceed it: given that H1, H2 and H3 are correct, it stands to be expected that in a statistical model which includes all three concepts mediation will occur. That is because, in the event that responsible leadership influences both psychological wellbeing and employee performance, and wellbeing itself influences performance, a part or all of the effect of leadership on performance will be masked by wellbeing through which it, in fact, materializes. As a result, in a model that includes all factors the size of the direct effect that leadership unfolds upon performance will be reduced, or negated altogether. Hence, two eventualities are possible: either the mediation is full, or it is partial. In case it was full, the entire direct effect would disappear and one may subsume that leadership influences performance exclusively by improving wellbeing. In the case of partial mediation, one could conjecture that leadership impacts performance through additional pathways, beside wellbeing. I in this study expect that the mediation is full. While I suppose

that there are several additional pathways through which leadership may influence performance, for instance by improving team collaboration, I do reason that their effects will be minor in respect to the influence I assign to psychological wellbeing. This expectation leads to the formulation of the following hypothesis.

Hypothesis 4: Psychological wellbeing fully mediates the influence of responsible leadership upon employee performance (H4).

Now, with the hypotheses derived in this section, this visualization can be updated (see Figure 6) with the three key components responsible leadership, psychological wellbeing and employee performance which have been substantiated throughout the review of literature and have now been linked to each other based on distinguished scholarly writings. As Figure 6 shows, responsible leadership is located at the 2nd level. That is because the object of leadership is the leader who dispenses leadership and whose conduct is being assessed. Therefore, leadership inherently is a group character and, as a result, the levels of theory and of analysis for responsible leadership are ostensibly the 2nd level (cp. Klein et al., 1994). Psychological wellbeing and employee performance are, on the contrary, inherently located at the level of the individual: a group or team is composed of individuals and it is those who feel well or ill, who perform highly or poorly. In that vein, both concepts are 1st level concepts (ibid.).

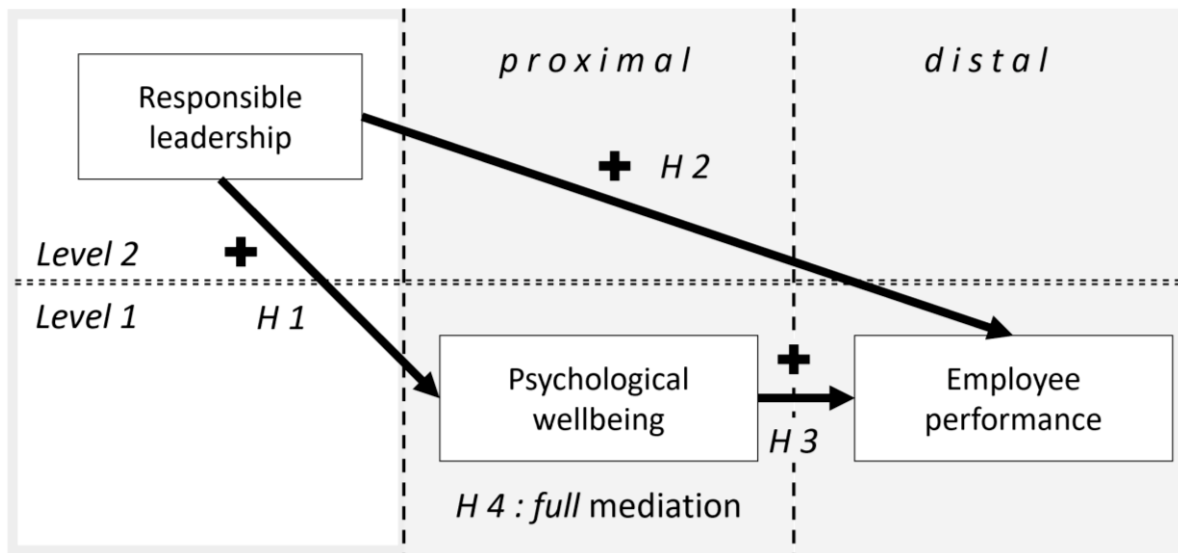


Figure 6: The Thesis' Relationship Model showing its four Hypotheses and the two Levels

Throughout the course of the thesis' methodology, results and discussion chapters, I will refer to the level of the individual employee as *level 1*, or the *1st level*, whereas for the level of groups

of employees I will use the denominations *level 2*, or the *2nd level*. This is done to introduce a measure of consistency.

In the subsequent text, I will test the hypotheses summarized in Figure 6 which have been carefully crafted in the course of this chapter, with the aim to achieve a conclusion regarding their validity, and regarding the validity of the entire relationship which is central to Strategic Human Resource Management.

IV. Methodology

The previous chapters have sought to lay a strong theoretical foundation for this thesis' analysis of the relationship between HR practices, proximal outcomes, and distal outcomes that has been specified in the last section of the preceding chapter. Building on that foundation, this chapter seeks to construct a detailed and comprehensive case for the methods chosen in order to perform the analysis. To achieve that end, the different subchapters will elaborate on the data source, form of data collection, the types of information collected as well as on the method of statistical analysis chosen, and on the measures employed.

IV.I. Source of Data and Data Collection

The data analyzed in this thesis stems from the Exponential Work Project (henceforth Exponential), an ongoing, pioneering research project and collaborative endeavor between Finland's highest-ranked business school, Aalto University School of Business (The Financial Times, 2019), and the boutique consultancy Hintsa Performance which provides services around improving organizational wellbeing levels. Exponential commenced the execution of surveys in the end of 2017 and has since then completed its survey with more than 20 organizations. At the time of writing, the author is part of Exponential's research team and has received the Dean's Thesis Grant of Aalto University School of Business to facilitate his respective research efforts in conjunction with this thesis.

Table 3: Characteristics of Organizations present in the Sample

Organization	Total Employees	Top-Management	Middle-Management	Subordinates	Women (%)
Organization 1	236	7	29	200	25.4
Organization 2	98	8	15	75	23.5
Organization 3	65	4	11	50	50.8
Organization 4	219	8	38	173	26.9
Organization 5	82	7	7	68	59.8
Organization 6	329	8	64	257	22.5
Organization 7	380	6	98	276	21.3
Organization 8	145	11	20	114	20.0
Organization 9	106	10	12	84	50.9
Organization 10	130	8	14	108	27.7
Total	1790	77	308	1405	27.8

For its analysis, this thesis uses a selection of ten companies whose properties are depicted in Table 3, whereas cases with no valid response were excluded. Also, since this thesis views the challenges faced by employees before the particular background of knowledge work, blue collar workers, too, were not considered. As detailed in the table, the sample overall comprises 1790 employees. Exponential's survey collects its data at four different levels: the subordinate level, the middle management level, the top management level, and the CEO level. While the questionnaires with top managers and the CEO are answered and filled face-to-face, the questionnaires for the middle management and subordinate level are answered through the survey tool Webropol (cp. Webropol, 2020). Invitations for participation are sent to the work email address. This approach to gather data from all employees of the company in accordance with their position in the organizational hierarchy, albeit resource-intensive, has two main advantages as compared to the majority of HRM research. First, it ensures that data is gathered at its proper level of measurement. As an example, many HRM studies collect data which is located at the individual level, such as employee motivation variables, from HR practitioners and thus at a higher level (Wilkinson et al., 2009). Second, by accounting for the multilevel structure of the organizational data, the data collected by Exponential's survey lays the basis for statistical analysis that applies multilevel modeling techniques, an important tool to address prominent level issues discussed in subchapter II.III. (cp. Mäkelä et al., 2013). Lastly, Exponential's survey collects data at each level at two different times, facilitating the use of a longitudinal design with its respective advantages (cp. Little et al., 2015).

IV.II. Methods of Statistical Analysis

This thesis employs a study with cross-sectional data using Multilevel Structural Equation Modeling (MSEM) for a two-level model executed with the *lavaan* package in R. The rationale for this research design will be laid out in the following.

First and foremost, while Exponential's survey's measurement of variables at two different times across the different levels allows for a longitudinal design, this present study treats the data as cross-sectional. The majority of research in the field of HRM relies on cross-sectional data (Huselid and Becker, 1996; Jiang et al., 2012b), whereas the use of such data in itself does not compromise causal inference, given that the analysis is properly rooted in theory and executed according to scholastic principles (Huselid and Becker, 1996; Rindfleisch et al., 2008).

Second, profound uncertainty surrounds Structural Equation Modeling (SEM), its uses and the inferences that can be made from it, with scholars either taking causal implications for granted, or dismissing their validity altogether (Bollen and Pearl 2013). Exemplifying the latter, Baumrind (1983, p.1297) in her article postulates that “the truth value of a hypothesized causal connection cannot be established by inductive reasoning from associations”. Bollen and Pearl (2013, p.309) show that such dismissiveness towards SEM’s relevance in examining causality is based on the misunderstanding that SEM alone and in itself establishes causality. This is however not the case as they point out as “researchers do not derive causal relations from an SEM. Rather, the SEM represents and relies upon the causal assumptions of the researcher” (ibid.). They stress that “the credibility of the SEM depends on the credibility of the causal assumptions” (ibid.). Their assertion is upheld by Byrne (1998). While SEM thus just as well as other methods facilitates the establishment of causality, Boxall et al. (2019, p.36-37) in their text on research in HRM point out the many advantages of SEM and advice that “future studies should model HIWPs [HR bundles] as latent variables via SEM analyses”, whereas they furthermore observe that SEM “has been gaining dominance for examining employee outcomes”.

Third, while there is little precedent in applying MSEM in HRM studies (van der Laken et al., 2018), scholarly literature agrees that it may combine the benefits of SEM with the sophistication of a multilevel approach. Therefore, across research disciplines, the number of studies using MSEM has risen dramatically, as McNeish (2017) shows. Day (2014, p.159) in his handbook on organizational studies highlights the benefits of MSEM: “first, in MSEM, the within- and between-unit effects are estimated separately to provide a more accurate test of the hypothesized relationship at either within or between-unit level of analysis [...]. Moreover, compared to [SEM], MSEM is more flexible with outcomes in the model estimated. MSEM can accommodate multiple outcomes [...]. In addition, MSEM can accommodate models with outcome variables at a higher level [...]”. Preacher et al. (2011) add that, by treating Level 2 group variables of Level 1 variables as latent, MSEM also corrects for sampling errors. They furthermore highlight that, based on its characteristics, MSEM is ideally suited to test mediation models such as in the present study (ibid.).

Regarding the program used for the analysis, *lavaan* is the most prominent package in R (Beaujean, 2014), comprises all necessary features of SEM software (Gana and Broc 2019), and supports MSEMs of two-level models (Rosseel, 2020).

IV.III. Measures

This subchapter will elaborate on how the three latent variables that make up the relationship which is at the center of this thesis are constructed. In due course, for each variable's measure and its underlying items several aspects will be investigated. In advance, it is important to mention that all measures had the commonality that their observed factors were captured by means of a Likert scale ranging from 1 through 7, with one exception discussed below. Furthermore, following Enders (2010), the Multilevel Confirmatory Factor Analysis (MCFA) model used Full Information Maximum Likelihood (FIML) estimation which optimizes the use of data as compared to listwise deletion. The number of clusters was 173 which is well beyond the ideal threshold of 100 (Preacher et al., 2010).

First, regarding the assumption of normality, Kline (2015, p.76) in his widely respected work on methodology in the social sciences professes that a skew below -3 or above 3 may be problematic in SEM analyses. Regarding the kurtosis, he highlights that there are no clear benchmarks but that above 10 is generally regarded as problematic. Second, as outliers have a disproportionate effect on results, they, too, are considered, whereas only outliers which are the "result of inaccuracies" should be removed (Aguinis et al. 2013, p.282). Generally, following Pallant (2011), outliers were identified on a case-by-case basis. Third, the assumption of homoscedasticity, the circumstance of residuals being normally distributed and not arranged according to an inherent pattern, was scrutinized as well (Kline 2015). Now, beside testing these core assumptions, for each latent variable validity and reliability were analyzed. To that end the MCFA was executed. First and foremost, the factor loadings for both the first- and second-order constructs give an important indication of their convergent validity, the extent to which they represent one coherent construct. Generally, factor loadings should be above .30 (Grimm and Yarnold, 1995; Hair et al., 2010). Complementing convergent validity, discriminant validity demonstrates the distinctiveness of each individual construct. Based on the pioneering work of Fornell and Larcker (1981), this study compared each measure's Average Variance Extracted (AVE) with the squared correlations between it and all other constructs that are part of the model. Discriminant validity is established once the value of AVE is higher than all the squared correlations (ibid.). Yet, even if an AVE is acceptable regarding the Fornell-Larcker-Criterion, a value below .5 carries negative implications for the measure's convergent validity and is, therefore, insufficient (Henseler et al., 2016). Regarding reliability in a MCFA context, Geldhof et al. (2014) find that alpha and omega perform best,

whereas this study provides the numbers for alpha. Generally, alpha values should lie above .7 to indicate reliability (Hair et al., 2017).

Lastly, the overall model needs to show an acceptable fit to the observed data. Usually, according to Kline (2015), SEMs and CFAs in this regard need to report χ^2 , the RMSEA, the CFI and the SRMR as a minimum, a recommendation this study heeds. However, a multilevel structure complicates the use of these indices. Mair (2018, p.57) professes: “unfortunately, the classical goodness-of-fit indices (CFI, RMSEA, etc.) are not sensitive to level-2 misspecifications and therefore only of limited use. This leaves us with the χ^2 -statistic”. Alas, determining the respective cutoff-values to assess acceptability is not easy as conflicting accounts exist. Regarding the CFI, Kline (2015) in his seminal work does not appear to provide any such reference value, whereas Mair (2018, p.44) proposes .95. However, other methodologists hold that a value between .9 and .95 is “indicative of acceptable model fit” (Brown, 2015, p.75). There is even less clarity regarding the χ^2 -statistic: while for a perfect fit the value should approach zero and the p-value should be non-significant, Mair (2018, p.44) purports that “we do not have to put too much emphasis on this output since for reasonably large samples, the statistic becomes most likely significant anyway, and for small samples it has low power”. Turning towards the RMSEA, according to him its lower-bound value for the 90% confidence interval should be below .05 and the upper-bound below .10 (ibid.), something that is echoed by Kline (2015, p.275), while Brown (2015, p.74) merely states that the value itself should be below .06. Lastly, Mair (2018, p.44) professes that the SRMR should be below .08, whereas Kline (2015, p.278) postulates that above .10 should raise concerns.

IV.III.I. Responsible Leadership

As elaborated under II.I., responsible leadership is employed as a best practice HR bundle. This study captures responsible leadership based on the measure from Doh et al. (2011) which comprises three dimensions and their items: stakeholder culture and managerial support both include four items, whereas HR practices is measured through five items.

Each dimension has first been analyzed on its own merits. The dimension managerial support showed rather low correlations, not only to other model-constructs but to the other two dimensions. This is noted although no actions were taken to remedy this circumstance.

Furthermore, HR practices had a particularly low AVE score of .55 at the 1st level which could be increased to .60 by removing item 5 which had substantially lower loadings across the levels. Ultimately, the reliability measures for the three dimensions were all above .8. The loadings of the three dimensions onto the overall construct were far above .3.

IV.III.II. Psychological Wellbeing

As documented in subchapter III.II., wellbeing has many forms, one of which is psychological wellbeing (Diener et al., 1999). The author agrees with Ryff (1989) who in his milestone contribution explicates that purpose and meaning in life are crucial ingredients to wellbeing, which in the Digital Age is even more true than in the past (cp. Schumpeter, 2015; Vesty, 2016; Harteis, 2017). However, while Ryff (1989) therefore chooses to focus on eudaimonia rather than on hedonia, there may be value in focusing on both of them together. While there is a theoretical distinction between these two approaches to conceptualizing wellbeing, their distinctiveness has not been demonstrated in an empirical sense (Disabato et al., 2016). To the contrary, there is a strong case for considering both concepts as major dimensions of a broad wellbeing construct, as Ryff (1989) himself implies by recognizing common patterns across conceptualizations of psychological wellbeing. In their recent work, Wiklund et al. (2019) are supporting precisely this argument and encourage scholars to marry both streams as the two “core dimensions” in a broad wellbeing construct based on their “differential patterns of correlations with both socio-demographic and psychological factors” (Wiklund et al., 2019, p.581). In accordance with their view, this study will treat eudaimonia and hedonia as parts of one construct. More precisely, this study will measure hedonia through the dimensions life satisfaction and positive and negative affect (PANAS), the two most frequently employed concepts in this regard (Disabato et al., 2016), and eudaimonia through meaningfulness and thriving which are at the heart of the scales developed by Ryff (1989). All four measures are described in the following, while scrutinizing their adherence regarding the discussed indices.

First, this study employs the satisfaction with life scale (SWLS) by Diener et al. (1985) to operationalize life satisfaction. In their paper, they describe an individual’s satisfaction with life as a “hallmark of subjective wellbeing” which outstrips individual qualities such as health or energy (Diener et al., 1985, p.71). They add that, while positive and negative affect represent the emotional-affective aspects of wellbeing, life satisfaction responds to the cognitive-

judgmental aspects (Diener et al., 1985). The SWLS comprises five items all of which were used in Exponential. There were no abnormalities in regard to the basic assumptions for the items and the latent variable at both levels with the exception that several outliers were identified. As the result of further scrutiny, several of the responses were removed because they were deemed to be the result of inaccuracies. Ultimately, this measure of life satisfaction achieved both validity and reliability, with an alpha of .89 at level 1 and .88 at level 2 and an acceptable AVE of .61 and .59 respectively.

Second, to complement the dimension of hedonic wellbeing, the PANAS measure, established by Watson et al. (1988), is used. In actuality, this measure itself comprises two measures, one which assesses positive affect (henceforth PANASa) and one which captures negative affect (henceforth PANASb) which needed to be reversed as high levels of negative affect have negative implications. Both measures encompass ten items. Now, PANASb had a large number of shortcomings: generally high levels of kurtosis with one item out of bounds, too low AVE scores indicating a lack of convergent validity, low item loadings with one below the threshold and very low correlations with the items of the other wellbeing dimensions. Contrarily, all but a few PANASa items rendered adequate values for all indices, whereas those few showed unsatisfactory factor loadings and just-acceptable values for AVE at the between-level. Altogether, the two PANAS dimensions appeared very distinct from one another, with intercorrelations around .3 for both levels. Furthermore, PANASb was the dimension with the lowest loadings on the psychological wellbeing construct, with PANASa having the second highest. Therefore, the decision was taken to continue only with positive affect comprising the five items PANASa1, PANASa2, PANASa4, PANAS a7, and PANASa8. This five-item measure had good indices in all regards, with alphas of .89 and .90 and adequate AVE values.

Third, moving towards eudaimonia as the second dimension of psychological wellbeing, for thriving this study used the well-established measure by Porath et al. (2012). This measure comprises two dimensions: learning latent factor (henceforth learning) and vitality latent factor (henceforth vitality) which were first considered separately. Unfortunately, whereas all other indices were acceptable, all items of vitality without exception showed extremely low factor loadings at the between-level which is why it was decided to drop this dimension of thriving altogether. Contrarily, for learning all items but number 5 showed strong loadings at both levels. Thus, thriving in this study relies on the items 1, 2, 3, 4 of the dimension learning.

Ultimately, this four-item-measure of thriving had validity and reliability indices well beyond the benchmarks, with an alpha of .92 for the two levels.

Fourth and finally, the dimension of eudaimonia, and by the same token the measure of psychological wellbeing, is complemented by meaningfulness. In this study the measure from May et al. (2004) is used, comprising 6 items. While none of the items raised any red flags regarding skew and kurtosis, their respective values were generally rather high. All other indices rendered strong results and the overall measure had alpha-values of .92 and .93 for the respective levels.

On the whole, all four components of the psychological wellbeing construct had strong loadings on that second-order latent variable. Possibly because the combination of hedonia and eudaimonia is rather a novelty, I am not aware of any other study using precisely this composition of measures to capture psychological wellbeing and, therefore, a multilevel exploratory factor analysis (MEFA)³ was employed. Its findings confirmed that the construct's observed factors split accurately along the lines of the four underlying measures with generally more-than-satisfactory loadings.

IV.III.III. Employee Performance

Performance measures are the key to appraising the work of employees in any market or industry. Yet, doing so in a coherent manner is a trying endeavor (Wilkinson et al., 2019). In fact, Wilkinson et al. (2019) assert that three conditions determine the simplicity of evaluating performance: the presence of physical work outputs, the complexity of the work and, finally, the separability of individual contributions to it, which are all generally unfavorable in the context of knowledge work. Yet, several good measures have been formulated and this study uses the long-established measure of employee performance by Tsui et al. (1997), a measure of task performance, not contextual performance (cp. Borman and Motowidlo, 1993). Now, in general terms all discussed indices showed good to very good results. Regarding validity, all loadings were above the .3 threshold for both levels, all by far with a high consistency. There were no further peculiarities.

³ Based on Huang and Cornell (2016) geomin rotation (oblique) was used

IV.III.IV. Control Variables and Descriptive Statistics

The study also comprises several control variables which are added to the MSEM models to make sure that all factors are included that influence the relationships between the variables of the model. Age is an obvious suspect. For instance, it is not inconceivable that people of a higher age generally show different levels of wellbeing than those who are younger and, at the same time, that their performance levels may be disparate as well as, naturally, the productivity of employees may tend to decline as their generation matures and ultimately approaches retirement. Now, age was added to the model without modification as its distribution was within normal standards, as were all other indices.

Gender is another variable that is frequently accounted for by scholars as a control. As an example of how gender may influence this thesis' equations, there may be different views between men and women when it comes to the appraisal of leadership and how it pertains to wellbeing. The gender control in this study is a dummy variable (0 for men, 1 for women), no adjustments were made. Furthermore, as Table 3 at the head of this methodology chapter describes, there are some apparent differences between the organizations that make up the sample, regarding for instance the ratio of employees across the hierarchical levels. Merely the size of the organization in terms of the number of employees may imaginably have a profound impact on the analysis. Therefore, nine dummy variables were created for the ten organizations and added to the MSEM.

Finally, subchapter III.I. has highlighted the variability across leadership styles. It is plausible that other leadership styles may impact the relationship between responsible leadership, wellbeing, and performance. Therefore, two frequently employed leadership styles were added as further controls: leader-member-exchange (LMX) and servant leadership. LMX, on the one hand, rests much less on an ideological understanding of a manager as a responsible leader or servant but centers on the quality and frequency of leader-employee interactions (Northouse, 2013). In this work, LMX is operationalized through the widely-respected measure by Graen and Uhl-Bien (1995) which has 7 items that are evaluated on a 5-point-Liker-Scale, the only such scale employed in this study (Northouse, 2013). Regarding the statistical analysis of the measure, all indices were well within established bounds. Servant leadership, on the other hand, is, like responsible leadership, an ethically good leadership style which is frequently named among the most prominent such approaches to conceptualizing leadership (Voegtlin et al.,

2012; Bohl, 2019). In this study, the measure developed by Ehrhart (2004) finds utilization which is composed of 14 items. However, of those only 8 items were included: the items with the number 2, 3, 4, 5, 6, 9, 10, and 12. All other items showed strongly deviant loadings, or loadings below .3, an issue particularly pronounced at level 2, whereas item no. 1 was dropped to negate its disproportionally strong effect on the overall model fit.

The alpha values for all employed latent variables are reported in Table 4 with all measures easily passing the respective threshold, meaning all measures are sufficiently reliable. Table 4 further provides the descriptive statistics for all latents. Generally, the observation that the 2nd level standard deviations and variances undercut the respective values at the 1st level for each measure by a rather large margin needs to be attributed to the loss of statistical power at the level of groups due to individual non-responses across those measures and their dimensions surveyed.

Table 4: Descriptive Statistics (addition of ‘ag’ signifies that the variable is at the 2nd level)

	Mean	Std Deviation	Variance	Reliability (alpha)
Leadership	4.39	0.95	0.91	0.86
agLeadership	4.38	0.65	0.42	0.86
Wellbeing	4.94	0.76	0.58	0.92
agWellbeing	4.93	0.46	0.21	0.90
Performance	4.99	1.17	1.37	0.92
agPerformance	5.00	0.86	0.73	0.94
LMX	3.83	0.77	0.60	0.89
agLMX	3.84	0.52	0.27	0.92
SL	5.06	1.11	1.24	0.91
agSL	5.07	0.78	0.62	0.94

Regarding the entire MCFA model, Table 5 shows the correlations that were observed across all variables, including the control variables. All hypothesized relationships are hereby supported with significant correlation coefficients, an important point of departure for the analyses of this study. Furthermore, it appears that Organization 1 is somehow distinct from the others, highlighting the importance of the choice to include the organization dummy variables.

In respect to the overall model fit, Figure 7 provides all four above discussed indices with the mentioned benchmarks. First and foremost, regarding the CFI the model met the key .9 cutoff-value while falling short of the .95 threshold, by a substantial margin. Both RMSEA and SRMR

rendered adequate values, with SRMR at the between-level markedly raised. Regarding RMSEA, also the upper and lower bounds of the 90% confidence interval were well within established limits (.043 and .046). Furthermore, χ^2 was rather large and had a significant p-value (0.000) which indicates that there is a substantial error in the model. However, as Mair (2018) recognizes, this is not uncommon and, considered in isolation, does not merit to discard the model itself (e.g. Heck and Thomas, 2015, p.148).

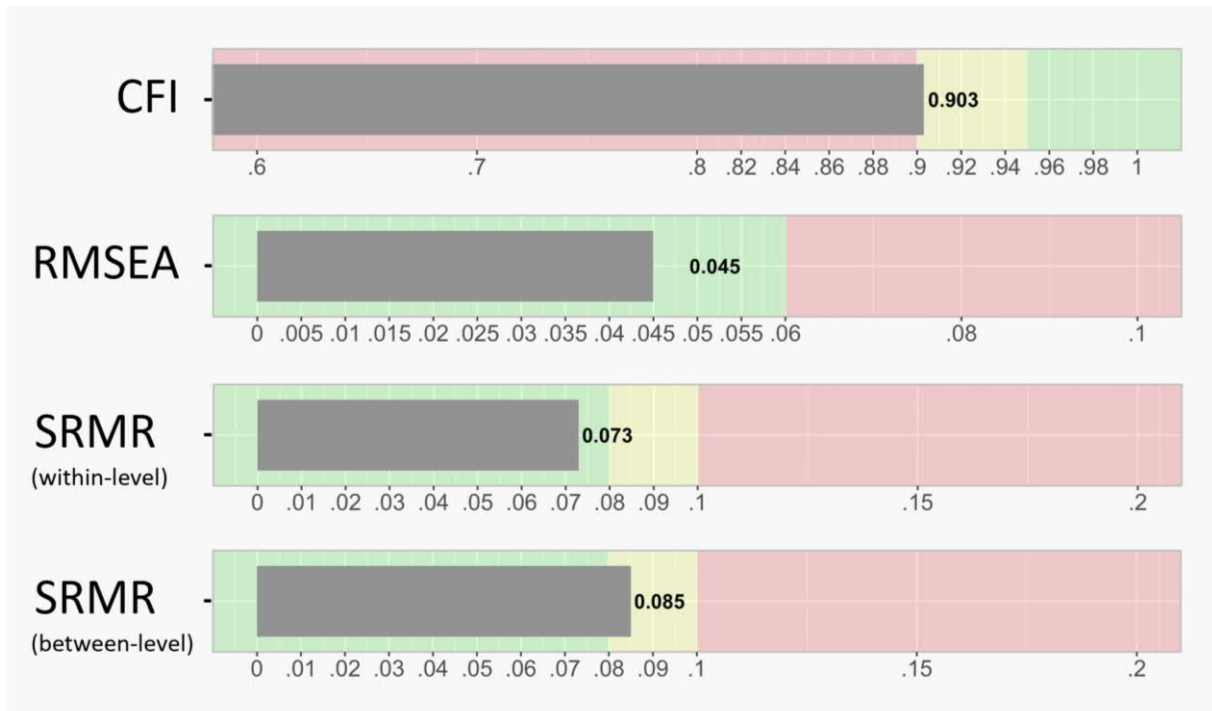


Figure 7: Model Fit Indices Compared to their Respective Cutoff-Values

While one would be remiss to simply dismiss the noted imperfections in the model fit indices, Heck and Thomas (2015) clearly state that there are strong variations between different models and what fit indices may be acceptable.

Table 5: Correlation Coefficients (level 1 above & level 2 below)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Leadership															
2. Wellbeing	0.33**														
3. Performance	0.14*	0.22**													
4. LMX	0.57**	0.33**	0.21**												
5. SL	0.64**	0.29**	0.15**	0.75**											
6. Age	-0.07	-0.02	-0.16**	-0.07	-0.10*										
7. Gender	-0.10*	-0.08	0.01	-0.10*	-0.12*	-0.06									
8. Organization_1	-0.08	-0.03	-0.16**	-0.13**	-0.12	0.30**	-0.07								
9. Organization_2	0.01	-0.06	-0.01	-0.00	0.05	0.04	-0.10*	-0.15**							
10. Organization_3	-0.10*	-0.03	-0.01	-0.08	-0.11*	0.00	0.13**	-0.16**	-0.07						
11. Organization_4	-0.02	-0.07	0.06	-0.01	0.02	-0.03	0.00	-0.15**	-0.07	-0.07					
12. Organization_5	-0.12*	-0.04	-0.08	-0.05	-0.10*	0.01	0.16**	-0.12**	-0.05	-0.05	-0.05				
13. Organization_6	0.13*	0.10	0.10*	0.14**	0.14**	-0.40**	-0.01	-0.23**	-0.10*	-0.10*	-0.10*	-0.08			
14. Organization_7	0.19**	-0.01	0.13**	0.18**	0.18**	0.01	0.05	-0.24**	-0.11*	-0.11*	-0.11*	-0.08	-0.16**		
15. Organization_8	-0.01	-0.03	-0.11*	-0.02	-0.01	0.03	-0.07	-0.14**	-0.06	-0.06	-0.06	-0.05	-0.09*	-0.10*	
16. Organization_9	-0.20**	0.11*	0.05	-0.14**	-0.24**	0.10*	0.15**	-0.13**	-0.06	-0.06	-0.06	-0.05	-0.09	-0.09*	-0.05
1. Leadership															
2. Wellbeing	0.35*														
3. Performance	0.27*	0.25*													
4. LMX	0.54**	0.44**	0.26**												
5. SL	0.57**	0.36**	0.25**	0.69**											
6. Age	-0.15	-0.03	-0.10	-0.18*	-0.21**										
7. Gender	-0.01	-0.06	-0.03	0.01	-0.05	-0.05									
8. Organization_1	-0.13	-0.02	-0.15	-0.18	-0.17*	0.37**	0.01								
9. Organization_2	-0.05	-0.02	-0.03	-0.07	-0.02	0.08	-0.13	-0.13							
10. Organization_3	-0.05	0.11	-0.02	-0.01	-0.09	0.03	0.12	-0.12	-0.07						
11. Organization_4	-0.14	-0.24*	-0.13	-0.16*	-0.13	0.03	-0.12	-0.15	-0.09	-0.08					
12. Organization_5	-0.12	-0.05	-0.14	-0.09	-0.10	0.14	0.21**	-0.10	-0.06	-0.05	-0.07				
13. Organization_6	0.12	0.06	0.17*	0.13	0.20*	-0.60**	-0.04	-0.22**	-0.13	-0.11	-0.15	-0.10			
14. Organization_7	0.39**	0.05	0.26**	0.37**	0.32**	0.06	0.11	-0.22**	-0.13	-0.12	-0.15	-0.10	-0.22**		
15. Organization_8	-0.09	-0.01	-0.07	-0.10	-0.08	0.02	-0.03	-0.11	-0.06	-0.06	-0.08	-0.05	-0.11	-0.11	
16. Organization_9	-0.29*	0.15	-0.01	-0.19*	-0.31**	0.07	0.17*	-0.10	-0.06	-0.05	-0.07	-0.04	-0.10	-0.10	-0.05

* = p < 0.05, ** = p < 0.01

V. Results

As part of its review of literature, this thesis had scrutinized pertinent scholarly contributions and their affirmations regarding how businesses can best support their employees amid challenging times, to optimize results. Based on these efforts and the designation of responsible leadership as HR bundle, the following two questions were embarked on in the further course of chapter two, which constitute the backdrop of the thesis: “How does responsible leadership relate to both psychological wellbeing and employee performance?” and “How does psychological wellbeing relate to employee performance?”. Based on the insights gained, the subsequent third chapter then formulated the four hypotheses that seek to answer these queries. After the preceding chapter detailed the methodology the thesis relies upon, I in this chapter now turn towards examining the truth content of these hypotheses. To that end, it will deploy two Multilevel Structural Equation Models whose relevance in general terms has been documented above.

This part will first detail the models employed and will then move on to discuss the results achieved in regard to the hypotheses. In the following, further important observations are noted.

V.I. Multilevel Models

At their heart, the formulated hypotheses center around the existence of a mediated relationship, with responsible leadership as the independent variable, psychological wellbeing as the mediator, and employee performance as the dependent variable. This mediated relationship has been clearly spelled out in hypothesis H4, which expects the occurrence of a full mediation. For decades it has been scholarly practice to investigate mediation via the 3-steps-approach which achieved prominence through the work of Baron and Kenny (1986): a mediation occurs when and if the independent variable (predictor) significantly influences the mediator and the mediator, in turn, significantly influences the dependent variable (outcome). Regarding the connection between predictor and outcome, Baron and Kenny (1986, p.1176) write that once the mediator is included into the model “a previously significant relation between the independent and dependent variables is no longer significant”. According to them, full mediation is achieved if the effect size between the two is equal to or approaching zero (ibid.).

Now, while the necessity of the diminishing of the total effect concerning the relationship between predictor and outcome has been widely contested and, as a result, been discounted, the 3-step-approach is still commonly applied as it lays a sound foundation for the examination of the nature of the relationships across the predictor, mediator(s), and outcomes (Hayes, 2018). I in this thesis conform with this approach to analysis by first investigating the total effect between predictor and outcome with a direct MSEM model. Subsequently, a MSEM mediation model is employed, to test the mediating effect. This mediation model allows for an examination of the relationship between predictor, mediator and outcome at both the 1st and 2nd level. By investigating the relationships at both levels, the mediation model facilitates an analysis of how the relationships differ when it comes to leadership at the group-level versus leadership as experienced by each individual, and the resulting effects regarding group wellbeing and performance, versus individual wellbeing and performance. In the following, both models are specified in *lavaan*-syntax, whereas the prefixion of ‘ag’ denotes 2nd level variables.

Direct Effect Model:

level: 1

$$\text{Performance} \sim R_Leadership + LMX + S_Leadership + Age + Gender_dummy + \text{Organization_1} + \text{Organization_2} + \text{Organization_3} + \text{Organization_4} + \text{Organization_5} + \text{Organization_6} + \text{Organization_7} + \text{Organization_8} + \text{Organization_9}$$

level: 2

$$\text{agPerformance} \sim \text{agR_Leadership} + \text{agLMX} + \text{agS_Leadership} + \text{Organization_1} + \text{Organization_2} + \text{Organization_3} + \text{Organization_4} + \text{Organization_5} + \text{Organization_6} + \text{Organization_7} + \text{Organization_8} + \text{Organization_9}$$

Mediation Model:

level: 1

$$\begin{aligned} \text{Performance} &\sim e*\text{Wellbeing} + f*R_Leadership + LMX + S_Leadership + Age + \text{Gender_dummy} + \text{Organization_1} + \text{Organization_2} + \text{Organization_3} + \text{Organization_4} + \text{Organization_5} + \text{Organization_6} + \text{Organization_7} + \text{Organization_8} + \text{Organization_9} \\ \text{Wellbeing} &\sim g*R_Leadership + LMX + S_Leadership + Age + \text{Gender_dummy} + \text{Organization_1} + \text{Organization_2} + \text{Organization_3} + \text{Organization_4} + \text{Organization_5} + \text{Organization_6} + \text{Organization_7} + \text{Organization_8} + \text{Organization_9} \end{aligned}$$

level: 2

$$\text{agPerformance} \sim a*\text{agWellbeing} + c*\text{agR_Leadership} + \text{agLMX} + \text{agS_Leadership} + \text{Organization_1} + \text{Organization_2} + \text{Organization_3} + \text{Organization_4} + \text{Organization_5} + \text{Organization_6} + \text{Organization_7} + \text{Organization_8} + \text{Organization_9}$$

$$agWellbeing \sim b*agR_Leadership + agLMX + agS_Leadership + Organization_1 + Organization_2 + Organization_3 + Organization_4 + Organization_5 + Organization_6 + Organization_7 + Organization_8 + Organization_9$$

effects:

$$eg := e*g$$

$$total\ within := eg*f$$

$$ab := a*b$$

$$total\ between := ab*c$$

$$path := a*e$$

Now, the two models are saturated models, meaning they have zero degrees of freedom. Therefore, the fit of the models is naturally perfect and no meaningful indices can be derived. However, in spite of this circumstance, the derived regression coefficients from such models can be meaningful and there are precedents of SEM-studies that rely upon saturated models to test hypotheses (e.g. Darr and Johns, 2008). Hox and Bechger (1998, p.8) ascertain that the mere condition of a saturated model fitting the data perfectly by design, with no constraints imposed, “does not necessarily make it useless”, whereby employing their own analysis based on a saturated model. Bollen and Pearl (2013, p.307) argue in a similar way professing that “this ability to quantify effects is available even in a saturated model”. In the case of models with latent variables, the lack of fit indices can be remedied by focusing on the fit of the measurement model as this work undertook by means of the MCFA model (Boker et al., 2004).

Table 6: Information to the two Employed MSEM Models

	Direct Effect Model	Mediation Model
<i>Model-fit</i>	Saturated model	Saturated model
<i>Estimator</i>	Maximum Likelihood	Maximum Likelihood
<i>Missing Values</i>	Full-Information Maximum Likelihood (FIML)	Full-Information Maximum Likelihood (FIML)
<i>Number of Observations</i>	571	494
<i>Number of Clusters</i>	179	172

Table 6 gives an overview of the models, whereas the two are broadly similar, using the same estimation technique and treatment of missing values, with only little deviance in regard to the number of observations and clusters. Like with the MCFA, the number of clusters was more than adequate (Preacher et al., 2010).

V.II. Hypothesis Testing

After the multilevel models and their characteristics have been introduced, this subchapter will report their results and if they confirm the hypotheses formulated in the next-to-last chapter. H1 (positive effect of leadership on wellbeing), H2 (positive effect of leadership on performance) and H3 (positive influence of wellbeing on performance) are all one-tailed and, according to widespread scholastic practice, therefore commensurate with the utilization of a .10 significance level (Heck and Thomas, 2015). However, many scholars adhere to a p-value of .05 as significance-threshold, even in the event that their hypotheses are one-tailed (ibid.). This study takes the same approach, whereas it differentiates between significance levels of .01 and below (highly significant), and between .05 and .01 (significant).

First and foremost, Figure 8 visualizes the results of the model estimating the direct link between responsible leadership and employee performance. Rather surprisingly, the total effect is insignificant at both levels.

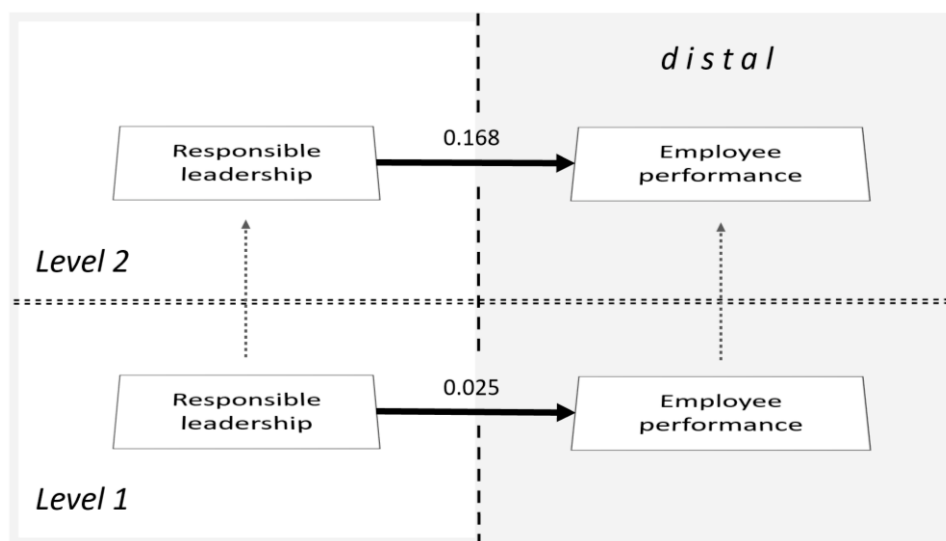


Figure 8: Coefficients for the Direct Model – * = $p < 0.05$, ** = $p < 0.01$

Therefore, H2 is false and needs to be discarded. It should be noted, however, that the effect size differs strongly when comparing the 1st to the 2nd level: at level 1 it approaches zero, whereas at level 2 the total effect is considerable, albeit with a still high p-value of .168. Interestingly, LMX is highly significant at level 1 (p-value = .000), while servant leadership is not. Instead, at level 2, both servant leadership and LMX are insignificant with responsible leadership achieving the lowest p-value by far (LMX: p-value = .420, servant leadership: p-

value = .808). It thus appears that there is a strong disparity between the 1st and 2nd level, the detection of which being one of the key arguments for employing multilevel models in this context (Heck and Thomas, 2015).

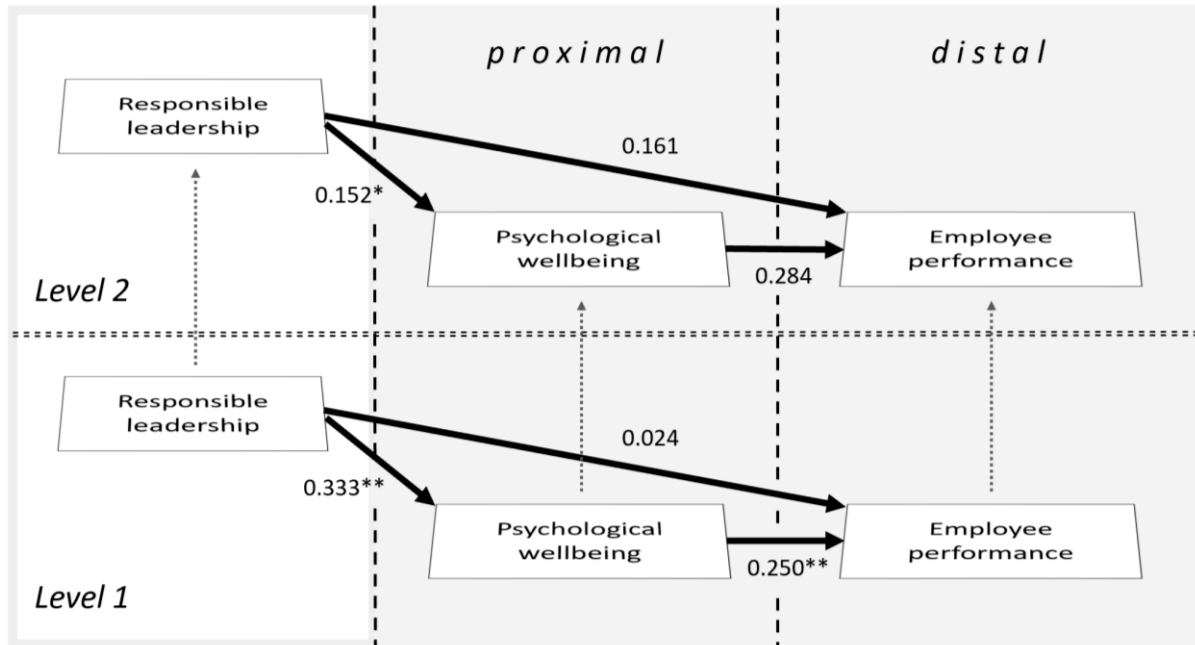


Figure 9: Coefficients for the Mediation Model – * = $p < 0.05$, ** = $p < 0.01$

Second, Figure 9 visualizes the results of the mediation model. It is apparent that the link between responsible leadership and wellbeing is strong, ranging from highly significant at level 1 (p -value = .000) to significant at level 2 (p -value = .012). Meanwhile, the link between wellbeing and performance is only significant at level 1, whereas it is rather close to the significance-threshold at level 2 (p -value = .069). Referring to Figure 6 and the latter sub-chapter of chapter three, it is important to note that the key focus of this thesis is on the connection between wellbeing and performance at level 1, as both are inherently located at that level.

Clearly, the findings of the mediation model confirm both H1 and H3, whereas the assumption of full mediation made in H4 cannot be verified beyond reasonable doubt. That is because, while the total effect between responsible leadership and employee performance is non-significant at both levels, the effect size at the 2nd level is with .161 much above zero. Therefore, in accordance with Baron and Kenny (1986), the mediation model does not furnish proof of full mediation and the existence of other mediating variables suggests itself. The presence of full mediation would be difficult to establish in any event, given that the direct model did not

establish a significant total effect at either level in the first place. Regarding the other two leadership control variables, the observation of the direct model, concerning their link with performance, is mirrored in this model: LMX has a strong link with performance (p-value = .035) at the 1st level which turns insignificant at the 2nd level (p-value = .914). Servant leadership, instead, is very far from achieving significance at level 1 (p-value = .316), a circumstance that is even more pronounced at level 2 (p-value = .890). Now, turning towards the link between the leadership control variables and wellbeing, both coefficients are insignificant at the 1st level (p-values: LMX: 0.084, servant leadership: 0.287). Servant leadership remains insignificant also at the 2nd level, whereas LMX is insignificant, too, albeit by an even smaller margin than at level 1 with a p-value of .070. It is imaginable that the influence of LMX upon wellbeing may be significant, given a larger sample or a higher number of clusters.

The implications of the entirety of this sub-chapter's results will be scrutinized in detail in the discussion part, chapter VI., of this thesis. To highlight its overall result, this sub-chapter refuted H2 and confirmed H1 and H3, whereas equally refuting the assumption of a full mediation made in H4. With that, the documented results strongly corroborate the mainstay assumption of this thesis that leadership affects performance through wellbeing. In fact, an increase in responsible leadership by one unit translates into increased wellbeing by about 15% at level 2, which in turn translates into increased performance by $\frac{1}{4}$ at the individual level. The significance of this mediated relationship is corroborated by the combined effect size of the links between responsible leadership and wellbeing at level 2, and wellbeing and performance at level 1 which has a p-value of .045.

V.III. Further Observations

Now, while the leadership control variables LMX and servant leadership were already compared to the effect sizes of responsible leadership in the previous sub-chapter, there are two further observations which merit mentioning: first, there is a notable incongruity concerning the number of cases which the coefficients rely upon. For instance, at the first level the number of cases which hold information for both leadership and performance is at 625, and 535 for wellbeing and performance. These numbers may be put into contrast with the cases that hold information for leadership and wellbeing which is at 1049. Clearly, this circumstance is

due to the fact that, of 1790 employees, only 987 have complete performance data, whereas this number for wellbeing is at 1094 and for leadership at 1404. As a result, the achievement of significance especially for the relationships between wellbeing and performance was impeded. One needs to view the achieved p-values for the links between wellbeing and performance, and also between leadership and performance, before that background.

The second observation relates to the results for the other control variables: gender does not have a significant relationship with any variable, in any model. Regarding age, the relationship with performance is significant in both the direct and the mediation model (p-values = .001 and .026), with a negative estimate, meaning that performance declines with rising age. No significance was found regarding the link to wellbeing. Finally, regarding the dummy variables for the organizations, only organization 7 has a significant relationship with performance, only at level 2 and for both models. In this case, the coefficient is positive which means that this organization is characterized by higher performance levels. Regarding the link to wellbeing in the mediation model, organization 9 unfolds significant influence at both levels (p-value at both levels: .000), with a positive coefficient indicating that wellbeing levels in that organization are higher than in the others included in the sample.

VI. Discussion

After the literature review had set apart the three concepts to test the thesis' underlying premise, I in the subsequent chapter three examined various studies to describe the established relationships and agreements as well as disagreements among scholars in respect to each single concept. Based on these observations, the thesis' four hypotheses were formulated, linking responsible leadership as explanatory variable to psychological wellbeing and employee performance and drawing a connection between the two outcomes, whereas proposing wellbeing as an antecedent to performance and, in effect, the mediator of the link between leadership and performance. Chapter four, then, described how the hypotheses would be tested empirically to achieve the thesis' objective. This included an account on each employed measure, including the control variables. Ultimately, the preceding chapter, chapter five, employed two multilevel models to test the formulated hypotheses, arriving at the overall conclusion that the thesis' premise is accurate and that appropriate policies to support employees in adapting to the challenges posed by Digitalization can be expected to increase employee welfare and, by the same token, improve company performance levels.

My sixth chapter will now provide a more in-depth account regarding the achieved results, making inferences where they offer themselves and connecting the findings to the ongoing scholarly discourse. First, the focus shall be on the studies presented as part of the development of the thesis' hypotheses before, second, scrutiny falls on the connection between the results and the scholarly discussions evidenced in the review of literature.

VI.I. Indication for the Leadership, Wellbeing and Performance Link

VI.I.I. Direct Model

As the first sub-chapter of chapter three documented, there are plenty of unknowns regarding responsible leadership and its outcomes. Up to date only a small number of empirical studies have included responsible leadership operationalizations as predictors which is why leadership styles in general were scrutinized instead, giving valuable indications. Now, given that the control variables LMX and servant leadership, too, are leadership styles, they will also be included in the present discussion of findings. First and foremost, contrary to Hypothesis 2 the

influence of responsible leadership on employee performance was shown to be insignificant in the direct model, at both levels. While this result does not necessarily present a detriment to the overall assumption of a mediated relationship between responsible leadership, wellbeing and performance (cp. Hayes, 2018), it nonetheless raises concerns. That is because this result contradicts the general expectation voiced by multiple scholars that leadership influences performance and, more specifically, that responsible leadership does so too. Thus, it is important to contemplate why this connection is insignificant, whereas only two possible answers present themselves: either the variance in responsible leadership quite simply explains only a negligible and inconsiderable portion of the variance in performance and the two variables are therefore not causally linked or one or more of the other variables in the model obscures an otherwise significant nexus. While any one control variable may exert such a confounding influence, the controls LMX and servant leadership are most likely to do so since they are naturally closely related to responsible leadership, being fellow leadership styles, and, at the same time, because they both have been associated with performance measures (cp. Chiniara and Bentein, 2018). While the link is insignificant at the second level, LMX has a highly significant influence on performance at level 1, whereas both coefficients are insignificant for servant leadership. Therefore, it is possible that LMX confounds the effect of responsible leadership on performance at level 1, in fact acting as a mediator (Hayes, 2018). This is imaginable as LMX, as its name tells us, is solely interested in the quantity and quality of leader-member interactions. Such interactions are of course at the heart of responsible leadership and a key avenue through which it is expected to influence performance. In fact, the correlation between the two at level 1 and level 2 is strong (.57 and .54) and highly significant, as displayed in Table 5. Furthermore, given that in the mediation model the link between responsible leadership and performance, as mediated by wellbeing, is highly significant at level 1, it stands to argue that the absence of a significant total effect in the direct model is likely due to confounding factors. There is, of course, a simple way to furnish a definitive proof of this circumstance: to test the link between responsible leadership and performance in the absence of the controls LMX and servant leadership. The respective model reveals that responsible leadership is indeed significantly linked to performance (level 1 p-value: .004, level 2 p-value .012). The certainty that an underlying significant relationship exists is important, as is the supposition that LMX may be a mediator of that relationship, making the link appear insignificant in this study's direct model. This supposition presents a valuable addition to the scholarly discourse as no prior studies examining such a connection could be unearthed.

Now, none of the leadership styles achieves significance in its relationship to performance at level 2 which raises three questions: why is it the case that responsible leadership does not have a significant effect upon performance at that level? Why is the same true for LMX which had such a strong link at level 1? Lastly, why is the supposed mediating role of LMX between responsible leadership and performance at level 1 absent at level 2, or is it at that? As stated above, the responsible leadership-performance link is significant in a direct model without the leadership controls, including at level 2. However, the pattern according to which the link is obscured at this level appears to be more complex. Certainly, also in this case there must be a confounding effect of either LMX, servant leadership, or both. Yet, given level 1 of the main direct model, the supposition is on LMX being a confounder at the 2nd level as well. While the p-value of the relationship between LMX and performance at level 2 is high, it may in part be due to the rather high standard error. Generally, the fact of the link between LMX and performance being insignificant does not dispel the presence of a confounding effect of LMX as the mediating paths a and b do not both have to be significant, as long as the overall path is (Hayes, 2018, p.116). Rucker et al. (2011, p.360-361) affirm this notion stating that “the effect of the independent variable on the mediator is represented by a, and the effect of the mediator on the dependent variable [...] is represented by b [...]. The indirect effect is the product a x b”. Therefore, a mediating effect may occur as long as the product of a and b is significant which means that LMX may well be a mediator for the relationship between responsible leadership and performance also at level 2 of the direct model.

As it stands, based on the direct model this thesis is not in a position to offer an unequivocal confutation of the concerns raised by Orlitzky (2011) in the above sub-chapter III.I. regarding a certain obscurity of scholarly research when it comes to linking socially desirable organizational practices, such as responsible leadership, to performance measures. The absence of unanimity in this core branch of SHRM literature directly relates to the fundamental theoretical concerns raised by Kaufman (2010) a decade ago. He in his work laments the theoretical incongruity of related research in the post-Huselid era evidencing fundamental errors of specification and branding SHRM theory as a “normatively driven theory oriented toward a commitment/internal labor market type of employment model [that] underemphasizes external environmental contingencies [and] profit considerations” (Kaufman, 2010, p.308). This critique may serve to explain the divergent results of studies linking HR practices with measures of organizational performance, as encountered in this study. Certainly, contingencies may be an important factor in explaining why identical or similar organizational practices

achieve differing outcomes. Yet, in my review of relevant scholarly writings I was unable to find much specification regarding the nature of contingencies and what aspects precisely determine the success of HR practices across companies and industries. Indeed, the most theoretically coherent system I came across was authored before the turn of the millennium by Delery and Doty (1996) who distinguish between perspectives that are either Universalistic, Contingency-focused, or Configurational. While they found evidence for each perspective and were able to give examples, few scholars have since then endeavored to provide further evidence on the presence and relevance of contingencies, let alone providing a practical toolbox to bring such diverse variables of the organizational context as culture, leadership, performance, appraisal, training, promotion etc. into alignment. It is my view that scholars should research more concepts in conjunction, in order to produce models of contingencies. Multilevel Structural Equation Models, as employed in this thesis, are very suitable to this end and should be utilized much more frequently by SHRM researchers.

VI.I.II. Mediation Model

After the findings of the direct model have been thoroughly discussed, it follows to discern meaning from the results of the mediation model. As was observed above, Hypothesis 1 has been supported. The broader results, however, do little to further strengthen the link between leadership styles and employee affect in general, or employee wellbeing in particular. Indeed, both LMX and servant leadership fail to achieve significant effect sizes at either level 1 or level 2. These findings emulate the calls for caution from several scholars stated in the hypothesis development chapter when it comes to making broad conclusions regarding the nexus between leadership and employee wellbeing. For instance, the findings echo those of Stordeur et al. (2001) and others who were unable to construct a link between transformational leadership and wellbeing. While it may be entirely possible that here, too, confounding factors, potentially responsible leadership, may be at play, it is equally possible that this link is not as impeccable as many scholars believe it to be. In particular the opinion of Berger et al. (2019) appears of interest, regarding the possibility that the leadership-wellbeing link may be contingent upon other factors. As a side note, the continuing criticism from some quarters that this link is lacking a theoretical foundation seems, however, to be undue. Indeed, the respective text above highlighted no less than five separate pathways that have, one and all, been thoroughly vetted. It is imaginable, that it is because of the combined effect of those pathways that responsible

leadership in this model unfolds such a powerful effect upon employee wellbeing, with a p-value of .000 at level 1 and of .012 at level 2. Before the background of those results, it appears that the proponents of responsible leadership who argue its importance on moral grounds promulgate a cogent argument. The following text will ascertain whether the argument of their peers, who lay particular weight on the adjacent link to performance, is similarly convincing.

First and foremost, the link between psychological wellbeing and performance is only significant at the individual level, with a very low p-value of .001. At level 2, the group-level, the p-value is at .069 and thus slightly above the .05 benchmark that determines significance. Therefore, we can accept Hypothesis 3, but only for the individual level, indicating in general terms that if an employee's wellbeing increases then so too will his or her performance, an equation that is no longer true at the group-level. The question stands why the effect of wellbeing on performance does not compare for the two levels, whereas there are three possible causes. The first may be of a statistical nature: as pointed out earlier, the amount of missing values was considerable, especially so for the wellbeing and performance measures. That is why at level 2 several clusters could not be included due to missing values from either variable, with a resulting loss of statistical power at that level which has important connotations (cp. Christ et al., 2017). Second, it is critical to point out that the size of the effect wellbeing has on performance is similar for both levels, in fact even higher at level 2 (level 1: .250, level 2: .284). The circumstance that the p-value was nonetheless insufficient to achieving significance at level 2 may hereby also be attributed to a higher standard deviation for which two distinct reasons are conceivable: on the one hand, the influences other factors of the model unfold at each level on the wellbeing-performance nexus may be disparate and confounding effects that are minuscule or altogether absent at level 1 may be much more potent at level 2. In this particular context, it is probable that the effects of the leadership control measures differ between the two levels. On the other hand, there may be variables at the group-level not present in the model which have a major impact on how wellbeing and performance interact. Both of these eventualities may certainly co-occur. Third and last, it may of course be the case that the relationship in question is insignificant in actuality and that even with more clusters or the exclusion and inclusion of factors no p-value below .05 may be achieved.

While the absence of the mediation effect at level 2 is noteworthy, it does not in any way derogate the study's main achievement regarding the confirmation of that very effect for level 1 as hypothesized. Because responsible leadership is inherently located at the group-level, it

was crucial to link it to wellbeing both at level 1 and at level 2, whereas in respect to the wellbeing-performance nexus the focus rested on level 1 as both variables are located within it. In fact, the absence of the mediation effect at level 2 accentuates the importance of an MSEM in highlighting differences across levels, as purported by Day (2014). Having thus concluded the matter regarding Hypothesis 3 it is important to expand on Hypothesis 4 which assumes the presence of full mediation. As stated in the preceding chapter, H4 cannot be accepted: while it is true that path a between responsible leadership and performance is insignificant amid the addition of wellbeing, it has been insignificant already in the direct model. Indeed, given what has been observed in the direct model it is only reasonable to assume that LMX may act as a confounder in the mediation model, too, and at least partially mediates the link between responsible leadership and performance, a circumstance which would obviously contest the assumption of wellbeing acting as a full mediator. Therefore, it is impossible in my view to make a judgement regarding the presence of partial or full mediation.

Now, do SHRM scholars who hold that employee wellbeing is important because it raises performance levels have a point according to this study and does responsible leadership not merely foster wellbeing but also performance? The answer is a resounding ‘yes’ to both queries and thus a ‘yes’ to both research questions formulated in the introduction part of this thesis. The study’s findings corroborate the theory of the happy and productive worker who will reciprocate a genuine focus on his or her welfare, for instance through the institutionalization of responsible leadership, with better performance (cp. Cropanzano and Wright, 1999). It is important to underline that the happy-productive worker theorem is but one explanation of how such organizational practices may raise performance levels and the other theorems mentioned in the hypothesis development section complement the issue of happiness with other aspects such as autonomy (cp. Deci and Ryan, 2008), or demands (cp. Parzefall and Huhtala, 2006). The success of my study in highlighting the role of employee welfare in a firm’s performance is considerable, given the use of a novel wellbeing measure that joins a dimension focusing on happiness and affect (hedonia) with one that is rooted in thriving and fulfilment (eudaimonia), based on the recommendation of Wiklund et al. (2019).

Turning towards the wider implications of my study’s results in respect to employees’ psychological wellbeing. While some scholars regard the notion that improving employees’ welfare increases their productivity as almost tautological (e.g. Kauffman, 1996), businesses follow a different pattern: as shown in the discussion around Evidence-based HR as part of

subchapter II.II., any respective corporate investment needs to be corroborated by expected monetary gains as for instance Rousseau and Barends (2011) profess. However, the issue at hand goes far beyond investments: the organizational environment in general and managers in particular continuously shape employee wellbeing. In an article for Forbes (2017) Alan Kohll affirms this statement claiming that “as leaders, managers have the opportunity to build supportive work environments that promote employee health and wellbeing”. To my mind, the issue at its core is, therefore, not about expenses but about institutionalizing a culture of leadership that fosters wellbeing, without the necessity to expend huge sums of money. Responsible leadership presents one such avenue to effecting change that transforms the ways in which managers and employees interact. Such change obviously does not produce success overnight but has a rather long time horizon, which is why it is only implemented by few companies. Yet, studies such as this that succeed in documenting the impact leadership can have upon employee wellbeing, and it in turn upon performance, present an important step in making the case for leadership and cultural change.

I myself am a strong proponent of institutionalizing ethical leadership in organizations because it is characterized by equality. It is a simple matter of fact that most HR departments do not support all employees in equal measure. Focus is put on the most talented, the overperforming A-players, those with valuable skills who do distinguished work. This realization is at the heart of the work by Lepak and Snell (1999, p.45) who purport that “it is important to note that not all employees possess skills that are equally unique and/or valuable to a particular firm”, adding “we anticipate that most firms make significant distinctions in the methods they use”. Certainly, no business person in the right mind would invest in programs to increase the welfare of menial workers who are easily replaceable. In this regard I agree with Kaufman (2010) that HRM scholarship is largely guilty of complicity: when HRM scholars advocate fostering engagement and commitment, they in most cases do so in a knowledge work environment characterized by special skills and knowledge. To my mind, this marks an unfortunate departure from the early days of HRM scholarship more than half a century ago when the productivity gains of union membership of production workers were scrutinized. Before that background, I believe a focusing on leadership to be egalitarian by nature as I doubt that an organization can exist while encompassing divergent leadership cultures under one roof. Indeed, if an organization is serious about institutionalizing responsible leadership, I would expect it to rely on the employees themselves to carry it forth.

Having thus concluded the discussion of the study's two multilevel models, the following sub-chapter with its three sections will now revisit the scholarly discussions scrutinized as part of the review of literature, to evaluate how this study links to the wider context of SHRM scholarship and what contribution it brings to the distinct debates around organizational practices as well as employee welfare and performance.

VI.II. SHRM Research in the Light of this Study

VI.II.I. Organizational Practices in the Digital Age

A recent article by Guerci et al. (2019) has gained much attention across the HRM discipline. In their article, the authors document that HRM has a "relevance problem" highlighting that HRM research is foremost by and for scholars, rather than practitioners (Guerci et al., 2019, p.5). They add that HRM needs to provide practical advice to companies, or rather to the individuals who run them or hold managerial positions within them (Guerci et al., 2019). Yet, over the last decades several scholars have attempted to provide such practical guidance, most eminently Huselid (1995) who holds that High Performance Work Practices may be used to improve various organizational outcomes, if applied properly. Regarding such organizational work practices, this thesis' literature review in sub-chapter II.I. gave an overview of scholarly works discussing the characteristics of practices that may be suitable to support employees in a decisive manner amid the onslaught of Digitalization.

Now, I in this thesis could have made an *ex ante* assumption that good leadership is the most potent tool in supporting employee welfare at times of crises and change. Instead, I elected to embed the prospective organizational practice to be used for this thesis' empirical study within organizational change literature, because change is precisely what Digitalization is all about and thus constitutes its most fitting epitome. Given that Digitalization presents organizations with the prospect of profound continuous change, it is my understanding that it should be a key concern for SHRM scholars and that HR practices will only be fruitful in the long-term if they help employees cope with the associated challenges. That said, it is clear that particular change efforts with a start and end point certainly do exist within the context of that continuous change and demand more specific and tailored policies. Thus, I certainly agree with Balogun and

Hailey (2008) that both continuous change and change as the punctuation of an equilibrium do co-exist.

It is rather unfortunate that the link between organizational change and leadership, although frequently studied, appears obscured. As convincingly elaborated by Hughes (2015), neither do common definitions of leadership exist in respective literature nor comprehensive methodologies that explain in precise terms how leadership facilitates organizational change. Having thoroughly studied the literature, it becomes evident that some scholars merely study the two concepts in conjunction because both revolve around people, their affect and motivation, without building upon a solid theoretical model. Even more obfuscating is the fact that a whole host of different scholarly disciplines are involved in relevant research which all have their very own characteristics, as again shown by Hughes (2015). Because of this circumstance, the present study has opted to connect the two concepts focusing on the organizational change side of the argument, building upon the three main domains of content, context and process. As evidenced, it is the contextual factors where leadership resides.

Leadership itself is a highly complex subject and the review of literature has shed light on its varying conceptualizations and definitions. I in the following would like to expand somewhat on the predicament scholars find themselves in when discussing the subject. First and foremost, Riggio (2011) is certainly correct when he ventures that leadership has experienced a profound change of meaning over the decades. Originally, leadership was understood to be a character trait: the ability to inspire and motivate others to take up a cause, to pursue a certain goal. This understanding was at the center when academics wrote about heroic leaders, whereas history provided many examples, for the good and the bad. Other scholars juxtaposed the idea of an inert capacity to lead with the belief that such leadership capabilities could be taught. Raelin (2004) in his writings for instance views leadership as a skill that can be acquired. However, he goes much further in arguing that the leader-follower dichotomy itself is outdated and that in today's time organizations ought to nourish leadership capabilities in every employee so that there may be only leaders and no followers. That is because, according to him, there is no single purveyor of leadership, whereas instead leadership is interactive, a two-way road. In my opinion, both understandings of leadership were abandoned for comprehensible reasons. The idealization of heroic leadership left scholars little to discuss: if there were indeed such preordained individuals, all what needed to be done was to find them out and to put them in charge where demanded and that would be the end of it. Furthermore, the theorem of

individuals born to lead blatantly disregarded human experience. After all, as science tells us, humans are to a significant portion influenced by their environment, so much so that two children living in the very same family may turn out as different from one another as two randomly selected children (cp. Plomin and Daniels, 2011). With respects to the notion of leadership as a teachable skill, this view has certainly not been repudiated. If that were the case, there would be no leadership seminars today and no entire study courses focusing on the subject. Yet, what has been swept aside is the understanding that leadership is a one-dimensional concept that can be acquired and applied. This was owed to the realization that leadership is a much more fluid, alterable process which requires clear-sightedness, adaptability and flexibility. What is more, the idea that every employee can and should be a leader never gained traction and I did, to be frank, rarely come across it in my study of relevant literature. This does, however, not mean I view it as being without merit. On the contrary, viewing leadership as a collective endeavor appears to increase in relevance to the same extent with which the withdrawal of traditional organizational hierarchies proceeds. Certainly, in agile teams without a formal instructor co-leadership may proof to provide a critical solution.

Turning towards the status quo, there is no doubt that over the recent decades leadership has become an aspect of managerial capabilities, as Riggio (2011) points out. Indeed, according to him the two terms, management and leadership, have become somewhat synonymous: managers need to purvey leadership as part of their job, in order to keep their followers engaged, to optimize performance. To my mind, this view of leadership is at the heart of all prominent leadership styles today: transformational leadership, servant leadership, or responsible leadership and so forth, they all are based on the notion of a manager following a certain pattern when guiding, instructing or motivating his or her subordinates. This approach is without doubt very practical. After all, despite the call for flatter hierarchies and the democratization of organizational structures, most firms have avoided sweeping changes and opted to instead rely on their managers' abilities in leadership, to guide and support their employees amid increasing complexity, to instill a notion of direction and security. Managers have thus been bearing the brunt of the environmental changes pressing in on every organization in every industry as a result of Digitalization. Thus, it is no wonder that leadership has never been more prominent among scholars than since the turn of the millennium.

This is precisely where leadership as an organizational strategy or practice comes into the picture: organizations wish to install new systems that help their employees cope with the

manifold challenges they face and leadership is the most potent medium of all. This circumstance directly relates to the question of HR bundles. Do leadership styles indeed present a coherent set of policies and can those policies in truth be implemented across firms and industries? It is my perception that the review of literature has been clear that bundles are superior to single organizational practices for the various reasons given by scholars like Storey et al. (2019). I further concur with numerous scholars such as Ahmad and Schroeder (2003) that best practice bundles do exist whereas I decidedly agree with Becker and Gerhart (1996) that the best practice and best fit approaches do not necessarily have to be in conflict with each other. Indeed, it makes perfect sense that best practices need to be tailored to the particular organizational ramifications, just like an architect may redeploy a blueprint but then adjusts the number of floors, the staircases or the location of elevators to account for the real estate's idiosyncrasies. This metaphor does much to disarm the argument of Stredwick (2013) that best practice bundles could simply not exist because if they did every firm would implement them and any competitive advantage would thus be lost. It is not the blueprint that counts most but the manner in which it is being implemented. Any football player may know how to do a step-over to blindside an opponent but it is the timing and the execution of it that separates a world-class player from an amateur. That does of course not mean that selecting the right blueprint or practice is a trivial matter, far from it, it is a crucial step and one purpose of this thesis was to outline precisely such organizational practices that lay a solid foundation for organizations to focus on their employees' welfare.

Now, given the complexity and multivalence of the term leadership, it was important to select one particular branch to lay focus on as part of the review of literature. As articulated by the pioneering scholars Burns (1978) and Ciulla (1995), it is manifestly true that any leadership style aiming to further the welfare of employees is ethical at its core. Therefore, I chose to concentrate on those leadership styles that have been assigned the label 'ethical' or 'good'. Before that background, I concur with Voegtlin et al. (2012) that responsible leadership portrays somewhat distinct qualities. First and most importantly, I view it as a comprehensive concept that indeed marries Corporate Social Responsibility with leadership responsibility, as she purports. Furthermore, my perception is in accord with Bohl (2019) in that I perceive responsible leadership as rising beyond the focus on leaders' character which is so prevalent in this branch of leadership literature. In fact, I found the literature around responsible leadership to be rather descriptive and to provide valuable guidance on how responsible leadership may be employed in reality. For those reasons, I contend that it is a suitable bundle of organizational

practices to be implemented across hierarchical levels. Given that statement, I agree with Roumpy and Delery (2019) that care needs to be taken that this bundle does align with all other organizational strategies and policies. Indeed, as made clear in the literature review and reiterated above, I propose an implementation of such a bundle according to the best fit approach, adapting to idiosyncrasies across the organizational structure.

At the end of this section, I would like to further expand on the connection between leadership and Digitalization and how it will likely develop in the coming years. It is without a doubt that leadership will continue to be a crucial factor for the continuous Digitalization of firms. Yet, rather sooner than later, firms will have to implement structural changes, too. It is my opinion that current organizational structures are inadequate in dealing with the enormous and ever-increasing complexity caused by Digitalization, as documented in the introduction to this thesis. Employees at the lower levels of organizational hierarchies will need to be given more responsibilities and, therefore, competencies. They will need to be able to make swift decisions as it is simply too time consuming for such decisions to await escalation and instruction, and because those employees are much more immediately connected to the important stakeholders, the customers above all. Such decisions may concern changes to user interfaces or user experience, or they may relate to online marketing choices. As a result, those lower hierarchical levels will need better education, better pay, and better welfare. I view this development as being in full swing and perceive changes in role descriptions as important indications of it. Increasingly, employees at the bottom end of the hierarchy are referred to as account managers, managers of insight and data, or sales managers and so forth, without having any formal subordinates who would be reporting to them. This occurrence reflects the increasing importance of the roles these employees fulfil. At the same time and for the same reasons, whole work teams function without a superior being in direct control, whereas product owners make sure that organizational standards are adhered to and that the will of the organizational stakeholders prevails. Indeed, the celerity with which agile and self-organizing teams spring up throughout industries and markets is ominous. Still, in this context, too, my above-made proclamation of implementation surpassing the importance of method and blueprint is acutely relevant: it is no secret that many organizations struggle implementing the respective adjustments they have decided to institutionalize.

I am certain that the role of leadership will only become more pronounced amid the progressive reinvention of organizational structures. Beside being responsible for reducing strain,

increasing cohesion and supporting wellbeing, managers as leaders will need to help employees to come to terms with their place in this changing organizational environment. Finally, I expect these developments to fundamentally change the fabric of leadership itself, just like Raelin (2004) envisioned as touched upon above. When employees interact less and less with their superiors because they reach the bulk of decisions themselves and work teams make their deliberations independent from any supervising authority, then the time is ripe to divorce leadership from management with which it has come to be closely associated. Then it is indeed time to perceive leadership as a quality that can be fostered in any employee, to the benefit of the organization. As Raelin (2004) pinpoints, such an evolution of the concept of leadership would require a much more sociological and psychological approach to the whole topic, in order to examine and understand how self-leadership and leadership arise from social interaction and to discern the environmental factors by which it is shaped. While I am convinced that this conversion will take place, time will tell if leadership scholars will take the leap and adjust to the changing reality of organizations.

VI.II.II. Employee Affective Outcomes in the Digital Age

Why is it that most organizational efforts at Digital Transformation do not achieve their expected returns (Forbes, 2018)? In my opinion, it is because firms all too often view Digitalization as a merely technological matter and fail to grasp that employees are instrumental for its success. This is not a new observation and online articles which propagate this precise message abound (cp. Forbes, 2018; Tabrizi et al., 2019; Frankiewicz and Chamorro-Premuzic, 2020). For many decades, SHRM literature has studied the effect of organizational practices on various employee outcomes and how those outcomes in turn impact firm success. Yet, as of today disagreements persist among scholars, as described in subchapter II.II. of the literature review.

In my view, the high-performance paradigm is being rightly criticized for being oversimplistic. Certainly, the argument of Hughes (2008) that supporting employees in varying ways to foster motivation, engagement, wellbeing and other affective constructs will lead to augmented productivity and, therefore, improved financial performance is comprehensible. However, it is simply too generalist. After all, not every affective construct will be influenced by one bundle of organizational practices. Some may be strongly altered, others less so, and yet other

constructs will not be affected at all. Most importantly, as Grant et al. (2007) point out, the effects of bundles may even be of a bi-directional nature, positive in regard to some constructs while negatively related to others. Whereas Grant et al. (2007) helpfully provide a number of examples, one can easily imagine that, for instance, the implementation of an agile culture, whose ascendancy I heralded in the previous section, may on the one hand increase engagement and motivation because it hands employees more responsibilities and competencies whereby offering opportunities for self-actualization. On the other hand, one can hypothesize that it also leads to physical strain because employees who are more engaged may tend to work more and expend more energy. Even more dramatic, higher engagement and motivation may possibly lead to an adverse effect regarding private life as the employee may spend less time at home and, therefore, social relationships with the family or friends are bound to suffer. These developments themselves may impact the mental wellbeing of the worker in question and may, possibly, offset all the gains made through motivation, if not tip the scale altogether. While this is a hypothetical scenario, it aims to epitomize how very easily a consistent set of practices or policies may ultimately lead to disparate outcomes.

Importantly, in line with this argument, organizational practices may not only unfold disparate effects upon affective outcomes but through them also on outcomes relating to productivity and performance. Indeed, while attempting to form a link between a bundle of organizational practices, an affective construct and productivity outcomes, scholars need to also account for other potential avenues through which practices may impact productivity and associated constructs. In mediation studies, scholars as a matter of principle estimate the total effect between practices and the distal productivity measure ascertaining their connection in general terms. In this respect, Jiang et al. (2012b) in their referenced meta-analytic review undeniably show that studies succeed in documenting the significance of the total effect. Yet, does proof of a positive total effect between practices and productivity allay all concerns regarding the existence of adverse effects? Certainly not, and for two different reasons. First, even if the total effect is positive and significant, adverse effects may occur and considerably reduce the effect size of that nexus. Therefore, it is important for HRM scholars to detect them and to investigate remedies. Second, even in the event that the adverse effects only concern the relationship between organizational practices and employee affect, I would argue that it is a moral imperative to document and address them. Herewith I am touching on the second scholarly debate mentioned in the context of affective concepts in sub-chapter II.II.

At its core, this debate hinges on the end organizational practices in HRM literature are meant to achieve: are they solely designed to raise performance levels and therefore focus on employee affect only as a matter of expediency, or do they genuinely aim at improving the circumstances of the workforce? Regarding this fundamental question, I agree with Kuchinke (2010), Aguilera et al. (2007) and others that organizational practices in HRM literature should focus on employee welfare as a core tenet. This would be in line with the historical role of HRM scholarship as an advocate for employees and their causes. In the same vein, I disagree with scholars such as Rousseau and Barends (2011) who foreground the role of employee welfare in increasing various measures of organizational performance, promoting Evidence-based HR. In my view, EBHR simply neglects the moral obligation firms have towards their employees and seeks to entice them to engage in socially responsible activities solely due to economic reasons. This philosophy appears too short-sighted. Furthermore, I believe that scholars advocating EBHR have argued themselves into a moral predicament: in the event that empirical studies would consistently fail to link an important affective concept, such as employee wellbeing, to distal outcome measures they would consequently have to dissuade firms from prioritizing it, something which is clearly morally indefensible. Instead, I hold employee welfare and all related concepts to be beneficial *a priori*.

Now, in order to take the mentioned concerns regarding the adverse effects of organizational practices into account, with psychological wellbeing I in this study decided to choose a broad affective construct with undeniable merit concerning employee welfare. I hereby expected that, given the establishment of significant relationships, there should be no doubt as to the bearing of my findings. Employing a broad operationalization of psychological wellbeing, combining eudaimonia with hedonia, was one part of this approach. Another part was the choice I took regarding the distal outcome which will be discussed in the subsequent section. I want to highlight that psychological wellbeing consistently meets all the three criteria that I set out based on the analyzed discussions. Indeed, scholarly literature has provided sound evidence of its link to performance and Wright and Cropanzano (2000, p.86) are manifestly correct when they describe the construct as “context-free” and “global”. Most assuredly, psychological wellbeing is one of the clearest indicators for employee welfare and I certainly find the empirical study by Ohrnberger et al. (2017) highly interesting in which they furnish proof of the close connection that exists between mental and physical wellbeing. Overall, I propose that psychological wellbeing is the right concept for a refocusing on employee welfare amid the onslaught of Digitalization.

While the addition of further affective constructs would have been beyond the scope of this study, I would recommend it for further research on the matter. Indeed, documenting how findings deviate across such constructs presents a valuable end to SHRM scholarship in my opinion. Lastly, I believe that Godard (2004) is correct when he expects that the relationships of HR practices with affective constructs are contingent on organizational factors. Thus, researching such organizational factors and how they moderate or mediate effects may also prove advantageous.

Turning towards the other affective constructs which are displayed in Table 1, I in the following would like to address a few of them and make note of my thought processes which were prompted while conducting the review of literature. I want to start with engagement at work because it is currently the most frequently mentioned affective concept among practitioners and in the focus of the consulting industry, be it in the context of the Gallup Engagement Index or concerning periodical publications by McKinsey & Company and the like. The enthusiasm for engagement in the field has been mirrored by academia which over the past two decades has authored a staggering amount of literature around the topic. I value this effort since it succeeded in linking engagement to various performance measures as evidenced by Robertson et al. (2012) and Wright and Cropanzano (2000), justifying the profound interest the topic arouses. However, I do recognize two distinct issues with engagement. First, there are concerns regarding its most widely applied operationalization, the Utrecht Work Engagement Scale, which may not be a distinct, coherent measure but rather a combination of job satisfaction, organizational commitment and job involvement, as Newman et al. (2010) in their empirical study show. I further find the argument by Rich et al. (2010) noteworthy that the UWES in actuality conflates the concept with its antecedents when considering the pioneering theoretical work by Kahn (1990). The UWES measure has since been fiercely defended by its creators Schaufeli and Salanova (2011) and is still looked upon favorably by scholars but I felt it was important to raise the issue of the concept's genuineness. It is my view that engagement is indeed a difficult-to-grasp concept that seems to be related to most other affective constructs in one form or another. To my mind, it appears evident that the vigor and enthusiasm with which an employee goes about the work is dependent on diverse influences, including from one's private life and work life. Crucially, it is only reasonable to assume that physical and mental wellbeing play an important role and may present a precondition for engagement to occur in the first place. Second, leaving the genuineness of the concept itself and of its most prevalently utilized measure aside, there is a host of unanswered questions pertaining to the

relationship between engagement and broader employee welfare. Whereas it seems that many scholars view engagement as positive *per se*, I contest this notion and point towards studies such as the one by Listau et al. (2017) and George (2011) who demonstrate that organizational practices that foster engagement can have negative consequences, similar to the example I employed at the beginning of this section to document the potential adverse effects of practices. It therefore appears that there are healthy and unhealthy kinds of engagement and I would encourage academics to investigate the circumstances under which one is brought to the fore, but not the other. Until then, characterizing engagement as naturally positive seems to be a fallacy.

In the subsequent sentences I will now further expand on job satisfaction, a concept I found to be very promising in name but sincerely wanting in regard to its empirical significance. First, the relationship between job satisfaction and performance is presumably inconsequential as evidenced by Bowling (2007). Indeed, already before the turn of the millennium Roznowski and Hulin (1992, p.124) dismissed the relationship as “unworthy of continued research”. Other scholars have, admittedly, vehemently contested such assertions, also through antithetical empirical findings. While I do not intend to intervene in the scholarly discussion regarding the uncertain relationship between job satisfaction and performance, I would point out that there appears to be still no clear picture regarding what exactly it means to be satisfied with work. This is evident from the article of Wright and Cropanzano (2000) who contend that the concept should not be equated with happiness at work, as other scholars believe. This issue is, in my eyes, exacerbated by the ongoing dispute regarding the use of a global measure as opposed to an operationalization with several dimensions. Based amongst other things on these issues, I would raise doubts regarding the merits of using measures of job satisfaction and would propose to instead employ concepts such as thriving or meaningfulness which represented the dimension eudaimonia of psychological wellbeing in this study. In this regard, I would argue that what most scholars have come to understand as job satisfaction is closely associated with mental or psychological wellbeing as Faragher et al. (2005) clearly show. Yet, I contend that psychological wellbeing is a far more effective concept as it not only accounts for the circumstances of an employee’s work life but also for those of her private life. I do not see any potential benefit in dividing those two parts of the every-day up and find them inseparable. After all, just because an employee’s private life is largely outside the control of the firm does not connote that it does not have an impact on her satisfaction at work, or on her performance.

This is precisely why many firms attempt to support their employees in leading healthier lives, both during and after work hours.

I would briefly also turn to organizational climate, a concept which, too, has attracted significant interest on my part. At first, it may appear odd to characterize organizational climate as an affective concept as, on the face of it, one may think it to belong to the organizational environment and context. However, the concept pertains to the subjective, affective perception of an individual employee regarding his or her environment at work and does, therefore, certainly fit into the group of affective constructs distinguished by Jiang et al. (2012b). While organizational climate did not meet two of the three set criteria for an appropriate affective concept, I nonetheless agree with James et al. (2008) that it is a very promising construct. Indeed, its relevance has been recognized as early as the 1940s and I regret that scholars increasingly appear to shift their focus away from it and towards organizational culture, a much newer concept it is certainly related to but which does not belong to the group of affective concepts. While Kuenzi and Schminke (2009) are correct to point out the increasingly fragmented scholarly debate with the emergence of several dimensions of organizational climate which are studied in their very own right, such as mastery climate, I believe that this development has revitalized the debate around the topic.

VI.II.III. Employee Performance Outcomes in the Digital Age

As evidenced by the third and last sub-chapter of the review of literature, the question how to measure the success of organizational practices and the impact of employee affective outcomes in terms of operational or financial performance is fiercely debated. While there is agreement that the issue of distance plays a key role, the inferences drawn diverge in that scholars on the one side of the argument contend that academics ought to focus on the most distant financial outcomes as they are most meaningful, whereas those on the other side hold that weight should be laid on outcomes of greater immediacy. While I am in agreement with Harris et al. (2011) and Dyer and Reeves (1995) that financial outcomes are the most meaningful for important stakeholders such as the executive suite, I concur with Crook et al. (2011) that these outcomes are decisively influenced by a number of meso-level or macro-level constructs and that scholars should, therefore, choose intermediate outcomes instead, until such other organizational factors have been exhaustively researched. Contrarily, I do not believe that the issue of distance can

simply be remedied by combining organizational practices or by representing them with broad concepts as Saridakis et al. (2017) propose, as this approach does not address the matter of intervening higher-level concepts. To my mind, this is the most sensible position to take. After all, it is a fact that we do not know enough about the organizational factors which may determine how practices and employee outcomes translate into a firm's financial performance. Indeed, it may well be that those empirical studies which successfully construct a link with financial performance completely overlook such mediating or moderating factors that guarantee the significance of the relationship in the first place.

This leads us to the second discussed scholarly debate, centering around level issues, which appears very faceted. I believe that Boon et al. (2019, p.2516) is right to be alarmed that 95% of empirical HR studies focus on the macro level and very often rely on data where the levels of theory, measurement and analysis are dissimilar. What is more, I completely agree with the theoretical case construed by scholars such as Foss (2011) that a sole focus of SHRM studies on the macro level is irreconcilable with the conception that organizational practices unfold their effect via the micro level which is of course where all changes in the individual employee take shape. At the same time, by simply aggregating the various outcome measures to the organizational level, scholars negate a lot of the information that can be accessed, or may well distort it which is something Wright and McMahan (2011) rightly warn about. Additionally, they appear bound to commit an ecological fallacy, like Abell et al. (2008) point out, because they assume relationships at the macro level to automatically be mirrored at the micro level. Regarding the debate centering around statistics, I, too, have many concerns, not only in respect to aggregation but also to the collection of data at the level of the organization, whereas there is no doubt that in many instances the proper level of measurement should in fact be the individual level. It thus appears that these prevalent approaches to gathering data run counter to the work of Klein et al. (1994) and others. Hence, the scholarly discourse generally conveyed an understanding that much controversy remained around these topics of critical importance for the integrity of empirical research in SHRM.

To me, it soon became obvious that most of the discussed problems in this part of the literature review in one way or another hinged on level issues. Indeed, even in the case of distance one may argue that the issue in part arises due to the financial performance measures belonging to the department or organizational level. To this dilemma, multilevel modeling presents an elegant solution, as proposed by Mäkelä et al. (2013) in their work. Importantly, academics

such as Chang et al. (2014) have furnished proof in empirical studies that multilevel studies detect many between-level differences that were also present in this thesis' study. To conclude this particular matter, I advocate the use of multilevel modelling for all SHRM studies as an academic gold standard in the field. Certainly, research in an organizational context is all about nested data and SHRM scholarship should conduct their studies based on an appropriate model.

Now, the three criteria chosen to discern the most suitable group of distal outcomes have been deduced from the presented discussions and they earmark operational outcomes, as depicted in Table 2. Operational outcomes are not only inherently located at the individual level they also are directly influenced by employees' affective disposition. Finally, they give a broad account of the success of organizational practices, or of the impact of changes in employee affect. It is important to underscore the appraisal provided by Boon et al. (2018) that voluntary turnover is neither a construct that represents broad improvements nor as unambiguous as it might seem. While scholars are correct to suggest that having high voluntary employee turnover may be bad since it claims financial resources and is potentially harmful to the cohesion of the workforce, this is surely not true as a matter of principle: sometimes employees may leave an organization because they, for instance, feel they just do not belong into its cultural environment, a choice which might in fact be the best option for both the employee and the firm. Concerning financial outcomes, I adequately expressed my perception above why it is true that distance matters. With reference to the level of measurement, I would like to point out that in most industries measurement of financial data can hardly be done at the level of the individual employee.

Ultimately, the choice for employee performance as the right concept among operational outcomes was a rather obvious one. Productivity, the preferred concept for many scholars, is hardly available in knowledge work settings and thus performance was selected as its most commonly employed alternative. The management of employee performance is of course among the oldest HR traditions: performance is evaluated in organizations as a matter of routine and managers take their cues from the results. While certainly of continuous use in an academic scope, performance measurement in firms has a somewhat antiquated flavor, having not undergone any essential changes over several decades. I am firmly convinced that Digitalization will progressively upend also the discipline of performance management.

Indeed, I hold that organizations today find themselves at a crossroads: they may either continue with their legacy systems of periodical appraisals that are based on untransparent processes, or they may finally start putting their increasing stockpiles of data to use, not in order to distinguish between ‘good’ or ‘bad’ employees, but to identify skill insufficiencies and to provide coaching. This is the quintessence of an article by Schrage et al. (2019) whose lead author I myself interviewed on a related matter in 2018. The argument goes that, due to the increasing interrelations and collaborative efforts prompted by Digitalization, employees and their performance can no longer be separated from the structures and environment in which they find themselves embedded. In this vein, Schrage et al. (2019) observe that “the individual might no longer be the most salient unit of analysis”. Hereby, they specifically highlight the continuing rise of agile work methods, alluded to in the first section of this sub-chapter, as an example for the changing organizational structures that determine performance which will lead to a reshaping of the concept itself (ibid.). This observation makes the study of contextual organizational factors in the scope of SHRM research, which was emphasized at the onset of this section, all the more imperative.

I certainly find the work of Schrage et al. (2019) highly meaningful and it suitably connects the three sections of this sub-chapter. In an organizational environment in which employees do their work as part of multiple self-organizing, cross-disciplinary teams, where hierarchical supervision and the escalation of decisions has been reduced to a minimum, it is crucial that they find the support structures they require: managers as *leaders* who take a holistic approach and who feel *responsible* for the entirety of their employees’ experiences at work and who strive to continuously improve these experiences by relying on data, on feedback and observation. Leaders for whom employee *wellbeing* is a concern of paramount importance because they understand that it is only when their employees are well that they are capable of fulfilling their demanding and constantly changing tasks in the work groups to which they belong. What is more, these leaders comprehend that in the digital work environment *performance* is not simply the result of employees’ willingness or unwillingness to do their job, nor the expression of their capabilities or usefulness, but the result of the systems in which those employees are embedded. Therefore, the ways in which these leaders address deficiencies in organizational performance pass through more and better leadership and culminate in a reevaluation of strategies, policies, processes and structures.

VII. Conclusion

There is no doubt today that Milton Friedman had a decisive influence on the formation of the theory around shareholder value (Augar, 2018). His idea that a focus on issues important to the workforce and the wider community was mere ‘socialism’ (Friedman, 1970) drew long shadows that reached far and fell particularly dark in the year of 2008 when the insatiable greed of likeminded businesspersons had the global economy on the brink of total disaster (Augar, 2018). Today, more than a decade after the most severe economic fallout since the great depression, a plurality of executives and board members by and large still only subscribe to one tenet only: the doctrine of shareholder value maximization (Freeman and Elms, 2018). I am certain that this doctrine is the main reason why we as a society struggle to address our most pressing challenges, from climate change to inequality and political polarization. After all, businesses are at the center of societal life: we work in them, we shop in them, we inform ourselves through them. Therefore, it is foolish to assume that the purpose of businesses could somehow be disjoint from the purpose of the overall society, without incurring certain costs. Ultimately, society and businesses are like trunk and branches, they are inseparable and, neglecting the role that falls to them, businesses continually draw in resources in great amount while replenishing few, leaving trunk and root malnourished and susceptible to maladies and disintegration. Thereby, my argument goes, businesses eventually undermine their own subsistence.

Many scholars have demanded a departure from the doctrine of shareholder value maximization towards a doctrine that centers on society and all its stakeholders (cp. Freeman and Elms, 2018). In my eyes, SHRM presents the endeavor to convince executives and managers that a recasting of their business goals towards a more inclusive notion of stakeholder value maximization can lead to a direct monetary gain. Therefore, SHRM argues with these decision makers on the basis of their own logic, not based on morality or social necessity which are both alien to the business arena. I do think that the issue at its core is one of morality and, therefore, I in the discussion chapter criticized scholars in the EBHR field for regarding the matter of employee welfare simply as a matter of expediency on the part of businesses. Nonetheless, I value their endeavor because Luhmann (1997), one of the most consequential German sociologists of the 20th century, evidenced that a society is characterized by systems which have their very own ways of communication and that one can only transmit information by translating it into the communication patterns that are prevalent in the system with which one seeks to communicate.

Therefore, it appears that EBHR scholars use the logic and communication patterns that are called for when trying to bring about change in the business system. What is more, as substantiated throughout the course of my thesis, SHRM has enjoyed a substantial measure of success in corroborating the importance of employee welfare and in advocating the case among business practitioners. Hence, I am pleased to have added my thesis to the growing number of SHRM writings in order to change the core equations of business value creation, and the underlying notion of businesses' role in society. Alas, only the future will show if this transformation will indeed take place.

VII.I. Main Findings and Contributions

After in the preceding discussion chapter the study's results were interpreted and inferences made, it falls to this conclusion chapter to reiterate key findings of the study, to explain their significance and how they contribute to the overall scholarly discussion at large. First and foremost, at its core my thesis was aimed at reinforcing the SHRM linkage. As documented in the review of literature, the SHRM domain is characterized by many inconsistencies regarding the theoretical basis laid and the concepts chosen to investigate hypothesized connections. Indeed, it appears that many fundamental questions have not been answered conclusively. I would like to spell them out here in concert because they in themselves present a crucial contribution of this thesis. First, an important query relates to organizational practices and if they should be conceptualized as large bundles or individually. Second, there is little clarity under what circumstances HR practices that have been proven successful can be transferred from one organizational context to another. Third, the question also remains if practice bundles frequently incur negative effects that diminish their utility, how these effects are caused and how they can be mitigated. Fourth, at a fundamental level researchers still argue over the exact case for focusing on employees' affective states, whereas, fifth, their theories differ regarding how these states influence business outcomes. Sixth, another unresolved issue concerns affective concepts and how they relate to each other, or are distinguishable from one another, and, most importantly, how they each relate to employee welfare as such. The seventh to-date unanswered query, then, touches on the issue of distance between proximal and distal outcomes in SHRM studies and how it may be addressed. Eighth, the question what higher-level factors influence the connection between employee affect and performance is still largely shrouded in mystery. Ninth and finally, SHRM scholarship is still characterized by inconsistency regarding

levels of theory, measurement and analysis of the researched concepts with scholars voicing strongly opposing views regarding aggregation and measurement at the meso- or macro-level.

These are the most important questions that were unearthed. I in this thesis, however, not only discerned these questions but addressed every single one in order to designate the appropriate concepts to achieve the objective of this thesis. Due to these efforts, I could identify the concepts responsible leadership, psychological wellbeing and employee performance as most appropriate to represent HR practices, employee welfare and organizational performance. Subsequently, the hypothesis development chapter closely scrutinized all three constructs whereby highlighting scholarly agreements as well as points of contention. As a result, the thesis' four hypotheses were constructed. These hypotheses were in due course put to the test by means of Multilevel Structural Equation Modeling, after the different measures had been chosen. While the analysis provided several unexpected findings, it unequivocally confirmed the hypothesized mediated relationship between responsible leadership and employee performance, through psychological wellbeing, by proving the hypotheses 1 and 3. Thus, the empirical study achieved the objective of this thesis 'to provide proof of the connection between an organization's actions, its employees' welfare, and its performance'. In the same vein, it succeeded in answering both formulated research questions, as emphasized in the discussion chapter. Moreover, regarding the title of the thesis, based on my findings it indeed appears that the concepts leadership, wellbeing and performance converge amid the profound and continuing changes brought about by Digitalization. In other words, one can only optimize performance while putting a fundamental focus on both leadership and wellbeing.

Certainly, to find the connection between responsible leadership and employee performance, incorporated in hypothesis 2, to be spurious in the direct model was unforeseen, whereas my respective presumption that this circumstance is due to confounding effects, most likely by LMX, prompted valuable considerations which were duly noted. Hypothesis 4 which postulates a full mediation could also not be proven correct for several reasons, chiefly because of the study's inability to substantiate the presence of a significant total effect between leadership and performance.

Now, the thesis' findings present several contributions to the scholarly discourse around SHRM which shall be explained here in detail. First and foremost, having successfully established a nexus between responsible leadership, psychological wellbeing and employee performance, I

with this thesis provide further insights into the black box phenomenon. As evidenced in the review of literature, it is still unclear how and under what circumstances organizational practices influence employee attitudes to affect performance. While many empirical studies established solid effect sizes for their respective models, others failed to do so, amid a general uncertainty rooted in the utilization of many different affective concepts and exacerbated by the employment of multiple distinct operationalizations for each of them. Thus, the pattern continues and every empirical study successful in achieving significant effects appears to be undone by another that reaches contrary results, and so forth. It is my view that this predicament which centers on the conceptualization and operationalization of affective constructs needs to be addressed first in order to approach the black box phenomenon. Indeed, I in the course of the review of literature endeavored to establish a certain standard for the selection of affective concepts. The utilization of psychological wellbeing in this study resulted from the application of that standard and presents an important step towards encompassing the black box in a more consistent manner.

Regarding leadership, respective scholarly writings and those in the SHRM domain appear largely disjoint, even though leadership should be at the heart of HR practices when applying the definition of Schuler (1992). This circumstance, thus, presents another contribution of my thesis: the convergence of SHRM with leadership scholarship, through organizational change literature. Additionally, I with this study contributed to the leadership domain as such regarding the conceptualization of the term itself concerning which there is very little clarity, as Raelin (2016) correctly points out. By presenting an account of the different traditions within respective literature, I laid a sound basis for distinguishing a particular group of leadership styles, namely those which are characterized as ‘good’ or ‘ethical’. What is more, by providing evidence that responsible leadership is significantly linked to psychological wellbeing and through it to performance I substantiated the effectiveness of responsible leadership in particular, whereas the findings regarding the controls LMX and servant leadership were much less decisive, as discussed in the preceding chapter. Moreover, through my study of literature I did not find any example of a leadership style being employed in this manner, as a best practice HR bundle. While my approach can therefore be described as a novelty, I took good care to anchor it in prominent scholarly literature regarding the matter of best practice and best fit. All these efforts, to my mind, present important additions to the scholarly discourse.

Furthermore, the discussion surrounding performance concepts clearly singled out level issues as a prominent inhibiting factor. Not only did I strive to adhere to the recommendations by Klein et al. (1994) regarding at which level data should be collected and analyzed, I also heeded the call of Mäkelä et al. (2013) for more multilevel studies in the field, to address the described level issues. My results meanwhile corroborate the importance of using multilevel models in SHRM studies as I uncovered substantial disparities between the group level and the level of the individual.

Lastly, throughout the discussion part, it was my endeavor to consider how the key constructs of my theoretical model may change in the near future: I emphasized how leadership will undergo an alteration in meaning in response to the withdrawal of traditional hierarchical supervision, pinpointed the increasing need for businesses to concern themselves with the welfare of their employees, and highlighted that performance management will be forced to adapt to the changing realities of self-organized and interdisciplinary work teams. These prognoses are my own, built upon strenuous study of relevant literature, and present a valuable contribution to HRM scholarship.

VII.II. Managerial Implications

There is no doubt regarding the far-reaching consequences of Digitalization for the workplace and, therefore, I in this thesis fashioned a connection between SHRM and Digitalization, to my knowledge a rare union in the respective scholarly discourse. As evidenced in the introduction, Digitalization has upended the rules according to which business is being done, by continuously introducing new technologies and transforming its fundamental logic leading to ever increasing complexity. Indeed, it is my view that Digitalization further amplifies the link between organizational practices, employee welfare and performance, augmenting the momentum of SHRM. As documented in the discussion chapter, managers play a key role in aiding a firm's workforce to come to terms with the challenges posed by Digitalization. Amid the general absence of necessary structural change, managers are called upon to facilitate collaboration, mutual learning and upskilling, and to extend more competences and trust to employees, while retaining responsibility. It should therefore come as no surprise that I identified leadership as the most important factor in the organizational context that, as my study verified, has important implications for both employee welfare and organizational performance. Managers, as

purveyors of leadership, need to hone their respective skills, and companies need to provide them with the necessary resources and support. HR managers hereby have a particularly high stake since it is them who need to increase the awareness within the organization, especially the executive suite, of how crucial leadership is regarding successful continuous Digitalization.

VII.III. Directions for Future Research

Businesses are no stranger to change and upheavals: they have undergone repeated transformations, either due to idiosyncratic circumstances, technological innovation, or economic ramifications. Yet, Digitalization as the force behind the Fourth Industrial Revolution has prompted unprecedented change, and continues to do so with an increasing velocity. The significance of the respective implications for employees can hardly be overstated: the structures in which they are embedded are fundamentally changing, characterized by new work processes, novel technological requirements, flatter hierarchies, and hitherto unheard-of demands in regard to collaboration. This development constitutes the backdrop of my thesis. Unfortunately, few scholars in the SHRM field have addressed this topic, with noteworthy exceptions (e.g. Boudreau, 2015). Given how fundamentally Digitalization affects the work life of employees, I believe that SHRM scholars should analyze the phenomenon much more closely and how it impacts the core relationship of their field between HR practices, employee welfare, and performance. In so doing, scholars must address the open questions and points of contention that I pinpointed in the before last subchapter.

Moreover, there is a high discrepancy across empirical SHRM studies: first, some use cross-sectional data, others longitudinal data. Second, there are those studies that employ bundles of HR practices, and those that scrutinize individual practices. Third, most studies rely on simple linear regression models, whereas some scholars highlight the need for multilevel research designs. Fourth, some scholars gather their data at the organizational, others at the individual level. Fifth, most scholars rely on subjective performance measures, whereas a few use objective measures. Sixth, the entire domain of SHRM is characterized by numerous concepts for HR practices, employee affect and organizational performance, whereas operationalizations for each concept abound. In my view, this situation is untenable and researchers need to establish an overall standard in regard to all of these issues. Also, scholars should focus on

falsifying or replacing existing concepts or operationalizations, rather than producing new ones and adding yet another construct or measure.

That all said, in my eyes the most important need for future research lies in the transformation the domains of SHRM and leadership will have to undergo: as substantiated in the discussion chapter, leadership will need to be disjoint from management, becoming a crucial skill for any employee in agile and lean work environments which will increasingly be the modus operandum for organizations in most industries. SHRM research will have to focus attention on important factors of the organizational context, not only leadership but also organizational culture and others. In short, all concepts that directly impact employees' ability to adapt to and overcome the challenges posed by Digitalization will be crucial. Furthermore, scholars will need to analyze proximal and distal outcomes before the background of these new ways of working, zooming in, for instance, on the various group-level factors that influence performance. Conducting research in these directions will be instrumental in ascertaining the continued relevance of SHRM and might also help to make the literature more appealing to practitioners so that SHRM articles are no longer by scholars and for scholars, as Guerci et al. (2019) allege.

Bibliography

Abell, P., Felin, T. and Foss, N. (2008) Building micro-foundations for the routines, capabilities, and performance links. *Managerial and Decision Economics*, 29 (6): pp. 489–502.

Abrell, T., Pihlajamaa, M., Kanto, L., et al. (2016) The role of users and customers in digital innovation: Insights from B2B manufacturing firms. *Information & Management*, 53 (3): pp. 324–335. doi:10.1016/j.im.2015.12.005.

Accenture (2020) *It's time for HR to regain its people focus*. Available at: <https://talentorganizationblog.accenture.com/financialservices/its-time-for-hr-to-regain-its-people-focus> (Accessed: 5 October 2020).

Afsar, B., Maqsoom, A., Shahjehan, A., et al. (2020) Responsible leadership and employee's proenvironmental behavior: The role of organizational commitment, green shared vision, and internal environmental locus of control. *Corporate Social Responsibility and Environmental Management*, 27 (1): pp. 297–312. doi:10.1002/csr.1806.

Aguilera, R.V., Rupp, D.E., Williams, C.A., et al. (2007) Putting the S back in corporate social responsibility: A multilevel theory of social change in organizations. *Academy of management review*, 32 (3): pp. 836–863.

Aguinis, H., Gottfredson, R.K. and Joo, H. (2013) Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, 16 (2): pp. 270–301.

Ahmad, S. and Schroeder, R.G. (2003) The impact of human resource management practices on operational performance: recognizing country and industry differences. *Journal of Operations Management*, 21 (1): pp. 19–43. doi:10.1016/S0272-6963(02)00056-6.

Aktouf, O. (1992) Management and theories of organizations in the 1990s: Toward a critical radical humanism? *Academy of Management Review*, 17 (3): pp. 407–431.

Alliger, G.M., Tannenbaum, S.I., Bennett Jr, W., et al. (1997) A meta-analysis of the relations among training criteria. *Personnel Psychology*, 50 (2): pp. 341–358.

Ancarani, A. and Di Mauro, C. (2018) “Successful digital transformations need a focus on the individual.” In Schupp, F. and Wöhner, H. (eds.) *Digitalisierung im Einkauf*. 1st ed. Gabler Verlag. pp. 11–26. Available at: https://www.researchgate.net/publication/321538782_Successful_digital_transformations_need_a_focus_on_the_individual.

Armenakis, A.A. and Bedeian, A.G. (1999) Organizational change: A review of theory and research in the 1990s. *Journal of Management*, 25 (3): pp. 293–315. doi:10.1177/014920639902500303.

Armstrong, M. and Brown, D. (2019) *Strategic Human Resource Management: Back to the future?*

Arnold, K.A. (2017) Transformational leadership and employee psychological well-being: A review and directions for future research. *Journal of Occupational Health Psychology*, 22 (3): p. 381.

Augar, P. (2018) *A call for corporate boards to overturn the status quo*. Available at: <https://www.ft.com/content/9e573ff6-efb4-11e7-bb7d-c3edfe974e9f> (Accessed: 23 September 2020).

- Bailey, C., Madden, A., Alfes, K., et al. (2017) The meaning, antecedents and outcomes of employee engagement: A narrative synthesis: Employee engagement. *International Journal of Management Reviews*, 19 (1): pp. 31–53. doi:10.1111/ijmr.12077.
- Bakker, A.B., Schaufeli, W.B., Leiter, M.P., et al. (2008) Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22 (3): pp. 187–200.
- Balogun, J. and Hailey, V.H. (2008) *Exploring Strategic Change*. Pearson Education. (Google-Books-ID: xXlCuFMeyTcC).
- Baron, R.M. and Kenny, D.A. (1986) The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51 (6): p. 1173.
- Bass, B.M. (1985) *Leadership and Performance Beyond Expectations*. Free Press.
- Baumrind, D. (1983) Specious causal attributions in the social sciences: The reformulated stepping-stone theory of heroin use as exemplar. *Journal of Personality and Social Psychology*, 45 (6): pp. 1289–1298. doi:10.1037/0022-3514.45.6.1289.
- Beaujean, A.A. (2014) *Latent variable modeling using R: A step-by-step guide*. Latent variable modeling using R: A step-by-step guide. New York, NY, US: Routledge/Taylor & Francis Group. doi:10.4324/9781315869780.
- Becker, B. and Gerhart, B. (1996) The impact of Human Resource Management on organizational performance: Progress and prospects. *The Academy of Management Journal*, 39 (4): pp. 779–801. doi:10.2307/256712.
- Becker, B.E. and Huselid, M.A. (2006) Strategic human resources management: where do we go from here? *Journal of Management*, 32 (6): pp. 898–925.
- Becker, B.E., Huselid, M.A., Pickus, P.S., et al. (1997) HR as a source of shareholder value: Research and recommendations. *Human Resource Management*, 36 (1): pp. 39–47. doi:10.1002/(SICI)1099-050X(199721)36:1<39::AID-HRM8>3.0.CO;2-X.
- Becker, B.E., Huselid, M.A. and Ulrich, D. (2001) *The HR Scorecard: Linking People, Strategy, and Performance*. Harvard Business Press.
- Bellet, C., De Neve, J.-E. and Ward, G. (2019) *Does Employee Happiness have an Impact on Productivity?* ID 3470734. Rochester, NY: Social Science Research Network. doi:10.2139/ssrn.3470734.
- Bennis, W.G. (1959) Leadership theory and administrative behavior: The problem of authority. *Administrative Science Quarterly*, 4: pp. 259–260.
- Berger, R., Czakert, J.P., Leuteritz, J.-P., et al. (2019) How and when do leaders influence employees' well-being? Moderated mediation models for job demands and resources. *Frontiers in Psychology*, 10. doi:10.3389/fpsyg.2019.02788.
- Berry, L.L., Mirabito, A.M. and Baun, W.B. (2010) *What's the Hard Return on Employee Wellness Programs?* Available at: <https://hbr.org/2010/12/whats-the-hard-return-on-employee-wellness-programs> (Accessed: 3 September 2018).
- Bhattacharya, C.B., Sen, S. and Korschun, D. (2008) Using corporate social responsibility to win the war for talent. *MIT Sloan Management Review*, pp. 49 (2).

- Bohl, K.W. (2019) Leadership as phenomenon: Reassessing the philosophical ground of leadership studies. *Philosophy of Management*. doi:10.1007/s40926-019-00116-x.
- Boker, S., Neale, M. and Rausch, J. (2004) “Latent differential equation modeling with multivariate multi-occasion indicators.” *In Recent Developments on Structural Equation Models*. Springer. pp. 151–174.
- Bolino, M.C., Klotz, A.C., Turnley, W.H., et al. (2013) Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior*, 34 (4): pp. 542–559.
- Bolino, M.C. and Turnley, W.H. (2003) Going the extra mile: Cultivating and managing employee citizenship behavior. *Academy of Management Perspectives*, 17 (3): pp. 60–71.
- Bollen, K.A. and Pearl, J. (2013) “Eight myths about causality and structural equation models.” *In Handbook of Causal Analysis for Social Research*. Springer. pp. 301–328.
- Boon, C., Den Hartog, D.N. and Lepak, D.P. (2019) A systematic review of Human Resource Management systems and their measurement. *Journal of Management*, 45 (6): pp. 2498–2537. doi:10.1177/0149206318818718.
- Boon, C., Eckardt, R., Lepak, D.P., et al. (2018) Integrating strategic human capital and strategic human resource management. *The International Journal of Human Resource Management*, 29 (1): pp. 34–67. doi:10.1080/09585192.2017.1380063.
- Borman, W.C. and Motowidlo, S.J. (1997) Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10 (2): pp. 99–109.
- Borman, W.C. and Motowidlo, S.M. (1993) Expanding the criterion domain to include elements of contextual performance. *Personnel Selection in Organizations; San Francisco: Jossey-Bass*, p. 71.
- Boudreau, J.W. (2015) HR at the tipping point: The paradoxical future of our profession. *People & Strategy*, 38 (4): pp. 46–54.
- Bowie, N.E. (1998) A Kantian theory of capitalism. *Business Ethics Quarterly*, pp. 37–60.
- Bowling, N.A. (2007) Is the job satisfaction–job performance relationship spurious? A meta-analytic examination. *Journal of Vocational Behavior*, 71 (2): pp. 167–185. doi:10.1016/j.jvb.2007.04.007.
- Boxall, P., Huo, M.L., Macky, K., et al. (2019) “High-involvement Work Processes and Systems: A review of theory, distribution, outcomes, and tensions.” *In Buckley, M.R., Wheeler, A.R. and Halbesleben, J.R.B. (eds.) Research in Personnel and Human Resources Management*. Emerald Group Publishing Limited. pp. 1–52. Available at: <https://pure.hud.ac.uk/en/publications/high-involvement-work-processes-and-systems-a-review-of-theory-di> (Downloaded: 23 January 2020).
- Brass, D.J. and Burkhardt, M.E. (1993) Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal*, 36 (3): pp. 441–470.
- Bratton, J. and Gold, J. (2012) *Human Resource Management: Theory and Practice*. 5th ed. New York: Palgrave Macmillan.
- Bretones, F.D. and Gonzalez, M.J. (2011) Subjective and occupational well-being in a sample of Mexican workers. *Social Indicators Research*, 100 (2): pp. 273–285. doi:10.1007/s11205-010-9616-5.
- Brief, A.P. and Roberson, L. (1989) Job attitude organization: An exploratory study 1. *Journal of Applied Social Psychology*, 19 (9): pp. 717–727.

- Brown, S.L. and Eisenhardt, K.M. (1997) The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, pp. 1–34.
- Brown, T.A. (2015) *Confirmatory Factor Analysis for Applied Research*. Second Edition. Guilford Publications. (Google-Books-ID: ITL2BQAAQBAJ).
- Buller, P.F. and McEvoy, G.M. (2012) Strategy, human resource management and performance: Sharpening line of sight. *Human Resource Management Review*, 22 (1): pp. 43–56.
- Burke, R.J. and Page, K.M. (2017) *Research Handbook on Work and Well-Being*. Edward Elgar Publishing.
- Burns, J.M. (1978) *Leadership*. New York: Harper & Row.
- Butts, M.M., Vandenberg, R.J., DeJoy, D.M., et al. (2009) Individual reactions to high involvement work processes: investigating the role of empowerment and perceived organizational support. *Journal of Occupational Health Psychology*, 14 (2): p. 122.
- Byrne, B.M. (1998) *Structural Equation Modeling with LISREL, PRELIS, and SIMPLIS: Basic Concepts, Applications, and Programming*. Psychology Press. (Google-Books-ID: _RXYHfs5U0QC).
- Cabrera, E.F. and Cabrera, A. (2003) Strategic Human Resource evaluation. *Human Resource Planning*, 26 (1): pp. 41–50.
- Calás, M.B. and Smircich, L. (1991) Voicing seduction to silence leadership. *Organization Studies*, 12 (4): pp. 567–601.
- Cameron, E. and Green, M. (2015) *Making Sense of Change Management: A Complete Guide to the Models, Tools and Techniques of Organizational Change*. Kogan Page Publishers.
- Campbell, J.P. (1990) "Modeling the performance prediction problem in industrial and organizational psychology." In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology*. Consulting Psychologists Press. pp. 687–732.
- Cantoni, F. and Mangia, G. (2018) *Human Resource Management and Digitalization*. Routledge. (Google-Books-ID: K4V7DwAAQBAJ).
- Cappelli, P. and Crocker-Hefter, A. (1996) Distinctive human resources are firms' core competencies. *Organizational Dynamics*, 24 (3): pp. 7–22. doi:10.1016/S0090-2616(96)90002-9.
- Chang, S., Jia, L., Takeuchi, R., et al. (2014) Do high-commitment work systems affect creativity? A multilevel combinational approach to employee creativity. *Journal of Applied Psychology*, 99 (4): p. 665.
- Charan, R., Barton, D. and Carey, D. (2015) People before strategy: A new role for the CHRO. *Harvard Business Review*, 1 July, (July–August 2015). Available at: <https://hbr.org/2015/07/people-before-strategy-a-new-role-for-the-chro> (Accessed: 10 July 2019).
- Chiniara, M. and Bentein, K. (2018) The servant leadership advantage: When perceiving low differentiation in leader-member relationship quality influences team cohesion, team task performance and service OCB. *The Leadership Quarterly*, 29 (2): pp. 333–345.

- Choi, J.-H. (2017) What one thinks determines one's actions: the importance of employees' perception in implementing HR systems. *Asia Pacific Journal of Human Resources*, 57 (1): pp. 85–102. doi:10.1111/1744-7941.12146.
- Christ, O., Hewstone, M., Schmid, K., et al. (2017) Advanced multilevel modeling for a science of groups: A short primer on multilevel structural equation modeling. *Group Dynamics: Theory, Research, and Practice*, 21 (3): p. 121.
- Christensen, J. (2015) *Digital Business: in The Digital Age*. BoD – Books on Demand. (Google-Books-ID: wCnYBgAAQBAJ).
- Ciulla, J.B. (1995) Leadership ethics: Mapping the territory. *Business Ethics Quarterly*, 5 (1): pp. 5–28.
- Ciulla, J.B. (2012) “Ethics Effectiveness: The Nature of Good Leadership.” In Day, D.V. and Antonakis, J. (eds.) *The Nature of Leadership*. Second Edition. Los Angeles: SAGE Publications, Inc. pp. 508–540. Available at: <https://pdfs.semanticscholar.org/4923/6d315c7306c029f29c3efc7616c8740705ba.pdf> (Downloaded: 30 September 2017).
- Coleman, J.S. (1990) *Foundations of Social Theory*. Cambridge/London: The Belknap Press of Harvard University Press.
- Collins, C.J., Smith, K.G. and Stevens, C.K. (2001) Human resource practices, knowledge-creation capability and performance in high technology firms. *CAHRS Working Paper Series*, p. 65.
- Combs, J., Liu, Y., Hall, A., et al. (2006) How much do High-Performance Work Practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology*, 59 (3): pp. 501–528. doi:10.1111/j.1744-6570.2006.00045.x.
- Cooke, P.J., Melchert, T.P. and Connor, K. (2016) Measuring well-being: A review of instruments. *The Counseling Psychologist*, 44 (5): pp. 730–757. doi:10.1177/0011000016633507.
- Coreynen, W., Matthyssens, P. and Van Bockhaven, W. (2017) Boosting servitization through digitization: Pathways and dynamic resource configurations for manufacturers. *Industrial Marketing Management*, 60: pp. 42–53. doi:10.1016/j.indmarman.2016.04.012.
- Coyle-Shapiro, J.A.-M. (1999) Employee participation and assessment of an organizational change intervention: A three-wave study of total quality management. *The Journal of Applied Behavioral Science*, 35 (4): pp. 439–456.
- Crook, T.R., Todd, S.Y., Combs, J.G., et al. (2011) Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *Journal of Applied Psychology*, 96 (3): p. 443.
- Cropanzano, R. and Wright, T.A. (1999) A 5-year study of change in the relationship between well-being and job performance. *Consulting Psychology Journal: Practice and Research*, 51 (4): p. 252.
- Cunliffe, A.L. and Eriksen, M. (2011) Relational leadership. *Human Relations*, 64 (11): pp. 1425–1449.
- Darr, W. and Johns, G. (2008) Work strain, health, and absenteeism: a meta-analysis. *Journal of Occupational Health Psychology*, 13 (4): p. 293.

- Darwish, T.K. (2013) *Strategic HRM and Performance: Theory and Practice*. Macmillan International Higher Education.
- Day, D.V. (2014) *The Oxford Handbook of Leadership and Organizations*. Oxford University Press. (Google-Books-ID: IDiTAAwAAQBAJ).
- De Cuyper, N. and De Witte, H. (2011) The management paradox: Self-rated employability and organizational commitment and performance. *Personnel Review*, 40 (2): pp. 152–172.
- Deci, E.L. and Ryan, R.M. (2008) Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology/Psychologie Canadienne*, 49 (1): p. 14.
- Delaney, J.T. and Huselid, M.A. (1996) The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39 (4): pp. 949–969.
- Delery, J.E. and Doty, D.H. (1996) Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39 (4): pp. 802–835.
- Devonish, D. (2013) Workplace bullying, employee performance and behaviors: The mediating role of psychological well-being. *Employee Relations*, 35 (6): pp. 630–647.
- Diener, E., Suh, E.M., Lucas, R.E., et al. (1999) Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125 (2): p. 276.
- Diener, E.D., Emmons, R.A., Larsen, R.J., et al. (1985) The satisfaction with life scale. *Journal of Personality Assessment*, 49 (1): pp. 71–75.
- Disabato, D.J., Goodman, F.R., Kashdan, T.B., et al. (2016) Different types of well-being? A cross-cultural examination of hedonic and eudaimonic well-being. *Psychological Assessment*, 28 (5): p. 471.
- Doh, J., Stumpf, S. and Tymon, W. (2011) Responsible leadership helps retain talent in India. *Journal of Business Ethics*, 98 (1): pp. 85–100. doi:10.1007/s10551-011-1018-3.
- Doh, J.P. and Quigley, N.R. (2014) Responsible leadership and stakeholder management: Influence pathways and organizational outcomes. *Academy of Management Perspectives*, 28 (3): pp. 255–274. doi:10.5465/amp.2014.0013.
- Doh, J.P. and Stumpf, S.A. (2005) *Handbook on Responsible Leadership and Governance in Global Business*. Edward Elgar Publishing. (Google-Books-ID: QzJiDIgbTt8C).
- Dolan, P. and Metcalfe, R. (2012) The relationship between innovation and subjective wellbeing. *Research Policy*, 41 (8): pp. 1489–1498.
- Dyer, L. and Reeves, T. (1995) Human resource strategies and firm performance: what do we know and where do we need to go? *International Journal of Human Resource Management*, 6 (3): pp. 656–670.
- Ehrhart, M.G. (2004) Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel Psychology*, 57 (1): pp. 61–94.
- Eichholz, J.C. (2014) *Adaptive Capacity*. LID Editorial.
- Eisenberger, R., Huntington, R., Hutchison, S., et al. (1986) Perceived organizational support. *Journal of Applied Psychology*, 71 (3): p. 500.

- Enders, C.K. (2010) *Applied Missing Data Analysis*. Guilford press.
- Falbe, C.M. and Yukl, G. (1992) Consequences for managers of using single influence tactics and combinations of tactics. *Academy of Management Journal*, 35 (3): pp. 638–652.
- Faragher, E.B., Cass, M. and Cooper, C.L. (2005) The relationship between job satisfaction and health: a meta-analysis. *Occupational and Environmental Medicine*, 62 (2): pp. 105–112.
- Fiedler, F.E. and Garcia, J.E. (1987) *New Approaches to Leadership, Cognitive Resources and Organizational Performance*. New York: John Wiley & Sons.
- Forbes (2017) The role managers play in shaping employee well-being. *Forbes*. Available at: <https://www.forbes.com/sites/alankohll/2017/10/03/the-role-managers-play-in-shaping-employee-well-being/> (Accessed: 11 October 2020).
- Forbes (2018) Why digital transformations fail: Closing the \$900 billion hole In enterprise strategy. *Forbes*. Available at: <https://www.forbes.com/sites/forbestechcouncil/2018/03/13/why-digital-transformations-fail-closing-the-900-billion-hole-in-enterprise-strategy/> (Accessed: 7 September 2020).
- Fornell, C. and Larcker, D.F. (1981) Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1): pp. 39–50.
- Foss, N.J. (2011) Invited Editorial: Why Micro-Foundations for Resource-Based Theory Are Needed and What They May Look Like. *Journal of Management*, 37 (5): pp. 1413–1428. doi:10.1177/0149206310390218.
- Foss, N.J. and Minbaeva, D. (2009) Governing knowledge: The strategic human resource management dimension. *SMG Working Paper*, 3, Available at SSRN: <https://ssrn.com/abstract=1354029> or <http://dx.doi.org/10.2139/ssrn.1354029>
- Frankiewicz, B. and Chamorro-Premuzic, T. (2020) Digital transformation is about talent, not technology. *Harvard Business Review*, 6 May. Available at: <https://hbr.org/2020/05/digital-transformation-is-about-talent-not-technology> (Accessed: 7 September 2020).
- Fredrickson, B.L. (2004) The broaden–and–build theory of positive emotions. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, 359 (1449): pp. 1367–1377.
- Freeman, E. and Elms, H. (2018) The Social Responsibility of Business Is to Create Value for Stakeholders. *MIT Sloan Management Review*, 4 January. Available at: <https://sloanreview.mit.edu/article/the-social-responsibility-of-business-is-to-create-value-for-stakeholders/> (Accessed: 31 October 2019).
- Friedman, M. (1970) The Social Responsibility of Business is to Increase its Profits. *New York Times Magazine*, 13 September.
- Furst, S.A. and Cable, D.M. (2008) Employee resistance to organizational change: Managerial influence tactics and leader-member exchange. *Journal of Applied Psychology*, 93 (2): p. 453.
- Gallup (2019) *The Gallup Workplace Award*. Available at: <https://www.gallup.com/workplace/244277/gallup-workplace-awards.aspx> (Accessed: 26 January 2019).
- Gana, K. and Broc, G. (2019) *Structural Equation Modeling with lavaan*. John Wiley & Sons.

- Geldhof, G.J., Preacher, K.J. and Zyphur, M.J. (2014) Reliability estimation in a multilevel confirmatory factor analysis framework. *Psychological Methods*, 19 (1): p. 72.
- George, B. (2003) *Authentic leadership: Rediscovering the Secrets to Creating Lasting Value*. John Wiley & Sons.
- George, J.M. (2011) The wider context, costs, and benefits of work engagement. *European Journal of Work and Organizational Psychology*, 20 (1): pp. 53–59. doi:10.1080/1359432X.2010.509924.
- Godard, J. (2004) A critical assessment of the high-performance paradigm. *British Journal of Industrial Relations*, 42 (2): pp. 349–378.
- Graen, G.B. (2004) *New Frontiers of Leadership*. IAP. (Google-Books-ID: QfwnDwAAQBAJ).
- Graen, G.B. and Uhl-Bien, M. (1995) Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6 (2): pp. 219–247.
- Grant, A.M., Christianson, M.K. and Price, R.H. (2007) Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of Management Perspectives*, 21 (3): pp. 51–63.
- Grant, R.M. (2002) The knowledge-based view of the firm. *The strategic management of intellectual capital and organizational knowledge*, 17 (2): pp. 133–148.
- Grimm, L.G. and Yarnold, P.R. (1995) *Reading and understanding multivariate statistics*. American Psychological Association.
- Gruman, J.A. and Saks, A.M. (2011) Performance management and employee engagement. *Human Resource Management Review*, 21 (2): pp. 123–136. doi:10.1016/j.hrmmr.2010.09.004.
- Guerci, M., Radaelli, G. and Shani, A.B. (Rami) (2019) Conducting Mode 2 research in HRM: A phase-based framework. *Human Resource Management*, 58 (1): pp. 5–20. doi:10.1002/hrm.21919.
- Guile, D. and Unwin, L. (2019) *The Wiley Handbook of Vocational Education and Training*. John Wiley & Sons. (Google-Books-ID: hNyEDwAAQBAJ).
- Gutierrez, A.P., Candela, L.L. and Carver, L. (2012) The structural relationships between organizational commitment, global job satisfaction, developmental experiences, work values, organizational support, and person-organization fit among nursing faculty. *Journal of Advanced Nursing*, 68 (7): pp. 1601–1614.
- Hagberg, J., Sundstrom, M. and Egels-Zandén, N. (2016) The digitalization of retailing: an exploratory framework. *International Journal of Retail & Distribution Management*, 44 (7): pp. 694–712.
- Hair, J.F., Black, W.C., Babin, B.J., et al. (2010) *Multivariate Data Analysis*. 3. Prentice hall Upper Saddle River, NJ.
- Hair, J.F., Sarstedt, M., Ringle, C.M., et al. (2017) *Advanced Issues in Partial Least Squares Structural Equation Modeling*. SAGE Publications.
- Halbesleben, J.R.B. (2011) The consequences of engagement: The good, the bad, and the ugly. *European Journal of Work and Organizational Psychology*, 20 (1): pp. 68–73. doi:10.1080/1359432X.2010.514327.

- Hallowell, R. (1996) Southwest airlines: A case study linking employee needs satisfaction and organizational capabilities to competitive advantage. *Human Resource Management*, 35 (4): pp. 513–534. doi:10.1002/(SICI)1099-050X(199624)35:4<513::AID-HRM5>3.0.CO;2-Z.
- Haque, A., Fernando, M. and Caputi, P. (2019) The Relationship Between Responsible Leadership and Organisational Commitment and the Mediating Effect of Employee Turnover Intentions: An Empirical Study with Australian Employees. *Journal of Business Ethics*, 156 (3): pp. 759–774. doi:10.1007/s10551-017-3575-6.
- Harris, J.G., Craig, E. and Light, D.A. (2011) Talent and analytics: new approaches, higher ROI. *Journal of Business Strategy*. doi:10.1108/02756661111180087.
- Harteis, C. (2017) *The Impact of Digitalization in the Workplace: An Educational View*. Springer.
- Hartman, P.T. (1969) *Collective Bargaining and Productivity: The Longshore Mechanization Agreement*. Univ of California Press.
- Hayes, A.F. (2018) *Introduction to Mediation, Moderation, and Conditional Process Analysis, Second Edition: A Regression-Based Approach*. 2nd ed. The Guilford Press.
- Heck, R. and Thomas, S. (2015) *An Introduction to Multilevel Modeling Techniques: MLM and SEM Approaches Using Mplus*, Third Edition. 3rd ed. New York, NY: Routledge.
- Henseler, J., Hubona, G. and Ray, P.A. (2016) Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, 116 (1): pp. 2–20. doi:10.1108/IMDS-09-2015-0382.
- Herold, D.M. and Fedor, D.B. (2008) *Change the way you lead change: Leadership strategies that really work*. Stanford University Press.
- Hite, B. (2015) *Positive psychological capital, need satisfaction, performance, and well-being in actors and stunt people*. Walden University Dissertations.
- Holtom, B.C., Mitchell, T.R., Lee, T.W., et al. (2008) 5 turnover and retention research: a glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*, 2 (1): pp. 231–274.
- Hom, P.W., Tsui, A.S., Wu, J.B., et al. (2009) Explaining employment relationships with social exchange and job embeddedness. *Journal of Applied Psychology*, 94 (2): p. 277.
- Horgan, J. and Mühlau, P. (2006) Human resource systems and employee performance in Ireland and the Netherlands: a test of the complementarity hypothesis. *The International Journal of Human Resource Management*, 17 (3): pp. 414–439. doi:10.1080/09585190500521409.
- Hox, J.J. and Bechger, T.M. (1998) An introduction to structural equation modeling. *Family Science Review*, 11: pp. 354–373.
- Huang, F.L. and Cornell, D.G. (2016) Using multilevel factor analysis with clustered data: Investigating the factor structure of the Positive Values Scale. *Journal of Psychoeducational Assessment*, 34 (1): pp. 3–14.
- Hughes, J. (2008) The high-performance paradigm: A review and evaluation. *Research Paper no. 16*.
- Hughes, M. (2015) *The Leadership of Organizational Change*. Routledge. (Google-Books-ID: WAKpCgAAQBAJ).

- Huselid, M.A. (1995) The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38 (3): pp. 635–672.
- Huselid, M.A. and Becker, B.E. (1996) Methodological issues in cross-sectional and panel estimates of the human resource-firm performance link. *Industrial Relations: A Journal of Economy and Society*, 35 (3): pp. 400–422.
- Jackson, S.E., Schuler, R.S. and Jiang, K. (2014) *An Aspirational Framework for Strategic Human Resource Management*. Available at: https://scholar.google.fi/scholar?cluster=5450924771671050966&hl=de&as_sdt=0,5.
- James, L.R., Choi, C.C., Ko, C.-H.E., et al. (2008) Organizational and psychological climate: A review of theory and research. *European Journal of Work and Organizational Psychology*, 17 (1): pp. 5–32. doi:10.1080/13594320701662550.
- Jaramillo, F., Mulki, J.P. and Marshall, G.W. (2005) A meta-analysis of the relationship between organizational commitment and salesperson job performance: 25 years of research. *Journal of Business Research*, 58 (6): pp. 705–714.
- Jiang, K., Lepak, D.P., Han, K., et al. (2012a) Clarifying the construct of human resource systems: Relating human resource management to employee performance. *Human Resource Management Review*, 22 (2): pp. 73–85.
- Jiang, K., Lepak, D.P., Hu, J., et al. (2012b) How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, 55 (6): pp. 1264–1294.
- Johnson, E.K. (2000) The practice of Human Resource Management in New Zealand: Strategic and best practice? *Asia Pacific Journal of Human Resources*, 38 (2): pp. 69–83. doi:10.1177/103841110003800206.
- Kahn, W.A. (1990) Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33 (4): pp. 692–724.
- Kalshoven, K. and Boon, C.T. (2012) Ethical leadership, employee well-being, and helping. *Journal of Personnel Psychology*, 11 (1): pp. 60–68.
- Kauffman, S. (1996) *At Home in the Universe: The Search for the Laws of Self-Organization and Complexity*. Oxford University Press. (Google-Books-ID: AQFpAgAAQBAJ).
- Kaufman, B.E. (2010) SHRM theory in the post-Huselid era: Why it is fundamentally misspecified. *Industrial Relations: A Journal of Economy and Society*, 49 (2): pp. 286–313. doi:10.1111/j.1468-232X.2009.00600.x.
- Klein, K.J., Dansereau, F. and Hall, R.J. (1994) Levels issues in theory development, data collection, and analysis. *Academy of Management Review*, 19 (2): pp. 195–229.
- Kline, R.B. (2015) *Principles and practice of structural equation modeling*. Guilford publications.
- Knies, E., Jacobsen, C. and Tummers, L. (2016) Leadership and organizational performance. *The Routledge Companion to Leadership*, p. 404.
- Kohnke, O. (2017) “It’s Not Just About Technology: The People Side of Digitization.” In Oswald, G. and Kleinemeier, M. (eds.) *Shaping the Digital Enterprise: Trends and Use Cases in Digital*

Innovation and Transformation. Cham: Springer International Publishing. pp. 69–91.
doi:10.1007/978-3-319-40967-2_3.

KONE (2019a) *Advanced people flow solutions*. Available at: <https://www.kone.com/en/products-and-services/APFS-advanced-people-flow-solutions/> (Accessed: 6 February 2019).

KONE (2019b) *Why choose KONE advanced people flow solutions?* Available at: <https://www.kone-major-projects.com/high-rise-solutions/people-flow-intelligence.aspx> (Accessed: 6 February 2019).

Kooij, D.T.A.M., Guest, D.E., Clinton, M., et al. (2013) How the impact of HR practices on employee well-being and performance changes with age. *Human Resource Management Journal*, 23 (1): pp. 18–35. doi:10.1111/1748-8583.12000.

Koopman, J., Lanaj, K. and Scott, B.A. (2016) Integrating the bright and dark sides of OCB: A daily investigation of the benefits and costs of helping others. *Academy of Management Journal*, 59 (2): pp. 414–435.

Koys, D.J. (2001) The effects of employee satisfaction, organizational citizenship behavior, and turnover on organizational effectiveness: A unit-level, longitudinal study. *Personnel Psychology*, 54 (1): pp. 101–104. doi:10.1111/j.1744-6570.2001.tb00087.x.

Kraiger, K., Ford, J.K. and Salas, E. (1993) Application of cognitive, skill-based, and affective theories of learning outcomes to new methods of training evaluation. *Journal of Applied Psychology*, 78 (2): p. 311.

Krämer, A. and Kalka, R. (2017) “How digital disruption changes pricing strategies and price models.” In Khare, A., Stewart, B. and Schatz, R. (eds.) *Phantom Ex Machina: Digital Disruption’s Role in Business Model Transformation*. Springer International Publishing. Available at: <https://www.springer.com/gp/book/9783319444673> (Downloaded: 8 February 2019).

Krämer, A., Tachilzik, T. and Bongaerts, R. (2017) “Technology and disruption: How the new customer relationship influences the corporate strategy.” In Khare, A., Stewart, B. and Schatz, R. (eds.) *Phantom Ex Machina: Digital Disruption’s Role in Business Model Transformation*. Cham: Springer International Publishing. pp. 53–70. doi:10.1007/978-3-319-44468-0_4.

Kuchinke, K.P. (2010) Human development as a central goal for human resource development. *Human Resource Development International*, 13 (5): pp. 575–585.
doi:10.1080/13678868.2010.520482.

Kuenzi, M. and Schminke, M. (2009) Assembling fragments into a lens: A review, critique, and proposed research agenda for the organizational work climate literature. *Journal of Management*, 35 (3): pp. 634–717.

Kuoppala, J., Lamminpää, A., Liira, J., et al. (2008) Leadership, job well-being, and health effects—A systematic review and a meta-analysis. *Journal of Occupational and Environmental Medicine*, 50 (8): pp. 904–915.

Kurtessis, J.N., Eisenberger, R., Ford, M.T., et al. (2017) Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management*, 43 (6): pp. 1854–1884.

van der Laken, P., Bakk, Z., Giagkoulas, V., et al. (2018) Expanding the methodological toolbox of HRM researchers: The added value of latent bathtub models and optimal matching analysis. *Human Resource Management*, 57 (3): pp. 751–760. doi:10.1002/hrm.21847.

- Lau, R.S. and May, B.E. (1998) A win-win paradigm for quality of work life and business performance. *Human Resource Development Quarterly*, 9 (3): pp. 211–226.
- Lawler, E.E. and Boudreau, J.W. (2015) *Global Trends in Human Resource Management: A Twenty-Year Analysis*. Stanford University Press. (Google-Books-ID: k7S7CAAAQBAJ).
- Lepak, D.P. and Snell, S.A. (1999) The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review*, 24 (1): pp. 31–48.
- Lewin, D. (2011) “High Performance Human Resources (HPHR).” In Wilkinson, A. and Townsend, K. (eds.) *The Future of Employment Relations: New Paradigms, New Approaches*. London: Palgrave Macmillan UK. pp. 11–29. doi:10.1057/9780230349421_2.
- Lips-Wiersma, M., Haar, J. and Wright, S. (2020) The effect of fairness, responsible leadership and worthy work on multiple dimensions of meaningful work. *Journal of Business Ethics*, 161 (1): pp. 35–52. doi:10.1007/s10551-018-3967-2.
- Listau, K., Christensen, M. and Innstrand, S.T. (2017) Work engagement: A double-edged sword? A study of the relationship between work engagement and the work-home interaction using the ARK research platform. *Scandinavian Journal of Work and Organizational Psychology*, 2 (1): pp. 1–13. doi:10.16993/sjwop.20.
- Little, T.D., Schnabel, K.U. and Baumert, Jürgen (2015) *Modeling Longitudinal and Multilevel Data: Practical Issues, Applied Approaches, and Specific Examples*. Psychology Press. (Google-Books-ID: Mfp5AgAAQBAJ).
- Loon, M., Otaye-Ebede, L. and Stewart, J. (2019) The paradox of employee psychological well-being practices: an integrative literature review and new directions for research. *The International Journal of Human Resource Management*, 30 (1): pp. 156–187.
- Luhmann, N. (1997) *Die Gesellschaft der Gesellschaft*. 1. Aufl Auflage. Frankfurt am Main: Suhrkamp.
- Luthans, F., Youssef, C.M. and Avolio, B.J. (2007) *Psychological capital: Developing the human competitive edge*. Oxford University Press.
- Lyseggen, J. (2017) *Outside Insight - Navigating a World Drowning in Data*. Penguin.
- Maak, T. and Pless, N.M. (2006) Responsible leadership in a stakeholder society – A relational perspective. *Journal of Business Ethics*, 66 (1): pp. 99–115. doi:10.1007/s10551-006-9047-z.
- MacDuffie, J.P. (1995) Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *ILR Review*, 48 (2): pp. 197–221.
- Mair, P. (2018) *Modern psychometrics with R*. Springer.
- Mäkelä, K., Ehrnrooth, M., Smale, A., et al. (2013) “Multi-level and multi-actor research.” In *Research Methods for Human Resource Management*. Routledge. pp. 46–63.
- Marescaux, E., De Winne, S. and Forrier, A. (2019) Developmental HRM, employee well-being and performance: The moderating role of developing leadership. *European Management Review*, 16 (2): pp. 317–331.

- Marr, B. (2016) Why everyone must get ready for the 4th Industrial Revolution. *Forbes*. Available at: <https://www.forbes.com/sites/bernardmarr/2016/04/05/why-everyone-must-get-ready-for-4th-industrial-revolution/#2f8c28a33f90> (Accessed: 24 February 2018).
- May, D.R., Gilson, R.L. and Harter, L.M. (2004) The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77 (1): pp. 11–37.
- Mayer-Schönberger, V. and Cukier, K. (2013) *Big Data: A Revolution that Will Transform how We Live, Work, and Think*. Houghton Mifflin Harcourt.
- McClean, E. and Collins, C.J. (2018) Expanding the concept of fit in strategic human resource management: An examination of the relationship between human resource practices and charismatic leadership on organizational outcomes. *Human Resource Management*, 58 (2): pp. 187–202.
- McNeish, D. (2017) Multilevel mediation with small samples: A cautionary note on the multilevel structural equation modeling framework. *Structural Equation Modeling: A Multidisciplinary Journal*, 24 (4): pp. 609–625. doi:10.1080/10705511.2017.1280797.
- Mercer China (2018) *Four Misunderstandings that are Killing Your Benefits Design*. Available at: <https://voice-on-growth.mercer.com/en/articles/health/four-misunderstandings-that-are-killing-your-benefits-design.html> (Accessed: 5 October 2020).
- Michie, J. and Sheehan, M. (2005) Business strategy, human resources, labour market flexibility and competitive advantage. *The International Journal of Human Resource Management*, 16 (3): pp. 445–464.
- Mintzberg, H. and Lampel, J. (1996) Customizing customization. *MIT Sloan Management Review*. Available at: <https://sloanreview.mit.edu/article/customizing-customization/> (Accessed: 9 February 2019).
- Miska, C. and Mendenhall, M.E. (2018) Responsible leadership: A mapping of extant research and future directions. *Journal of Business Ethics*, 148 (1): pp. 117–134. doi:10.1007/s10551-015-2999-0.
- Mossholder, K.W. and Bedeian, A.G. (1983) Cross-level inference and organizational research: Perspectives on interpretation and application. *Academy of Management Review*, 8 (4): pp. 547–558.
- Mossholder, K.W., Richardson, H.A. and Settoon, R.P. (2011) Human Resource systems and helping in organizations: A relational perspective. *Academy of Management Review*, 36 (1): pp. 33–52.
- Mowday, R.T., Porter, L.W. and Steers, R. (1982) *Organizational linkages: The psychology of commitment, absenteeism, and turnover*. San Diego, CA: Academic Press.
- Mowday, R.T. and Sutton, R.I. (1993) Organizational behavior: Linking individuals and groups to organizational contexts. *Annual Review of Psychology*, 44: p. 195.
- Münk, D. (2017) “The dark sides of lifelong learning: Unzeitgemäße Überlegungen zu einem zeitgemäßen Problem.” In Münk, D. and Walter, M. (eds.) *Lebenslanges Lernen im Sozialstrukturellen Wandel: Ambivalenzen der Gestaltung von Berufsbiografien in der Moderne*. Wiesbaden: Springer Fachmedien Wiesbaden. pp. 13–37. doi:10.1007/978-3-658-14355-8_2.
- Nesterkin, D.A. (2013) Organizational change and psychological reactance. *Journal of Organizational Change Management*, 26 (3): pp. 573–594. doi:10.1108/09534811311328588.

- Newman, D.A., Joseph, D.L. and Hulin, C.L. (2010) Job attitudes and employee engagement: Considering the attitude “A-factor.” *The Handbook of Employee Engagement: Perspectives, Issues, Research, and Practice*, pp. 43–61.
- Northouse, P.G. (2013) *Leadership. Theory and Practice*. Sixth Edition. SAGE Publications, Inc.
- Oesterreich, T.D. and Teuteberg, F. (2016) Understanding the implications of digitisation and automation in the context of Industry 4.0: A triangulation approach and elements of a research agenda for the construction industry. *Computers in Industry*, 83: pp. 121–139. doi:10.1016/j.compind.2016.09.006.
- Ohrnberger, J., Fichera, E. and Sutton, M. (2017) The relationship between physical and mental health: a mediation analysis. *Social Science & Medicine*, 195: pp. 42–49.
- Ones, D.S., Anderson, N., Viswesvaran, C., et al. (2017) *The SAGE Handbook of Industrial, Work & Organizational Psychology, 3v: Personnel Psychology and Employee Performance; Organizational Psychology; Managerial Psychology and Organizational Approaches*. SAGE. (Google-Books-ID: tiZFDwAAQBAJ).
- Orlitzky, M. (2011) Institutional logics in the study of organizations: The social construction of the relationship between corporate social and financial performance. *Business Ethics Quarterly*, 21 (3): pp. 409–444.
- Ospina, S.M. and Uhl-Bien, M. (2012) “Convergence and divergence around relational leadership.” In Uhl-Bien, M. and Ospina, S.M. (eds.) *Advancing Relational Leadership Research: A Dialogue Among Perspectives*. IAP.
- Osterloh, M. and Frey, B.S. (2000) Motivation, knowledge transfer, and organizational forms. *Organization Science*, 11 (5): pp. 538–550.
- Osterman, P. (2000) Work Reorganization in an Era of Restructuring: Trends in Diffusion and Effects on Employee Welfare. *ILR Review*, 53 (2): pp. 179–196. doi:10.1177/001979390005300201.
- Pallant, J. (2011) *SPSS survival manual : a step by step guide to data analysis using SPSS*. Crows Nest, New South Weals: Allen & Unwin. Available at: <https://www.allenandunwin.com/browse/books/academic-professional/research-methods/SPSS-Survival-Manual-Julie-Pallant-9781743314005> (Downloaded: 13 February 2020).
- Parzefall, M.-R. and Huhtala, H.M.J. (2006) “Employee well-being in knowledge work - between Human Resource Management and innovativeness.” In Vanhala, S. and Kolehmainen, M. (eds.) *HRM - Between Performance and Employees*. Proceedings From the HRM Conference in Helsinki November 16, 2006. Helsinki School of Economics. pp. 203-216. Available at: <https://aaltodoc.aalto.fi/bitstream/handle/123456789/11006/isbn9524880741.pdf?sequence=1&isAllowed=y#page=200> (Downloaded: 11 December 2017).
- Peltokorpi, V. (2013) “Governing knowledge processes in project-based organizations.” In von Krogh, G., Takeuchi, H., Kase, K., et al. (eds.) *Towards Organizational Knowledge: The Pioneering Work of Ikujiro Nonaka*. The Nonaka Series on Knowledge and Innovation. London: Palgrave Macmillan UK. pp. 263–282. doi:10.1057/9781137024961_16.
- Pfeffer, J. (1994) Competitive advantage through people. *California Management Review*, 36 (2): p. 9.
- Pless, N.M. and Maak, T. (2011) “Responsible leadership: Pathways to the future.” In *Responsible Leadership*. Springer. pp. 3–13.

- Pless, N.M., Maak, T. and Waldman, D.A. (2012) Different approaches toward doing the right thing: Mapping the responsibility orientations of leaders. *Academy of Management Perspectives*, 26 (4): pp. 51–65.
- Plomin, R. and Daniels, D. (2011) Why are children in the same family so different from one another? *International Journal of Epidemiology*, 40 (3): pp. 563–582. doi:10.1093/ije/dyq148.
- Ployhard, R.E. and Moliterno, T.P. (2011) Emergence of the human capital resource: A multilevel model. *Academy of Management Review*, 36 (1): pp. 127–150.
- Podsakoff, P.M., MacKenzie, S.B., Paine, J.B., et al. (2000) Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26 (3): pp. 513–563. doi:10.1177/014920630002600307.
- Poole, P.P., Gioia, D.A. and Gray, B. (1989) Influence modes, schema change, and organizational transformation. *The Journal of Applied Behavioral Science*, 25 (3): pp. 271–289.
- Porath, C., Spreitzer, G., Gibson, C., et al. (2012) Thriving at work: Toward its measurement, construct validation, and theoretical refinement. *Journal of Organizational Behavior*, 33 (2): pp. 250–275.
- Preacher, K.J., Zyphur, M.J. and Zhang, Z. (2010) A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15 (3): p. 209.
- Purcell, J. (1999) Best practice and best fit: chimera or cul-de-sac? *Human Resource Management Journal*, 9 (3): pp. 26–41. doi:10.1111/j.1748-8583.1999.tb00201.x.
- Quinn, R.E. (2004) *Building the Bridge As You Walk On It: A Guide for Leading Change*. John Wiley & Sons. (Google-Books-ID: 0F3HAgAAQBAJ).
- Raelin, J.A. (2004) Don't bother putting leadership into people. *Academy of Management Executive*, 18 (3): pp. 131–135.
- Raelin, J.A. (2016) *Imagine There Are No Leaders: Reframing Leadership as Collaborative Agency*. Southeastern University. Available at: <https://poseidon01.ssrn.com/delivery.php?ID=561029122115112121022100089005065085025024069039034031127023091068082113095083077102017000125011012022037011125125073069114068111037074093092104111065072013122003107039087066025083071076009114006071064101109114085007068110009123074083113090009093099114&EXT=pdf> (Accessed: 8 September 2017).
- Rafferty, A.E. and Griffin, M.A. (2006) Perceptions of organizational change: A stress and coping perspective. *Journal of Applied Psychology*, 91 (5): p. 1154.
- Redman, T. and Snape, E. (2005) Unpacking commitment: multiple loyalties and employee behaviour. *Journal of Management Studies*, 42 (2): pp. 301–328.
- Reinecke, L., Aufenanger, S., Beutel, M.E., et al. (2017) Digital stress over the life span: The effects of communication load and internet multitasking on perceived stress and psychological health impairments in a German probability sample. *Media Psychology*, 20 (1): pp. 90–115. doi:10.1080/15213269.2015.1121832.
- Rhoades, L. and Eisenberger, R. (2002) Perceived organizational support: a review of the literature. *Journal of Applied Psychology*, 87 (4): p. 698.

- Rich, B.L., Lepine, J.A. and Crawford, E.R. (2010) Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53 (3): pp. 617–635.
- Richardson, B. (2017) *Say Goodbye to all that Paperwork: Digital Mortgages have Arrived*. Available at: https://www.washingtonpost.com/realestate/say-goodbye-to-all-that-paperwork-digital-mortgages-have-arrived/2019/01/16/7a60d538-fcb7-11e8-83c0-b06139e540e5_story.html (Accessed: 7 February 2019).
- Riggio, R.E. (2011) “The management perspective: Engineering effective leadership in organizations” In Harvey, M. and Riggio, R.E. (eds.) *The Dialogue of Disciplines: Research Companion to Leadership Studies*. Edward Elgar Publishing. pp. 119–128. Available at: <https://www.elgaronline.com/view/9781847209405.00016.xml> (Downloaded: 4 September 2020).
- Riggle, R.J., Edmondson, D.R. and Hansen, J.D. (2009) A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 years of research. *Journal of Business Research*, 62 (10): pp. 1027–1030.
- Ricketta, M. and Van Dick, R. (2005) Foci of attachment in organizations: A meta-analytic comparison of the strength and correlates of workgroup versus organizational identification and commitment. *Journal of Vocational Behavior*, 67 (3): pp. 490–510.
- Rindfleisch, A., Malter, A.J., Ganesan, S., et al. (2008) Cross-sectional versus longitudinal survey research: concepts, findings, and guidelines. *Journal of Marketing Research*, 35 (3): pp. 261–279.
- Robertson, I.T., Birch, A.J. and Cooper, C.L. (2012) Job and work attitudes, engagement and employee performance. *Leadership & Organization Development Journal*, 33 (3): pp. 224–232. doi:10.1108/01437731211216443.
- Robey, D., Ross, J.W. and Boudreau, M.-C. (2002) Learning to implement enterprise systems: An exploratory study of the dialectics of change. *Journal of Management Information Systems*, 19 (1): pp. 17–46.
- Rogers, E.W. and Wright, P.M. (1998) Measuring organizational performance in strategic human resource management: Problems, prospects and performance information markets. *Human Resource Management Review*, 8 (3): pp. 311–331. doi:10.1016/S1053-4822(98)90007-9.
- Rosseel, Y. (2020) *Multilevel SEM model syntax*. Available at: <http://lavaan.ugent.be/tutorial/multilevel.html>.
- Roumpy, D. and Delery, J.E. (2019) “Strategic HRM: Where do we go from here?” In Wilkinson, A., Bacon, N., Snell, S., et al. (eds.) *The SAGE Handbook of Human Resource Management*. SAGE. pp. 423–438.
- Rousseau, D.M. (1985) Issues of level in organizational research: Multi-level and cross-level perspectives. *Research in Organizational Behavior*, 7 (1): pp. 1–37.
- Rousseau, D.M. (2012) *The Oxford Handbook of Evidence-Based Management*. Oxford University Press.
- Rousseau, D.M. and Barends, E.G.R. (2011) Becoming an evidence-based HR practitioner. *Human Resource Management Journal*, 21 (3): pp. 221–235. doi:10.1111/j.1748-8583.2011.00173.x.
- Roznowski, M. and Hulin, C. (1992) “The scientific merit of valid measures of general constructs with special reference to job satisfaction and job withdrawal.” In Cranny, C.J., Smith, P.C. and Stone,

E.F. (eds.) *Job Satisfaction: How People Feel About their Jobs and how it Affects their Performance*. pp. 123–163.

Rucker, D.D., Preacher, K.J., Tormala, Z.L., et al. (2011) Mediation analysis in social psychology: current practices and new recommendations. *Social and Personality Psychology Compass*, 5 (6): pp. 359–371. doi:10.1111/j.1751-9004.2011.00355.x.

Ryan, A.M., Schmit, M.J. and Johnson, R. (1996) Attitudes and effectiveness: Examining relations at an organizational level. *Personnel Psychology*, 49 (4): pp. 853–882. doi:10.1111/j.1744-6570.1996.tb02452.x.

Ryan, R.M. and Deci, E.L. (2001) On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52 (1): pp. 141–166.

Ryff, C.D. (1989) Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57 (6): p. 1069.

Ryff, C.D. and Singer, B. (1998) The contours of positive human health. *Psychological Inquiry*, 9 (1): pp. 1–28.

Rynes, S.L., Rousseau, D.M. and Barends, E. (2014) From the Guest Editors: Change the World: Teach Evidence-Based Practice! *Academy of Management Learning & Education*, 13 (3): pp. 305–321. doi:10.5465/amle.2014.0203.

Sanders, K., Cogin, J.A. and Bainbridge, H.T.J. (2013) *Research Methods for Human Resource Management*. Routledge. (Google-Books-ID: OehJAgAAQBAJ).

Saridakis, G., Lai, Y. and Cooper, C.L. (2017) Exploring the relationship between HRM and firm performance: A meta-analysis of longitudinal studies. *Human Resource Management Review*, 27 (1): pp. 87–96.

Schaufeli, W. and Salanova, M. (2011) Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organizational Psychology*, 20 (1): pp. 39–46.

Schaufeli, W. and Taris, T.W. (2014) “Individual well-being and performance at work in the wider context of strategic HRM” In Veldhoven, M. van and Peccei, R. (eds.) *Well-being and Performance at Work: The role of context*. Psychology Press. p. 95.

Schleicher, D.J., Watt, J.D. and Greguras, G.J. (2004) Reexamining the job satisfaction-performance relationship: The complexity of attitudes. *Journal of Applied Psychology*, 89 (1): p. 165.

Schneider, B., Ehrhart, M.G. and Macey, W.H. (2013) Organizational climate and culture. *Annual Review of Psychology*, 64 (1): pp. 361–388. doi:10.1146/annurev-psych-113011-143809.

Schrage, M., Kiron, D., Hancock, B., et al. (2019) Performance Management’s Digital Shift. *MIT Sloan Management Review*. Available at: <https://sloanreview.mit.edu/projects/performance-managements-digital-shift/> (Accessed: 21 March 2019).

Schuler, R.S. (1992) Strategic human resources management: Linking the people with the strategic needs of the business. *Organizational dynamics*, 21 (1): pp. 18–32.

Schuler, R.S. and Jackson, S.E. (2005) A quarter-century review of Human Resource Management in the U.S.: The growth in importance of the international perspective. *Management Review*, 16 (1): pp. 11–35.

- Schumpeter (2015) Digital Taylorism. *The Economist*, 10 September. Available at: <https://www.economist.com/business/2015/09/10/digital-taylorism> (Accessed: 10 February 2019).
- Self, D.R., Armenakis, A.A. and Schraeder, M. (2007) Organizational change content, process, and context: A simultaneous analysis of employee reactions. *Journal of Change Management*, 7 (2): pp. 211–229. doi:10.1080/14697010701461129.
- Shaw, J.D., Gupta, N. and Delery, J.E. (2005) Alternative conceptualizations of the relationship between voluntary turnover and organizational performance. *Academy of Management Journal*, 48 (1): pp. 50–68.
- Shin, J., Taylor, M.S. and Seo, M.-G. (2012) Resources for change: The relationships of organizational inducements and psychological resilience to employees' attitudes and behaviors toward organizational change. *Academy of Management journal*, 55 (3): pp. 727–748.
- Singh, S., Darwish, T.K. and Potočnik, K. (2016) Measuring organizational performance: A case for subjective measures. *British Journal of Management*, 27 (1): pp. 214–224. doi:10.1111/1467-8551.12126.
- Snape, E. and Redman, T. (2010) HRM practices, organizational citizenship behaviour, and performance: A multi-level analysis. *Journal of Management Studies*, 47 (7): pp. 1219–1247. doi:10.1111/j.1467-6486.2009.00911.x.
- Sonnentag, S. and Frese, M. (2005) “Performance concepts and performance theory.” In *Psychological Management of Individual Performance*. pp. 1–25. doi:10.1002/0470013419.ch1.
- Stahl, G.K., Pless, N.M. and Maak, T. (2013) “Responsible global leadership.” In Mendenhall, M.E., Osland, J., Bird, A., et al. (eds.) *Global Leadership 2e: Research, Practice, and Development*. Routledge.
- Stavrou, E.T., Brewster, C. and Charalambous, C. (2010) Human resource management and firm performance in Europe through the lens of business systems: best fit, best practice or both? *The International Journal of Human Resource Management*, 21 (7): pp. 933–962. doi:10.1080/09585191003783371.
- Stordeur, S., D’hoore, W. and Vandenberghe, C. (2001) Leadership, organizational stress, and emotional exhaustion among hospital nursing staff. *Journal of Advanced Nursing*, 35 (4): pp. 533–542.
- Storey, J., Ulrich, D. and Wright, P.M. (2019) *Strategic Human Resource Management: A Research Overview*. Routledge. (Google-Books-ID: YuOLDwAAQBAJ).
- Storey, J., Wright, P.M. and Ulrich, D.O. (2008) *The Routledge companion to strategic human resource management*. Routledge. Available at: azumisan.asuscomm.com/PhD%20Research%20Guide/Companion_to_Strategic_Human_Resource_Management.pdf (Accessed: 3 March 2019).
- Stredwick, J. (2013) *An Introduction to Human Resource Management*. Routledge. (Google-Books-ID: 7aQ3AAAAQBAJ).
- Subramony, M., Krause, N. and Norton, J. (2007) “Organizational performance, Human Resource investments, and employee attitudes.” In *Academy of Management Annual Meeting Proceedings*. August 2007. Academy of Management. pp. 1–6. doi:10.5465/AMBPP.2007.26524117.

- Tabrizi, B., Lam, E., Girard, K., et al. (2019) Digital transformation is not about technology. *Harvard Business Review*, 13 March. Available at: <https://hbr.org/2019/03/digital-transformation-is-not-about-technology> (Accessed: 7 September 2020).
- Takeuchi, R., Chen, G. and Lepak, D.P. (2009) Through the looking glass of a social system: Cross-level effects of High-Performance Work Systems on employees' attitudes. *Personnel Psychology*, 62 (1): pp. 1–29. doi:10.1111/j.1744-6570.2008.01127.x.
- Tangen, S. (2005) Demystifying productivity and performance. *International Journal of Productivity and Performance Management*, 54 (1): pp. 34–46.
- Tepper, B. (2000) *Consequences of Abusive Supervision.*, 43: pp. 178–190. doi:10.2307/1556375.
- Teti, E. and Andriotto, M. (2013) Effectiveness of employee welfare schemes: differences of specific professional profiles. *The International Journal of Human Resource Management*, 24 (17): pp. 3232–3246. doi:10.1080/09585192.2013.763840.
- Tharenou, P., Saks, A.M. and Moore, C. (2007) A review and critique of research on training and organizational-level outcomes. *Human Resource Management Review*, 17 (3): pp. 251–273.
- The Economist (2017) The world's most valuable resource is no longer oil, but data. *The Economist*, 6 May. Available at: <https://www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data> (Accessed: 7 February 2019).
- The Financial Times (2019) *European Business School Rankings 2019*. Available at: <http://rankings.ft.com/businessschoolrankings/european-business-school-rankings-2019>.
- Thomas, B.E. and Baron, J.P. (1994) *Evaluating knowledge worker productivity: literature review*. Construction Engineering Research Lab (Army) Champaign IL.
- Trompenaars, F. and Voerman, E. (2009) *Servant Leadership Across Cultures: Harnessing the Strength of the World's Most Powerful Leadership Philosophy*. Infinite Ideas. (Google-Books-ID: y3dxrM58XkEC).
- Tsui, A.S., Pearce, J.L., Porter, L.W., et al. (1997) Alternative approaches to the employee-organization relationship: Does investment in employees pay off? *Academy of Management Journal*, 40 (5): pp. 1089–1121.
- Uhl-Bien, M. (2006) Relational leadership theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly*, 17 (6): pp. 654–676.
- Van Weert, T.J. (2006) "Lifelong learning in the digital age." In Van Weert, T.J. and Kendall, M. (eds.) *ResearchGate*. doi:http://dx.doi.org/10.1007/1-4020-7843-9_1.
- Vesty, L. (2016) Millennials want purpose over paychecks. So why can't we find it at work? *The Guardian*, 14 September. Available at: <https://www.theguardian.com/sustainable-business/2016/sep/14/millennials-work-purpose-linked-in-survey> (Accessed: 8 July 2019).
- Voegtlin, C. (2016) What does it mean to be responsible? Addressing the missing responsibility dimension in ethical leadership research. *Leadership*, 12 (5): pp. 581–608.
- Voegtlin, C., Patzer, M. and Scherer, A.G. (2012) Responsible leadership in global business: A new approach to leadership and its multi-level outcomes. *Journal of Business Ethics*, 105 (1): pp. 1–16.

- Waldman, D.A. and Siegel, D. (2008) Defining the socially responsible leader. *The Leadership Quarterly*, 19 (1): pp. 117–131.
- Wall, T.D. and Wood, S.J. (2005) The romance of human resource management and business performance, and the case for big science. *Human Relations*, 58 (4): pp. 429–462.
- Wang, G., Oh, I.-S., Courtright, S.H., et al. (2011) Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research. *Group & Organization Management*, 36 (2): p. 223–270.
- Wang, S., Huang, W., Gao, Y., et al. (2015) Can socially responsible leaders drive Chinese firm performance? *Leadership & Organization Development Journal*, 36 (4): pp. 435–450. doi:10.1108/LODJ-01-2014-0006.
- Waterman, A.S. (1993) Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of personality and social psychology*, 64 (4): p. 678.
- Watson, D., Clark, L.A. and Tellegen, A. (1988) Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54 (6): p. 1063.
- Way, S.A. (2002) High performance work systems and intermediate indicators of firm performance within the US small business sector. *Journal of Management*, 28 (6): pp. 765–785.
- Webropol (2020) *Webropol.com*. Available at: <https://webropol.com/>.
- Wegge, J., Shemla, M. and Haslam, S. (2014) Leader behavior as a determinant of health at work: Specification and evidence of five key pathways. *Zeitschrift für Personalforschung*, 28: pp. 6–23. doi:10.1688/ZfP-2014-01-Wegge.
- Weiss, L.A., Westerhof, G.J. and Bohlmeijer, E.T. (2016) Can we increase psychological well-being? The effects of interventions on psychological well-being: A meta-analysis of randomized controlled trials. *PLoS One*, 11 (6): p. 1. doi:<http://dx.doi.org/10.1371/journal.pone.0158092>.
- WHO (1946) *Constitution of the World Health Organization*. Available at: <http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1> (Accessed: 7 August 2019).
- Wiklund, J., Nikolaev, B., Shir, N., et al. (2019) Entrepreneurship and well-being: Past, present, and future. *Journal of Business Venturing*, 34 (4): pp. 579–588. doi:10.1016/j.jbusvent.2019.01.002.
- Wilkinson, A., Bacon, N., Redman, T., et al. (2009) *The SAGE Handbook of Human Resource Management*. First Edition. SAGE. (Google-Books-ID: HNR8awhchl0C).
- Wilkinson, A., Bacon, N., Snell, S., et al. (2019) *The SAGE Handbook of Human Resource Management*. Second Edition. SAGE. (Google-Books-ID: AruODwAAQBAJ).
- Wood, S., Van Veldhoven, M., Croon, M., et al. (2012) Enriched job design, high involvement management and organizational performance: The mediating roles of job satisfaction and well-being. *Human Relations*, 65 (4): pp. 419–445.
- Wright, P.M., Gardner, T.M., Moynihan, L.M., et al. (2005) The relationship between HR practices and firm performance: Examining causal order. *Personnel Psychology*, 58 (2): pp. 409–446. doi:10.1111/j.1744-6570.2005.00487.x.

- Wright, P.M. and McMahan, G.C. (1992) Theoretical perspectives for strategic human resource management. *Journal of Management*, 18 (2): pp. 295–320.
- Wright, P.M. and McMahan, G.C. (2011) Exploring human capital: putting ‘human’ back into strategic human resource management. *Human Resource Management Journal*, 21 (2): pp. 93–104. doi:10.1111/j.1748-8583.2010.00165.x.
- Wright, P.M. and Nishii, L.H. (2007) Strategic HRM and organizational behavior: Integrating multiple levels of analysis. *CAHRS Working Paper Series*, p. 468.
- Wright, P.M. and Snell, S.A. (1991) Toward an integrative view of strategic human resource management. *Human Resource Management Review*, 1 (3): pp. 203–225. doi:10.1016/1053-4822(91)90015-5.
- Wright, P.M. and Ulrich, M.D. (2017) A road well traveled: The past, present, and future journey of strategic human resource management. *Annual Review of Organizational Psychology and Organizational Behavior*, 4: pp. 45–65.
- Wright, T.A. and Bonett, D.G. (2007) Job satisfaction and psychological well-being as nonadditive predictors of workplace turnover. *Journal of Management*, 33 (2): pp. 141–160.
- Wright, T.A. and Cropanzano, R. (2000) Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology*, 5 (1): p. 84.
- Wulfhorst, E. (2007) *U.S. worker interruptions costly, research shows*. Available at: <https://www.reuters.com/article/us-work-interruptions/u-s-worker-interruptions-costly-research-shows-idUSN1345262720061213>.
- Yukl, G. (2008) How leaders influence organizational effectiveness. *The Leadership Quarterly*, 19 (6): pp. 708–722.
- Yukl, G. and Tracey, J.B. (1992) Consequences of influence tactics used with subordinates, peers, and the boss. *Journal of Applied Psychology*, 77 (4): p. 525.
- Zaccaro, S.J., Rittman, A.L. and Marks, M.A. (2001) Team Leadership. *Leadership Quarterly*, 12: pp. 451–483.
- Zhang, B. (2019) *The Legendary Founder of Southwest Airlines has died*. Available at: <https://nordic.businessinsider.com/southwest-airlines-founder-herb-kelleher-has-died-2019-1/> (Accessed: 26 January 2019).
- Zhu, C., Liu, A. and Chen, G. (2018) High performance work systems and corporate performance: the influence of entrepreneurial orientation and organizational learning. *Frontiers of Business Research in China*, 12 (1): p. 4. doi:10.1186/s11782-018-0025-y.

Appendix

- 1.) MEFA of Wellbeing
- 2.) MCFA
- 3.) Direct MSEM Model
- 4.) Full MSEM Model

MEFA

Andreas Gratz

3/27/2020

This document is part of the master thesis of Andreas Gratz at Aalto University, Helsinki, Finland.

```
library(lavaan)
```

This is lavaan 0.6-5

lavaan is BETA software! Please report any bugs.

```
library(semTools)
```

```
#####
```

This is semTools 0.5-2

All users of R (or SEM) are invited to submit functions or ideas for functions.

```
#####
```

```
library(readxl)
library(GPARotation)
```

```
df <- read_excel("/Users/andreasgratz/Desktop/sheets/final_dataframe.xlsx")
```

New names:

```
* `` -> ...1
```

```
varlist_1 <- c("LS1", "LS2", "LS3", "LS4", "LS5", "MF1", "MF2", "MF3", "MF4",
              "MF5", "MF6", "PANASa1", "PANASa2", "PANASa4", "PANASa7", "PANASa8",
              "THRa1", "THRa2", "THRa3", "THRa4")
```

```
varlist_2 <- c("agLS1", "agLS2", "agLS3", "agLS4", "agLS5", "agMF1", "agMF2", "agMF3",
              "agMF4", "agMF5", "agMF6", "agPANASa1", "agPANASa2", "agPANASa4",
              "agPANASa7", "agPANASa8", "agTHRa1", "agTHRa2", "agTHRa3", "agTHRa4")
```

```
auxlist_1 <- c("EP1", "EP2", "EP3", "EP4", "EP5", "EP6", "HB1", "HB2", "HB3", "HB4",
              "HB5", "HB6", "EC1", "EC2", "EC3", "EC4", "EC5", "EC6", "EC7", "EC8",
              "EC9", "EC10", "EC11", "EC12", "EC13")
```

```
auxlist_2 <- c("agEP1", "agEP2", "agEP3", "agEP4", "agEP5", "agEP6", "agHB1", "agHB2",
              "agHB3", "agHB4", "agHB5", "agHB6", "agEC1", "agEC2", "agEC3", "agEC4",
              "agEC5", "agEC6", "agEC7", "agEC8", "agEC9", "agEC10", "agEC11", "agEC12",
              "agEC13", "agRLa1", "agRLa2", "agRLa3", "agRLa4", "agRLb1", "agRLb2",
              "agRLb3", "agRLb4", "agRLb5", "agRLc1", "agRLc2", "agRLc3", "agRLc4")
```

```
level_1_unrotate <- efaUnrotate(df, nf = 4, varList=varlist_1, start= FALSE, aux = auxlist_1)
level_2_unrotate <- efaUnrotate(df, nf = 4, varList=varlist_2, start= FALSE, aux = auxlist_2)

level_1_geomin_rotate <- oblqRotate(level_1_unrotate, method= "geomin")
level_2_geomin_rotate <- oblqRotate(level_2_unrotate, method= "geomin")
```

Level 1 Rotation Results

Standardized Rotated Factor Loadings

	factor1	factor2	factor3	factor4
MF4	-0.929*			
MF5	-0.900*			
MF2	-0.863*			
MF1	-0.836*			
MF3	-0.734*			
MF6	-0.711*			
PANASa4		-0.919*		
PANASa2		-0.872*		
PANASa7		-0.759*		
PANASa1		-0.721*		
PANASa8		-0.534*		
THRa2			0.908*	
THRa1			0.879*	
THRa3			0.835*	
THRa4			0.750*	
LS3				-0.885*
LS2				-0.878*
LS1				-0.850*
LS4				-0.705*
LS5				-0.617*

Factor Correlation

	factor1	factor2	factor3	factor4
factor1	1.000000	0.5633560	-0.4029384	0.2985003
factor2	0.5633560	1.000000	-0.5055173	0.4276748
factor3	-0.4029384	-0.5055173	1.000000	-0.3297720
factor4	0.2985003	0.4276748	-0.3297720	1.000000

Method of rotation: Geomin

The standard errors are close but do not match with other packages. Be mindful when using it.

Level 2 Rotation Results

Standardized Rotated Factor Loadings

	factor1	factor2	factor3	factor4
agTHRa2	-0.923*			
agTHRa1	-0.862*		-0.113*	
agTHRa3	-0.828*			
agTHRa4	-0.768*			
agMF4		0.953*		
agMF5		0.914*		
agMF2		0.888*		
agMF1		0.841*		
agMF3	-0.101*	0.780*		
agMF6	-0.119*	0.729*		
agPANASa4			-0.968*	
agPANASa2			-0.800*	
agPANASa1	-0.125*		-0.728*	
agPANASa7			-0.709*	
agPANASa8			-0.608*	
agLS3				0.876*
agLS2				0.874*
agLS1				0.856*
agLS4	0.176*			0.729*
agLS5		0.119*		0.704*

Factor Correlation

	factor1	factor2	factor3	factor4
factor1	1.000000	-0.2813772	0.4138198	-0.2975867
factor2	-0.2813772	1.000000	-0.5372614	0.2657158
factor3	0.4138198	-0.5372614	1.000000	-0.4301042
factor4	-0.2975867	0.2657158	-0.4301042	1.000000

Method of rotation: Geomin

The standard errors are close but do not match with other packages. Be mindful when using it.

MCFA

Andreas Gratz

10/10/2020

This document is part of the master thesis of Andreas Gratz at Aalto University, Helsinki, Finland.

The following text displays the specified MCFA model in lavaan syntax

```
mcfa_model <- "  
  level: 1  
    # wellbeing factors  
    life_satisfaction =~ LS1 + LS2 + LS3 + LS4 + LS5  
    meaningfulness =~ MF1 + MF2 + MF3 + MF4 + MF5 + MF6  
    positive_affect =~ PANASa1 + PANASa2 + PANASa4 + PANASa7 + PANASa8  
    thriving =~ THRa1 + THRa2 + THRa3 + THRa4  
    wellbeing =~ meaningfulness + positive_affect + life_satisfaction + thriving  
    # responsible leadership factors  
    rl_stakeholder_culture =~ RLa1 + RLa2 + RLa3 + RLa4  
    rl_hr_practices =~ RLb1 + RLb2 + RLb3 + RLb4  
    rl_managerial_support =~ RLc1 + RLc2 + RLc3 + RLc4  
    leadership =~ rl_hr_practices + rl_stakeholder_culture + rl_managerial_support  
    # performance factors  
    performance =~ EP1 + EP2 + EP3 + EP4 + EP5 + EP6  
    # leadership controls  
    LMX =~ LMX1 + LMX2 + LMX3 + LMX4 + LMX5 + LMX6 + LMX7  
    SL =~ SL2 + SL3 + SL4 + SL5 + SL6 + SL9 + SL10 + SL12  
  level: 2  
    # wellbeing factors  
    life_satisfaction =~ agLS1 + agLS2 + agLS3 + agLS4 + agLS5  
    meaningfulness =~ agMF1 + agMF2 + agMF3 + agMF4 + agMF5 + agMF6  
    thriving =~ agTHRa1 + agTHRa2 + agTHRa3 + agTHRa4  
    positive_affect =~ agPANASa1 + agPANASa2 + agPANASa4 + agPANASa7 + agPANASa8  
    wellbeing =~ meaningfulness + positive_affect + life_satisfaction + thriving  
    # responsible leadership factors  
    rl_stakeholder_culture =~ agRLa1 + agRLa2 + agRLa3 + agRLa4  
    rl_hr_practices =~ agRLb1 + agRLb2 + agRLb3 + agRLb4  
    rl_managerial_support =~ agRLc1 + agRLc2 + agRLc3 + agRLc4  
    leadership =~ rl_hr_practices + rl_stakeholder_culture + rl_managerial_support  
    # performance factors  
    performance =~ agEP1 + agEP2 + agEP3 + agEP4 + agEP5 + agEP6  
    # leadership controls  
    agLMX =~ agLMX1 + agLMX2 + agLMX3 + agLMX4 + agLMX5 + agLMX6 + agLMX7  
    agSL =~ agSL2 + agSL3 + agSL4 + agSL5 + agSL6 + agSL9 + agSL10 + agSL12  
  "  
fitmodel <- cfa(mcfa_model, data= df, cluster= "id_manager", missing="fiml")
```

The following text provides fit measures and factor loadings for both the within- and between-level

```

[1] "lavaan 0.6-5 ended normally after 326 iterations"
[2] ""
[3] " Estimator ML"
[4] " Optimization method NLMINB"
[5] " Number of free parameters 352"
[6] " "
[7] " Used Total"
[8] " Number of observations 501 2070"
[9] " Number of clusters [id_manager] 173 "
[10] " "
[11] "Model Test User Model:"
[12] " "
[13] " Test statistic 5223.023"
[14] " Degrees of freedom 2616"
[15] " P-value (Chi-square) 0.000"
[16] ""
[17] "Model Test Baseline Model:"
[18] ""
[19] " Test statistic 29656.929"
[20] " Degrees of freedom 2756"
[21] " P-value 0.000"
[22] ""
[23] "User Model versus Baseline Model:"
[24] ""
[25] " Comparative Fit Index (CFI) 0.903"
[26] " Tucker-Lewis Index (TLI) 0.898"
[27] ""
[28] "Loglikelihood and Information Criteria:"
[29] ""
[30] " Loglikelihood user model (H0) -42391.509"
[31] " Loglikelihood unrestricted model (H1) -39779.997"
[32] " "
[33] " Akaike (AIC) 85487.017"
[34] " Bayesian (BIC) 86971.262"
[35] " Sample-size adjusted Bayesian (BIC) 85853.990"
[36] ""
[37] "Root Mean Square Error of Approximation:"
[38] ""
[39] " RMSEA 0.045"
[40] " 90 Percent confidence interval - lower 0.043"
[41] " 90 Percent confidence interval - upper 0.046"
[42] " P-value RMSEA <= 0.05 1.000"
[43] ""
[44] "Standardized Root Mean Square Residual (corr metric):"
[45] ""
[46] " SRMR (within covariance matrix) 0.073"
[47] " SRMR (between covariance matrix) 0.085"
[48] ""
[49] "Parameter Estimates:"
[50] ""
[51] " Information Observed"
[52] " Observed information based on Hessian"

```

```

[53] " Standard errors                               Standard"
[54] ""
[55] ""
[56] "Level 1 [within]:"
[57] ""
[58] "Latent Variables:"
[59] "          Estimate  Std.Err  z-value  P(>|z|)  Std.lv"
[60] "  life_satisfaction =~"
[61] "    LS1              1.000
[62] "    LS2              1.033    0.040   25.766   0.000   1.118"
[63] "    LS3              0.992    0.039   25.636   0.000   1.073"
[64] "    LS4              0.913    0.047   19.563   0.000   0.988"
[65] "    LS5              0.922    0.063   14.727   0.000   0.998"
[66] "  meaningfulness =~"
[67] "    MF1              1.000
[68] "    MF2              1.251    0.063   19.984   0.000   0.983"
[69] "    MF3              0.889    0.052   17.112   0.000   0.699"
[70] "    MF4              1.147    0.054   21.224   0.000   0.901"
[71] "    MF5              1.360    0.061   22.282   0.000   1.068"
[72] "    MF6              1.125    0.062   18.010   0.000   0.884"
[73] "  positive_affect =~"
[74] "    PANASa1          1.000
[75] "    PANASa2          1.214    0.054   22.491   0.000   0.807"
[76] "    PANASa4          1.237    0.058   21.275   0.000   0.823"
[77] "    PANASa7          1.182    0.063   18.905   0.000   0.786"
[78] "    PANASa8          0.861    0.057   15.222   0.000   0.572"
[79] "  thriving =~"
[80] "    THRa1            1.000
[81] "    THRa2            0.974    0.035   27.559   0.000   1.053"
[82] "    THRa3            1.033    0.036   28.757   0.000   1.117"
[83] "    THRa4            0.935    0.043   21.743   0.000   1.010"
[84] "  wellbeing =~"
[85] "    meaningfulness  1.000
[86] "    positive_affct  1.009    0.099   10.214   0.000   0.825"
[87] "    life_satisfctn  0.971    0.123    7.902   0.000   0.488"
[88] "    thriving         1.268    0.129    9.857   0.000   0.638"
[89] "  rl_stakeholder_culture =~"
[90] "    RLa1             1.000
[91] "    RLa2             0.919    0.058   15.736   0.000   1.173"
[92] "    RLa3             0.884    0.051   17.455   0.000   1.127"
[93] "    RLa4             0.953    0.056   17.135   0.000   1.216"
[94] "  rl_hr_practices =~"
[95] "    RLb1             1.000
[96] "    RLb2             0.900    0.042   21.438   0.000   1.262"
[97] "    RLb3             0.759    0.049   15.520   0.000   1.065"
[98] "    RLb4             0.771    0.045   16.996   0.000   1.082"
[99] "  rl_managerial_support =~"
[100] "    RLc1             1.000
[101] "    RLc2             1.062    0.043   24.801   0.000   1.195"
[102] "    RLc3             0.893    0.045   19.668   0.000   1.006"
[103] "    RLc4             1.025    0.048   21.222   0.000   1.154"
[104] "  leadership =~"
[105] "    rl_hr_practics   1.000
[106] "    rl_stkhldr_clt   0.484    0.117    4.123   0.000   0.224"

```

[107]	"	rl_mngrl_spprt	1.823	0.211	8.630	0.000	0.954"
[108]	"	performance =~					"
[109]	"	EP1	1.000				1.004"
[110]	"	EP2	1.122	0.061	18.298	0.000	1.126"
[111]	"	EP3	1.187	0.068	17.584	0.000	1.192"
[112]	"	EP4	1.066	0.062	17.245	0.000	1.070"
[113]	"	EP5	1.002	0.061	16.425	0.000	1.006"
[114]	"	EP6	1.114	0.067	16.627	0.000	1.118"
[115]	"	LMX =~					"
[116]	"	LMX1	1.000				0.712"
[117]	"	LMX2	1.097	0.067	16.367	0.000	0.781"
[118]	"	LMX3	0.878	0.056	15.673	0.000	0.624"
[119]	"	LMX4	0.929	0.059	15.699	0.000	0.661"
[120]	"	LMX5	1.010	0.070	14.356	0.000	0.719"
[121]	"	LMX6	0.896	0.057	15.830	0.000	0.637"
[122]	"	LMX7	0.986	0.057	17.336	0.000	0.702"
[123]	"	SL =~					"
[124]	"	SL2	1.000				1.204"
[125]	"	SL3	0.941	0.045	20.936	0.000	1.133"
[126]	"	SL4	0.895	0.046	19.671	0.000	1.078"
[127]	"	SL5	0.746	0.055	13.481	0.000	0.899"
[128]	"	SL6	0.829	0.048	17.127	0.000	0.998"
[129]	"	SL9	0.817	0.044	18.597	0.000	0.983"
[130]	"	SL10	0.815	0.043	18.931	0.000	0.981"
[131]	"	SL12	0.820	0.042	19.627	0.000	0.988"
[132]	"	Std.all"					
[133]	"	"					
[134]	"	0.849"					
[135]	"	0.886"					
[136]	"	0.899"					
[137]	"	0.746"					
[138]	"	0.609"					
[139]	"	"					
[140]	"	0.768"					
[141]	"	0.828"					
[142]	"	0.733"					
[143]	"	0.859"					
[144]	"	0.919"					
[145]	"	0.773"					
[146]	"	"					
[147]	"	0.810"					
[148]	"	0.873"					
[149]	"	0.848"					
[150]	"	0.772"					
[151]	"	0.641"					
[152]	"	"					
[153]	"	0.883"					
[154]	"	0.881"					
[155]	"	0.905"					
[156]	"	0.771"					
[157]	"	"					
[158]	"	0.692"					
[159]	"	0.825"					
[160]	"	0.488"					

```

[161] " 0.638"
[162] " "
[163] " 0.751"
[164] " 0.757"
[165] " 0.846"
[166] " 0.777"
[167] " "
[168] " 0.858"
[169] " 0.833"
[170] " 0.672"
[171] " 0.711"
[172] " "
[173] " 0.813"
[174] " 0.904"
[175] " 0.766"
[176] " 0.812"
[177] " "
[178] " 0.420"
[179] " 0.224"
[180] " 0.954"
[181] " "
[182] " 0.701"
[183] " 0.877"
[184] " 0.834"
[185] " 0.826"
[186] " 0.788"
[187] " 0.789"
[188] " "
[189] " 0.700"
[190] " 0.768"
[191] " 0.735"
[192] " 0.747"
[193] " 0.682"
[194] " 0.752"
[195] " 0.815"
[196] " "
[197] " 0.784"
[198] " 0.835"
[199] " 0.797"
[200] " 0.583"
[201] " 0.712"
[202] " 0.765"
[203] " 0.777"
[204] " 0.797"
[205] ""
[206] "Covariances:"
[207] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[208] " wellbeing ~~ "
[209] " leadership 0.104 0.023 4.417 0.000 0.323 0.323"
[210] " performance 0.115 0.031 3.691 0.000 0.210 0.210"
[211] " LMX 0.122 0.024 5.100 0.000 0.315 0.315"
[212] " SL 0.186 0.039 4.788 0.000 0.284 0.284"
[213] " leadership ~~ "
[214] " performance 0.094 0.032 2.888 0.004 0.158 0.158"

```

[215]	"	LMX	0.406	0.055	7.381	0.000	0.968	0.968"
[216]	"	SL	0.692	0.092	7.514	0.000	0.975	0.975"
[217]	"	performance ~~						"
[218]	"	LMX	0.156	0.037	4.199	0.000	0.218	0.218"
[219]	"	SL	0.193	0.060	3.216	0.001	0.160	0.160"
[220]	"	LMX ~~						"
[221]	"	SL	0.759	0.069	11.007	0.000	0.886	0.886"
[222]	"	"						"
[223]	"	Intercepts:"						"
[224]	"		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all"
[225]	"	.LS1	4.914	0.057	86.329	0.000	4.914	3.857"
[226]	"	.LS2	5.253	0.056	93.241	0.000	5.253	4.166"
[227]	"	.LS3	5.457	0.053	102.294	0.000	5.457	4.570"
[228]	"	.LS4	5.242	0.059	88.634	0.000	5.242	3.960"
[229]	"	.LS5	4.509	0.073	61.592	0.000	4.509	2.752"
[230]	"	.MF1	5.824	0.046	127.408	0.000	5.824	5.692"
[231]	"	.MF2	5.491	0.053	103.594	0.000	5.491	4.628"
[232]	"	.MF3	5.836	0.043	137.143	0.000	5.836	6.127"
[233]	"	.MF4	5.689	0.047	121.368	0.000	5.689	5.422"
[234]	"	.MF5	5.639	0.052	108.525	0.000	5.639	4.849"
[235]	"	.MF6	5.659	0.051	110.804	0.000	5.659	4.950"
[236]	"	.PANASa1	3.922	0.037	106.888	0.000	3.922	4.775"
[237]	"	.PANASa2	3.551	0.041	85.996	0.000	3.551	3.842"
[238]	"	.PANASa4	3.505	0.043	80.892	0.000	3.505	3.614"
[239]	"	.PANASa7	3.301	0.045	72.569	0.000	3.301	3.242"
[240]	"	.PANASa8	3.729	0.040	93.507	0.000	3.729	4.178"
[241]	"	.THRa1	5.339	0.055	97.657	0.000	5.339	4.363"
[242]	"	.THRa2	5.471	0.053	102.520	0.000	5.471	4.580"
[243]	"	.THRa3	5.317	0.055	96.472	0.000	5.317	4.310"
[244]	"	.THRa4	5.968	0.059	101.989	0.000	5.968	4.557"
[245]	"	.RLa1	4.633	0.076	61.028	0.000	4.633	2.727"
[246]	"	.RLa2	4.822	0.069	69.651	0.000	4.822	3.112"
[247]	"	.RLa3	5.026	0.060	84.372	0.000	5.026	3.769"
[248]	"	.RLa4	4.709	0.070	67.333	0.000	4.709	3.008"
[249]	"	.RLb1	3.357	0.073	45.966	0.000	3.357	2.054"
[250]	"	.RLb2	3.128	0.068	46.212	0.000	3.128	2.065"
[251]	"	.RLb3	3.764	0.071	53.170	0.000	3.764	2.375"
[252]	"	.RLb4	3.014	0.068	44.318	0.000	3.014	1.980"
[253]	"	.RLc1	5.090	0.062	82.260	0.000	5.090	3.675"
[254]	"	.RLc2	5.453	0.059	92.299	0.000	5.453	4.124"
[255]	"	.RLc3	5.529	0.059	94.302	0.000	5.529	4.213"
[256]	"	.RLc4	4.762	0.063	75.051	0.000	4.762	3.353"
[257]	"	.EP1	4.834	0.064	75.568	0.000	4.834	3.376"
[258]	"	.EP2	5.026	0.057	87.577	0.000	5.026	3.913"
[259]	"	.EP3	4.788	0.064	74.984	0.000	4.788	3.350"
[260]	"	.EP4	4.838	0.058	83.641	0.000	4.838	3.737"
[261]	"	.EP5	5.222	0.057	91.556	0.000	5.222	4.090"
[262]	"	.EP6	5.156	0.063	81.444	0.000	5.156	3.639"
[263]	"	.LMX1	3.733	0.045	82.151	0.000	3.733	3.670"
[264]	"	.LMX2	3.719	0.045	81.910	0.000	3.719	3.659"
[265]	"	.LMX3	3.774	0.038	99.456	0.000	3.774	4.443"
[266]	"	.LMX4	4.062	0.040	102.642	0.000	4.062	4.586"
[267]	"	.LMX5	3.537	0.047	75.112	0.000	3.537	3.356"
[268]	"	.LMX6	4.000	0.038	105.621	0.000	4.000	4.719"

[269]	"	.LMX7	4.086	0.038	106.231	0.000	4.086	4.746"
[270]	"	.SL2	4.970	0.069	72.471	0.000	4.970	3.238"
[271]	"	.SL3	5.353	0.061	88.305	0.000	5.353	3.945"
[272]	"	.SL4	5.232	0.060	86.641	0.000	5.232	3.871"
[273]	"	.SL5	4.876	0.069	70.810	0.000	4.876	3.164"
[274]	"	.SL6	4.295	0.063	68.594	0.000	4.295	3.065"
[275]	"	.SL9	5.092	0.057	88.666	0.000	5.092	3.961"
[276]	"	.SL10	5.427	0.056	96.217	0.000	5.427	4.299"
[277]	"	.SL12	5.467	0.055	98.790	0.000	5.467	4.414"
[278]	"	.life_satisfctn	0.000				0.000	0.000"
[279]	"	.meaningfulness	0.000				0.000	0.000"
[280]	"	.positive_affct	0.000				0.000	0.000"
[281]	"	.thriving	0.000				0.000	0.000"
[282]	"	wellbeing	0.000				0.000	0.000"
[283]	"	.rl_stkhldr_clt	0.000				0.000	0.000"
[284]	"	.rl_hr_practics	0.000				0.000	0.000"
[285]	"	.rl_mngrl_spprt	0.000				0.000	0.000"
[286]	"	leadership	0.000				0.000	0.000"
[287]	"	performance	0.000				0.000	0.000"
[288]	"	LMX	0.000				0.000	0.000"
[289]	"	SL	0.000				0.000	0.000"
[290]	"	"						
[291]	"	"Variances:"						
[292]	"		Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all"
[293]	"	.LS1	0.453	0.037	12.169	0.000	0.453	0.279"
[294]	"	.LS2	0.341	0.031	11.004	0.000	0.341	0.214"
[295]	"	.LS3	0.274	0.027	10.110	0.000	0.274	0.192"
[296]	"	.LS4	0.777	0.055	14.122	0.000	0.777	0.443"
[297]	"	.LS5	1.689	0.113	14.989	0.000	1.689	0.629"
[298]	"	.MF1	0.430	0.031	14.035	0.000	0.430	0.410"
[299]	"	.MF2	0.442	0.033	13.440	0.000	0.442	0.314"
[300]	"	.MF3	0.419	0.029	14.479	0.000	0.419	0.462"
[301]	"	.MF4	0.289	0.023	12.421	0.000	0.289	0.262"
[302]	"	.MF5	0.211	0.022	9.805	0.000	0.211	0.156"
[303]	"	.MF6	0.526	0.038	14.027	0.000	0.526	0.403"
[304]	"	.PANASa1	0.232	0.018	12.742	0.000	0.232	0.344"
[305]	"	.PANASa2	0.203	0.019	10.789	0.000	0.203	0.237"
[306]	"	.PANASa4	0.264	0.023	11.697	0.000	0.264	0.280"
[307]	"	.PANASa7	0.419	0.031	13.451	0.000	0.419	0.405"
[308]	"	.PANASa8	0.469	0.032	14.681	0.000	0.469	0.589"
[309]	"	.THRa1	0.329	0.029	11.279	0.000	0.329	0.220"
[310]	"	.THRa2	0.319	0.028	11.553	0.000	0.319	0.224"
[311]	"	.THRa3	0.275	0.027	10.118	0.000	0.275	0.181"
[312]	"	.THRa4	0.694	0.049	14.043	0.000	0.694	0.405"
[313]	"	.RLa1	1.259	0.102	12.359	0.000	1.259	0.436"
[314]	"	.RLa2	1.026	0.082	12.436	0.000	1.026	0.427"
[315]	"	.RLa3	0.507	0.054	9.321	0.000	0.507	0.285"
[316]	"	.RLa4	0.971	0.084	11.599	0.000	0.971	0.396"
[317]	"	.RLb1	0.705	0.076	9.293	0.000	0.705	0.264"
[318]	"	.RLb2	0.702	0.067	10.522	0.000	0.702	0.306"
[319]	"	.RLb3	1.377	0.100	13.717	0.000	1.377	0.548"
[320]	"	.RLb4	1.146	0.086	13.325	0.000	1.146	0.495"
[321]	"	.RLc1	0.651	0.047	13.786	0.000	0.651	0.339"
[322]	"	.RLc2	0.320	0.028	11.250	0.000	0.320	0.183"

[323]	"	.RLc3	0.711	0.050	14.330	0.000	0.711	0.413"
[324]	"	.RLc4	0.687	0.050	13.817	0.000	0.687	0.340"
[325]	"	.EP1	1.043	0.072	14.516	0.000	1.043	0.509"
[326]	"	.EP2	0.382	0.035	11.060	0.000	0.382	0.232"
[327]	"	.EP3	0.623	0.050	12.479	0.000	0.623	0.305"
[328]	"	.EP4	0.532	0.042	12.824	0.000	0.532	0.317"
[329]	"	.EP5	0.618	0.046	13.418	0.000	0.618	0.379"
[330]	"	.EP6	0.758	0.057	13.297	0.000	0.758	0.378"
[331]	"	.LMX1	0.528	0.036	14.614	0.000	0.528	0.510"
[332]	"	.LMX2	0.423	0.030	14.082	0.000	0.423	0.410"
[333]	"	.LMX3	0.332	0.023	14.398	0.000	0.332	0.460"
[334]	"	.LMX4	0.347	0.024	14.278	0.000	0.347	0.443"
[335]	"	.LMX5	0.594	0.040	14.742	0.000	0.594	0.535"
[336]	"	.LMX6	0.312	0.022	14.232	0.000	0.312	0.435"
[337]	"	.LMX7	0.249	0.019	13.373	0.000	0.249	0.336"
[338]	"	.SL2	0.907	0.064	14.241	0.000	0.907	0.385"
[339]	"	.SL3	0.557	0.041	13.460	0.000	0.557	0.302"
[340]	"	.SL4	0.665	0.048	13.987	0.000	0.665	0.364"
[341]	"	.SL5	1.568	0.102	15.310	0.000	1.568	0.660"
[342]	"	.SL6	0.968	0.065	14.792	0.000	0.968	0.493"
[343]	"	.SL9	0.685	0.048	14.414	0.000	0.685	0.415"
[344]	"	.SL10	0.632	0.044	14.314	0.000	0.632	0.396"
[345]	"	.SL12	0.559	0.040	14.099	0.000	0.559	0.364"
[346]	"	.life_satisfctn	0.892	0.083	10.760	0.000	0.762	0.762"
[347]	"	.meaningfulness	0.322	0.040	8.121	0.000	0.521	0.521"
[348]	"	.positive_affct	0.141	0.025	5.647	0.000	0.319	0.319"
[349]	"	.thriving	0.693	0.068	10.136	0.000	0.593	0.593"
[350]	"	wellbeing	0.296	0.046	6.426	0.000	1.000	1.000"
[351]	"	.rl_stkhldr_clt	1.547	0.169	9.175	0.000	0.950	0.950"
[352]	"	.rl_hr_practics	1.621	0.150	10.834	0.000	0.824	0.824"
[353]	"	.rl_mngrl_spprt	0.114	0.054	2.100	0.036	0.090	0.090"
[354]	"	leadership	0.347	0.080	4.336	0.000	1.000	1.000"
[355]	"	performance	1.008	0.115	8.751	0.000	1.000	1.000"
[356]	"	LMX	0.506	0.058	8.749	0.000	1.000	1.000"
[357]	"	SL	1.450	0.140	10.341	0.000	1.000	1.000"
[358]	"							
[359]	"							
[360]	"	"Level 2 [id_manager]:"						
[361]	"							
[362]	"	"Latent Variables:"						
[363]	"		Estimate	Std.Err	z-value	P(> z)	Std.lv"	
[364]	"	life_satisfaction =~						"
[365]	"	agLS1	1.000				0.697"	
[366]	"	agLS2	1.042	0.075	13.901	0.000	0.726"	
[367]	"	agLS3	1.032	0.074	13.982	0.000	0.719"	
[368]	"	agLS4	0.854	0.083	10.334	0.000	0.595"	
[369]	"	agLS5	1.040	0.115	9.014	0.000	0.725"	
[370]	"	meaningfulness =~						"
[371]	"	agMF1	1.000				0.461"	
[372]	"	agMF2	1.301	0.104	12.557	0.000	0.599"	
[373]	"	agMF3	1.035	0.100	10.357	0.000	0.477"	
[374]	"	agMF4	1.069	0.083	12.956	0.000	0.493"	
[375]	"	agMF5	1.388	0.102	13.657	0.000	0.639"	
[376]	"	agMF6	1.218	0.112	10.866	0.000	0.561"	

[377]	"	thriving =~						"
[378]	"	agTHRa1	1.000					0.770"
[379]	"	agTHRa2	0.875	0.050	17.602	0.000		0.674"
[380]	"	agTHRa3	0.961	0.059	16.194	0.000		0.740"
[381]	"	agTHRa4	0.854	0.064	13.245	0.000		0.658"
[382]	"	positive_affect =~						"
[383]	"	agPANASa1	1.000					0.431"
[384]	"	agPANASa2	1.114	0.088	12.706	0.000		0.480"
[385]	"	agPANASa4	1.316	0.095	13.916	0.000		0.567"
[386]	"	agPANASa7	1.137	0.104	10.930	0.000		0.490"
[387]	"	agPANASa8	0.914	0.089	10.286	0.000		0.394"
[388]	"	wellbeing =~						"
[389]	"	meaningfulness	1.000					0.521"
[390]	"	positive_affct	1.479	0.293	5.042	0.000		0.823"
[391]	"	life_satisfctn	1.706	0.387	4.406	0.000		0.587"
[392]	"	thriving	1.844	0.418	4.415	0.000		0.574"
[393]	"	rl_stakeholder_culture =~						"
[394]	"	agRLa1	1.000					1.005"
[395]	"	agRLa2	0.756	0.106	7.137	0.000		0.760"
[396]	"	agRLa3	0.764	0.086	8.856	0.000		0.768"
[397]	"	agRLa4	0.975	0.097	10.020	0.000		0.980"
[398]	"	rl_hr_practices =~						"
[399]	"	agRLb1	1.000					1.007"
[400]	"	agRLb2	0.887	0.063	14.114	0.000		0.893"
[401]	"	agRLb3	0.945	0.072	13.082	0.000		0.952"
[402]	"	agRLb4	0.800	0.072	11.173	0.000		0.805"
[403]	"	rl_managerial_support =~						"
[404]	"	agRLc1	1.000					0.903"
[405]	"	agRLc2	1.008	0.057	17.830	0.000		0.910"
[406]	"	agRLc3	0.941	0.061	15.517	0.000		0.850"
[407]	"	agRLc4	1.029	0.067	15.340	0.000		0.929"
[408]	"	leadership =~						"
[409]	"	rl_hr_practics	1.000					0.307"
[410]	"	rl_stkhldr_clt	0.263	0.282	0.934	0.350		0.081"
[411]	"	rl_mngrl_spprt	2.912	0.781	3.729	0.000		0.998"
[412]	"	performance =~						"
[413]	"	agEP1	1.000					0.882"
[414]	"	agEP2	0.926	0.064	14.501	0.000		0.817"
[415]	"	agEP3	0.910	0.064	14.192	0.000		0.802"
[416]	"	agEP4	0.951	0.071	13.317	0.000		0.839"
[417]	"	agEP5	0.955	0.072	13.194	0.000		0.843"
[418]	"	agEP6	1.054	0.079	13.416	0.000		0.930"
[419]	"	agLMX =~						"
[420]	"	agLMX1	1.000					0.501"
[421]	"	agLMX2	1.198	0.101	11.914	0.000		0.601"
[422]	"	agLMX3	0.987	0.091	10.853	0.000		0.495"
[423]	"	agLMX4	1.018	0.094	10.858	0.000		0.511"
[424]	"	agLMX5	1.023	0.105	9.727	0.000		0.513"
[425]	"	agLMX6	1.025	0.091	11.274	0.000		0.514"
[426]	"	agLMX7	1.059	0.085	12.435	0.000		0.531"
[427]	"	agSL =~						"
[428]	"	agSL2	1.000					0.973"
[429]	"	agSL3	0.831	0.060	13.883	0.000		0.808"
[430]	"	agSL4	0.878	0.061	14.280	0.000		0.854"

[431]	"	agSL5	0.675	0.068	9.968	0.000	0.657"
[432]	"	agSL6	0.801	0.065	12.388	0.000	0.779"
[433]	"	agSL9	0.706	0.059	12.054	0.000	0.687"
[434]	"	agSL10	0.834	0.060	13.890	0.000	0.811"
[435]	"	agSL12	0.737	0.054	13.705	0.000	0.717"
[436]	"	Std.all"					
[437]	"	"					
[438]	"	0.832"					
[439]	"	0.870"					
[440]	"	0.881"					
[441]	"	0.712"					
[442]	"	0.637"					
[443]	"	"					
[444]	"	0.775"					
[445]	"	0.855"					
[446]	"	0.742"					
[447]	"	0.874"					
[448]	"	0.933"					
[449]	"	0.777"					
[450]	"	"					
[451]	"	0.930"					
[452]	"	0.878"					
[453]	"	0.853"					
[454]	"	0.764"					
[455]	"	"					
[456]	"	0.809"					
[457]	"	0.842"					
[458]	"	0.908"					
[459]	"	0.753"					
[460]	"	0.712"					
[461]	"	"					
[462]	"	0.521"					
[463]	"	0.823"					
[464]	"	0.587"					
[465]	"	0.574"					
[466]	"	"					
[467]	"	0.732"					
[468]	"	0.658"					
[469]	"	0.857"					
[470]	"	0.796"					
[471]	"	"					
[472]	"	0.882"					
[473]	"	0.842"					
[474]	"	0.822"					
[475]	"	0.730"					
[476]	"	"					
[477]	"	0.869"					
[478]	"	0.928"					
[479]	"	0.855"					
[480]	"	0.854"					
[481]	"	"					
[482]	"	0.307"					
[483]	"	0.081"					
[484]	"	0.998"					

```

[485] "          "
[486] "    0.803"
[487] "    0.910"
[488] "    0.896"
[489] "    0.856"
[490] "    0.856"
[491] "    0.858"
[492] "          "
[493] "    0.752"
[494] "    0.851"
[495] "    0.783"
[496] "    0.790"
[497] "    0.720"
[498] "    0.816"
[499] "    0.883"
[500] "          "
[501] "    0.825"
[502] "    0.853"
[503] "    0.869"
[504] "    0.677"
[505] "    0.788"
[506] "    0.775"
[507] "    0.854"
[508] "    0.847"
[509] ""
[510] "Covariances:"
[511] "          Estimate  Std.Err  z-value  P(>|z|)  Std.lv  Std.all"
[512] "  wellbeing ~~          "
[513] "    leadership      0.025   0.011   2.394   0.017   0.342   0.342"
[514] "    performance     0.051   0.022   2.309   0.021   0.240   0.240"
[515] "    agLMX            0.050   0.015   3.434   0.001   0.416   0.416"
[516] "    agSL             0.081   0.026   3.099   0.002   0.346   0.346"
[517] "  leadership ~~          "
[518] "    performance     0.074   0.030   2.432   0.015   0.271   0.271"
[519] "    agLMX            0.145   0.043   3.393   0.001   0.934   0.934"
[520] "    agSL             0.285   0.083   3.418   0.001   0.948   0.948"
[521] "  performance ~~          "
[522] "    agLMX            0.116   0.038   3.029   0.002   0.262   0.262"
[523] "    agSL             0.212   0.073   2.906   0.004   0.247   0.247"
[524] "  agLMX ~~          "
[525] "    agSL             0.444   0.064   6.983   0.000   0.910   0.910"
[526] ""
[527] "Intercepts:"
[528] "          Estimate  Std.Err  z-value  P(>|z|)  Std.lv  Std.all"
[529] "  .agLS1            4.829   0.064   75.872   0.000   4.829   5.768"
[530] "  .agLS2            5.212   0.063   82.099   0.000   5.212   6.242"
[531] "  .agLS3            5.415   0.062   87.292   0.000   5.415   6.637"
[532] "  .agLS4            5.162   0.064   81.222   0.000   5.162   6.175"
[533] "  .agLS5            4.465   0.086   51.641   0.000   4.465   3.926"
[534] "  .agMF1            5.864   0.045  129.798   0.000   5.864   9.868"
[535] "  .agMF2            5.567   0.053  104.437   0.000   5.567   7.940"
[536] "  .agMF3            5.842   0.049  119.566   0.000   5.842   9.090"
[537] "  .agMF4            5.712   0.043  133.288   0.000   5.712  10.134"
[538] "  .agMF5            5.686   0.052  109.114   0.000   5.686   8.296"

```

[539]	"	.agMF6	5.681	0.055	103.476	0.000	5.681	7.867"
[540]	"	.agTHRa1	5.247	0.063	83.352	0.000	5.247	6.337"
[541]	"	.agTHRa2	5.420	0.058	92.858	0.000	5.420	7.060"
[542]	"	.agTHRa3	5.240	0.066	79.377	0.000	5.240	6.035"
[543]	"	.agTHRa4	5.895	0.065	90.045	0.000	5.895	6.846"
[544]	"	.agPANASa1	3.912	0.040	96.636	0.000	3.912	7.347"
[545]	"	.agPANASa2	3.540	0.043	81.692	0.000	3.540	6.211"
[546]	"	.agPANASa4	3.506	0.047	73.838	0.000	3.506	5.614"
[547]	"	.agPANASa7	3.259	0.049	65.871	0.000	3.259	5.008"
[548]	"	.agPANASa8	3.687	0.042	87.640	0.000	3.687	6.663"
[549]	"	.agRLa1	4.398	0.104	42.120	0.000	4.398	3.202"
[550]	"	.agRLa2	4.742	0.088	54.038	0.000	4.742	4.108"
[551]	"	.agRLa3	4.958	0.068	72.814	0.000	4.958	5.536"
[552]	"	.agRLa4	4.517	0.094	48.241	0.000	4.517	3.668"
[553]	"	.agRLb1	3.274	0.087	37.737	0.000	3.274	2.869"
[554]	"	.agRLb2	3.111	0.081	38.597	0.000	3.111	2.934"
[555]	"	.agRLb3	3.754	0.088	42.629	0.000	3.754	3.241"
[556]	"	.agRLb4	2.927	0.084	34.874	0.000	2.927	2.651"
[557]	"	.agRLc1	5.137	0.079	64.987	0.000	5.137	4.941"
[558]	"	.agRLc2	5.473	0.075	73.429	0.000	5.473	5.583"
[559]	"	.agRLc3	5.556	0.076	73.528	0.000	5.556	5.590"
[560]	"	.agRLc4	4.798	0.083	57.968	0.000	4.798	4.407"
[561]	"	.agEP1	4.933	0.083	59.084	0.000	4.933	4.492"
[562]	"	.agEP2	5.085	0.068	74.490	0.000	5.085	5.663"
[563]	"	.agEP3	4.869	0.068	71.516	0.000	4.869	5.437"
[564]	"	.agEP4	4.916	0.075	65.949	0.000	4.916	5.014"
[565]	"	.agEP5	5.266	0.075	70.370	0.000	5.266	5.350"
[566]	"	.agEP6	5.206	0.082	63.195	0.000	5.206	4.805"
[567]	"	.agLMX1	3.735	0.051	73.644	0.000	3.735	5.599"
[568]	"	.agLMX2	3.775	0.054	70.332	0.000	3.775	5.347"
[569]	"	.agLMX3	3.760	0.048	78.252	0.000	3.760	5.949"
[570]	"	.agLMX4	4.049	0.049	82.410	0.000	4.049	6.266"
[571]	"	.agLMX5	3.515	0.054	64.885	0.000	3.515	4.933"
[572]	"	.agLMX6	4.003	0.048	83.610	0.000	4.003	6.357"
[573]	"	.agLMX7	4.056	0.046	88.682	0.000	4.056	6.742"
[574]	"	.agSL2	4.981	0.090	55.536	0.000	4.981	4.222"
[575]	"	.agSL3	5.402	0.072	75.012	0.000	5.402	5.703"
[576]	"	.agSL4	5.236	0.075	70.093	0.000	5.236	5.329"
[577]	"	.agSL5	4.963	0.074	67.236	0.000	4.963	5.112"
[578]	"	.agSL6	4.331	0.075	57.620	0.000	4.331	4.381"
[579]	"	.agSL9	5.093	0.067	75.610	0.000	5.093	5.749"
[580]	"	.agSL10	5.474	0.072	75.759	0.000	5.474	5.760"
[581]	"	.agSL12	5.475	0.064	84.998	0.000	5.475	6.462"
[582]	"	.life_satisfctn	0.000				0.000	0.000"
[583]	"	.meaningfulness	0.000				0.000	0.000"
[584]	"	.thriving	0.000				0.000	0.000"
[585]	"	.positive_affct	0.000				0.000	0.000"
[586]	"	.wellbeing	0.000				0.000	0.000"
[587]	"	.rl_stkhldr_clt	0.000				0.000	0.000"
[588]	"	.rl_hr_practics	0.000				0.000	0.000"
[589]	"	.rl_mngrl_spprt	0.000				0.000	0.000"
[590]	"	.leadership	0.000				0.000	0.000"
[591]	"	.performance	0.000				0.000	0.000"
[592]	"	.agLMX	0.000				0.000	0.000"

[593]	"	agSL	0.000			0.000	0.000"
[594]	"	"					
[595]	"	"Variances:"					
[596]	"		Estimate	Std.Err	z-value	P(> z)	Std.lv Std.all"
[597]	"	.agLS1	0.216	0.030	7.264	0.000	0.216 0.308"
[598]	"	.agLS2	0.170	0.026	6.487	0.000	0.170 0.244"
[599]	"	.agLS3	0.149	0.024	6.139	0.000	0.149 0.224"
[600]	"	.agLS4	0.345	0.041	8.392	0.000	0.345 0.493"
[601]	"	.agLS5	0.768	0.088	8.687	0.000	0.768 0.594"
[602]	"	.agMF1	0.141	0.017	8.309	0.000	0.141 0.399"
[603]	"	.agMF2	0.132	0.017	7.619	0.000	0.132 0.269"
[604]	"	.agMF3	0.186	0.022	8.592	0.000	0.186 0.449"
[605]	"	.agMF4	0.075	0.011	7.136	0.000	0.075 0.237"
[606]	"	.agMF5	0.061	0.012	5.256	0.000	0.061 0.130"
[607]	"	.agMF6	0.206	0.025	8.316	0.000	0.206 0.396"
[608]	"	.agTHRa1	0.092	0.020	4.647	0.000	0.092 0.134"
[609]	"	.agTHRa2	0.135	0.020	6.850	0.000	0.135 0.230"
[610]	"	.agTHRa3	0.206	0.029	7.202	0.000	0.206 0.273"
[611]	"	.agTHRa4	0.308	0.037	8.338	0.000	0.308 0.416"
[612]	"	.agPANASa1	0.098	0.013	7.655	0.000	0.098 0.345"
[613]	"	.agPANASa2	0.095	0.013	7.355	0.000	0.095 0.291"
[614]	"	.agPANASa4	0.068	0.013	5.460	0.000	0.068 0.175"
[615]	"	.agPANASa7	0.183	0.022	8.224	0.000	0.183 0.433"
[616]	"	.agPANASa8	0.151	0.018	8.438	0.000	0.151 0.493"
[617]	"	.agRLa1	0.876	0.128	6.837	0.000	0.876 0.464"
[618]	"	.agRLa2	0.755	0.098	7.681	0.000	0.755 0.567"
[619]	"	.agRLa3	0.212	0.053	3.985	0.000	0.212 0.265"
[620]	"	.agRLa4	0.557	0.105	5.294	0.000	0.557 0.367"
[621]	"	.agRLb1	0.288	0.052	5.518	0.000	0.288 0.221"
[622]	"	.agRLb2	0.326	0.048	6.735	0.000	0.326 0.290"
[623]	"	.agRLb3	0.436	0.063	6.928	0.000	0.436 0.325"
[624]	"	.agRLb4	0.570	0.070	8.101	0.000	0.570 0.468"
[625]	"	.agRLc1	0.265	0.035	7.572	0.000	0.265 0.246"
[626]	"	.agRLc2	0.133	0.021	6.366	0.000	0.133 0.138"
[627]	"	.agRLc3	0.265	0.034	7.869	0.000	0.265 0.268"
[628]	"	.agRLc4	0.321	0.040	8.010	0.000	0.321 0.271"
[629]	"	.agEP1	0.428	0.051	8.366	0.000	0.428 0.355"
[630]	"	.agEP2	0.139	0.021	6.719	0.000	0.139 0.173"
[631]	"	.agEP3	0.158	0.022	7.109	0.000	0.158 0.197"
[632]	"	.agEP4	0.257	0.033	7.842	0.000	0.257 0.268"
[633]	"	.agEP5	0.259	0.033	7.853	0.000	0.259 0.267"
[634]	"	.agEP6	0.310	0.040	7.771	0.000	0.310 0.264"
[635]	"	.agLMX1	0.194	0.022	8.640	0.000	0.194 0.435"
[636]	"	.agLMX2	0.137	0.017	8.006	0.000	0.137 0.276"
[637]	"	.agLMX3	0.155	0.018	8.506	0.000	0.155 0.387"
[638]	"	.agLMX4	0.157	0.019	8.470	0.000	0.157 0.376"
[639]	"	.agLMX5	0.245	0.028	8.737	0.000	0.245 0.482"
[640]	"	.agLMX6	0.133	0.016	8.319	0.000	0.133 0.335"
[641]	"	.agLMX7	0.080	0.011	7.447	0.000	0.080 0.221"
[642]	"	.agSL2	0.445	0.053	8.409	0.000	0.445 0.320"
[643]	"	.agSL3	0.244	0.030	8.161	0.000	0.244 0.272"
[644]	"	.agSL4	0.236	0.030	7.957	0.000	0.236 0.245"
[645]	"	.agSL5	0.511	0.057	8.952	0.000	0.511 0.542"
[646]	"	.agSL6	0.370	0.043	8.613	0.000	0.370 0.379"

[647]	"	.agSL9	0.313	0.036	8.664	0.000	0.313	0.399"
[648]	"	.agSL10	0.245	0.030	8.190	0.000	0.245	0.271"
[649]	"	.agSL12	0.203	0.025	8.226	0.000	0.203	0.283"
[650]	"	.life_satisfctn	0.318	0.056	5.634	0.000	0.655	0.655"
[651]	"	.meaningfulness	0.155	0.028	5.510	0.000	0.729	0.729"
[652]	"	.thriving	0.398	0.059	6.696	0.000	0.670	0.670"
[653]	"	.positive_affct	0.060	0.020	3.019	0.003	0.322	0.322"
[654]	"	wellbeing	0.058	0.020	2.871	0.004	1.000	1.000"
[655]	"	.rl_stkhldr_clt	1.004	0.199	5.036	0.000	0.993	0.993"
[656]	"	.rl_hr_practics	0.918	0.133	6.930	0.000	0.906	0.906"
[657]	"	.rl_mngrl_spprt	0.004	0.079	0.051	0.959	0.005	0.005"
[658]	"	leadership	0.096	0.050	1.900	0.057	1.000	1.000"
[659]	"	performance	0.778	0.123	6.314	0.000	1.000	1.000"
[660]	"	agLMX	0.251	0.044	5.729	0.000	1.000	1.000"
[661]	"	agSL	0.946	0.144	6.592	0.000	1.000	1.000"
[662]	"	"						

The following text provides the correlations between all first-order latent variables, again both levels

\$within									
	lf_sts	mnngfl	pstv_f	thrvng	wllbng	rl_st_	rl_hr_	rl_mn_	
life_satisfaction	1.000								
meaningfulness	0.338	1.000							
positive_affect	0.403	0.571	1.000						
thriving	0.311	0.441	0.526	1.000					
wellbeing	0.488	0.692	0.825	0.638	1.000				
rl_stakeholder_culture	0.035	0.050	0.060	0.046	0.072	1.000			
rl_hr_practices	0.066	0.094	0.112	0.087	0.136	0.094	1.000		
rl_managerial_support	0.151	0.214	0.255	0.197	0.309	0.213	0.401	1.000	
leadership	0.158	0.224	0.267	0.206	0.323	0.224	0.420	0.954	
performance	0.103	0.146	0.174	0.134	0.210	0.035	0.066	0.151	
LMX	0.154	0.218	0.260	0.201	0.315	0.216	0.407	0.924	
SL	0.138	0.196	0.234	0.181	0.284	0.218	0.410	0.930	
	ldrshp	prfrmn	LMX	SL					
life_satisfaction									
meaningfulness									
positive_affect									
thriving									
wellbeing									
rl_stakeholder_culture									
rl_hr_practices									
rl_managerial_support									
leadership	1.000								
performance	0.158	1.000							
LMX	0.968	0.218	1.000						
SL	0.975	0.160	0.886	1.000					
\$id_manager									
	lf_sts	mnngfl	thrvng	pstv_f	wllbng	rl_st_	rl_hr_	rl_mn_	
life_satisfaction	1.000								
meaningfulness	0.306	1.000							
thriving	0.337	0.299	1.000						
positive_affect	0.484	0.429	0.473	1.000					
wellbeing	0.587	0.521	0.574	0.823	1.000				
rl_stakeholder_culture	0.016	0.014	0.016	0.023	0.028	1.000			
rl_hr_practices	0.062	0.055	0.060	0.087	0.105	0.025	1.000		
rl_managerial_support	0.200	0.178	0.196	0.281	0.341	0.081	0.306	1.000	
leadership	0.201	0.178	0.196	0.282	0.342	0.081	0.307	0.998	
performance	0.141	0.125	0.138	0.198	0.240	0.022	0.083	0.271	
agLMX	0.244	0.217	0.239	0.343	0.416	0.076	0.287	0.931	
agSL	0.203	0.180	0.199	0.285	0.346	0.077	0.291	0.946	
	ldrshp	prfrmn	agLMX	agSL					
life_satisfaction									
meaningfulness									
thriving									
positive_affect									
wellbeing									
rl_stakeholder_culture									
rl_hr_practices									
rl_managerial_support									
leadership	1.000								

performance	0.271	1.000		
agLMX	0.934	0.262	1.000	
agSL	0.948	0.247	0.910	1.000

The following text provides alpha, omega and AVE values for the first-order latent variables, both levels

\$within

	life_satisfaction	meaningfulness	positive_affect	thriving	
alpha	0.89	0.92	0.89	0.92	
omega	0.89	0.92	0.89	0.92	
omega2	0.89	0.92	0.89	0.92	
omega3	0.88	0.93	0.90	0.92	
avevar	0.61	0.67	0.63	0.74	
	rl_stakeholder_culture	rl_hr_practices	rl_managerial_support	performance	
alpha	0.86	0.85	0.90	0.91	
omega	0.86	0.85	0.89	0.91	
omega2	0.86	0.85	0.89	0.91	
omega3	0.86	0.85	0.89	0.91	
avevar	0.60	0.60	0.68	0.64	
	LMX	SL	total		
alpha	0.89	0.91	0.94		
omega	0.89	0.91	0.97		
omega2	0.89	0.91	0.97		
omega3	0.89	0.91	0.85		
avevar	0.55	0.57	0.62		

\$id_manager

	life_satisfaction	meaningfulness	thriving	positive_affect	
alpha	0.88	0.93	0.92	0.90	
omega	0.88	0.93	0.92	0.90	
omega2	0.88	0.93	0.92	0.90	
omega3	0.88	0.93	0.91	0.91	
avevar	0.59	0.69	0.73	0.66	
	rl_stakeholder_culture	rl_hr_practices	rl_managerial_support	performance	
alpha	0.83	0.89	0.93	0.94	
omega	0.84	0.89	0.93	0.94	
omega2	0.84	0.89	0.93	0.94	
omega3	0.85	0.89	0.92	0.94	
avevar	0.57	0.67	0.77	0.74	
	agLMX	agSL	total		
alpha	0.92	0.94	0.94		
omega	0.92	0.94	0.97		
omega2	0.92	0.94	0.97		
omega3	0.92	0.94	0.89		
avevar	0.64	0.66	0.67		

The following text provides alpha values for all latent variables used in the SEM Models . Values for both levels are provided, whereas the id_manager prefix indicates the between-level

	within.wellbeing	within.leadership	within.performance	within.LMX
alpha	0.92	0.86	0.92	0.89
	within.SL	within.total		
alpha	0.91	0.94		
	id_manager.agwellbeing	id_manager.agleadership	id_manager.agperformance	
alpha	0.9	0.86	0.94	
	id_manager.agLMX	id_manager.agSL	id_manager.total	
alpha	0.92	0.94	0.94	

The following text provides correlation coefficients for all variables used in the SEM Models

Table 1: Correlations - within-level

X	Covariance	Correlation	Std.Err	z.value	P.value
wellbeing	~~				
leadership	0.108	0.331	0.024	4.405	0
performance	0.123	0.22	0.032	3.788	0
LMX	0.133	0.329	0.025	5.234	0
SL	0.195	0.29	0.04	4.845	0
gender	-0.022	-0.08	0.014	-1.535	0.125
age	-0.082	-0.015	0.292	-0.28	0.78
organization_1	-0.007	-0.028	0.013	-0.546	0.585
organization_2	-0.008	-0.06	0.007	-1.142	0.253
organization_3	-0.003	-0.025	0.007	-0.473	0.636
organization_4	-0.009	-0.066	0.007	-1.278	0.201
organization_5	-0.004	-0.035	0.006	-0.664	0.507
organization_6	0.018	0.097	0.01	1.838	0.066
organization_7	-0.002	-0.008	0.01	-0.164	0.87
organization_8	-0.004	-0.03	0.007	-0.58	0.562
organization_9	0.013	0.108	0.006	2	0.046
leadership	~~				
performance	0.082	0.14	0.032	2.572	0.01
LMX	0.412	0.573	0.057	7.256	0
SL	0.69	0.639	0.094	7.352	0
gender	-0.03	-0.104	0.015	-2.043	0.041
age	-0.41	-0.069	0.295	-1.388	0.165
organization_1	-0.021	-0.081	0.013	-1.609	0.108
organization_2	0.001	0.007	0.007	0.148	0.882
organization_3	-0.015	-0.102	0.007	-1.984	0.047
organization_4	-0.003	-0.022	0.007	-0.439	0.661
organization_5	-0.013	-0.116	0.006	-2.242	0.025
organization_6	0.026	0.13	0.01	2.482	0.013
organization_7	0.039	0.191	0.011	3.542	0
organization_8	-0.002	-0.012	0.007	-0.241	0.809
organization_9	-0.025	-0.2	0.007	-3.59	0
performance	~~				
LMX	0.15	0.206	0.038	3.962	0
SL	0.179	0.148	0.06	2.969	0.003
gender	0.004	0.008	0.023	0.178	0.859
age	-1.626	-0.161	0.483	-3.364	0.001
organization_1	-0.072	-0.163	0.021	-3.39	0.001
organization_2	-0.003	-0.013	0.011	-0.271	0.786
organization_3	-0.002	-0.01	0.012	-0.213	0.831
organization_4	0.014	0.059	0.011	1.254	0.21
organization_5	-0.015	-0.076	0.009	-1.608	0.108
organization_6	0.033	0.098	0.016	2.078	0.038
organization_7	0.047	0.134	0.017	2.806	0.005
organization_8	-0.024	-0.107	0.011	-2.266	0.023
organization_9	0.01	0.046	0.01	0.977	0.328
LMX	~~				
SL	0.773	0.752	0.07	11.02	0
gender	-0.036	-0.101	0.017	-2.103	0.035
age	-0.542	-0.074	0.349	-1.554	0.12

X	Covariance	Correlation	Std.Err	z.value	P.value
organization_1	-0.04	-0.125	0.015	-2.602	0.009
organization_2	-0.001	-0.004	0.008	-0.092	0.927
organization_3	-0.015	-0.084	0.009	-1.769	0.077
organization_4	-0.001	-0.005	0.008	-0.11	0.913
organization_5	-0.008	-0.054	0.007	-1.143	0.253
organization_6	0.033	0.136	0.012	2.832	0.005
organization_7	0.046	0.181	0.012	3.705	0
organization_8	-0.003	-0.019	0.008	-0.406	0.685
organization_9	-0.022	-0.142	0.007	-2.935	0.003
SL	~~				
gender	-0.069	-0.116	0.028	-2.45	0.014
age	-1.248	-0.103	0.573	-2.179	0.029
organization_1	-0.065	-0.122	0.025	-2.576	0.01
organization_2	0.013	0.045	0.014	0.96	0.337
organization_3	-0.033	-0.111	0.014	-2.347	0.019
organization_4	0.005	0.017	0.014	0.373	0.709
organization_5	-0.024	-0.1	0.011	-2.112	0.035
organization_6	0.059	0.144	0.019	3.03	0.002
organization_7	0.076	0.181	0.02	3.767	0
organization_8	-0.001	-0.005	0.013	-0.102	0.919
organization_9	-0.061	-0.241	0.012	-4.932	0
gender	~~				
age	-0.301	-0.061	0.223	-1.347	0.178
organization_1	-0.014	-0.066	0.01	-1.456	0.145
organization_2	-0.012	-0.097	0.005	-2.154	0.031
organization_3	0.016	0.131	0.005	2.892	0.004
organization_4	0.001	0.004	0.005	0.098	0.922
organization_5	0.016	0.162	0.004	3.564	0
organization_6	-0.001	-0.009	0.007	-0.192	0.848
organization_7	0.009	0.05	0.008	1.109	0.267
organization_8	-0.008	-0.074	0.005	-1.643	0.1
organization_9	0.015	0.147	0.005	3.241	0.001
age	~~				
organization_1	1.321	0.299	0.208	6.364	0
organization_2	0.104	0.043	0.11	0.946	0.344
organization_3	0.004	0.002	0.111	0.04	0.968
organization_4	-0.072	-0.03	0.11	-0.657	0.511
organization_5	0.01	0.005	0.089	0.113	0.91
organization_6	-1.364	-0.401	0.165	-8.27	0
organization_7	0.048	0.014	0.158	0.301	0.763
organization_8	0.067	0.029	0.103	0.648	0.517
organization_9	0.22	0.104	0.096	2.291	0.022
organization_1	~~				
organization_2	-0.016	-0.154	0.005	-3.379	0.001
organization_3	-0.017	-0.156	0.005	-3.436	0.001
organization_4	-0.016	-0.154	0.005	-3.379	0.001
organization_5	-0.011	-0.122	0.004	-2.694	0.007
organization_6	-0.034	-0.231	0.007	-5.011	0
organization_7	-0.037	-0.242	0.007	-5.219	0
organization_8	-0.014	-0.143	0.005	-3.145	0.002
organization_9	-0.012	-0.131	0.004	-2.895	0.004
organization_2	~~				

X	Covariance	Correlation	Std.Err	z.value	P.value
organization_3	-0.004	-0.068	0.003	-1.51	0.131
organization_4	-0.004	-0.067	0.003	-1.485	0.138
organization_5	-0.003	-0.053	0.002	-1.18	0.238
organization_6	-0.008	-0.101	0.004	-2.227	0.026
organization_7	-0.009	-0.105	0.004	-2.324	0.02
organization_8	-0.003	-0.062	0.002	-1.38	0.168
organization_9	-0.003	-0.057	0.002	-1.269	0.204
organization_3	~~				
organization_4	-0.004	-0.068	0.003	-1.51	0.131
organization_5	-0.003	-0.054	0.002	-1.2	0.23
organization_6	-0.009	-0.102	0.004	-2.265	0.024
organization_7	-0.009	-0.107	0.004	-2.363	0.018
organization_8	-0.004	-0.063	0.003	-1.404	0.16
organization_9	-0.003	-0.058	0.002	-1.29	0.197
organization_4	~~				
organization_5	-0.003	-0.053	0.002	-1.18	0.238
organization_6	-0.008	-0.101	0.004	-2.227	0.026
organization_7	-0.009	-0.105	0.004	-2.324	0.02
organization_8	-0.003	-0.062	0.002	-1.38	0.168
organization_9	-0.003	-0.057	0.002	-1.269	0.205
organization_5	~~				
organization_6	-0.005	-0.08	0.003	-1.771	0.076
organization_7	-0.006	-0.083	0.003	-1.849	0.065
organization_8	-0.002	-0.049	0.002	-1.096	0.273
organization_9	-0.002	-0.045	0.002	-1.008	0.314
organization_6	~~				
organization_7	-0.019	-0.158	0.005	-3.472	0.001
organization_8	-0.007	-0.094	0.003	-2.071	0.038
organization_9	-0.006	-0.086	0.003	-1.905	0.057
organization_7	~~				
organization_8	-0.008	-0.098	0.004	-2.161	0.031
organization_9	-0.007	-0.09	0.003	-1.988	0.047
organization_8	~~				
organization_9	-0.003	-0.053	0.002	-1.179	0.238

Table 2: Correlations - between-level

X	Covariance	Correlation	Std.Err	z.value	P.value
wellbeing	~~				
leadership	0.025	0.353	0.011	2.337	0.019
performance	0.05	0.245	0.022	2.271	0.023
agLMX	0.051	0.436	0.015	3.473	0.001
agSL	0.082	0.363	0.026	3.166	0.002
ag_gender	-0.005	-0.056	0.008	-0.614	0.54
ag_age	-0.052	-0.028	0.168	-0.31	0.757
ag_organiztn_1	-0.002	-0.02	0.008	-0.219	0.826
ag_organiztn_2	-0.001	-0.017	0.005	-0.191	0.849
ag_organiztn_3	0.006	0.111	0.005	1.218	0.223
ag_organiztn_4	-0.016	-0.242	0.007	-2.456	0.014
ag_organiztn_5	-0.002	-0.051	0.004	-0.551	0.582
ag_organiztn_6	0.006	0.063	0.008	0.688	0.491

X	Covariance	Correlation	Std.Err	z.value	P.value
ag_organiztn_7	0.004	0.049	0.008	0.537	0.591
ag_organiztn_8	-0.001	-0.013	0.005	-0.147	0.883
ag_organiztn_9	0.007	0.15	0.004	1.536	0.125
leadership	~~				
performance	0.073	0.268	0.031	2.348	0.019
agLMX	0.143	0.539	0.045	3.211	0.001
agSL	0.281	0.574	0.087	3.225	0.001
ag_gender	-0.001	-0.008	0.009	-0.106	0.915
ag_age	-0.358	-0.148	0.217	-1.649	0.099
ag_organiztn_1	-0.015	-0.129	0.01	-1.51	0.131
ag_organiztn_2	-0.004	-0.052	0.006	-0.653	0.514
ag_organiztn_3	-0.003	-0.048	0.006	-0.601	0.548
ag_organiztn_4	-0.013	-0.142	0.008	-1.611	0.107
ag_organiztn_5	-0.007	-0.12	0.005	-1.384	0.166
ag_organiztn_6	0.014	0.116	0.01	1.318	0.187
ag_organiztn_7	0.046	0.388	0.016	2.91	0.004
ag_organiztn_8	-0.006	-0.085	0.006	-1.029	0.303
ag_organiztn_9	-0.018	-0.292	0.007	-2.442	0.015
performance	~~				
agLMX	0.116	0.262	0.039	3.021	0.003
agSL	0.213	0.247	0.073	2.905	0.004
ag_gender	-0.01	-0.03	0.026	-0.386	0.699
ag_age	-0.724	-0.104	0.548	-1.32	0.187
ag_organiztn_1	-0.052	-0.152	0.027	-1.911	0.056
ag_organiztn_2	-0.007	-0.03	0.018	-0.382	0.703
ag_organiztn_3	-0.004	-0.02	0.016	-0.259	0.796
ag_organiztn_4	-0.033	-0.128	0.02	-1.621	0.105
ag_organiztn_5	-0.025	-0.144	0.014	-1.815	0.07
ag_organiztn_6	0.055	0.165	0.027	2.066	0.039
ag_organiztn_7	0.088	0.256	0.028	3.118	0.002
ag_organiztn_8	-0.013	-0.067	0.015	-0.859	0.39
ag_organiztn_9	-0.002	-0.014	0.014	-0.176	0.861
agLMX	~~				
agSL	0.447	0.686	0.064	6.985	0
ag_gender	0.001	0.007	0.015	0.092	0.927
ag_age	-0.711	-0.179	0.322	-2.21	0.027
ag_organiztn_1	-0.034	-0.176	0.016	-2.17	0.03
ag_organiztn_2	-0.009	-0.067	0.01	-0.841	0.4
ag_organiztn_3	-0.001	-0.006	0.009	-0.077	0.939
ag_organiztn_4	-0.024	-0.161	0.012	-1.994	0.046
ag_organiztn_5	-0.009	-0.087	0.008	-1.092	0.275
ag_organiztn_6	0.024	0.126	0.015	1.583	0.114
ag_organiztn_7	0.072	0.367	0.017	4.186	0
ag_organiztn_8	-0.011	-0.102	0.009	-1.281	0.2
ag_organiztn_9	-0.019	-0.193	0.008	-2.368	0.018
agSL	~~				
ag_gender	-0.019	-0.052	0.029	-0.659	0.51
ag_age	-1.646	-0.214	0.621	-2.652	0.008
ag_organiztn_1	-0.063	-0.169	0.03	-2.114	0.035
ag_organiztn_2	-0.006	-0.024	0.02	-0.301	0.764
ag_organiztn_3	-0.02	-0.088	0.018	-1.11	0.267
ag_organiztn_4	-0.036	-0.129	0.022	-1.622	0.105

X	Covariance	Correlation	Std.Err	z.value	P.value
ag_organiztn_5	-0.019	-0.098	0.015	-1.24	0.215
ag_organiztn_6	0.073	0.197	0.03	2.443	0.015
ag_organiztn_7	0.12	0.316	0.032	3.768	0
ag_organiztn_8	-0.018	-0.081	0.017	-1.031	0.303
ag_organiztn_9	-0.06	-0.314	0.016	-3.759	0
ag_gender	~~				
ag_age	-0.141	-0.048	0.224	-0.628	0.53
ag_organiztn_1	0.001	0.007	0.011	0.094	0.925
ag_organiztn_2	-0.013	-0.134	0.007	-1.739	0.082
ag_organiztn_3	0.01	0.117	0.007	1.519	0.129
ag_organiztn_4	-0.013	-0.119	0.008	-1.544	0.123
ag_organiztn_5	0.015	0.209	0.006	2.68	0.007
ag_organiztn_6	-0.006	-0.041	0.011	-0.534	0.594
ag_organiztn_7	0.015	0.107	0.011	1.389	0.165
ag_organiztn_8	-0.002	-0.026	0.006	-0.342	0.732
ag_organiztn_9	0.012	0.167	0.006	2.162	0.031
ag_age	~~				
ag_organiztn_1	1.12	0.37	0.246	4.554	0
ag_organiztn_2	0.166	0.083	0.153	1.085	0.278
ag_organiztn_3	0.063	0.034	0.141	0.451	0.652
ag_organiztn_4	0.064	0.028	0.174	0.37	0.712
ag_organiztn_5	0.212	0.136	0.12	1.768	0.077
ag_organiztn_6	-1.707	-0.571	0.262	-6.507	0
ag_organiztn_7	0.195	0.064	0.234	0.831	0.406
ag_organiztn_8	0.038	0.022	0.134	0.288	0.774
ag_organiztn_9	0.112	0.072	0.119	0.942	0.346
ag_organization_1	~~				
ag_organiztn_2	-0.013	-0.128	0.008	-1.67	0.095
ag_organiztn_3	-0.01	-0.116	0.007	-1.518	0.129
ag_organiztn_4	-0.017	-0.15	0.009	-1.948	0.051
ag_organiztn_5	-0.007	-0.097	0.006	-1.261	0.207
ag_organiztn_6	-0.031	-0.216	0.011	-2.763	0.006
ag_organiztn_7	-0.034	-0.224	0.012	-2.869	0.004
ag_organiztn_8	-0.009	-0.11	0.007	-1.436	0.151
ag_organiztn_9	-0.007	-0.097	0.006	-1.261	0.207
ag_organization_2	~~				
ag_organiztn_3	-0.004	-0.068	0.005	-0.89	0.373
ag_organiztn_4	-0.006	-0.088	0.006	-1.146	0.252
ag_organiztn_5	-0.003	-0.056	0.004	-0.739	0.46
ag_organiztn_6	-0.012	-0.126	0.007	-1.638	0.101
ag_organiztn_7	-0.013	-0.131	0.008	-1.703	0.089
ag_organiztn_8	-0.004	-0.064	0.004	-0.842	0.4
ag_organiztn_9	-0.003	-0.056	0.004	-0.739	0.46
ag_organization_3	~~				
ag_organiztn_4	-0.005	-0.08	0.005	-1.04	0.298
ag_organiztn_5	-0.002	-0.051	0.004	-0.67	0.503
ag_organiztn_6	-0.01	-0.114	0.007	-1.488	0.137
ag_organiztn_7	-0.011	-0.119	0.007	-1.547	0.122
ag_organiztn_8	-0.003	-0.058	0.004	-0.764	0.445
ag_organiztn_9	-0.002	-0.051	0.004	-0.67	0.503
ag_organization_4	~~				
ag_organiztn_5	-0.004	-0.066	0.004	-0.863	0.388

X	Covariance	Correlation	Std.Err	z.value	P.value
ag_organiztn_6	-0.016	-0.147	0.008	-1.91	0.056
ag_organiztn_7	-0.017	-0.153	0.009	-1.985	0.047
ag_organiztn_8	-0.005	-0.075	0.005	-0.984	0.325
ag_organiztn_9	-0.004	-0.066	0.004	-0.863	0.388
ag_organization_5	~~				
ag_organiztn_6	-0.007	-0.095	0.006	-1.236	0.216
ag_organiztn_7	-0.008	-0.098	0.006	-1.285	0.199
ag_organiztn_8	-0.002	-0.048	0.003	-0.634	0.526
ag_organiztn_9	-0.002	-0.042	0.003	-0.556	0.578
ag_organization_6	~~				
ag_organiztn_7	-0.032	-0.22	0.012	-2.815	0.005
ag_organiztn_8	-0.009	-0.108	0.006	-1.408	0.159
ag_organiztn_9	-0.007	-0.095	0.006	-1.236	0.216
ag_organization_7	~~				
ag_organiztn_8	-0.01	-0.112	0.007	-1.464	0.143
ag_organiztn_9	-0.008	-0.098	0.006	-1.285	0.199
ag_organization_8	~~				
ag_organiztn_9	-0.002	-0.048	0.003	-0.634	0.526

Direct Model

Andreas Gratz

10/10/2020

This document is part of the master thesis of Andreas Gratz at Aalto University, Helsinki, Finland.

The following text displays the specified MSEM model in lavaan syntax

```
model111 <- "  
  level: 1  
    ## Regressions  
    Performance ~ Responsible_L + LMX + SL + Age + Gender_dummy + Organization_1 +  
    Organization_2 + Organization_3 + Organization_4 + Organization_5 +  
    Organization_6 + Organization_7 + Organization_8 +  
    Organization_9  
  level: 2  
    ## Regressions  
    agPerformance ~ agResponsible_L + agLMX + agSL + agOrganization_1 +  
    agOrganization_2 + agOrganization_3 + agOrganization_4 + agOrganization_5 +  
    agOrganization_6 + agOrganization_7 + agOrganization_8 + agOrganization_9  
  "  
fitted_model <- sem(model = model111, data=df, cluster = "id_manager", missing="fiml")
```

The following text provides the regression coefficients for both the within- and between-level

```

[1] "lavaan 0.6-5 ended normally after 82 iterations"
[2] ""
[3] " Estimator ML"
[4] " Optimization method NLMINB"
[5] " Number of free parameters 30"
[6] " "
[7] " Used Total"
[8] " Number of observations 571 2070"
[9] " Number of clusters [id_manager] 179 "
[10] " "
[11] "Model Test User Model:"
[12] " "
[13] " Test statistic 0.000"
[14] " Degrees of freedom 0"
[15] ""
[16] "User Model versus Baseline Model:"
[17] ""
[18] " Comparative Fit Index (CFI) NA"
[19] " Tucker-Lewis Index (TLI) NA"
[20] ""
[21] "Loglikelihood and Information Criteria:"
[22] ""
[23] " Loglikelihood user model (H0) -5848.898"
[24] " Loglikelihood unrestricted model (H1) -5848.898"
[25] " "
[26] " Akaike (AIC) 11757.796"
[27] " Bayesian (BIC) 11888.217"
[28] " Sample-size adjusted Bayesian (BIC) 11792.981"
[29] ""
[30] "Root Mean Square Error of Approximation:"
[31] ""
[32] " RMSEA 0.000"
[33] " 90 Percent confidence interval - lower 0.000"
[34] " 90 Percent confidence interval - upper 0.000"
[35] " P-value RMSEA <= 0.05 NA"
[36] ""
[37] "Standardized Root Mean Square Residual (corr metric):"
[38] ""
[39] " SRMR (within covariance matrix) 0.000"
[40] " SRMR (between covariance matrix) 0.000"
[41] ""
[42] "Parameter Estimates:"
[43] ""
[44] " Information Observed"
[45] " Observed information based on Hessian"
[46] " Standard errors Standard"
[47] ""
[48] ""
[49] "Level 1 [within]:"
[50] ""
[51] "Regressions:"
[52] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"

```

```

[53] " Performance ~
[54] " Responsible_L 0.025 0.068 0.365 0.715 0.025 0.020"
[55] " LMX 0.343 0.108 3.194 0.001 0.343 0.218"
[56] " SL -0.055 0.079 -0.687 0.492 -0.055 -0.051"
[57] " Age -0.018 0.005 -3.405 0.001 -0.018 -0.154"
[58] " Gender_dummy 0.082 0.099 0.825 0.409 0.082 0.034"
[59] " Organization_1 -0.201 0.160 -1.257 0.209 -0.201 -0.076"
[60] " Organization_2 -0.028 0.226 -0.123 0.902 -0.028 -0.006"
[61] " Organization_3 -0.024 0.234 -0.101 0.919 -0.024 -0.005"
[62] " Organization_4 -0.155 0.194 -0.798 0.425 -0.155 -0.040"
[63] " Organization_5 -0.440 0.273 -1.612 0.107 -0.440 -0.073"
[64] " Organization_6 0.064 0.182 0.353 0.724 0.064 0.019"
[65] " Organization_7 0.280 0.187 1.496 0.135 0.280 0.080"
[66] " Organization_8 -0.439 0.248 -1.769 0.077 -0.439 -0.080"
[67] " Organization_9 0.310 0.271 1.144 0.253 0.310 0.053"
[68] ""
[69] "Intercepts:"
[70] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[71] " .Performance 4.575 0.370 12.381 0.000 4.575 3.935"
[72] ""
[73] "Variances:"
[74] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[75] " .Performance 1.198 0.071 16.897 0.000 1.198 0.886"
[76] ""
[77] ""
[78] "Level 2 [id_manager]:"
[79] ""
[80] "Regressions:"
[81] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[82] " agPerformance ~
[83] " agResponsibl_L 0.168 0.122 1.377 0.168 0.168 0.132"
[84] " agLMX 0.086 0.220 0.392 0.695 0.086 0.053"
[85] " agSL 0.044 0.155 0.284 0.776 0.044 0.041"
[86] " agOrganizatn_1 -0.144 0.240 -0.600 0.548 -0.144 -0.062"
[87] " agOrganizatn_2 0.023 0.292 0.080 0.936 0.023 0.007"
[88] " agOrganizatn_3 0.090 0.321 0.282 0.778 0.090 0.024"
[89] " agOrganizatn_4 -0.066 0.265 -0.248 0.804 -0.066 -0.024"
[90] " agOrganizatn_5 -0.388 0.361 -1.075 0.283 -0.388 -0.085"
[91] " agOrganizatn_6 0.394 0.236 1.672 0.095 0.394 0.169"
[92] " agOrganizatn_7 0.577 0.247 2.334 0.020 0.577 0.251"
[93] " agOrganizatn_8 0.043 0.335 0.129 0.897 0.043 0.011"
[94] " agOrganizatn_9 0.299 0.383 0.781 0.435 0.299 0.066"
[95] ""
[96] "Intercepts:"
[97] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[98] " .agPerformance 3.605 0.564 6.393 0.000 3.605 4.091"
[99] ""
[100] "Variances:"
[101] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[102] " .agPerformance 0.650 0.069 9.461 0.000 0.650 0.837"
[103] ""

```

Full MSEM Model

Andreas Gratz

10/10/2020

This document is part of the master thesis of Andreas Gratz at Aalto University, Helsinki, Finland.

The following text displays the specified MSEM model in lavaan syntax

```
model1111 <- "  
  level: 1  
    ## Regressions  
    Performance ~ e*Wellbeing + f*Responsible_L + LMX + SL + Age + Gender_dummy +  
    Organization_1 + Organization_2 + Organization_3 + Organization_4 + Organization_5 +  
    Organization_6 + Organization_7 + Organization_8 + Organization_9  
    Wellbeing ~ g*Responsible_L + LMX + SL + Age + Gender_dummy + Organization_1 +  
    Organization_2 + Organization_3 + Organization_4 + Organization_5 +  
    Organization_6 + Organization_7 + Organization_8 + Organization_9  
  level: 2  
    ## Regressions  
    agPerformance ~ b*agWellbeing + c*agResponsible_L + agLMX + agSL +  
    agOrganization_1 + agOrganization_2 + agOrganization_3 + agOrganization_4 +  
    agOrganization_5 + agOrganization_6 + agOrganization_7 + agOrganization_8 +  
    agOrganization_9  
    agWellbeing ~ a*agResponsible_L + agLMX + agSL + agOrganization_1 +  
    agOrganization_2 + agOrganization_3 + agOrganization_4 + agOrganization_5 +  
    agOrganization_6 + agOrganization_7 + agOrganization_8 + agOrganization_9  
    # indirect and total effects  
    # within-level  
    eg:=e*g  
    total:=eg+f  
    # between-level  
    ab:=a*b  
    total:=ab+c  
    # theoretical model mediation path  
    path:=a*e  
"  
fitted_model <- sem(model = model1111, data=df, cluster = "id_manager", missing="fiml")
```

The following text provides the regression coefficients for both the within- and between-level

```

[1] "lavaan 0.6-5 ended normally after 97 iterations"
[2] ""
[3] " Estimator ML"
[4] " Optimization method NLMINB"
[5] " Number of free parameters 62"
[6] " "
[7] " Used Total"
[8] " Number of observations 494 2070"
[9] " Number of clusters [id_manager] 172 "
[10] " "
[11] "Model Test User Model:"
[12] " "
[13] " Test statistic 0.000"
[14] " Degrees of freedom 0"
[15] ""
[16] "User Model versus Baseline Model:"
[17] ""
[18] " Comparative Fit Index (CFI) NA"
[19] " Tucker-Lewis Index (TLI) NA"
[20] ""
[21] "Loglikelihood and Information Criteria:"
[22] ""
[23] " Loglikelihood user model (H0) -5673.889"
[24] " Loglikelihood unrestricted model (H1) -5673.889"
[25] " "
[26] " Akaike (AIC) 11471.778"
[27] " Bayesian (BIC) 11732.335"
[28] " Sample-size adjusted Bayesian (BIC) 11535.546"
[29] ""
[30] "Root Mean Square Error of Approximation:"
[31] ""
[32] " RMSEA 0.000"
[33] " 90 Percent confidence interval - lower 0.000"
[34] " 90 Percent confidence interval - upper 0.000"
[35] " P-value RMSEA <= 0.05 NA"
[36] ""
[37] "Standardized Root Mean Square Residual (corr metric):"
[38] ""
[39] " SRMR (within covariance matrix) 0.000"
[40] " SRMR (between covariance matrix) 0.000"
[41] ""
[42] "Parameter Estimates:"
[43] ""
[44] " Information Observed"
[45] " Observed information based on Hessian"
[46] " Standard errors Standard"
[47] ""
[48] ""
[49] "Level 1 [within]:"
[50] ""
[51] "Regressions:"
[52] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"

```

```

[53] " Performance ~
[54] " Wellbeing (e) 0.250 0.076 3.300 0.001 0.250 0.158"
[55] " Rspnsbl_L (f) 0.024 0.077 0.317 0.751 0.024 0.020"
[56] " LMX 0.235 0.111 2.113 0.035 0.235 0.151"
[57] " SL -0.083 0.083 -1.002 0.316 -0.083 -0.080"
[58] " Age -0.012 0.005 -2.229 0.026 -0.012 -0.108"
[59] " Gendr_dmy 0.025 0.103 0.244 0.808 0.025 0.011"
[60] " Organztn_1 -0.277 0.168 -1.653 0.098 -0.277 -0.107"
[61] " Organztn_2 -0.047 0.233 -0.203 0.839 -0.047 -0.010"
[62] " Organztn_3 -0.061 0.235 -0.259 0.795 -0.061 -0.013"
[63] " Organztn_4 0.266 0.234 1.139 0.255 0.266 0.057"
[64] " Organztn_5 -0.424 0.280 -1.517 0.129 -0.424 -0.074"
[65] " Organztn_6 0.036 0.192 0.186 0.853 0.036 0.011"
[66] " Organztn_7 0.321 0.192 1.677 0.093 0.321 0.099"
[67] " Organztn_8 -0.469 0.247 -1.897 0.058 -0.469 -0.094"
[68] " Organztn_9 0.220 0.277 0.797 0.425 0.220 0.041"
[69] " Wellbeing ~
[70] " Rspnsbl_L (g) 0.333 0.043 7.737 0.000 0.333 0.432"
[71] " LMX 0.114 0.066 1.730 0.084 0.114 0.116"
[72] " SL -0.053 0.049 -1.065 0.287 -0.053 -0.080"
[73] " Age -0.001 0.003 -0.307 0.759 -0.001 -0.014"
[74] " Gendr_dmy -0.104 0.061 -1.709 0.087 -0.104 -0.072"
[75] " Organztn_1 0.073 0.099 0.731 0.465 0.073 0.045"
[76] " Organztn_2 -0.064 0.138 -0.465 0.642 -0.064 -0.022"
[77] " Organztn_3 0.150 0.140 1.073 0.283 0.150 0.052"
[78] " Organztn_4 -0.015 0.139 -0.107 0.915 -0.015 -0.005"
[79] " Organztn_5 0.036 0.166 0.216 0.829 0.036 0.010"
[80] " Organztn_6 0.166 0.114 1.459 0.145 0.166 0.078"
[81] " Organztn_7 0.132 0.114 1.167 0.243 0.132 0.065"
[82] " Organztn_8 0.204 0.146 1.393 0.163 0.204 0.065"
[83] " Organztn_9 0.570 0.162 3.517 0.000 0.570 0.168"
[84] ""
[85] "Intercepts:"
[86] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[87] " .Performance 3.702 0.459 8.070 0.000 3.702 3.270"
[88] " .Wellbeing 3.300 0.228 14.456 0.000 3.300 4.618"
[89] ""
[90] "Variances:"
[91] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[92] " .Performance 1.129 0.072 15.716 0.000 1.129 0.881"
[93] " .Wellbeing 0.398 0.025 15.716 0.000 0.398 0.779"
[94] ""
[95] ""
[96] "Level 2 [id_manager]:"
[97] ""
[98] "Regressions:"
[99] " Estimate Std.Err z-value P(>|z|) Std.lv Std.all"
[100] " agPerformance ~
[101] " agWellbeng (b) 0.284 0.156 1.821 0.069 0.284 0.145"
[102] " agRspnsb_L (c) 0.161 0.125 1.280 0.200 0.161 0.124"
[103] " agLMX -0.024 0.225 -0.108 0.914 -0.024 -0.015"
[104] " agSL 0.022 0.157 0.138 0.890 0.022 0.020"
[105] " agOrgnzt_1 -0.227 0.243 -0.932 0.351 -0.227 -0.099"
[106] " agOrgnzt_2 -0.010 0.300 -0.033 0.973 -0.010 -0.003"

```

```

[107] "    agOrgnzt_3      0.001    0.322    0.004    0.997    0.001    0.000"
[108] "    agOrgnzt_4     -0.104    0.280   -0.373    0.709   -0.104   -0.034"
[109] "    agOrgnzt_5     -0.423    0.360   -1.176    0.240   -0.423   -0.095"
[110] "    agOrgnzt_6      0.329    0.239    1.378    0.168    0.329    0.142"
[111] "    agOrgnzt_7      0.578    0.248    2.330    0.020    0.578    0.256"
[112] "    agOrgnzt_8     -0.046    0.336   -0.137    0.891   -0.046   -0.012"
[113] "    agOrgnzt_9      0.076    0.397    0.191    0.849    0.076    0.017"
[114] "  agWellbeing ~
[115] "    agRspnsb_L (a)  0.152    0.060    2.526    0.012    0.152    0.230"
[116] "    agLMX           0.197    0.109    1.810    0.070    0.197    0.239"
[117] "    agSL            0.044    0.077    0.574    0.566    0.044    0.079"
[118] "    agOrgnzt_1      0.144    0.118    1.215    0.225    0.144    0.123"
[119] "    agOrgnzt_2      0.117    0.146    0.799    0.424    0.117    0.066"
[120] "    agOrgnzt_3      0.245    0.157    1.560    0.119    0.245    0.127"
[121] "    agOrgnzt_4     -0.048    0.137   -0.351    0.726   -0.048   -0.031"
[122] "    agOrgnzt_5      0.003    0.176    0.018    0.986    0.003    0.001"
[123] "    agOrgnzt_6      0.104    0.117    0.890    0.374    0.104    0.087"
[124] "    agOrgnzt_7      0.031    0.121    0.259    0.796    0.031    0.027"
[125] "    agOrgnzt_8      0.247    0.163    1.512    0.131    0.247    0.122"
[126] "    agOrgnzt_9      0.677    0.187    3.615    0.000    0.677    0.297"
[127] ""
[128] "Intercepts:"
[129] "          Estimate  Std.Err  z-value  P(>|z|)  Std.lv  Std.all"
[130] "  .agPerformance    2.829    0.757    3.737    0.000    2.829    3.218"
[131] "  .agWellbeing      3.180    0.280   11.350    0.000    3.180    7.060"
[132] ""
[133] "Variances:"
[134] "          Estimate  Std.Err  z-value  P(>|z|)  Std.lv  Std.all"
[135] "  .agPerformance    0.636    0.069    9.274    0.000    0.636    0.823"
[136] "  .agWellbeing      0.152    0.016    9.274    0.000    0.152    0.751"
[137] ""
[138] "Defined Parameters:"
[139] "          Estimate  Std.Err  z-value  P(>|z|)  Std.lv  Std.all"
[140] "  eg                0.083    0.027    3.036    0.002    0.083    0.068"
[141] "  total             0.204    0.124    1.639    0.101    0.204    0.158"
[142] "  ab                0.043    0.029    1.477    0.140    0.043    0.033"
[143] "  total             0.204    0.124    1.639    0.101    0.204    0.158"
[144] "  path              0.038    0.019    2.006    0.045    0.038    0.036"
[145] ""

```