

# Dynamic Relationships Management Journal

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The Dynamic Relationships Management Journal is an international, double blind peer-reviewed bi-annual publication of academics' and practitioners' research analyses and perspectives on relationships management and organizational themes and topics. The focus of the journal is on management, organization, corporate governance and neighboring areas (including, but not limited to, organizational behavior, human resource management, sociology, organizational psychology, industrial economics etc.). Within these fields, the topical focus of the journal is above all on the establishment, development, maintenance and improvement of dynamic relationships, connections, interactions, patterns of behavior, structures and networks in social entities like firms, non-profit institutions and public administration units within and beyond individual entity boundaries. Thus, the main emphasis is on formal and informal relationships, structures and processes within and across individual, group and organizational levels.

DRMJ articles test, extend, or build theory and contribute to management and organizational practice using a variety of empirical methods (e.g., quantitative, qualitative, field, laboratory, meta-analytic, and combination). Articles format should include, but are not restricted to, traditional academic research articles, case studies, literature reviews, methodological advances, approaches to teaching, learning and management development, and interviews with prominent executives and scholars.

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## FRAMING THEORETICAL CONTRIBUTIONS: THE AC/DC POSITIONING GRID

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How to frame theoretical contributions in a way that positions them within existing literature-specific conversations in a meaningful way is a challenge that has bedeviled researchers for decades. **Theory** is at the very heart of scholarship, and is a key criterion for evaluating the quality and contribution of research (Cornelissen, Höllerer & Seidl, 2021). Theory is an “umbrella concept” (Suddaby, 2014) or a “container term” (Sandberg & Alvesson, 2021). It refers to the scholarly work that researchers do in pursuit of making informed claims about a generalizable account of events in the social world. As Cornelissen et al. (2021, p. 3) put it,

The informed nature of these claims refers here to the fact that researchers make a qualified assertion regarding how something can generally be understood or explained, or indeed how they argue it should be compared to familiar or more limited understandings. The strength of researchers’ claims rests directly on the scholarly work that they have done, and how this has been articulated in a paper; for example, in sharply defining concepts or constructs, in developing a coherent set of explanations, or by offering a compelling point of critique that counters past thinking on a topic.

To no surprise, review and editorial comments regarding “overarching theory,” “theoretical contributions,” or “the so-what question” are almost ever-present in contemporary review processes in academic journals, often acting as gates between submitted research reports and their actual publication. Implications for theory and relevance of a particular piece for the extant literature are extremely important issues underlying the fact that new research actually provides something unique beyond the current body of knowledge. Many prominent researchers and their contributions thus have addressed challenges related to **theorizing and making**

**theoretical contributions** in recent decades (e.g., Whetten, 1989; DiMaggio, 1995; Sutton & Staw, 1995; Weick, 1995; Feldman, 2004; Cornelissen & Durand, 2014). At the same time, review comments listed above as examples oftentimes come across as generic and vague, without clear and constructive guidance about how the submitted manuscripts could be improved upon regarding those matters.

Providing an accurate account of (1) what the extant literature already knows (“standing on the shoulders of giants”), (2) what currently is missing (what are the gaps/lacunas in the existing research), (3) what new research will do and in what way, and (4) how it contributes to the existing conversations are key elements that scholars usually include in the front (introduction) part of their papers. The components described above also can act as a template (“the four-paragraph model”<sup>1</sup>) for crafting an introduction, for example, by devoting a paragraph to each of the points above. Such an approach can help scholars navigate the most important elements of their positioning. The **“craft” side of scholarly writing** also embodies a well-documented area of academic endeavor, producing many important and readily applicable guidelines published in the form of articles, books and book chapters, or editorials (e.g., Bem, 1987; Bergh, 2003; Fernandez, 2020; Grant & Pollock, 2011; Gregor & Hevner, 2013). In recent years, many of those resources have moved online, producing outlets such as institutional (university) or other research writing guides, and online coaches and materials.

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<sup>1</sup> The author thanks the anonymous reviewer of one of the earlier submissions of author’s work to one of the top journals in the field of management. That manuscript was rejected at the time, but this constructive comment resulted in many subsequent papers hopefully being framed much better.

Despite these foundations and resources, how to actually approach **positioning research within existing conversations**, and how to evaluate, describe, narrate, and articulate particular contributions to the “existing table occupied by already published research(ers) on the topic,” remains an open, creative, imaginative task. At the same time, it epitomizes an intangible, difficult, elusive undertaking, often leaving scholars without ideas about how to tackle it successfully. This editorial complements existing pieces referred to above by offering and describing a tool that can help scholars do this, framing their thought process and assisting in providing an accurate account of specific contributions.

The framework described and depicted in Table 1 encompasses two sets of elements. The rows include four ways a particular contribution can be framed; it can **Advance** (progress), **Complement** (integrate), **Debunk** (contrast), or **Confirm** (corroborate) existing conversations in the literature, constituting the **AC/DC positioning grid/matrix**. This editorial describes and provides examples of each of those types of positioning, additionally describing them through elements provided in the column headers of the grid.

I argue that each contribution should be positioned specifically in a way that defines **the scholarly field** (broad research area – narrower field – specific topic) in which it attempts to make a contribution, to **which discussion** in the extant literature it intends to contribute, the **key authors** and their contributions to the conversation, the **scope** of this potential contribution, and **why it is relevant theoretically** (not just logically or practically). These all represent evaluation criteria for specific contributions, which can take one of four **key types of framing a theoretical contribution**.

(1) **Advancing** or **progressing** a particular scholarly discussion implies that the new contribution would alter, fundamentally or marginally, an existing theoretical point of view of a specific topic. Such a contribution would imply that the scholarly conversation would be steered in a different (not opposing, just modified) direction on the basis of presented findings. The conversation would be advanced by the presented evidence that will need to be accounted for in ongoing discussion (i.e., contributions succeeding it). For example,

We intend to advance the literature of consumer negativity towards brands by highlighting the mechanism of the occurrence of obsessive behaviours. We propose that obsess is more likely to occur when consumers hate the brand. (Japutra, Roy, & Pham, 2021, p. 2)

Such a theoretical contribution progresses the literature in such a way that subsequent studies in the marketing field on the topic of consumer negativity will have to consider consumer hate as a mechanism of obsessive behavior.

2) **Complementing** an existing conversation implies that the research adds something to the current body of knowledge, simply complementing what we already know with additional insight. This insight could stem from a different (empirical) context that has theoretical implications, it could stem from a different theoretical background (for example, with a different theoretical perspective providing additional insight into the studied matter dominated by another theoretical framework), or it could be achieved through **integration** of conceptualizations and findings from different areas of research. For instance,

*Table 1. The AC/DC positioning grid for framing theoretical contributions*

How does the contribution ...	Which field?	Which discussion?	By which authors?	Scope of the contribution (small, moderate, large)	Why is it relevant? (theoretically, not just practically)
Advance/progress					
Complement/integrate					
Debunk/contrast					
Confirm/corroborate					

We intend to complement the literature on budgeting in institutional complexity, and the funding situation matters in a study that deals with budgeting. (Amans, Mazars-Chapelon, & Villesèque-Dubus, 2015, p. 52)

Such a contribution would imply that the study of the topic of budgeting in institutional complexity thus far has not considered the funding situation, and that this paper complements the current stream of research with this perspective.

(3) **Debunking or contrasting** existing research implies that the current perspective or viewpoint prevalent in the existing conversation does not hold, either universally, or in a specific setting. In claiming such a type of theoretical contribution, authors frequently provide contrasting evidence that enables additional theoretical development for contrasting the current stream of research. Insights used to develop such counter views could stem from a different theoretical perspective that the current body of knowledge has not yet considered, or a recombination of theoretical viewpoints that have been used to date. For example,

The big myth the authors aim to debunk is that creativity cannot really be managed—that it's a largely solitary process involving a few somewhat eccentric individuals with very high IQs. (Holt, 1999, p. 15)

Here, the author provides strong evidence that counters the existing “myth” in the creativity literature. With such a contribution, one is bound to contrast existing streams and individuals, which perhaps raises fears of such a contribution not being accepted well. However, science is updating and renewing constantly, and most academic should be glad to see their ideas or findings that might have worked in a particular context, or were appropriate in light of particular zeitgeist, challenged with novel evidence or different streams of thought.

(4) Finally, and just the opposite of #3, **confirming or corroborating** existing research also is a noble feat, especially in light of the reproducibility and replicability crisis in social sciences. Although frequently interpreted as perhaps less “grand” and radical of a contribution, it nonetheless is crucially needed, either as a form of generalization (i.e., confirming a finding in a different context or replicating

in similar contexts) or as a stepping stone for another contribution that can advance or complement what has been confirmed additionally. For example,

In a dynamic perspective, we have argued that SMEs are therefore more responsive to intensifying disincentives for innovation than large firms are. We intend to corroborate this view by controlling for confounding factors such as those resulting from changes in sector compositions or growth dynamics of particularly innovative firms. (Rammer & Schubert, 2018, p. 384)

The authors attempt to confirm and verify the assertion previously posited in the literature by adding additional controls. These shed additional light onto findings, and make conclusions more rigorous in light of including controls of sector compositions or firms' growth dynamics. In this way, such a contribution does not shift or change the viewpoint present in a particular area of research, but makes it more robust and generalizable.

Taken together, the AC/DC framework is a *grid* or a *matrix*, meaning that not all cells need to be (and almost surely will not be) filled by positioning one academic paper. As a rule of thumb, there usually are one to three, or likely a maximum of as many as five key contributions each paper makes. Each of them could very well be placed in the same positioning type (e.g., they all could complement existing streams, but perhaps different streams), and definitely not all positioning types need to be covered. The tool and its underlying table is intended to be adapted to a specific paper that attempts to make specific contributions, depending on the content.

Next I demonstrate the application of the AC/DC positioning matrix on our published piece in *Human Resource Development Quarterly* (Hernaus, Černe, & Škerlavaj, 2021). In this paper, we drew on a relational perspective to human resource development and management (HRD/M), and conducted a multilevel and multisource field study that examined how HRM practices of job interaction requirements/task interdependence and HRD practice of cross-training interact to enhance employees' job/task citizenship performance. We presented three contributions to the literature at the intersection of HRD/M.

First, we **complemented** existing HRD/M research that has traditionally focused on narrowly defined employees' job/task performance by validating the importance of social job characteristics (i.e., communication and coordination) for a specific type of extra-role performance. Second, we **advanced** the conversation linking training interventions with job design decisions to achieve workplace performance targets, something that was mentioned in the late 1980s and early 1990s (we used the expression "*we reopen the discussion*") by accounting for both organizational- and individual-level constructs, providing evidence that organizations need to put an additional team training effort to develop lateral capabilities of their workforce in addition to socially enriched job design. Third, we **contrasted** the traditional view of HRD that has considered it to be a subspecialization of HRM, offering a showcasing example of how a multilevel perspective on HRD can create transdisciplinary value. Table 2 summarizes how these contributions were framed.

To conclude, the tool described in this editorial perhaps could be applied universally. However, it was developed on the basis of prior research stemming from the business, management, organization studies, and organizational behavior/psychology fields, likely making it more suitable in those areas. The examples mentioned herein reflect the author's background, knowledge of the fields, and search history. The list is not exhaustive, and even better examples likely exist.

It needs to be emphasized that the use of this tool is preconditioned by deep analysis of the existing literature, careful thought related to conceptualizing research, and executing it in an honest way in the best form possible. The AC/DC matrix with its elements is intentionally simplistic, and is intended to assist prospective academic writers and make their job easier, enabling them to focus on the actual content of their contributions. However, the craft of clever writing and positioning a paper in a more articulate manner cannot replace the much-needed excellence in all the other parts of the research journey.

*Table 2. The application of the positioning grid in Hernaus et al. (2021)*

How does the contribution ...	Which field?	Which discussion?	By which authors?	Scope of the contribution (small, moderate, large)	Why is it relevant? (theoretically, not just practically)
Advance	HRD/M	Linking training interventions with job design decisions to achieve performance targets.	Campbell et al., 1993; Felstead et al., 2009; Marsick & Watkins, 2015; McLagan, 1989	Moderate	Accounting for constructs at different levels; the importance of developing lateral capabilities of their workforce in addition to socially enriched job design.
Complement	HRD/M	Narrowly defined job/task performance; importance of social job characteristics and extra-role performance.	Alagaraja, 2013; Mohan & Sophia, 2019; Wong et al., 2017	Moderate	New cross-disciplinary HRM–HRD nexus knowledge about socially structured and cognitive aspects of human behavior.
Debunk/contrast	HRD/M	Depart from a traditional subspecialized role of HRD and acknowledge that HRD has become a well-established and mature field of its own.	Jeung et al., 2011; McLagan, 1989; Ruona, 2016; SHRM, 2014; Torraco, 2005a; Yoo et al., 2019	Moderate	Demonstrating how a multilevel perspective on HRD can create transdisciplinary value.

*Note: References listed in the table are presented in Hernaus et al. (2021)*



The basic idea of making academic writing even more of a “craft” does not come without challenges. Undoubtedly, it makes academic papers, especially those reporting similar types of research designs, more and more similar to one another. This notion acts counter the concept of intellectual pluralism upon which academia is (or should be) founded. To some extent, this does diminish creativity that is left to researchers in crafting their manuscripts. At the same time, excellent research always should come through, regardless of its format, and many journals have become open to accepting manuscripts that employ innovative techniques of writing, research design, or indeed structuring specific elements of final research reports. The current academic system of publishing might not be optimal, but it is the best we have. Members of the academic community should strive to uphold it in an ethical way, doing our best to approach it with utmost care, responsibility, and diligence. We all take part in, compose, and contribute to the academic world. Let us act in making it a place that celebrates excellent research that is articulated in the best manner possible.

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## ORGANIZING FOR AUTONOMY: A COMBINED CONTINGENCY AND AGENCY PERSPECTIVE

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### Abstract

*This paper explains work autonomy using contingency theory and agency theory. Whereas prior research relied on individual-level data (sometimes across nations), the present analysis specifically focused on understanding work autonomy as a management decision at the organizational level. Data were collected among 670 private companies in the Netherlands using a survey. The companies represented a cross section of the Dutch economy. The data were analyzed using regression analysis. The factors derived from contingency theory and agency theory predicted the use of work autonomy. More generally, they can be understood as internal and external fit factors and the agency problems associated with them. These contingency factors include task characteristics, organizational size, organizational governance, and external developments. Whereas work autonomy often is viewed as a matter of organizational design, much of the empirical work relied on individual-level data. As a result, little is known about organizational factors related to the provision of autonomy of workers. For actors involved in organizational practices (e.g., managers and consultancy), a number of suggestions are offered for managing autonomy. This paper focused specifically on the organizational level by examining data collected among companies.*

**Keywords:** Bureaucracy, Organizational Theory, Organization Design & Development, Survey Research, Work Autonomy

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### 1 INTRODUCTION

Autonomy in the workplace has a central place in organization studies. Early writings about formal organizations relied on Weber's work on bureaucracy, with its emphasis on hierarchical structure and centralized decision-making (Blau, 1958; Eisenstadt, 1959). However, the benefits of centralization over decentralization have been debated ever since (Billinger & Workiewicz, 2019; Martela, 2019). First, from the perspective of organization design, the hierarchical nature of organizations has been challenged. Classical accounts include the ideas of Barnard (1938) and Fayol (1949), which emphasized that strict hierarchies may not work under all conditions, an idea that later was adopted widely in the organizational literature, as well as in sociological work focusing on the unintended consequences of

overly rigid hierarchies (Merton, 1940). From a different perspective, increasing attention was paid to the humanization of work in that period, which focused mainly on the need to provide freedom to workers to improve the quality of work (Fairfield, 1974). Hence, from the start of organizational studies, the topic of work autonomy has been on the agenda of organizational researchers, for example in efforts to understand how new organizational forms relate to the autonomy of workers.

However, despite its central place in the organizational literature, research into the topic of work autonomy remains fragmented. Basically, three strands of literature can be identified which investigated job autonomy. These strands of literature differ in their approach to work autonomy, the research questions they address, and their theoretical explanations. By far the largest body of re-

search views work autonomy as the independent variable in its research. In this body of research, two subfields can be distinguished. The first field consists of individual-level studies focusing on the role that autonomy has in explaining individual motivation, job satisfaction, and productivity. Theories such as self-determination theory (SDT) (1985) and the job demands–resources (JDR) model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001) are well-known examples of this (Cassar & Meier, 2018). Work autonomy also is investigated at other levels of analysis, such as the team and the organization levels (Pinnington & Haslop, 1995). In the latter subfield, much research falls under the heading of high-performance work systems (HPWSs). Work autonomy is regarded as one of the main parts of these systems (Posthuma, Campion, Masimova & Campion, 2013), which are believed and found to be related to several performance dimensions of organizations (Boxall & Macky, 2008).

Although these two strands of the literature yielded interesting and relevant insights into the individual-, team-, and organizational-level *consequences* of work autonomy, they remained silent on an important issue, namely under what conditions do employers choose to *provide autonomy* to workers. Given the favorable outcomes of work autonomy based on the aforementioned studies, there is little reason to argue why organizations would not grant autonomy to their workers. The argument would be that the contributions of work autonomy to the functioning of organizations are considerable, and hence all organizations should aim to maximize their level of autonomy. However, this argument is too strong, because all these theories acknowledge that there are limits to the use of work autonomy, for example, because autonomy does not work for every worker (because it does not fit their personal needs and traits, for example, because they have a high need for structure) or because it does not fit the organizational or national culture (Hirst, Budhwar, Cooper, West, Long, Chongyuan & Shipton, 2008; Erez, 2010; Posthuma, Campion, Masimova & Campion, 2013; Koster & Gutauskaitė, 2018). In both instances, the usefulness of applying work autonomy in organizations is undermined.

In other words, it is not expected that organizations benefit from using work autonomy in all circumstances. Nevertheless, those studies focused on the way in which work autonomy interacts with individual, organizational, and national characteristics, and thus they did not explain the extent to which organizations make use of work autonomy. Hence, such research does not address other drivers and barriers to the use of work autonomy. To understand that, one has to look at theories in which work autonomy is the dependent variable rather than the independent variable. This brings us to the two other strands of the literature in which work autonomy is examined, namely structural contingency theory and agency theory. To a large extent, these two theoretical perspectives supplement each other (Eisenhardt, 1985; 1989). Structural contingency theory provides the most general account regarding the use of work autonomy. The main idea underlying this theory is that organizations thrive if they achieve internal and external fit (e.g., organizations need to make sure that their internal structure is coherent and that the organizational structure matches the organizational environment) (Mintzberg, 1980; Stonebraker & Afifi, 2004). From this it follows that work autonomy varies across organizations depending on the internal and external factors affecting or determining the structure of organizations. The other strand of the literature in which the use of work autonomy is explained has its roots in agency theory (Shapiro, 2005). Agency theory emphasizes the role of control and incentives in order to let organizations (and economic interactions in general) function. Following the basic premise of agency theory that the interests of workers and employees diverge, organizations are hesitant to grant autonomy to workers. This reluctance lies in the lack of trust between the parties involved. Hence, the focus of agency theory on the provision of work autonomy mainly is on the risks of granting work autonomy and the agency costs associated with it. This also is where the two theoretical perspectives complement each other: whereas contingency theory provides a clear view of which factors should be taken into account to construct a theory of work autonomy, agency theory provides some of the main theoretical explanations as well as an account of the limits to the provision of autonomy and under which conditions it may be granted in organizations.

This analysis contributes to existing insights as follows. Several studies have investigated work autonomy as a part of the general notion of high-performance work systems (HPWPs; Kalleberg, Marsden, Reynolds & Knoke, 2006; Posthuma, Campion, Masimova & Campion, 2013). Those studies relied on organizational-level data but focused mainly on differences between public- and private-sector organizations, which refers to the sectoral level. Kaufmann and Miller (2011) also investigated HPWPs to understand the application of these practices by formulating a demand function. Their analyses also relied on organizational data but used spending data to test their expectations. Lorenz and Valeyre (2005) conducted a cross-national investigation of four different work systems. One of the dimensions they used to construct their systems was work autonomy. Their analyses, however, were based on individual-level data, and provided little insight into the organizational-level factors explaining work autonomy. Finally, several studies explicitly focused on work autonomy, again using cross-national comparative data at the individual level, which provides little information regarding organizational-level explanations (Dobbin & Boychuk, 1999; Au & Cheung, 2004; Lopes, Calapez & Lopes, 2015). Thus, previous studies using organizational-level data regarded work autonomy as an integral part of the high-performance work system of organizations, and studies that did focus specifically on work autonomy did so by using information from employees. In the first case, it is both theoretically and empirically impossible to determine the role of work autonomy, and in the second case, the inclusion of organizational-level factors is difficult. The present paper adds to that a specific focus on work autonomy and its organizational-level determinants by analyzing data from 670 private organizations from the Netherlands.

## **2 THEORETICAL BACKGROUND**

### **2.1 Insights from Contingency Theory and Agency Theory**

Whereas much of the aforementioned research relied on either individual- or national-level explanations and data for the use of work autonomy, the present analysis focused on the application of work autonomy as an organizational decision (Pinnington & Haslop, 1995). As a result, neither individual- nor national-level explanations sufficed to understand

autonomy, and organizational theories were applied to understand this decision. Instead, the theoretical framework was developed by applying to theories at the organizational level to explain work autonomy.

Contingency theory provides some of the core assumptions regarding the structure of organizations. Its main argument rests on fit assumptions: organizations need to be aligned with their external and internal environments. These environments vary, for example, with regard to their complexity and uncertainty, which explains why organizational structures vary (Helms, 2000). Agency theory also focuses on the design of organizations. The basic assumptions of agency theory are the (1) principals hire agents to perform tasks (within the context of organizations, the principals are representatives of the organization and workers are the agents), (2) the information between agents and principals is asymmetric (agents have more information about the performance of their jobs than principals), and (3) the interests of principals and agents diverge (principals prefer more effort for less money than the agents). Based on the agency framework, it is expected that principals try to devise mechanisms intended to solve agency problems. Although contingency theory and agency theory differ in many respects, they overlap on that they both assume that decisions are made by bounded, rational actors, that information is asymmetrically distributed, and that organizations strive for efficiency (Eisenhardt, 1989). Combining these two theoretical perspectives helps to understand why organizations choose to apply autonomy or not.

### **2.2 Tasks Characteristics**

Regarding the internal fit of the organizations, the tasks that are being performed are among the main contingency factors. The basic idea is that the way in which workers are governed depends on the kind of tasks they perform. Based on consideration derived from agency theory regarding how organizations deal with information asymmetry (Eisenhardt, 1985), three characteristics of these types of tasks are linked with work autonomy, namely how strongly the work rests on the knowledge-intensity of the work, whether the knowledge is firm-specific, and the length of the relationship between principals and agents.

The knowledge-intensity of the work emphasizes the crucial role of information in the production of goods and services. The development in the direction of a knowledge economy (Powell & Snellman, 2004) underscores the importance of knowledge and information in organizations. The extent to which information is needed has consequences for the way in which people are managed and the extent to which they can be controlled by formal monitoring systems. One of the main characteristics of knowledge-intensity is that it relies on workers having more local knowledge than their supervisors. In terms of the agency problem, the information-asymmetry among principals and agents is larger than in a work situation in which less knowledge is needed. In that sense, it may be expected that organizations would invest more strongly in monitoring these workers. However, in practice, there are additional mechanisms at work, lowering the need for monitoring them directly. Knowledge-intensity also relates to professionalism and education. As a result, the behavior of these workers is bound to professional rules and socialization (Trede, Macklin & Bridges, 2012), which lowers the need to monitor these workers. Furthermore, to make ultimate use of their knowledge, organizations need to give them a level of autonomy to solve problems independently.

Another characteristic of the kind of tasks that workers perform within an organization refers to the extent to which the knowledge that is needed is specific to the organization or is of a general nature. Knowledge that is firm-specific is applicable only in that organization and is of no use in other organizations (Becker, 1964). It is developed within the boundaries of a single organization through learning (Argote & Miron-Spektor, 2011), and is among the unique resources that organizations have to gain a competitive edge (Barney, 1991). From an agency perspective, knowledge-specificity provides a strong incentive for worker to perform in accordance with the goals of the organization. Here the basic argument is that investing in firm-specific knowledge (both from the side of the work as well as by the organization) creates interdependence between the worker and the organization. The worker has fewer external opportunities from

investments in firm-specific knowledge, and for organizations, investment in the firm-specific knowledge of workers implies the risk of losing that knowledge once a worker moves to another organization and bearing a cost to re-invest in the knowledge of a new worker. Because the dependence between them is stronger, the agency problem decreases in size as goals of the principal and the agent become aligned; they both have an incentive to work for their mutual goal because there are costs associated with ending their relationship. This in turn paves the way for increasing the autonomy for the worker.

Finally, the extent to which organizations are able to overcome agency problems, depends on the length of the relationship between the principal and the agent. Based on social exchange and game-theoretic considerations (Raub, 2017), the agency problem is reduced if principals and agents interact over a longer period (Shapiro, 2005). The basic mechanisms at work here are learning and control that contribute to the cooperation between principals and agents. Through past interactions, the principal gathers information about the reliability of the worker, and if there are future interactions, it is possible to provide positive and negative sanctions. Hence, if there is a long-term relationship between the principal and the agent, agency problems are lower and thus there is more room for providing work autonomy.

These theoretical considerations lead to a number of predictions concerning the relationships between tasks characteristics and the level of work autonomy that organizations provide. The following hypotheses are formulated:

Hypothesis 1: *There is a positive relationship between work autonomy and the share of permanent workers.*

Hypothesis 2: *There is a positive relationship between work autonomy the share of highly educated workers.*

Hypothesis 3: *There is a positive relationship between work autonomy and the firm-specificity of tasks.*



### 2.3 Organizational Size

Research into organizational size as a contingency factor usually follows a well-known argument that dates back to Blau (1970) (Bluedorn, 1993). According to this argument, the larger organizations are, the more their structure becomes formalized and centralized. Hence, it is likely that larger organizations tend to provide less work autonomy. This also is found empirically (Lopes, Calapez & Lopes, 2015). Agency theory offers a theoretical justification for this finding. Because agency problems increase as organizations become larger, it is expected that formal monitoring is applied more extensively in larger organizations. Therefore, work autonomy will be lower. These theoretical insights lead to the following hypothesis about the relationship between organizational size and the provision of work autonomy by organizations:

*Hypothesis 4: There is a negative relationship between work autonomy and the size of the organization.*

### 2.4 Organizational Governance

The principal–agent structure not only applies to relations within the organizations, but transcends organizational boundaries. Organizations differ regarding the level of leeway they have themselves to formulate their own policies and make their own decisions. Organizations can fully be independent, but they also can be part of a larger company, meaning that there is a certain level of dependence on another organization (Stock, Greis & Dibner, 1996; Delany, 2000). In the latter case, an agency problem arises between the parent organization and the subsidiary. From an agency perspective, the expectation is that parent organizations will try to exercise control over subsidiaries (Gong, 2003; Kim, Prescott, Kim & Kim, 2005). As a consequence, the subsidiary will have less room to instill autonomy within the organization. These theoretical considerations are summarized in the following hypothesis:

*Hypothesis 5: There is a negative relationship between work autonomy and the dependence on other organizations.*

### 2.5 External Fit: Organizational Environment

Whereas the organizational environment and the theoretical idea of external fit have been part of the contingency literature from its outset, there is not one specific conceptualization of the organizational environment (Baum & Rowley, 2002). Research takes different positions regarding how to view the external environment. This paper takes a middle position between two extremes. These extremes range from very general conceptions of the organizational environment to more specific ones. General approaches picture the organizational environment in terms of complexity, dynamics, and so forth. For example, this is how transaction cost economics (Williamson, 1981) explains the way in which organizations are governed. On the other end of the continuum are specific approaches that focus on the impact of a single environmental dimension, such as technological change or the aging of employees (Stone & Deadrick, 2015). The middle position, chosen here, is that organizations face multiple challenges, which may be phrased in terms of complexity, but also can have an impact due to other demands they put on organizations, as well as providing opportunities in the near future. To capture this, the environment is regarded as a number of forces with which organizational actors may be confronted.

Among the main phenomena that organizations face are developments with regard to digitalization and robotization, internationalization, flexibilization, and population aging. Digitalization and robotization reflect technological innovations impacting organizations through digitalization of the workplace and the rise of the robots (Frey & Osborne, 2013; Brynjolfsson & McAfee, 2014). Whereas digitalization mainly concerns communication structures and flows of information, robotization changes work processes by introducing intelligent machines. Internationalization reflects processes increasing the cross-national interdependence among individuals, organizations, and nations (De Beer & Koster, 2009). To a large extent, these processes are driven by international trade. and hence mainly can be regarded as one of the economic trends that organizations face. Population aging is a macrolevel trend (Lutz, Sanderson & Scherbov, 2008) that has consequences for labor

markets and organizations. Flexibilization reflects the shift toward all kinds of temporary work, and more recently the number of self-employed workers increased (Pfeffer & Baron, 1988; Hatfield, 2015).

Although the extent to which organizations are affected by these trends differs, and some trends are more visible in one organization than another, it is hard to tell them apart completely. As was suggested in the discussion of trends, they all relate to the broader (economic, technological, social, political, and demographic) trends with which organizations may be confronted. Furthermore, they are interconnected: for example, the rise of self-employed workers is made possible by digitalization of the workforce, policy choices, and global competition (Rubery, 2015). Hence, instead of viewing these trends as isolated events, it makes more sense to put them under the same rubric, namely trends or developments that organization may face in the near future. These theoretical considerations are summarized in the following hypothesis:

*Hypothesis 6: There is a positive relationship between work autonomy and developments in the external environment.*

The preceding theoretical considerations show that there is considerable overlap between the predictions based on contingency theory and those derived from agency theory, and that the two can complement each other. To a certain extent, contingency offers the factors to examine to understand the application of work autonomy, and agency theory provides deeper insights into the underlying mechanisms that explain why these factors matter.

### 3 METHODOLOGY

#### 3.1 Sample and collection of data

The hypotheses were tested with data from the Innovative HRM Survey (Koster, Korte, Van de Goorbergh & Bloem, 2017). This survey generated information about a random sample of private firms in the Netherlands. These Dutch organizations may provide valuable insights, because it is known from international comparative studies that workers in

the Netherlands report above average levels of autonomy, as in countries such as Sweden, Finland, Norway, and Denmark (Koster, 2011). Focusing on organizations in a country where the provision of autonomy is more common also may shed more light on the factor facilitating it. The data were gathered as part of a larger project focusing on several aspects of organizational innovation. The survey was developed by a team consisting of academic researchers and consultants in the field of organizational collaboration and innovation. The survey collected data about organizational innovation, human resource practices and policies, and several background characteristics of organizations. Kantar Public collected the data using their panel with private organizations (NIPObase Business). In total, the responses of 670 organizations were included in the analyses. The organizations in this sample vary in size, operate in different economic sectors, and represent a cross section of the Dutch economy.

#### 3.2 Measurement

Work autonomy is a composite measure with items indicating whether people in organizations have freedom of choice over four aspects of their work, namely their working time, location of work, ways of working, and extra hours. These items are in line with those investigated by Breugh (1985), which provide a standard measure of work autonomy, but also extends them by including whether people have leeway in where they work and in number of hours they work. A major difference with the existing measure is that the level of autonomy is not rated by the individual job holder but by a representative of the organization. Respondents were asked to indicate to what extent this applies to their own organization. The items were measured on a five-point scale. Of these four measures of work autonomy, freedom to choose their location of work was the least popular among organizations (mean = 2.94), whereas freedom in the ways of working is applied most often by organizations (mean = 3.73). To assess whether the items measured a similar dimension, the correlations between them were calculated. The correlation coefficients ranged from 0.55 to 0.75, indicating that they were positively and significantly related to each other. Principal compo-



nent analysis showed that the items loaded on 1 dimension. The scale was constructed by adding the scores of these items and dividing the total by 4. The Cronbach's alpha of this scale was 0.88.

### **Independent Variables**

The variable "highly educated" was measured with a five-point scale indicating to what extent the organization consisted of highly educated employees. Knowledge-specificity indicated on a five-point scale to what extent the organization needs to apply knowledge that is specific to that particular organization (for example, in terms of knowledge about the technology used in the organization). The variable "permanent employees" was measured by asking respondents to indicate to what extent the organization consisted of employees with a permanent contract (measured on a five-point scale). Organizational size was measured by asking respondents to indicate the number of employees in the organization. The variable "subsidiary site" had a value of 1 if the organization was owned by another organization, and 0 if the organization was independent. The variable "developments expected" was a composite of several items asking respondents to indicate whether they expected that the organization would experience the following issues in the near future: employee aging, flexibilization, internationalization, robotization, and digitalization. The items were measured on a five-point scale. An investigation of the correlation coefficients and a principal component analysis showed that these items belonged to a single dimension. The Cronbach's alpha for this scale was 0.75.

### **Control Variable**

The variable "economic sector" indicates the sector in which the organization operated. This variable served as a control variable to account for the possibility that levels of autonomy can vary across sectors (e.g., Kashefi, 2011). The main reason for adding economic sector as a control variable was that it provides a general indication of the work environment in which organizations decide to offer autonomy to workers.

Table 1 summarizes the descriptive statistics (mean, standard deviation, and percentage) of the variables included in the analysis. There was consid-

erable variation in the organizations included in the sample; they were from different economic sectors and differed in size. The majority of organizations were small companies. This reflects the actual situation, and hence overcomes the problem mentioned in other studies that much of the information comes from larger organizations (Cardon & Stevens, 2004; Koster, 2020). Furthermore, the knowledge-specificity among these organizations may be considered high, with an average of 3.67 on a five-point scale. Finally, Table 1 confirms that the companies in this sample belonged to an economy in which work autonomy is common; the mean level was 3.46 on a five-point scale.

The hypotheses were tested using ordinary least squares regression analysis. One model was calculated which included the control variables and the variables testing the theoretical predictions.

## **4 RESULTS**

The results of the regression analysis are presented in Table 2. The first set of variables investigated in the regression model related to the internal fit and agency problems of organizations. All three variables indicating the types of tasks being performed in the organization were positively related to the extent to which organizations provided work autonomy. The more permanent workers an organization employed (Hypothesis 1), the more highly educated workers the organization employed (Hypothesis 2). The more these workers performed tasks requiring firm-specific knowledge (Hypothesis 3), the more work autonomy the organizations provided to workers. The other organizational contingency factor, organizational size, was negatively associated with work autonomy. The larger the organization, the less work autonomy it provided, which is in accordance with Hypothesis 4. With regard to the governance of organizations, the analysis showed that subsidiary sites provided less work autonomy, as expected by Hypothesis 5. Finally, with regard to the external fit, the results showed that there was a positive association between the extent to which organizations face developments in the near future and the level of autonomy that the organization applied. The stronger the influence of the external environment, the more work autonomy

Table 1: Descriptive statistics

	Min/Max	Mean	Standard deviation	Percentage
Work autonomy	1/5	3.46	1.15	
Highly educated	1/5	2.94	1.58	
Knowledge-specificity	1/5	3.67	1.35	
Permanent employees	1/5	2.99	1.69	
Organizational size	1/5	1.17	0.58	
Organizational size (categories)				
1–9	0/1			88.20
10–49	0/1			7.50
50–99	0/1			2.00
100–249	0/1			1.20
250 or more	0/1			1.20
Subsidiary site	0/1			3.30
Developments expected	1/5	2.45	0.89	
Sector				
Industry and production	0/1			4.70
Construction	0/1			6.60
Retail – food	0/1			3.10
Retail – nonfood	0/1			13.20
Wholesale	0/1			7.40
Cars and repair	0/1			1.90
Catering	0/1			3.90
Transport and communication	0/1			3.20
Business services	0/1			35.20
Other services	0/1			10.20
Information technology	0/1			8.50
Financial institutions	0/1			2.10

Source: Innovative HRM Survey. Note:  $n = 670$  firms.

the organization chose to provide to their workers (Hypothesis 6). Together with the control variable, the model explained 16% of the variance in work autonomy. Based on these results, it was concluded that all six hypotheses had empirical support, showing that these factors can be regarded to explain part of the autonomy granted by organizations. The  $p$ -values indicated that work autonomy was related to the educational level of the workforce ( $b = 0.15$ ;  $p < 0.01$ ), organizational size ( $b = -0.11$ ;  $p < 0.01$ ), and external developments ( $b = 0.18$ ;  $p < 0.01$ ).

## 5 DISCUSSION AND CONCLUSION

This paper provides an organizational-level analysis of why organizations decide to grant autonomy to their workers. By combining arguments from contingency theory and agency theory, it was possible to select relevant factors and explain them. The overall conclusion is that the decision to provide work autonomy depends on several organizational-related factors concerning the internal and external fit-seeking behavior of organizations

Table 2: Regression analysis of work autonomy

	<b>b</b>	<b>SE</b>	<b>p</b>
Intercept	2.08	0.27	0.00
Highly educated	0.15	0.03	0.00
Firm-specific knowledge	0.09	0.03	0.01
Permanent employees	0.08	0.03	0.01
Organizational size	-0.11	0.04	0.00
Subsidiary site	-0.53	0.24	0.03
Developments expected	0.18	0.05	0.00
Sector (ref = Industry and production)			
Construction	0.25	0.24	0.29
Retail – food	-0.40	0.31	0.21
Retail – nonfood	-0.02	0.24	0.94
Wholesale	-0.04	0.25	0.89
Cars and repair	-0.16	0.36	0.65
Catering	-0.27	0.28	0.34
Transport and communication	0.13	0.32	0.69
Business services	0.24	0.22	0.29
Other services	-0.13	0.25	0.61
Information technology	0.33	0.26	0.21
Financial institutions	-0.12	0.35	0.73
Adjusted R squared		0.16	

Source: Innovative HRM Survey. Note: SE = standard error; n = 670 firms.

along with the agency problems they face and try to manage. The paper's theoretical contribution lies in the combination of theoretical expectations derived from contingency theory and agency models to explain work autonomy. This is plausible because it withstood the empirical test. The paper's empirical contribution mainly concerns its focus on the organizational level as an addition to the studies focus on the individual level. The results showed that there is merit in focusing on these organizational-level factors and explanations. Theoretically, this leads to a model which helps to determine which factors are likely to be related to work autonomy, namely contingency factors, with an emphasis on internal and external fit, and agency theory explains why these factors facilitate

or hinder the use of work autonomy by organizations. Hence, this study provides a stepping-stone to integrate these theories even further. Although agency theory often is regarded as producing models which ignore the context of agency relations (Shapiro, 2005), this analysis showed how the internal and external context of organizations may be integrated in such models.

The analysis should be interpreted with the following limitations in mind. First, the data were cross-sectional. In itself this does not reduce the insights related to the explanation of the application of work autonomy across organizations. However, it does mean a restriction in terms of causality, which always is the case in using such data. With the data at hand, it can simply not be

excluded that (some of the) relationships (also) run the other way around. For example, organizations providing work autonomy also may provide permanent contracts more often, and the more work autonomy an organization offers, the fewer are the possibilities to grow. This implies that we cannot speak about the outcomes in terms of causes of work autonomy. Nevertheless, even if this is the case, if the arrows go from work autonomy in the other direction, it still is possible to interpret them in terms of contingency theory and agency theory.

A second limitation of this study concerns its empirical setting. The data were collected among private organizations in the Dutch economy. Because there are cultural and institutional differences that explain cross-national variation in the use of work autonomy (e.g., Dobbin & Boychuk, 1999), one should be careful when generalizing the outcome to other countries. It is possible that the strength of the relationship depends on location.

Finally, some of the measures used in this study can be improved upon. Some variables were measured with reliable scale, but there also were some single-item measures, which may be less reliable than these scales.

These three limitations indicate a direction for future research. Further disentangling the causes of work autonomy would require either longitudinal or experimental data. Using longitudinal data allows assessing whether a change in one of the determinants of work autonomy actually results in changes in work autonomy. Additionally, experimental data could be gathered to determine whether the presence or absence of an experimental condition changes the willingness of organizational decision makers to provide work autonomy. The issue of having single-country data can be dealt with by having organizational-level data from more countries. There are not many comparative data sets that include information of organizations, but the European Company Survey (ECS) is a notable exception. These data also may be used to delve further into interactions between the country and the organizational level. Finally, future research is needed to assess whether more-extensive measures improve the model.

Several practical implications can be derived from the analysis. First, those involved in designing organizations (or supporting organizations through consultancy) are advised to think in terms of internal and external fit. The analysis found that this was the main thread to understand the use of work autonomy. For these practitioners, it is worthwhile to develop means to scan organizational needs and developments. For example, they may be advised to grant more work autonomy if processes become more knowledge-intense, and to balance work autonomy with the labor contracts they offer. At the same time, if larger organizations have an interest in granting work autonomy, for example, if they see it as a means to enhance the well-being and productivity of workers, they are advised to think about adapting their workforce. The second practical advice is related to agency problems in organizations. The analysis showed that the provision of work autonomy can be seen as a trust problem between principals and agents. Hence, organizations that are in need of work autonomy should determine which conditions should be met to deal with that trust problem. For example, it may be necessary to devise extra controls or incentives. However, informal mechanisms and interactions also have a strong influence on trust in the workplace. Hence, the creation of collaborative and supportive means of governance also can be a means of enhancing work autonomy.

## EXTENDED SUMMARY/IZVLEČEK

V članku avtor pojasnjuje avtonomijo dela s pomočjo teorije nepredvidljivih dogodkov in agencijske teorije. Medtem ko so predhodne raziskave temeljile na podatkih na ravni posameznika (včasih tudi na meddržavni ravni), se ta raziskava osredotoča na razumevanje avtonomije dela na organizacijski ravni. Podatki so zbrani s pomočjo ankete v katero je bilo vključenih 670 zasebnih podjetji na Nizozemskem. Podjetja so predstavljala presek nizozemskega gospodarstva. Podatki so bili analizirani z uporabo regresijske analize. Dejavniki, ki izhajajo iz teorije nepredvidljivih dogodkov in agencijske teorije, so predvideli uveljavitev avtonomije dela. Na splošno jih je mogoče razumeti kot notranje in zunanje dejavnike ustreznosti ter z njimi povezane agencijske težave. Ti dejavniki vključujejo značilnosti nalog delavca, velikost organizacije, organizacijsko upravljanje in zunanji razvoj. Kljub temu, da se na samostojnost dela pogosto gleda kot na odločitev na ravni organizacije, je bila večina empirične raziskave opravljena na ravni posameznika. Posledično je na voljo manj informacij glede organizacijskih dejavnikov, povezanih z zagotavljanjem avtonomije delavcev. Za akterje, ki sodelujejo v organizacijskih praksah (npr. menedžerji in svetovalci), je na voljo več predlogov za uravnavanje avtonomije. S preučevanjem podatkov, zbranih na podlagi raziskave med različnimi podjetji, se ta članek osredotoča predvsem na organizacijsko raven avtonomije dela.

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## DIVERSIFICATION, CEO COMMITMENT, AND FIRM PERFORMANCE

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### Abstract

*This study examined the effect of diversification strategies on firm performance and the extent to which the chief executive officer (CEO) commitment moderates this relationship. The effect of diversification on firm performance was analyzed in a sample with both above-average and below-average diversification levels. The sample consisted of 76 manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2007 to 2018, which were analyzed using panel data regression with a balanced panel. Tobin's Q was utilized to measure firm performance, compounded with three measures of diversification strategies: entropy index, Herfindahl index, and the number of segments. The results show that diversification leads to lower firm performance, whereas CEO commitment eliminates the negative influence of diversification on company performance in all measurement models (i.e., entropy, Herfindahl index, and the number of segments). Accordingly, the negative effect of diversification strategies and consistent CEO commitment were observed among the samples with high and low diversification levels.*

**Keywords:** *diversification, firm performance, corporate governance, CEO commitment*

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## 1 INTRODUCTION

The implementation of diversification strategies to boost company performance has been of considerable interest to many previous studies in strategic management (Palich, Cardinal, & Miller, 2000; Mackey, Barney, & Dotson, 2017; Subramaniam & Wasiuzzaman, 2019), but it is apparent that the impact of diversification still generates much debate given the mixed findings (Palich et al., 2000; Volkov & Smith, 2015). Some studies revealed that implementing a diversification strategy can adversely the performance affect (Zhou, 2011; Hashai, 2015; Gyan, 2017), which is in contrast to other studies that pinpointed how diversification strategies actually can improve the company performance (Kuppuswamy & Villalonga, 2016; Chan, Bany-Ariffin, and Nasir, 2019).

One of the factors causing the differing research results is the use of variables that moderate the relationship between diversification and company performance (de Andrés, Fuente, & Velasco, 2017). Among these factors is corporate governance, which includes the level of supervision and chief executive officer (CEO) performance (Jara-Bertin, 2015). In particular, diversification can cause a company's organizational structure to expand, which leads to higher information asymmetry. Such an issue poses great difficulty for coordination and supervision (Bushman, Chen, Engel, & Smith, 2004; Rodríguez-Pérez & Van Hemmen, 2010), decreasing the company's performance.

The increasingly complex coordination in companies with a broader organizational structure makes it vital to establish an effective coordina-

tion function (Chandler, 1962). Coordination between all elements in a business entity is an essential determinant of the company's operational quality (Cha, Kim, Lee, & Bachrach, 2015), and at a managerial level, the person responsible for executing the coordination function is top management or the chief executive officer. The greater the CEO's commitment to handling the coordination and supervision tasks at a company, the better is the coordination function. Likewise, the CEO's commitment to be involved in coordination across divisions determines the efficacy of diversification strategies.

Much of the research on diversification and firm performance originally stems from various—and at times contradictory—perspectives on diversification practices. One theory, for example, posits that a diversified company can cross-subsidize between segments, whereas another theory suggests that diversification may harm firm performance considering the motivation for such decisions—for example, management's opportunistic behavior (Volkov & Smith, 2015). From the concept of economies of scale (Rumelt, 1974), diversification is observed to increase company performance, which was corroborated by Chan et al. (2019), who maintained that the optimal use of resources as a consequence of sharing of resources can help achieve economies of scale and ultimately improve company performance. However, in agency theory, diversification is argued to increase information asymmetry and coordination costs, which will reduce firm performance (Hernández-Trasobares & Galve-Górriz, 2017).

Because of the opposing findings and theories regarding the actual impacts of diversification, this study sought to enrich the literature on the relationship between diversification and firm performance. In contrast to previous studies (Hernández-Trasobares & Galve-Górriz, 2017; Chan et al., 2019), this study examined the direct effect of diversification strategies on company performance and the role of CEO commitment as the moderating variable. This study also analyzed both full sample and specific samples with different diversification levels, that is, those above and below the average level. Diversification levels in this study were measured using several diversification measurement methods, namely

the entropy index, the Herfindahl index, and the number of segments. The purpose of using different measurement techniques was to test the data robustness. To provide a solid empirical contribution, this study used the panel data analysis method (i.e., balanced panel) to test the hypothesis. By combining both cross-section and time-series data, this method can thus eliminate any collinearity between variables, increase degrees of freedom, boost efficiency, and minimize bias (Gujarati, 2004).

## 2 THEORETICAL BACKGROUND

### 2.1 Diversification and Firm Performance

Diversification is a strategy used by companies to market their products, goods, or services for different segments (Ansoff, 1957). Companies commonly strive to expand their market segmentation by either creating new businesses and product types (Gyan, 2017) or enriching their product portfolios (Chan et al., 2019). Several aspects are considered when a company implements diversification strategies, such as the tendency to decrease market demand for the products, the bolstering of the company's competitive advantage, profit stability, technological developments, the allocation of retained earnings for investment, and risk distribution (Ansoff, 1957; Lizares, 2019).

Furthermore, diversification allows management to optimize the utilization of resources owned by the company. Resources include tangible resources such as production capacity, machinery, equipment, and other production facilities, as well as intangible resources such as management capabilities, company reputation, and information (Chartejee & Wernerfelt, 1991). Prahalad & Hamel (1990) stated that economies of scale can grow when companies use production factors concurrently for each business line.

Diversification of resources and activities can benefit companies because they then are able to take advantage of investment opportunities to create added value (Mackey, 2017). In the context of strategic management, diversification can increase the economic scope and synergy between business segments, strengthen the company's market power, carry out cross-subsidies, prevent

predatory pricing, increase purchases and sales of products between segments, and create barriers to the potential entry of new competitors (Lewellen, 1971; Chan et al., 1989; de Andrés, Fuente, & Velasco, 2017). These benefits likely will be optimized if management is able to allocate resources among existing businesses, allowing all segments to operate effectively and efficiently (Gyan, 2017).

Nevertheless, diversification may pose some threats to company performance, including changes in industry-specific risk, company size, number of businesses, or levels of relatedness of diversification (Chang & Howard, 1989). The logical consequence of diversification is the formation of a new strategic business unit, which can cause the company's organizational structure to widen. This situation potentially can engender higher coordination costs and information asymmetry (Zhou, 2011; Hashai, 2015; Hernández-Trasobares et al., 2017; Parker-Lue & Lieberman, 2020). According to agency theory, the latter may even lead to moral hazards and adverse selection (Gomariz & Ballesta, 2014).

Another drawback of diversification strategies is that they will complicate coordination measures given the company's increasingly complex structure, which can result in high information asymmetry (Zhou, 2011; Hashai, 2015). In other words, the multi-divisional structure is an inevitable consequence when a company opts for a diversification strategy. Although such separation of structures typically is intended to reduce search and coordination costs in order to optimize market opportunities (Lien & Li, 2013), they have some detrimental impacts on the firm performance. These negative outcomes may include complicated transactions, operational complexity, and information asymmetry, all of which will make coordination efforts more difficult (Bushman et al., 2004; Lien & Li, 2013).

Given the contradictory perspectives on the influence of diversification on firm performance, this study proposes the following hypothesis to be tested:

**H1:** *Diversification has a negative effect on firm performance.*

## 2.2 CEO Commitment

It is suggested that corporate governance practices can minimize the adverse effects of diversification strategies on firm performance (Volkov & Smith, 2015). In a diversified company, there usually is a need to establish separate divisions or strategic business units (SBUs) to handle different segments (Henderson & Fredrickson, 2001). As a result, coordination becomes an important issue, especially at the highest level of the decision-making process. This process involves the board of directors, also referred to as the top management team, and their decisions in devising strategic policies have an impact on the company's performance (Sirén, 2018).

One of the key figures in the top management is the CEO, who plays a strategic role in realizing the vision and mission of the company, cultivating values by personally engaging in the development of systems and policies, and ensuring the implementation of these systems and policies (Keramati & Azadeh, 2007; Miminoshvili, 2016). Top leaders have the task of formulating strategic policies in response to all situations that potentially can threaten the company's operations. They also have to oversee the allocation of resources, manage information that is relevant to the company, and resolve any internal conflicts. CEOs need to understand precisely the situation faced by the company using the information collected and processed by the members of top management (Sirén, 2018). Excellent coordination among different counterparts therefore is necessary to ensure the satisfactory completion of the duties.

The CEO can carry out the coordination function to overcome coordination problems stemming from the more complex organizational structure (Chandler, 1962). The CEO's commitment to handling the company's internal coordination plays a crucial role in increasing firm performance. Furthermore, the collaboration or coordination between departments, divisions, strategic business units, and functional areas is an essential determinant of the company's operational effectiveness (Cha et al., 2015). However, in reality, the CEO can be preoccupied with other commitments outside the company, which likely will damage the company's performance (Harymawan, Nasih, Ratri, & Nowland, 2019).

It is the responsibility of the CEO as the highest executive leader in the company to coordinate among the entire top management in managing the company. To do this successfully, the CEO needs to be involved in top management meetings in which the executives exchange information in order to proportion the company's capital among existing divisions more effectively. The importance of board meetings is evidenced further by the issuance of Regulation Number 33/POJK.04/2014 concerning the Board of Directors and Board of Commissioners of Issuers of Public Companies by the Indonesian Financial Services Authority. It is evident that top management meetings have received substantial attention owing to their roles in improving corporate governance. However, the significance of these coordination meetings, notably those attended by CEOs, has been relatively under-investigated. Therefore, this study explored the extent to which the CEOs' involvement in such meetings influences firm performance. In line with earlier studies on the effect of corporate governance on firm performance (Liang, Kuo, Chan, & Chen, 2020; Liu, 2019), this study took the view that CEOs' involvement in top management meetings mitigates the negative effect of diversification on firm performance.

Based on the preceding argument, this study proposes its second hypothesis:

**H2:** *The relationship between diversification and firm performance differs between companies with high CEO commitment and those with low CEO commitment.*

### 3 METHODOLOGY

The purposive sampling method was used to derive the required data, which consisted of a list of manufacturing companies obtained from the Indonesia Stock Exchange (IDX). A total of 76 firms, complemented by 912 firm-year observations collected in the balanced panel data set, were selected based on the period from 2007 to 2018 during which the firms were registered. The sample was limited only to companies that published their annual reports and audited financial reports.

These manufacturing companies operate in various sectors, such as basic industry, chemical industry, miscellaneous industry, and consumer goods industry. The selection of the manufacturing sector in this study was pertinent because of its significant contribution to the Indonesian economy. The manufacturing sector has the greatest number of companies registered on the IDX, and the sector's market capitalization is larger than that of other sectors. Given its prominence, it is important to study the influence of corporate strategies and the role of management in improving company performance in this sector.

Firm performance was measured using Tobin's  $Q$ , which was calculated with the equation from Kang, Anderson, Eom, & Kang (2017). Tobin's  $Q$  is equal to the sum of the book value of debt and market value of equity divided by the book value of assets ( $TOBINSQ = \frac{\text{book value of debt} + \text{market value of equity}}{\text{book value of assets}}$ ).

To assess the degree of diversifications in a company, three main diversification measures are used, namely entropy, the Herfindahl index, and the number of segments (George & Kabir, 2012; Lien & Li, 2013; Chan et al., 2019). The entropy method (ENTROPY) was developed by Jacquemin & Berry (1979) with the equation

$$DT_{it} = \sum_{i=1}^n (P_i) \times \ln\left(\frac{1}{P_i}\right).$$

This index indicates that the greater the value of  $DT$ , the higher is the level of diversification. Second, the Herfindahl index is calculated using the equation formulated by Hirschman (1964):  $HERF_{it} = \sum (Seg_{it})^2 / \sum (Sales_{it})^2$ .

If the Herfindahl index (HHi) approaches 1, the company is said to be more concentrated, whereas if the index approaches 0, the company is said to be more diversified. The third measure of diversification is the logarithm of the number of segments (SEG). A larger number of segments denotes a higher degree of diversification in a company.

CEO commitment as a moderating variable is subject to the number of meetings attended by the CEO (CEOMEET), estimated by the natural logarithm of the number of top management meetings attended by the CEO. The use of proxies is grounded in the notion that coordination is an essential determinant in increasing the operational effectiveness of the company (Cha et al., 2015), implying that if the CEO is not committed to being involved person-



ally in the coordination efforts, firm performance will be affected negatively (Keramati & Azadeh, 2007; Harymawan et al., 2019).

Other variables were assessed in this study. One variable was company size, which was measured based on the logarithm of stock market value (Randøy & Nielsen, 2002). The value indicates that the greater the stock capitalization, the higher is the firm performance. Another variable examined was the number of years the company was listed on the stock exchange (AGE), because older companies might have lower firm performance (George & Kabir, 2012). Also taken into account was the reporting of loss (LOSS), using binary numbers, with 1 denoting the presence of loss reports and 0 otherwise. A company that reports a loss tends to have lower performance. The final variable was leverage (LEV), which is the total debt divided by the total assets (George & Kabir, 2012). A high value of leverage indicates a higher level of performance. Considering all variables, the hypothesis testing used the following model:

$$TOBINSQ_{it} = \alpha_0 + \alpha_1 DIV_{it} + \alpha_2 CEOMEET_{it} + \alpha_3 DIV * CEOMEET_{it} + \alpha_4 SIZE_{it} + \alpha_5 AGE_{it} + \alpha_6 LOSS_{it} + \alpha_7 LEV_{it}$$

In summary, the dependent variable of company performance was measured using Tobin's Q, whereas the independent variable was the diversification strategy (DIV), which was examined with three widely used measures in diversification studies (entropy, the Herfindahl index, and the number of segments). The moderating variable of CEO commitment (CEOMEET) was assessed using the natural logarithm of the number of meetings attended by the CEO. Other variables included company size, which was based on the natural logarithm of the market value of company shares (*r*); company age, which was based on the number of years the company had been listed on the stock exchange (AGE); the reporting of loss (LOSS); and the value of leverage (LEV).

## 4 RESULTS

### 4.1 Descriptive Statistics and Variable Correlations

Winsorization was performed to treat the outlier data based on the average value criteria plus or minus a standard deviation of 2. A normality test was conducted using the skewness value, with a

value between 2 and -2 indicating that the data were normally distributed. The descriptive statistics of each variable are presented in Table 1.

Table 1: Descriptive statistics

Variable	Max	Min	Mean	SD	N	Skew
TOBINSQ	5.680	0.600	1.696	1.353	912	1.784
ENTROPY	1.739	0	0.461	0.425	912	0.582
HHi	1	0	0.710	0.261	912	-0.434
SEG	10	1	2.794	1.570	912	1.273
CEOMEET	4.277	0.693	2.589	0.621	912	0.022
SIZE	33.941	18.380	27.813	2.311	912	0.100
AGE	3.611	1.386	2.919	0.404	912	-1.112
LEV	1.278	0.132	0.525	0.269	912	0.820
LOSS	0 = 84% 1 = 16%					

TOBINSQ<sub>it</sub> = company performance, total debt, and market capitalization scaled by total assets of company *i* in year *t*; DIV<sub>it</sub> = diversification of company *i* in year *t* (ENTROPY, HHI, and SEG); CEOMEET<sub>it</sub> = natural logarithm of the number of meetings attended by the CEO of company *i* in year *t*; SIZE<sub>it</sub> = company size in the form of the natural logarithm of the market value of company *i* shares in year *t*; AGE<sub>it</sub> = company age, i.e., the number of years company *i* had been listed on the stock exchange as of year *t*; LOSS<sub>it</sub> = dummy variable: 1 if company *i* in year *t* reports a loss, and 0 otherwise; and LEV<sub>it</sub> = leverage, i.e., total debt divided by total assets of company *i* in year *t*.

The average TOBINSQ was 1.1696, meaning that the debt value and market value of the companies' shares was 1.696 times the total assets owned. The level of diversification was ENTROPY = 0.461 and HHI = 0.710, indicating that the diversification level was not too high. This finding is supported further by the low average number of segments, 2.794; the maximum number of segments was 10. The average CEO attendance at top management meetings (CEOMEET) was 16.21272 (log 7.265) meetings/year. The maximum number of meetings attended by the CEO in a year was 72, and the minimum was 2. In addition, companies that reported losses (not reported in Table 1) accounted for 16% of the total observations.

There was a strong correlation between the variables used to measure diversification (ENTROPY, HHI, and SEG) and company performance

(Table 2). It is clear that diversification had a significant negative correlation with TOBINSQ. A strong correlation was observed between HHI and SEG with ENTROPY, but because these two variables were independent of each other in the three models, they were not part of the correlational analysis in this study. Furthermore, CEOMEET was found to have a positive correlation with TOBINSQ, corresponding to the variables of company size and company age, which also had a positive correlation with TOBINSQ.

#### 4.2 Hypothesis Testing

Hypothesis testing in this study used panel data regression with a balanced panel. The Chow test, Breusch–Pagan Lagrange multiplier, and the Hausman test show how the data were processed using panel data with a random-effects regression model. Due to the problem of autocorrelation, obtaining a variant of constant error required a robust function in the statistical software STATA version 14. Table 3 displays the results of the panel data regression test. Company diversification had a negative effect on firm performance in all measurement models of diversification (entropy, Herfindahl index, and the number of segments) with a significance level of 0.05 ( $\alpha = 0.05$ ). This supports the notion that higher levels of diversification correlate with lower levels of firm performance.

The number of CEO meetings (CEOMEET) was found to moderate the effect of diversification on firm performance in all size models of diversification: ENTROPY\*CEOMEET and HHI\*CEOMEET at  $\alpha = 0.01$ , and HHI\*CEOMEET at  $\alpha = 0.10$ . The effect of diversification on firm performance in companies with high rates of CEO attendance at top management meetings was different from that on those with low rates of CEO attendance. The empirical evidence shows how the presence of the CEO at the board of directors meeting can mitigate the negative effect of diversification on company performance.

From the internal capital market approach (Volkov & Smith, 2015), the negative effect of diversification on company performance is attributed to the company's reliance on internal capital, which in turn reduces the supervision from external capital providers. This condition results in inefficient use of internal capital. As a consequence, the companies cannot optimize the use of corporate resources, whether tangible or intangible, when running different business lines. In contrast, collective diversification may allow companies to produce various products or services more optimally.

Regarding the CEO role, the results were consistent with those of previous studies that scrutinized CEO contribution to improving company performance (Fang, Wade, Delios, & Beamish, 2007). These findings support the argument that

Table 2: Correlation coefficients between variables

	TOBINSQ	ENTROPY	HHI	SEG	CEOMEET	SIZE	AGE	LOSS	LEV
TOBINSQ	1.000								
ENTROPY	-0.103*	1.000							
HHI	-0.035	-0.848*	1.000						
SEG	-0.121*	0.731*	-0.550*	1.000					
CEOMEET	0.005	0.110*	-0.095*	0.033	1.000				
SIZE	0.503*	0.098*	-0.132*	0.164*	0.067*	1.000			
AGE	0.226*	-0.130*	0.076*	-0.100*	0.033	0.320*	1.000		
LOSS	-0.054	-0.135*	0.157*	-0.119*	-0.042	-0.221	-0.049	1.000	
LEV	0.001	-0.131*	0.132*	-0.033	-0.034	-0.281	-0.080*	0.337*	1.000

Note: See Table 1 for variable definitions. \* denotes 5% significance level



Table 3: Effect of diversification on firm performance

$TOBINSQ_{it} = \alpha_0 + \alpha_1 DIV_{it} + \alpha_2 CEOMEET_{it} + \alpha_3 DIV * CEOMEET_{it} + \alpha_4 SIZE_{it} + \alpha_5 AGE_{it} + \alpha_6 LOSS_{it} + \alpha_7 LEV_{it}$						
Variable	Dependent variable: TOBINSQ					
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
C	0.540	0.020**	0.870	0.000***	1.255	0.000***
ENTROPY	-1.440	0.000***				
HHi			1.808	0.015**		
SEG					-0.209	0.019**
CEOMEET	-0.374	0.001***	0.224	0.111	-0.345	0.010***
ENTROPY*CEOMEET	0.458	0.002**				
HHi*CEOMEET			-0.585	0.015**		
SEG*CEOMEET					0.057	0.0705*
SIZE	0.367	0.000***	0.368	0.000***	0.369	0.000***
AGE	-0.120	0.278	-0.114	0.000***	-0.111	0.299
LOSS	0.064	0.291	0.063	0.296	0.062	0.302
LEV	1.116	0.000***	1.141	0.000***	1.148	0.000***
R <sup>2</sup>	0.278	0.270	0.283			
PROB > CHI <sup>2</sup>	0.000	0.000	0.000			
N	912	912	912			
Note: See Table 1 for variable definitions. *, **, and *** denote significance at $\alpha = 10, 5$ , and 1 percent, respectively (one-tailed)						

the coordination function performed by the CEO can indeed mitigate the adverse effects of information asymmetry caused by diversification strategies (Chandler, 1962). The coordination between SBUs can increase the effectiveness of company management (Cha et al., 2015), and in the case of a direct relationship, the CEO's commitment to actively participate in coordination activities through board meetings can increase the company's performance (Harymawan et al., 2019).

The empirical evidence shows that CEO commitment is a critical factor in improving company performance. Top leaders play an essential role in designing strategic policies, managing conflicts, making decisions to respond to changing business environments, and implementing diversification strategies. He high commitment can enhance the effectiveness of coordination between departments, divisions, SBUs, and the functional areas (Cha et al., 2015).

### 4.3 Additional Analysis

Additional testing studied the effect of diversification on company performance in companies with a high diversification level. In the model, a value of 1 represents companies with diversification values above the average level of diversification for all the observed companies, and 0 represents otherwise. The diversification variables (ENTROPY, HHi, and SEG) were multiplied by the dummy variable to determine which companies had diversification levels above the average value.

At the 5% significance level in all measurement models (ENTROPY, HHi, and SEG), high diversification had a negative effect on company performance (Table 4), confirming the first hypothesis (H1). Clearly, companies with a high level of diversification tend to have low performance.

Table 4: Additional teting based on diversification above sample average value

Variable	Dependent variable: TOBINSQ					
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
C	1.087	0.000***	0.979	0.000***	1.195	0.000 ***
HIGH_ENTROPY	-0.256	0.045**				
HIGH_HHI			0.211	0.025**		
HIGH_SEG					-0.232	0.037**
CEOMEET	-0.286	0.003***	-0.065	0.158	-0.299	0.007***
HIGH_ENTROPY*CEOMEET	0.248	0.008***				
HIG_HHI*CEOMEET			-0.232	0.014**		
HIG_SEG*CEOMEET					0.234	0.014**
SIZE	0.366	0.000***	0.365	0.000***	0.373	0.000***
AGE	-0.118	0.282	-0.122	0.274	-0.139	0.259
LOSS	0.064	0.294	0.054	0.323	0.079	0.323
LEV	1.132	0.000***	1.130	0.000***	1.147	0.000***
R <sup>2</sup>	0.280	0.271	0.278			
PROB > CHI <sup>2</sup>	0.000	0.000	0.000			
N	912	912	912			

Note: See Table 1 for variable definitions. \*, \*\*, and \*\*\* denote significance at  $\alpha = 10, 5$ , and 1 percent, respectively (one-tailed)

In the analysis of the effect of CEO commitment on the relationship between diversification and company performance in companies with a high diversification level, the results also were consistent with the second hypothesis, testing the three diversification measures. High CEO commitment can mitigate the adverse effects of diversification on a company's performance despite its high diversification levels.

## 5 DISCUSSION AND CONCLUSION

### 5.1 Theoretical Contributions

This study makes several theoretical contributions to the study of strategic management. First, this study provides more insights into the effect of diversification strategies on firm performance from the agency theory perspective (Zhou, 2011; Hernández-Trasobares & Galve-Górriz, 2017). In particular, the findings show that diversification tends to harm corporate performance as tested in

all measurement models (entropy index, Herfindahl index, and a number of segments). The higher the level of diversification, the more likely it is that companies will have higher information asymmetry and more-complex coordination efforts, thereby reducing firm performance. Diversification leads companies to create SBUs to manage a new business or manufacture new products, resulting in a wider organizational structure. As a consequence, business operations and information flows become increasingly more complex, which is likely to cause high information asymmetry, moral hazard, and adverse selection.

Second, when the effect of CEO commitment is considered, it is evident that frequent attendance of the CEO at top management meetings can attenuate the negative impact of diversification on company performance. Effective coordination between SBUs can mitigate information asymmetry and improve operational quality (Charet al., 2015). These coordination efforts can en-

courage more-effective and -efficient allocation of resources, create a more transparent and reliable flow of information, and reduce internal conflicts as each unit has its internal targets to achieve. Correspondingly, to enhance the company's performance, the presence of the CEO at coordination meetings of the board of directors becomes of considerable importance. These meetings can serve as the venue in which relevant information is coordinated and exchanged among the top management members, encouraging effective allocation of the company's resources across different divisions.

Another contribution of empirical nature of this study is its research methodology. Based on the panel data regression analysis (i.e., balanced panel), the results are consistent in both the full sample and the specific samples of companies whose levels of diversification are either above or below the average level.

## **5.2 Practical Implications**

Regarding practical contributions to the field of strategic management, this study provides practitioners with insights essential to the implementation of diversification. Although diversification strategies can be beneficial to the improvement of company performance, they still pose potential risks. The varied range of control resulting from diversification practices requires an effective control mechanism to mitigate any moral hazard and adverse selection in the management of strategic business units. Optimal economies of scale from sharing resources, if not utilized properly, will have a negative impact on company performance. Therefore, an excellent managerial capability is needed in the management of sharing resources in a diversified company so that economies of scale can be achieved to the utmost extent.

Another implication is that in companies using diversification strategies, there is an increasing need for systematic coordination among the top management to improve firm performance. The coordination between different departments, divisions, and SBUs has been shown to contribute to operational effectiveness and to anticipate in-

formation asymmetry, both of which can lead to better firm performance. Moreover, as one of the primary leaders, the CEO is expected to be involved in the coordination process by regularly attending high-stakes meetings. By doing so, the CEO actually demonstrates strong commitment to the tasks, which can mitigate any possible undesirable effects on company performance. Top management leadership in coordination efforts is an essential factor determining the effectiveness of a company's strategy. It is a key component of the success of any strategies adopted to improve firm performance.

## **5.3 Limitations and future research**

Nonetheless, there are some limitations to this study that were not addressed. Firstly, when exploring the issue of diversification and firm performance, future researchers can examine several aspects that this study did not consider. One aspect is the nonlinear effect of diversification on company performance, which is said to be present in the relationship between the two variables (Palich et al., 2000). In relation to CEO commitment, the influence of share ownership also can be considered as one of the control variables in future studies. The last limitation is that the hypothesis testing was carried out using panel data regression. Future research can consider using a structural equation model to test the relationship between the variables simultaneously.

## EXTENDED SUMMARY/IZVLEČEK

Študija preučuje učinek strategij diverzifikacije na uspešnost podjetja in obseg, v katerem zavezanost glavnega izvršnega direktorja (CEO) ublaži to razmerje. Učinek diverzifikacije na uspešnost podjetja je bil analiziran v vzorcu, ki je vključeval podjetja tako z nadpovprečno kot tudi s podpovprečno stopnjo razpršenosti. Vzorec je sestavljalo 76 proizvodnih podjetij, ki so kotirala na Indonezijski borzi (IDX) med letoma 2007 in 2018. Analiz je bila opravljena z uporabo regresije uravnoteženih panelnih podatkov. Tobinov Q je bil uporabljen za merjenje uspešnosti podjetja, skupaj s tremi merili strategij diverzifikacije: indeksom entropije, Herfindahlovim indeksom in številom segmentov. Rezultati kažejo, da diverzifikacija vodi do nižje uspešnosti podjetja, medtem ko zavezanost generalnega direktorja odpravlja negativni vpliv diverzifikacije na uspešnost podjetja v vseh modelih merjenja (tj. entropija, Herfindahlov indeks in število segmentov). V skladu s tem so med podjetji tako z visoko kot tudi z nizko stopnjo diverzifikacije opazni negativni učinki strategij diverzifikacije in dosledne zavezanosti generalnega direktorja.

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## WORK IS WHERE HOME IS, OR VICE VERSA? A MULTI-STAKEHOLDER LENS ON NURTURING RELATIONSHIPS FOR THRIVING

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### Abstract

*Since the beginning of the pandemic, working from home has become the prevalent way of working for many employees around the world. Consequently, the nature of daily interactions that previously were taken for granted has changed profoundly, affecting the quality of the work experience. Pursuing connections rather than disconnecting oneself from others can be a purposeful act leading to a positive work experience and thriving. However, there is limited research available about how to thrive while working remotely. Drawing on the micro-organizational literature, this paper presents a framework for individual thriving while working from a home office by nurturing relationships with various stakeholders. Guided by theory on relationships, thriving, and individual accounts of relationship challenges while working from home during the pandemic, we propose strategies for maintaining fruitful relationships in circumstances characterized by uncertainty, anxiety, and loneliness. We argue that employees can be the designers of the following high-quality relationships, which may transform their remote work experience: the relationship with self, with colleagues, with leaders, and with one's partner and family. In this way we make theoretical contributions to Spreitzer et al.'s model of employee thriving.*

**Keywords:** working from home, remote work, relationships, thriving, strategies

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## 1 INTRODUCTION

In 2020 the volatility, uncertainty, complexity and ambiguity (VUCA) world of work obtained a new meaning when working from home (WFH) becoming a requirement for many and not simply a matter of personal preference. Whereas in 2019 only 5.4% of EU citizens worked from home (Eurostat, 2020), in 2020 the social distancing measures required for the COVID-19 pandemic forced many to cease going to an office and to set up a permanent workspace at home. This exacerbated the characteristics of the pre-COVID-19 contemporary workplace such as constant connectivity, expectations to respond quickly, and blurring of boundaries between work and nonwork (Kolb, Caza, & Collins, 2012; Mazmanian, 2013). Anecdotal evidence indicates that the speed of working while at home actually has increased, alongside a spike in the number of virtual meetings, making Zoom fatigue a real-life phenomenon (Fosslien & Duffy, 2020).

Although remote working, which refers to performing work at a location that is not a company office (including working from home and working from anywhere) brings benefits in terms of improved productivity, well-being, job satisfaction, and commitment (Choudhury, 2020; Felstead & Henseke, 2017), evidence points to various drawbacks that prevent employees from thriving under such conditions—for example, the intensification of work, the difficulty of switching off (Felstead & Henseke, 2017), and negative interference with regard to the twin spheres of home and work (Wang, Liu, Qian, & Parker, 2021) along with the related strain (Perry, Rubino, & Hunter, 2018). Another consequence is reflected in the reduced number of face-to-face interactions with colleagues, leaders, and business partners. With COVID-19 and lockdowns, which forced individuals to work exclusively from home, the number of daily interactions in work as well as non work social circles has been drastically reduced, and thus loneliness has become a major mental health concern (Killgore, Cloonen, Taylor, & Dailey, 2020), because loneliness, alongside social isolation, leads to depression, cognitive decline, and cardiovascular disease (Smith & Lim, 2020). Therefore, it is important to consider how social interactions in particular could contribute to effective job performance and thriving, and thus feelings of vitality and learning, while working from home.

This paper developed, through a multi-stakeholder lens, a framework for managing relationships while WFH in order for individuals to thrive. The proposed framework is grounded theoretically in Spreitzer et al.'s model of thriving (Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005). To specify the key relationships and the accompanying challenges while WFH, we analyzed comments posted on LinkedIn threads about two articles that were published during the second wave of the pandemic. Based on that, we outlined evidence-based strategies for nurturing relationships with the self, with colleagues, with leaders, and with one's partner and family.

This focus on such relationships is timely, because COVID-19 has demanded social isolation, and with this, feelings of social awkwardness have increased (Murphy, 2020). Hence, we need to draw attention to how to nurture relationships in order to build the social skills muscle and thrive in a home office. Although organizations can implement systems and adopt routines to support employees WFH<sup>1</sup>, employees themselves play a pivotal role as co-designers of fruitful work and nonwork relationships. In other words, a focus on employees, which we adopt in this paper, is essential in order to facilitate productive and psychologically healthy WFH. Obtaining evidence-based recommendations for how best to do this also is important because the percentage of workers permanently WFH is projected to rise to 34% globally in 2021 (Chavez-Dreyfuss, 2020).

## 2 THEORETICAL BACKGROUND

### 2.1 A multi-stakeholder framework for thriving while WFH

Thriving at work is a “psychological state in which individuals experience both a sense of vitality and a sense of learning at work” (Spreitzer et al., 2005, p. 538). But why is work-related thriving important while WFH? Because in the work

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<sup>1</sup> Throughout the paper, we refer to remote work, which is done exclusively from home, as often occurred in the first and second waves of the COVID-19 pandemic, and therefore most of the aforementioned relationships need to be maintained virtually.

domain, it increases work engagement (Abid, Sajjad, Elahi, Farooqi, & Nisar, 2018), job performance (Elahi, Abid, Arya, & Farooqi, 2020), and job satisfaction (Zhai, Wang, & Weadon, 2020). Consequently, it helps individuals increase their positive attitudes toward self-development (Kleine, Rudolph, & Zacher, 2019) and well-being (Yousaf, Abid, Butt, Ilyas, & Ahmed, 2019). Because COVID-19 took a great toll on the latter, by facilitating thriving, people can increase their well-being and overcome the strain caused by WFH. Specifically, WFH has altered working relationships as people interact only digitally, making relationships more formal and less spontaneous, and interactions are limited to seeing only a person's face on a computer screen in the form of a small image.

Because the nature of relationships is profoundly different while WFH, we propose a framework which outlines four human pillars of thriving in a home office, namely four crucial relationships that employees WFH nurture and that are considered to be drivers of thriving. This framework is grounded theoretically in the existing literature that views relationships that are energy-giving (Dutton & Heaphy, 2003) as one of the key elements for employee thriving in the workplace (Feeney & Collins, 2015; Spreitzer et al., 2005). Specifically, we build on the socially embedded model of thriving at work (Spreitzer et al., 2005), which presents the dynamics of social systems and dynamic interactions between individuals. In turn, it helps employees to experience vitality and learning. The model focuses on the unit contextual features (e.g., decision-making discretion, broad information sharing, and a climate of trust and respect) and resources (e.g., knowledge, positive meaning, positive affective resources, and relational resources) that are produced in work context, which fuel the engine of thriving: individual agentic work behaviors (Spreitzer et al., 2005). The authors of the model presented task focus, exploration, and heedful relating as agentic work behaviors in the model, and together they help individuals to feel active and purposeful (Spreitzer et al., 2005). This paper focuses on heedful relating through energy-giving relationships from different relational resources (Riaz, Xu, & Hussain, 2020).

When employees are relating heedfully, they demonstrate understanding of how their job fits with those of others at work in order to achieve team or organizational goals (Spreitzer et al., 2005). Through heedful relating, individuals become more conscious, learn more from colleagues, and boost their energy through interrelated work (Riaz et al., 2020). Only a handful of studies have addressed heedful relating specifically. These provided evidence that perceived organizational support (Abid, Zahra, & Ahmed, 2016), support climate, psychological capital (Paterson, Luthan, & Jeung, 2014), servant leadership (Usman et al., 2020b), and abusive supervision (Usman et al., 2020a) affect heedful relating. Moreover, in addition to its effect on thriving at work, which has been proven repeatedly (Paterson et al., 2014; Sia & Duari, 2018; Usman et al., 2020a; Usman et al., 2020b), Abid et al. (2016) showed that heedful relating mitigates the effects of turnover intentions in the organization.

Relational ties at work, especially during the pandemic, can be an important source of employee energy (Gerbas, Porath, Parker, Spreitzer, & Cross, 2015). An interrelated working environment and high-quality relationships stimulate heedful relating, helping employees through sharing knowledge (Dutton & Heaphy, 2003) and providing an opportunity to learn from each other (Riaz et al., 2020). The connectivity among employees further helps to promote a sense of vitality as employees become more energized due to the social support (Carmeli & Spritzer, 2009). Moreover, these agentic behaviors foster collaboration and elevate feelings of togetherness, community, and proximity through care, mutual respect, and offering support (Carmeli & Russo, 2016), and in turn may contribute to less-frequent feelings of loneliness caused by the physical separation from colleagues at work. By engaging in micromoves such as small acts of kindness and gratitude, employees can demonstrate care. Attentive relating to others is associated with vitality (Dutton & Heaphy, 2003), and through maintaining positive relationships, work performance is improved (Carmeli & Spreitzer, 2009), along with well-being and thriving (Carmeli & Russo, 2016).

### 3 METHODOLOGY

This study answers the following research questions:

**RQ1:** *Which are the key relationships while WFH and how are they affected?*

**RQ2:** *Which strategies facilitate thriving while WFH through nurturing each of the respective relationships?*

To answer the first research question, namely to specify the different stakeholders' and employees' current sentiments while WFH, we collected and analyzed LinkedIn comments on two articles<sup>2</sup> that were published during the second wave of the pandemic. These comments are public and can be accessed online. We employed thematic analysis to analyze the comments. The choice of articles was guided by the fact that they needed to capture both the work domain and the home domain, which are intertwined when WFH, and they needed to provide personal accounts related to maintaining relationships while WFH. This allowed us to gain insight into the relevant stakeholders that commenters mentioned, as well as into their struggles pertaining to their efforts to nurture connections with different people. Furthermore, we focused on the two articles due to the level of traction received and diversity of comments related to the WFH experience and how it has affected the commenters' relationships. In the analysis, we looked for specific mentions of managing relationships with different stakeholders while WFH during

the pandemic. At the moment of data collection, both articles together had received more than 2,500 likes and 550 comments by LinkedIn users. From the 550 comments analyzed, some comments expressed agreement with the authors, a group of comments stated that WFH actually worked for the commenters, and a large number of comments (more than 300) expressed the struggles faced with managing relationships while WFH. Our analysis focused on the 300 comments that expressed struggles with managing relationships with stakeholders while WFH. In times when social connections are involuntarily reduced to a minimum due to COVID-19, fostering virtual connections with colleagues at work and nonvirtual connections with family may be a fundamental mechanism to facilitate thriving while WFH.

### 4 RESULTS

The first article describes how employees WFH are working longer hours, and the second article explores the negative impacts of eliminating office space. After publication on *The Economist* and Quartz websites, respectively, active LinkedIn users commented by describing their personal viewpoints and daily struggles. When analyzing the comments, we focused on longer comments, which went beyond simply praising the article or agreeing with its content. Regarding the first research question, the authors individually read through the comments and identified the following stakeholders: self (the employee WFH), colleagues from work, leaders and supervisors, and significant others and children. We dubbed these human pillars of thriving, which refer to relationships with proximal players in the work and nonwork realms and reflect a multi-stakeholder perspective (Figure 1). Next, we analyzed employees' personal accounts related to maintaining their work and nonwork relationships. Specifically, we individually searched for statements related to challenges, struggles, and attitudes toward each of the relationships. The personal accounts (Tables 1–4) motivated our search for evidence-based strategies. The following comment on one of the articles succinctly captures the state of living and the relevance of this topic for academic research:

<sup>2</sup> [https://www.economist.com/graphic-detail/2020/11/24/people-are-working-longer-hours-during-the-pandemic?utm\\_campaign=the-economist-today&utm\\_medium=newsletter&utm\\_source=salesforce-marketing-cloud&utm\\_term=2020-11-25&utm\\_content=article-link-4&etear=nl\\_today\\_4](https://www.economist.com/graphic-detail/2020/11/24/people-are-working-longer-hours-during-the-pandemic?utm_campaign=the-economist-today&utm_medium=newsletter&utm_source=salesforce-marketing-cloud&utm_term=2020-11-25&utm_content=article-link-4&etear=nl_today_4).

Comments posted on

<https://www.linkedin.com/feed/update/urn:li:activity:6739222167185047552/>

<https://qz.com/work/1923220/esther-perel-gianpiero-petriglieri-on-the-loss-of-the-physical-office/amp/>.

Comments posted on

<https://www.linkedin.com/feed/news/why-you-might-miss-the-office-4265681/>

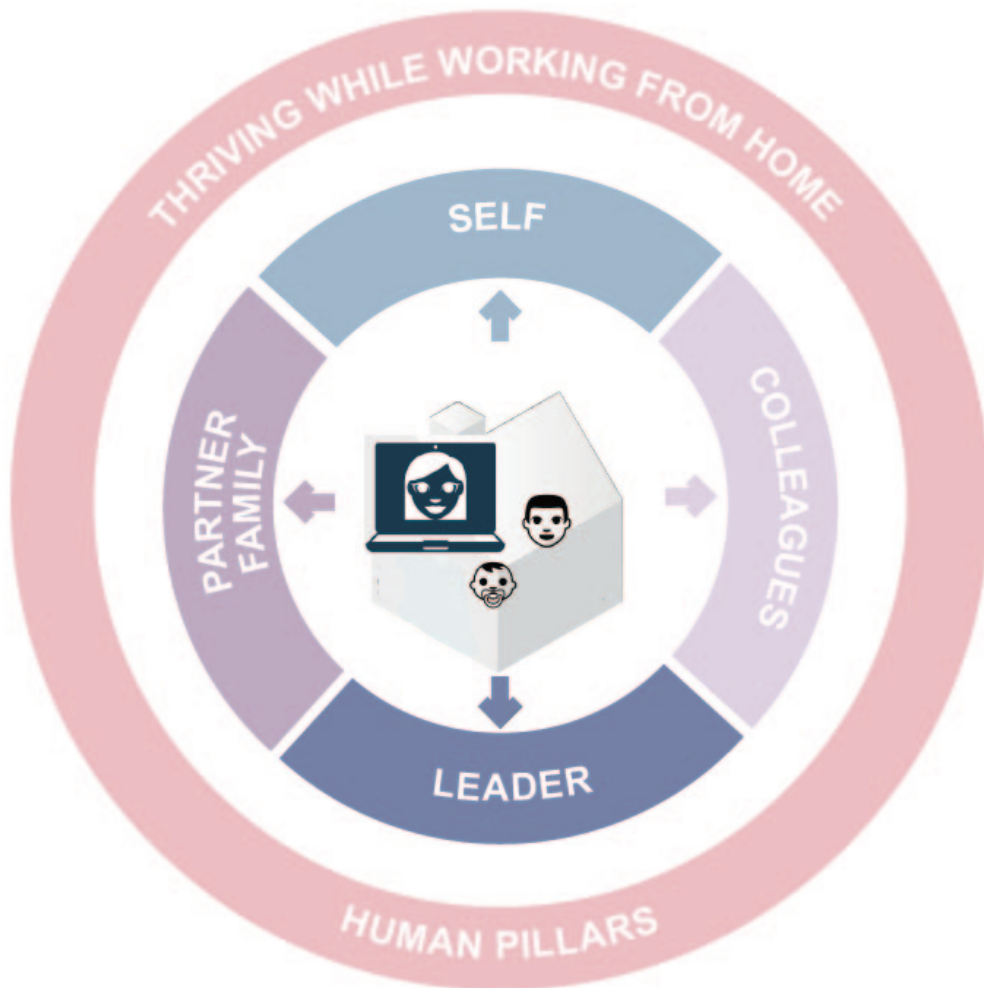
Living at work is how it is currently. It's been extremely difficult at times when it's all work and no play, no socializing and no human connection. Psychologically I've never known a bigger test on my mental health and I'm sure this is a silent disease.

The following sections (1) present each of the identified relationships in terms of the quotations representing the attitudes related to the particular relationship (RQ1), and (2) offer evidence-based strategies for thriving, whereby the individual designs nurturing relationships with each of the stakeholders in question (RQ2). We propose that through a systematic approach to managing relationships, employees themselves can contribute proactively to sustained thriving even in trying times.

#### 4.1 Relationship with self

The increased demands, constant connectivity (Mazmanian, 2013), and numerous phone and video calls, coupled with prolonged working hours along with the fear of missing out can cause stressful interactions with colleagues, leaders, partners, and family members. To facilitate positive interactions with others (Carmeli & Russo, 2016), one first needs to consider the relationship with oneself. Table 1 reflects the sentiment and self-related challenges while WFH. To move from surviving to thriving while WFH, an employee could first adopt the strategy of building *self-compassion* competence (Neff, 2003). Self-compassion is an individual's view of themselves, which "involves being touched by

Figure 1: A framework of human pillars facilitating thriving in a home office



Source: Own work



and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness" (Neff, 2003, p. 87). It also entails a nonjudgmental stance toward one's pain, suffering, and failures.

*Table 1: Relationship with self while WFH: illustrative quotations*

"It is easy to find oneself working longer hours and weekends (I just checked my e-mail and did some work on Sunday after Thanksgiving for example)."

"My boundaries are blurred now that work is home and home is work."

"I often catch myself feeling guilty if I'm not answering emails at 9pm cause...well, I'm home anyway, so I'm not doing anything else, right?"

"Starting early, few breaks, back to back on calls, late hours. A daily struggle to keep a boundary between work and home life."

"My working hours have increased by at least 30 mins and usually more. During those hours I have not taken enough frequent breaks from screen time, [...], resulting in a stressful role being even more demanding."

Self-compassion rather than self-blame is important in times of adversity and high workload. When WFH the high expectations related to work (e.g., telepressure, the need to respond quickly to incoming emails, and working until late in the evening), at times can be self-imposed rather than organizationally demanded (Grawitch, Werth, Palmer, Erb, & Lavigne, 2018). This means that an employee on their own initiative creates a routine of long working hours, causing overwork, or gradually increases their working day by picking up such cues from the supervisor (i.e., social contagion) (Afota, Ollier-Malaterre, & Vandenberghe, 2019). Both cause stress, which in turn negatively affects thriving (Kleine et al., 2019). Similarly, perfectionism about work can lead to depressive symptoms (Gluschkoff et al., 2017). Self-compassion here serves as a resource that reduces depression and anxiety (de Souza, Policarpo, & Hutz, 2020).

Self-compassion has three components: (1) self-kindness in times of failure or pain; (2) common humanity/connection, i.e., viewing one's own experience as a part of a bigger picture; and (3) mindful-

ness, i.e., not letting painful thoughts overwhelm one, but rather accepting them as they are (Neff, 2003). When WFH, self-compassion can protect an individual from negative thoughts and potential persistent feelings of "never working long enough." Strategies for building self-compassion include the *compassionate mind training* (CMT) program (Gilbert & Procter, 2006), which is designed to help an individual accept their emotions with a compassionate attitude. Next are strategies to increase self-compassion through *mindfulness exercises*, which include practicing short micro-meditations multiple times a day, longer sitting and walking meditations with the help of apps, establishing daily yoga routines, and pranayama breathing practices. While WFH, individuals also can engage in five mindfulness-based behaviors (i.e., behavioral self-monitoring), as suggested by Kiburz, Allen, and French (2017): dismissing thoughts and bringing the mind back to the present moment, focusing on breathing, noticing the breath moving through different body parts, embracing the sensations in one's body, and walking rather than rushing through the day. The exercise of behavioral self-monitoring involves first tracking the frequency of performing such behaviors in a given week, and then setting goals to increase each of them.

When WFH, the boundaries between a person's work and nonwork lives become nonexistent due to the fact that the two domains are physically intertwined. Moreover, technology has enabled working anytime, not just anywhere, which leads to overwork (Mazmanian, 2013). With this, it is important to be mindful of one's working hours and carefully craft a *boundary management style*. There are said to be three types of people in terms of preferences for combining work and other realms of life. Segmentors prefer to keep their professional and private lives separate, tend not to bring work home or discuss private matters with colleagues, and even keep separate devices for work and personal matters (Ashforth, Kreiner, & Fugate, 2000). Integrators like to intertwine the two, and do not mind performing a job task in the evening and tending to a family phone call at work. They also transition more easily between work and nonwork roles (Rothbard, 2020). Finally, volleyers tend to switch between the two realms (Kossek & Lautsch, 2008).

With the need to work from home due to COVID-19, many employees were forced to adopt an integrator mindset in the physical sense, with segmentors facing a significant challenge. However, integrators also tend to experience challenges in WFH, including those related to more undesired interruptions (Ashforth et al., 2000). To thrive while WFH, it is important to *create temporal and spatial boundaries*, which may include establishing and sticking to clear working hours, as well as negotiating them with one's employer and family members (Rothbard, 2020); and adopting a routine of dressing for work and dressing casually when work ends (Rothbard, 2020). With regard to the latter point, creating routines helps one mentally transition between work and nonwork (Shockley & Clark, 2020). These are referred to as routinized role transitions, which become easier over time as employees develop transition scripts (Ashforth et al., 2000). Rites of separation/transition, as Ashforth et al. (2000) call them, may include having a cup of coffee, listening to a favorite work-related podcast, or planning the day ahead before starting work. Similarly, at the end of the workday, taking a quick walk (Shockley & Clark, 2020) or riding on a bicycle can serve as psychological momentum which helps one transition back to the nonwork role. Employees also could be asked to prepare their to-do list for the next day or rate how their day went to ease the transition to the nonwork role (Bass, 2020), because this will help with switching off and beginning the process of recovery, as well as enabling one to focus more on other life roles. In terms of creating spatial boundaries, segmentors are advised to set up a home office which should be the only space in which they perform their job duties. When the workday ends, the door to this office is shut, and this serves as a signal that leisure time, or another part of nonwork, has begun. Finally, it is advisable to develop a sense of tolerance to intrusions from family members (e.g., children needing help, and children or pets appearing in front of a camera during a meeting). Practicing self-compassion toward both work and family roles is related positively to more satisfaction and less burnout in both these roles (Nicklin, Seguin, & Flaherty, 2019). This is particularly important in times of significant changes, such as the move from a regular office to working exclusively from home during the first lockdown.

## 4.2 Relationships with colleagues

Colleagues are a fundamental source of support for successful work performance (Collins, Hislop, & Cartwright, 2016), as positive interactions with colleagues increase learning and knowledge (Paterson et al., 2014) through the experience and vitality thus gained (Carmeli & Spreitzer, 2009), thereby impacting thriving. That said, WFH alters both the frequency as well as method of these relationships. Specifically, it decreases opportunities for personal conversations and sharing of experiences and knowledge, and makes reciprocal norms difficult to establish (Lippe & Lippényi, 2019). Due to working at different locations (i.e., being physically separated) and the inability to directly pick up the cues that a colleague is facing a problem, WFH also has inhibited helping and pro-social behaviors (Kniffin et al., 2020), thus minimizing the opportunities to learn from colleagues. Table 2 reflects the sentiment and challenges faced in nurturing relationships with colleagues while WFH. It is important to facilitate building positive relationships among colleagues in order to enable thriving while WFH, and such interactions can be co-created by employees by implementing specific strategies.

*Table 2: Relationship with colleagues while WFH: illustrative quotations*

"Virtually collaborating with the team is a bit different and takes quite a lot of time to understand your colleagues, the way they like to work, the norms they follow, the frequency with which the entire team operates."

"You can't pull up a chair next to your co-worker and solve a problem immediately. The feel of accomplishment is less because no one is around you to share that excitement. Just basic human interaction, the background noise, the city views, lunch walks."

"Definitely missing out on social interactions and water-cooler conversations! Now it's just Skype calls or either chasing your co-worker over phone calls if you have something to work together on."

"I also miss the social interaction and the informality of an in person meeting for tea, drinks, lunch where a lot more gets said than the formality of virtual coffee/tea sessions."

"There is also the human factor, where personal interaction with colleagues is a much more enjoyable experience than the odd person posting something 'humorous' on Skype."

An employee could begin by practicing *informal one-on-one chats with colleagues* (White, 2015) via phone, in which they can talk and share what happened during the day and any issues that they have faced. They can use these brief meetings to share knowledge, coordinate ongoing work tasks, and ensure that work runs smoothly without unnecessary delays. This will help both individuals feel less lonely, energize them, and promote a steady flow of information, which can lead to increased learning and also vitality. These brief sessions should not be formal or involve many people, but rather should involve only two people at a time. Another strategy is for employees to *eat lunch together via a video connection*, during which they can talk about their families, hobbies, and other personal matters (Knight, 2020). During these virtual get-togethers, colleagues also could share their experiences and stories about how they are managing the challenges of WFH, both professional and personal, which can result in learning, and hence in thriving. Next, colleagues could organize *virtual exercise sessions* (e.g., yoga, cardio exercises, or stretching) with a gym instructor or a colleague who also is a certified instructor (Liu, 2020). This would enable bonding while maintaining physical stamina and would give the participants more energy. A similar strategy is setting up video chat room links through which employees can gather for *morning coffee-type meetings* to get ready for the workday (Liu, 2020). In this way, they will feel less lonely while WFH and might not miss chatting in person as much, because this ritual would be done online, creating bonds among colleagues, giving a sense of teamwork and thus that they are in this new situation together (Pollack, 2020).

Employees also could thrive by *offering swift help* through making themselves available to colleagues by responding to any requests for assistance promptly (Back, 2020). Specifically, if Slack or Basecamp are used for instant messaging, an employee can mark their status as 'available' to show others that they can ask questions if needed (Back, 2020). However, caution should be exercised here, because one should not give the impression of being available anytime during the day and that work-non-work boundaries can be overstepped at any time. Thus it is best to inform colleagues of one's availability (Back, 2020).

Finally, *actually asking for help* when needed, even if an employee thinks colleagues are too busy, could improve performance and thrive. It turns out that individuals are more prone to help than is actually assumed (Newark, Bohns, & Flynn, 2017), and even more so during times of crisis such as the COVID-19 pandemic (Kniffin et al., 2020). Hence, an employee should remember that asking for help solving a particular work issue actually is likely to lead to an improvement in the situation that they are facing (McDermott et al., 2017).

#### 4.3 Relationship with leaders

Leaders play an important role in the motivation of employees to complete the required tasks (Andersen, 2016). Passionate and persistent leaders and transformational leaders have been shown to promote employee thriving (Lin, Xian, Li, & Huang, 2020; Rego et al., 2020). Therefore, fruitful relationships with the leader are crucial for successful employee performance, vitality, and learning. However, because WFH minimizes the direct contact between employee and leader (immediate supervisor), it also affects the quality of the relationship between the two. Namely, WFH increases employee insecurity and leads to working overtime, due to doubting whether the leader will notice and adequately evaluate the results of their work (Raišienė, Rapuano, Varkulevičiūtė, & Stachová, 2020). WFH also decreases opportunities for contact with leaders and negatively affects trust, the creation of mutual purpose (Grenny & Maxfield, 2017; Parker, Knight, & Keller, 2020), and knowledge-sharing opportunities (Lippe & Lippényi, 2019). In a similar vein, it may impede thriving. Table 3 reflects the sentiment and challenges faced in nurturing relationships with the leader while WFH. Thus, creating a trusting relationship with leaders, particularly while WFH, is very important because it leads to frequent sharing of work-related information (Golden & Raghuram, 2010), instructions, and advice. Moreover, a fruitful relationship between an employee and a leader might positively impact the leader's well-being and energy, in turn nurturing the relationship even further. Along these lines, employees can implement various strategies to cultivate a thriving relationship with their leaders and supervisors.

*Table 3: Relationship with leaders while WFH: illustrative quotations*

"My concern is that if you are working longer hours and not getting the right support and leadership it just amplifies how little investment organisations have made in providing both training and coaching on how to be an effective remote manager/ leader to those supposed to be facilitating new ways of working."

"[Work from home] is always extra hours of work with no additional pay, when you are about to close your laptop you see new email requirement and that's will take 3-5 hours of work. Next thing is your Supervisor asking for the report which came in last night and he will yell at you first thing in the morning."

"The problem is the management is unable to trust its employees when working from home. How have results been achieved, if the employees have not worked, nobody is bothering to look or acknowledge that,"

"Face-to-face social cues and inhibitions are compromised, such that communication becomes fraught with passive aggression, misunderstandings etc."

"My concern is that if you are working longer hours and not getting the right support and leadership it just amplifies how little investment organisations have made in providing both training and coaching on how to be an effective remote manager/ leader to those supposed to be facilitating new ways of working." "[Work from home] is always extra hours of work with no additional pay, when you are about to close your laptop you see new email requirement and that's will take 3-5 hours of work. Next thing is your Supervisor asking for the report which came in last night and he will yell at you first thing in the morning." "The problem is the management is unable to trust its employees when working from home. How have results been achieved, if the employees have not worked, nobody is bothering to look or acknowledge that," "Face-to-face social cues and inhibitions are compromised, such that communication becomes fraught with passive aggression, misunderstandings etc."

Employees could regularly revisit *their working regime* and discuss it with their leaders. Employee sets specific goals that need to be achieved in a day, building personal standards which then can be used as a form of self-evaluation, accompanied by better self-administration (Bakker, 2017). In the working regime, expectations need

to be outlined clearly from the beginning, with both employee and leader offering suggestions. *Clarity* helps to eliminate potential misinformation and builds trust and cooperation in the relationship (Veil et al., 2020). The self-initiated changes help employees to establish their own job demands and resources, although due to the changes in their job tasks and relationships at work, employees WFH should *continuously ask for feedback, guidance, and clarification* (Bakker, 2017). Seeking contact via phone, email, or video helps build trust. Here, the proactive stakeholder should be the employee, but it is important that they can count on their leader to offer assistance quickly and provide reassurance when challenges arise in completing tasks. *Asking for help* to share some of the workload or when the employee does not have adequate competences increases transparency and helps to reach timely solutions. This requires demonstrating vulnerability on the part of the employee.

Bakker (2017) suggested that employees could use reminders that help them focus on accomplishing their work tasks and increasing their self-cueing. At the end of the work week, an employee, via a video call with the leader, can *inform them of completed work tasks* along with providing a self-assessment of efficiency and effectiveness. The discussion then helps to improve work regimes further, although open communication is highly advised from both sides to enable this (Bakker, 2017; Veil et al., 2020).

Another strategy that employees can undertake is to *make pursuing a connection with the leader part of their weekly routine* in order to increase their visibility. This can be done by scheduling weekly check-ins via phone to briefly inform the leader of projects that are in progress. These check-ins also can be spontaneous, brief moments of interaction, during which the employee provides information or thanks the leader for support in a particular matter. This means that the employee is proactive in creating a relationship with the leader.

Important milestones and small victories could be a reason for *organizing an online celebration* with the leader and a work group, enabling informal



chatting. Such social events are energy-boosters in times of adversity and challenge and serve to increase morale and perceptions of psychological safety. They also reveal the human side of individuals and the struggles that they with work–family integration, and thus help promote empathy, care, and compassion, which are at the core of contemporary crisis leadership.

#### 4.4 Relationship with partner

Stress caused by problems in a marital or other intimate relationship may lead to burnout (Peasley, Hochstein, Britton, Srivastava, & Stewart, 2020). Conversely, a fruitful relationship with one's partner and family members can help employees feel energized about work, enrich their work experience, and facilitate their path toward learning. Close and meaningful relationships with family members and spouses are a conduit for health, well-being, and thriving (Feeney & Collins, 2015; Leung, Mukerjee, & Thurik, 2020), as well as for coping with work-related stress and adversity (Leung et al., 2020). Close relationships also provide opportunities for individual growth and a sense of fulfilment (Feeney & Collins, 2015).

However, WFH also can negatively affect personal relationships with one's partner and family. With the home being turned into an office, creating boundaries between work and personal life obviously becomes more difficult (Kolb et al., 2012; Mazmanian, 2013). Although an employee is physically present at home, they may not be available to their partner or spouse due to work responsibilities. Furthermore, during COVID-19, the whole family, including children, are likely to be working or studying from home (Dunn, 2020), and this has a profound effect on the quality of the resulting personal relationships. Moreover, WFH means that employees might end up working in unsuitable workspaces and be overloaded with further responsibilities such as household chores and parenting and teaching children (Petriglieri, 2020a). Table 4 reflects the sentiment and challenges faced in nurturing relationships with partner and family while WFH.

Table 4. Relationship with partner/family while WFH: illustrative quotations

"My husband and I live in a small one-bedroom in a 110-year-old apartment building, and we have noticed how living and working here 24-7 has taken an additional toll on our living space and emotional health."

"I'll be divorced if it carries on much longer, that's for sure."

"We have no room in our place for a separate office; however two of us are supposed to be working from home, one of whom has to make reasonably confidential phone calls to service users."

"The thing is you can't really work from home and do childcare at the same time. Not effectively, one if not both will suffer. Regardless of anyone being irresponsible."

"It's really the online schooling part that distracts from the day. I have my kid's desk set up right next to mine and I have to help her and work. It's been detrimental to my work."

These greater responsibilities while WFH mean that partners can neglect one another (Petriglieri, 2020a), making them feel lonely and less likely to thrive. Therefore, couples could schedule in their calendars two *weekly conversations*, one related to work-related support and the other to maintaining the household and caregiving responsibilities. By being psychologically available, partners can offer cognitive support by sharing their experience or giving advice on solving a specific work challenge. Scholars advise couples to *negotiate household responsibilities* (Ward, 2020), which need to be put in writing, communicated clearly, and shared with every member of the household in order to make sure that no one is surprised (Ward, 2020). Experimenting with different divisions of housework and caring contingent on the workload in the current week can lead to solutions that fit a couple well. When children are being home-schooled, as was the case during lockdown, their needs increase and change as well. However, with one or both partners WFH, meeting children's needs might become more difficult, temporarily impairing their relationships with the children.

In situations in which both partners WFH one strategy is for them to *acknowledge their significant others' work stress* in order to protect their well-being (Petriglieri, 2020a). One way to do so is to find the best way to support the partner by clarifying their



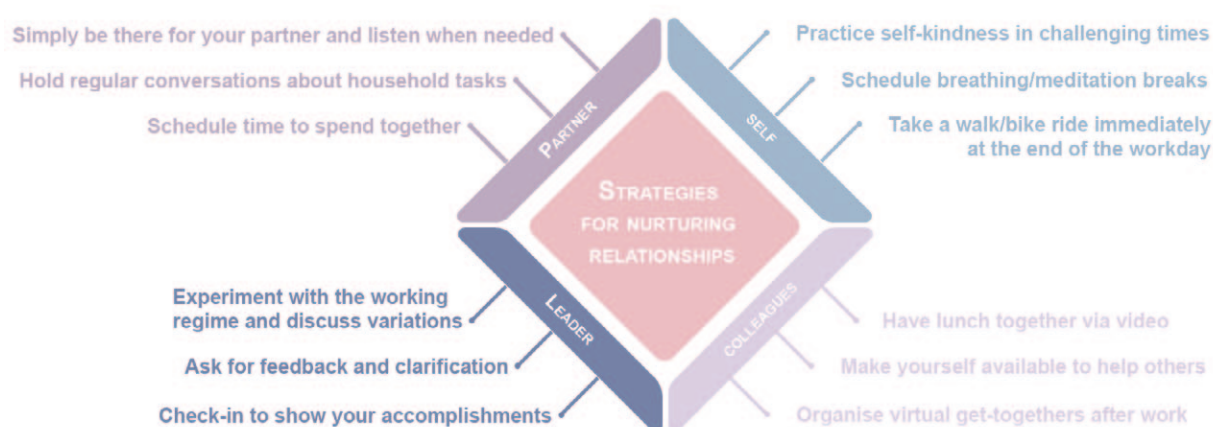
needs so that energy is focused correctly and the aim of trying to help is achieved (Petriglieri, 2020a). To address the issue of loneliness, dual-career couples can allocate a certain amount of time and undivided attention in which they listen to one another at the end or beginning of each working day (Katzman, 2020; Petriglieri, 2020a). Specifically, they can ask one another questions such as “What do you need?” or “Do our WFH arrangements need to be redefined?” (Katzman, 2020). This emotional support will help both partners overcome stress (Zimet, Dahlem, Zimet, & Farley, 1988), obtain better work–life balance (Russo, Shteigman, & Carmeli, 2015), understand that they are not alone and that they have someone to talk to and express how they feel, and overall have a partner who supports them and helps them be successful. This also will help employees feel more energized about work. Another strategy is to set the office hours (i.e., working hours) in a calendar so that both partners and/or older children know when someone is working and they do not disturb them. Such a strategy would mean that work is not part of life 24/7 (Katzman, 2020), but rather that there is a dedicated time for work, and what remains can be allocated to joint activities with partners and family members.

A further strategy is to *create new rituals* with one’s partner and family members in order to nurture the relationships and feel more energised

(Katzman, 2020). For example, partners can have lunch together during working hours, do yoga, or engage in micro-meditations (Katzman, 2020). In this way, partners or family members will enjoy some relaxing time together which will help them to momentarily switch off. Along the same lines, to nurture the relationship, couples can work to constantly appreciate one another, understand that they are in this situation together, and acknowledge the roles that each plays in the other’s life (Brower, 2020). If both partners make themselves psychologically available to one another, this can increase the positive energy in the relationship (Russo et al., 2015). Simple gestures such as a thank-you text during the day can go a long way toward showing appreciation and support (Brower, 2020).

With regard to nurturing relationships with children, Petriglieri (2020b) proposed that parents need to write on a sheet of paper what each child needs from their parents both practically and emotionally, which expectations can be loosened for each child, and how each child can help the family while the parents are WFH. In this way, children’s needs will be acknowledged and parents can better work toward meeting them. Some easy-to-implement strategies pertaining to each of the four focal relationships, which do not require much investment, are presented in Figure 2.

Figure 2: Strategies for nurturing relationships that facilitate thriving while WFH



Source: Own work

## 5 DISCUSSION AND CONCLUSION

### 5.1 Theoretical Contributions

The main contribution of our research is the socially embedded model of thriving. Specifically, we decipher the heedful-relating dimension of the model by explicating which relationships drive employee thriving at work. Firstly, we contributed to the research on heedful relating, as this agentic behavior is very much understudied, with some notable exceptions (e.g., Sia & Duari, 2018, Usman et al., 2020a; Usman et al., 2020b). Secondly, we provide solutions for how individuals can sustain thriving in unpredictable situations through energizing relationships at work and at home (Riaz et al., 2020). We demonstrated how can different agents and individuals preserve and reshape the conditions which lead to thriving. Thirdly, we explored these relationships in the context of a home office, which thus far has not been done in the thriving literature.

### 5.2 Practical Implications

In terms of practical contributions, we offer specific evidence-based strategies through which employees can nurture the different relationships even in the difficult times of pandemic. Our intention was to bring theory closer to practice and assist employees as they face working and living from the home office and switching from one lifestyle to another practically overnight. It is our hope that the strategies presented herein can assist employees in pursuing stronger connections as part of their daily routines, thereby creating the conditions for their own thriving.

### 5.3 Limitations and Future Research

However, this study has limitations that need to be addressed by further research. Although the comments on the two articles which received much traction on LinkedIn were well fitted to our research objectives in the sense that they enabled us to identify different types of relationships that were affected while WFH, there is a possibility of selection bias, such that the users who commented on the two LinkedIn posts were more in-

terested in sharing their struggles with managing relationships with different stakeholders than was the average population. To mitigate the selection bias, the framework could be cross-validated on different subsets of highly commented articles. One of the ways to do this would be to search for articles that were published across different waves of the COVID-19 pandemic. Future research on thriving while WFH should focus on samples that are bias-free and ideally representative. Another avenue for research could be diary studies in which each relationship could be observed and analyzed daily.

### 5.4 Conclusion

COVID-19 has profoundly altered the nature of relationships, especially at work. Relationships that previously took place in an office have been transferred to the intimacy of the home. By adopting a multi-stakeholder perspective based on an analysis of employees' personal accounts while WFH, this paper developed a framework for managing relationships while WFH in order for individuals to thrive. Our research was guided by two research questions concerning the key relationships while WFH and how these are affected, as well as by strategies that facilitate thriving while WFH by nurturing each relationship. In answering our research questions, we identified four main relationships, namely relationships with self, colleagues, leader, and partner, which affect employee thriving in a home office. Based on this, we propose evidence-based strategies that can be undertaken to facilitate thriving while WFH by nurturing each of the respective relationships.

## EXTENDED SUMMARY/IZVLEČEK

S pojavom pandemije je delo od doma postala prevladujoča oblika dela za mnoge zaposlene po svetu. Prav to je močno zaznamovalo tudi naravo interakcij med zaposlenimi, ki smo jih do tedaj imeli za samoumevne. To je vplivalo na kakovost delovnih izkušenj. Zasledovanje povezanosti namesto ločevanja od drugih je lahko zavesten način, ki vodi v pozitivno delovno izkušnjo in uspeh pri delu. Kljub vsemu je literatura precej skopa, ko gre za vprašanje kako uspešno delati od doma. Namen članka je preko mikro-organizacijske literature zasnovati teoretični okvir za individualni uspeh pri delu iz "domače pisarne", in sicer s pomočjo negovanja odnosov s ključnimi deležniki. V nadaljevanju na podlagi teorije odnosov, uspevanja pri delu in zapisov o izzivih v odnosih v času dela od doma med pandemijo, predlagamo na dokazih utemeljene strategije za ohranjanje kakovostnih odnosov v okoliščinah, ki jih zaznamujejo negotovost, tesnoba in osamljenost. Trdimo, da so zaposleni lahko ustvarjalci visoko-kakovostnih odnosov, ki spreminjajo njihovo izkušnjo dela od doma na bolje: odnos s seboj, odnos s sodelavci, odnos z vodjo in odnos z življenjskim partnerjem in družino. Na ta način prispevamo k uveljavljenemu modelu uspeha pri delu.

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## THE INTERPLAY AMONG WORK OVERLOAD AND TIME MANAGEMENT IN PREDICTING JOB PERFORMANCE AND WORK–LIFE BALANCE

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### Abstract

*Work overload and time management are becoming increasingly important as demands increase in both professional and personal life, which relates to work–life balance. Work overload and time management also have serious implications for individual work performance. This study examined how time management moderates the effect of job overload on job performance, as well as the relationship between work overload and work–life balance. The results show that work overload has a negative impact on job performance and work–life balance. This study also shows that time management moderates the relationship between work overload and job performance, making the relationship between these two factors less negative. These findings suggest that it is important for both individuals and organizations to pay more attention to time management because it can improve work–life balance and work performance.*

**Keywords:** *work overload, time management, job performance, work–life balance*

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## 1 INTRODUCTION

The subject of work–life balance (WLB) connected with the role of work overload is extremely relevant nowadays (Aggarwal, 2018). As workplace expectations rise, employees struggle to manage their time and juggle work and personal lives, as well as to achieve high results at work (Kossek et al., 2010). Managing the time or time management can be viewed as a way of monitoring and controlling time (Eilam & Aharon, 2003). In essence, what people gain from time management is not more time, but better work–life balance (Misra & McKean, 2000;

Britton & Tesser, 1991). According to Valcour (2007) work–life balance is of huge importance for organizations, employees, and societies across the world. It improves organizational efficiency, reduces stress, and improves employee well-being and health. (Sánchez-Hernández, González-López, Buenadicha-Mateos, & Tato-Jiménez, 2019). Furthermore, control over work hours or quality time management also has been associated with lower work family conflict (Jansen, Kant, Nijhuis, Swaen, & Kristensen, 2004).

In modern organizational settings, more and more employees report work overload, complex work demands, and longer working hours (Vogel,

2012). Employees often feel overloaded with work because of an excessive number of performance requirements (Lewis, 1998). Virick, Lilly, and Casper (2007) found that employees with increased workload have lower perceived work–life balance. Poulouse and Dhal (2020) demonstrated that individuals with high workload face difficulties in balancing work and life. Other findings suggest that positive time management is associated with self-rated academic performance (Macan, Shahani, Dipboye, & Phillips, 1990), job satisfaction (Landy, Rastegary, Thayer, & Colvin, 1991), self-perceived organizational performance (Lim & Seers, 1993), and lower perceived job overload.

As far as we are aware, there currently are no studies that discussed a clear relationship between time management as a moderator and WLB, work overload, and job performance. However, there are some studies of time management as a moderator between different constructs, which we discuss subsequently. Numerous studies have focused on work–life balance and its importance in today’s world (Fleetwood, 2007; Crompton & Lyonette, 2006; Hjalmsdóttir & Bjarnadóttir, 2021). However, despite the increasing interest of researchers in studying work–life balance, to our knowledge there is little research describing a clear relationship between work–life balance and time management skills. Fenner and Renn (2010) showed that individuals who practice time management are able to separate their work behaviors from their family behaviors and establish a better work–life balance. Jex & Elacqua (1999) demonstrated that the relationship between work–family conflict and mental health was strongest among respondents who reported practicing more time management. In addition, Khatib (2014) found a negative correlation between time management and perceived stress. This means that better time management skills lead to lower stress levels, which is associated with better performance. With our research, we hope to gain new insights into this relationship between time management and work performance. However, several studies have shown a strong correlation between work–life balance and employee job performance, implying that they are connected (Kim, 2014; Smith, Smith, & Brower, 2016), yet represent two different but related aspects of desirable work outcomes.

When talking about job performance, it is important to bring work overload into the picture. Job performance can be increased and decreased by work overload (Bazillai, 2021). Brown & Benson (2005) showed a positive correlation between workload and job performance, whereas Ladebo & Awotunde (2007) showed that overload leads to employee exhaustion when they find it impossible to meet the resource demands of job requirements. The present study adds another contribution to this not fully clarified correlation between overload and job performance. When discussing work overload, another area needs to be addressed, namely WLB. Virick et al. (2007) found that employees with increased workload have a lower perceived work–life balance. Poulouse & Dhal (2020) showed that individuals with high workloads have difficulty balancing work and life. We clarified and further examined these connections between the two domains.

This study examined how time management moderates the effects of work overload on job performance, which is crucial for organizations and their productivity, and how time management moderates the relationships between work overload and work–life balance. Firstly, we predicted that time management would be related positively to job performance and work–life balance. Secondly, we predicted that higher perceived work overload leads to poorer work–life balance, and lower perceived work overload leads to higher job performance. According to Johari, Ridzoan, & Zarefar (2019), work overload does not have a significant impact on job performance; however, people usually react differently to workload. Some embrace it and take it as a challenge, whereas others show frustration. We investigated this further under specific boundary conditions of time management.

Recently, many employees changed their job occupation due to COVID-19 (25% more than usual), and many employees work from home (McKinsey, 2021). COVID-19 has led to a rapid change in the workplace. Many people began working from home, which has become the new normal (Kirby, 2020). This can be a problem for some, because the boundaries between work and leisure can become blurred. Work and private life easily threaten to merge when people live and work in the same rooms, leading to poorer work–life balance if an em-

employee's perceived workload is higher (Telser, 2021). Therefore, we investigated whether a higher perceived workload leads to a worse work–life balance in this changed work environment. Skinner and Pocock (2008) found that work overload has two effects on work–life balance. Moreover, increased workload often leads to longer working hours, and this contributes to feelings of strain. This research evaluated this on a different sample of individuals whose work environment had recently changed.

Finally, we studied whether lower perceived workload leads to higher job performance. Previous research found inconsistencies with these two constructs. Overload may increase job performance in some cases and decrease it in others. Brown & Benson (2005) showed a positive correlation between workload and job performance, whereas some other studies showed that overload is associated with the outcome of lower job performance. Ladebo & Awotunde (2007) showed that overload leads to employee exhaustion when it is impossible for them to meet the resource requirements of job demands. However, a moderate workload can lead to performance gains.

Our research has the potential to contribute to the literature in several ways. Firstly, we investigated whether negative effects of work overload can be tamed through better time management. Secondly, we investigated how work overload affects job performance and work–life balance, adding time management as a moderator. To our knowledge, this has not been studied before, and therefore is of great value to future researchers. In addition, we investigated how work overload and time management alone affect job performance and work–life balance. Kumar, Kumar, Aggarwal, & Yeap (2021) found that job performance is affected by different factors such as family distractions, distress, and discomfort. They found that role overload does not negatively affect job performance when working from home. We tested this finding on a different sample and investigated specific boundary conditions related to time management. These findings may be of practical use to organizations and individuals who wonder if overload when working from home can be tamed through better time management, leading to better productivity. Organizations can assess whether it is beneficial to train their employees to be more productive in

order to learn better time management. In addition, Jex & Elacqua (1999) found that engagement in time management activities had a positive feedback effect on employee mental health, but their research also showed that time management behaviors did not moderate the effect on overwork. We tested these results in a modern setting in which technology plays an important role in time management activities.

Finally, our research also could provide practical benefits to organizations to better understand employee health and performance in the workplace. Nowadays, with more and more tasks to complete, we can feel greater strain, which can translate into poorer mental health and consequently poorer job performance. The findings on time management as a moderator between work overload and job performance may be of use to organizations as feelings of overload can be prevented through time management training. However, people tend to struggle in the search for perfect work–life balance, so our research may be of practical use to managers responsible for employee job satisfaction and efficiency.

## **2 THEORETICAL BACKGROUND**

### **2.1 Work–Life Balance and Work Overload**

Work–life balance is a relatively modern expression (Warren, 2015). The concept might give an impression that it is a new problem, but there is no novelty in the core concept (Phipps & Prieto, 2016). The WLB metaphor is a social construct that has emerged in recent years, but the dilemmas associated with managing paid work alongside other areas of life, particularly family, have been the subject of research for several decades (Lewis, Gables, & Rapoport, 2007; Sirgy & Lee, 2017; Peeters, Jonge, & Taris, 2014; Warren, 2015).

Work–life balance is defined as a person's ability to meet his or her work and family obligations as well as other nonwork activities and responsibilities. All definitions of work–life balance can be categorized based on two key dimensions. The first can be defined as role engagement in multiple roles in work and nonwork life (Sirgy & Lee, 2017). The second can be understood as minimal conflict between work and nonwork roles (Sirgy & Lee, 2017). Sirgy & Lee (2017) also stated that WLB equilibrium is achieved

through effective management of role conflict, in which conflict or disruption occurs when resources to meet role demand are threatened or lost

Work or workplace environments of employees can strongly influence their non-work life situations and vice versa, which is often referred to as “work–family interference” (Mache, Bernburg, Groneberg, Klapp, & Danzer, 2016). Over the last two decades, the line between a person’s work life and nonwork life has become increasingly blurred (Peeters et al., 2014). This largely is due to changes in family structures, the increasing participation of women in the workforce, and technological changes that have altered the nature of work through the introduction of remote working practices (Peeters et al., 2005).

Work overload refers to the inability to complete tasks in the allotted time, which can lead to impairment of social and private life (Kirch, 2008). It can result from additional workload, but it does not have to. It also can be caused by mistakes someone makes at work, poor time management, or organizational problems (Daniels, 2017).

It is believed that massive work overload can deplete workers’ existing resources, resulting in fewer resources available to cope with tasks or demands outside of work (Karatepe, 2013). Vogel (2012) pointed out that workers who are given too many work tasks are more likely to experience stress and fatigue, leading to an imbalance between work and life domains. Chawla & Sondhi (2011) examined the relationships between perceived work overload and WLB among Indian women and found that WLB was negatively predicted by perceived work overload. This is because WLB provides benefits in the form of a combination of increased job satisfaction and loyalty; promotion of job performance; reduction of costs due to turnover, absenteeism, recruitment, and selection; and increased organizational productivity (Lazar, Osoian, & Ratiu, 2010). To adapt organizational structures to the needs of employees or to respond to government regulations on gender equality and family protection, many companies allocate resources to work–life balance initiatives (Pasamar & Cabrera, 2013).

**H1a:** *Perceived work overload is negatively related to work–life balance.*

## 2.2 Work Overload and Job Performance

Work overload can also occur when a person is exposed to a higher-than-normal workload (Daniels, 2017). Kirch (2008) defined work overload as a situation in which the demands of the job exceed the individual’s ability (time or resources) to cope with them.

Job performance is one of the most important criteria for determining the efficiency of an organization (Vathanophas, 2007). It is a function of the application of a person’s skills, abilities, and inclinations in performing a job in an organization (Hackman & Oldham 1976; Steers & Rhodes 1978). Performance is influenced by the complexity of the job, and is defined in different ways depending on the many phases and complications of the job (June & Mahmood, 2011). There seem to be so many variables that affect job performance that it is almost impossible to make sense of them (Pushpakumari, 2008).

According to Johari et al. (2019), people react differently to their workloads at the workplace. Some embrace it and take it as a challenge, whereas others show frustration. As people are promoted and climb the corporate ladder, their workload increases. This can affect their job performance, because they have to handle more pressure at their workplace (Johari et al., 2019). Chadegani, Mohamed, & Iskandar (2015) found that when employees are exposed to more work than they can handle, they begin to perform the work with less effort, which means that the tasks are completed with lower quality. Ali & Farooqi (2014) also supported this in their research, which found that work overload leads to poor employee performance, which also leads to job dissatisfaction. Furthermore Johari et al. (2019) suggested that the relationship between workload and job performance is not always linear. Employee productivity increases up to a certain point, after which it begins to decline. Therefore, these results indicate that job performance is highest when workload is moderate (Johari et al., 2019). However, if an incentive plan and proper training are given to employees, their performance can increase and they can become more satisfied with their jobs (Tahir et al., 2012).

However, Johari et al. (2019) showed that work overload has no significant effect on the job performance of government auditors. When auditors’ cur-



rent workload exceeds their usual workload, they experience stress. When this situation occurs, they usually make extra effort to cope with this high demand. They often view work overload as a challenge, and this means that it can have a positive effect on job performance in this situation. Johari et al. showed that there is a positive correlation between work overload and job performance, which is not always the case. Furthermore, Brown & Benson (2005) also showed a positive correlation between work overload and job performance. On the other hand, other studies showed that work overload is associated with lower job performance of individuals. Ladebo & Awotunde (2007) stated that overload leads to employee exhaustion when it is impossible for them to meet the resource requirements of job demands. However, moderate workload also can lead to performance gains.

**H1b:** *Perceived overload is positively related to job performance.*

### 2.3 Time Management and Work–Life Balance

Individuals who excel at time management often overestimate the passage of time, set deadlines for themselves, and consistently monitor time use. These individuals typically get more work done, which increases their efficiency and often lowers their perception of work overload. When working from home, these improvements in efficiently managing work demands through time management often lead to a reduction in work–family conflict (Fenner & Renn, 2010).

Time management is the process of planning and consciously controlling the time spent on certain activities with the aim of increasing efficiency or productivity (Ahmad, Ahmad, Wahab, & Shobri, 2012). This is very important because if one does not develop skills for better time management, one's life can become very stressful and unproductive (Size, 2004). To avoid this, it is crucial that a person creates a good work–life balance in addition to good time management skills (Anwar, Hasnu, & Janjua, 2013). WLB is about people having some degree of control over when, where, and how they work. The results of a good WLB strategy include higher productivity; better recruitment and retention;

lower absenteeism; lower overhead costs; a better customer experience; and a more motivated, satisfied, and equitable workforce (Anwar et al., 2013).

Nowadays, there are more and more interruptions in the workday because people must switch between professional and personal texts, emails, and websites, which often leads to fragmented and short attention spans and loss of process because they cannot focus on their work or nonwork role for longer periods (Kossek, 2016). Therefore, time management skills need to be used to balance work and leisure (Grissom, Loeb, & Mitani, 2015). Although there are many ways to organize and manage time, the fundamental basis for any time management process is linked to the planning process (Farrell, 2017). In setting and planning individual and organizational priorities, an organization's vision and purpose help employees determine their work and what is most important to accomplish. Plans help to avoid wasted tasks and underproductive time (Fittsimmons, 2008).

In addition to planning, goal setting is important. If one is juggling a variety of tasks and responsibilities, one will have a better sense of what is important if one knows the vision and goals of the organization or one's personal goals so one can focus on priority projects (Farrell, 2017).

Jex & Elacqua (1999) provided evidence of the positive relationship between time management and employee health mediated by other factors such as perceived control and conflict between work and family demands. The relationship between work–family conflict and mental health was strongest among respondents who reported using more time management. Fenner & Renn (2010) found that individuals who practice time management behaviors, specifically setting goals and priorities on a daily basis, can separate their work behaviors from their family behaviors. Those who do not practice this time management often actively switch between family and work activities while at home, resulting in higher levels of reported work–family conflict. Time management practices have been shown to mitigate the effects of work–family conflict.

**H2:** *Time management is positively related to work–life balance.*

## 2.4 Time Management and Job Performance

Green & Skinner (2005) showed that time management training programs can lead to an understanding of the key principles of time management, which leads to improvements in relevant skill areas, which also are encouraged by their line managers. They found that the key factor leading individuals to experience the environment as stressful was related to control over workload and individuals' perceptions of their ability to meet the demands placed on them. Green & Skinner suggested that time management training has a potential role in stress management that positively affects the effectiveness of individuals and organizations. However, Macan (1994) found that time management behaviors are not directly associated with positive outcomes for individuals, but work through perceptions of control over time, which has positive impact on job performance. If a person thinks they have control over time, those outcomes will manifest.

Benefits of effective time management may result in improved job satisfaction and lower stress levels (Chase et al., 2013). Furthermore, Khatib (2014) found a negative correlation between time management and perceived stress. Individuals who have better time management and consequently experience lower levels of stress were associated with better academic performance. However, time management does not always have positive effects on individuals. Macan (1994) found that certain time management behaviors can have a positive effect on tension and job satisfaction, but not on job performance. Macan (1994) concluded that the use of time management behaviors, such as making to-do lists, is not beneficial for everyone. Making a list of tasks that individuals need to complete gives them objective feedback on their progress on projects or tasks that they need to complete. If they do not complete these listed activities, the perception of having little control over time can be a deterrent.

Campbell & Wiernik (2015) stated that job performance must be explained from two perspectives: the behavioral perspective, and the outcome perspective. From the behavioral perspective, job performance refers to what employees do or how their behavior is visible at work. From the outcome perspective, performance refers to the results of em-

ployees' behavior. The behavioral and outcome aspects of performance are interrelated (Campbell et al., 1993). In addition, job performance also can be divided into the dimensions of effectiveness and productivity (Pritchard, 1995). There is a significant difference between productivity and effectiveness. Whereas effectiveness refers to the degree to which something successfully produces a desired result, productivity is explained as the effectiveness of productive efforts (Darvishmotevali & Ali, 2020).

For more than 20 years, stressful working conditions have been shown to be associated with poor mental health in workers (Jex & Elacqua, 1999). This has been shown to affect work performance. However, these effects can be tamed by better time management, because it has a positive impact on stress and consequently on the effectiveness of the individual (Green & Skinner, 2005). Therefore, it is important for every individual, especially managers, to know the benefits of time management behaviors. Chase et al. (2013) divided time management into three different categories: time estimation behaviors, planning behaviors, and monitoring behaviors. Understanding and incorporating certain parts of time management could be beneficial to individuals because it could increase their work performance. Chase et al (2013) stated that time management allows researchers to focus on their work. Time management activities can help individuals eliminate distractions that affect their productivity. After scheduling activities, an individual can monitor which task needs to be completed at a given time and can focus fully on that task, knowing that other work is due at another time (Chase et al., 2013).

**H2b:** *Time management is positively related to job performance.*

## 2.5 Time Management as a Moderator between Work Overload and Work–Life Balance

A high workload often leads to an increase in work hours, which in turn contributes to feelings of overload (Skinner & Pocock, 2008). Frone, Yardley, & Markel (1997) found that work overload was positively correlated with hours worked, and both were positively related to work–life conflict. Skinner & Pocock (2008) confirmed that work overload was the

strongest predictor of work–life conflict. Moreover, work–life conflict was found to increase with higher perceived workload. In general, researchers have found a negative relationship between time management and burnout or work overload, meaning that those who engage in less time management may experience higher levels of burnout than those who manage their time better (Peeters & Rutte, 2005).

A recent study (Daniels, 2017) found that more than 200,000 respondents reported being overworked and having difficulty balancing their personal and professional lives. For these individuals, working more than 39 hours per week seems to make it too difficult to balance their personal and professional lives (Daniels, 2017). Kirch (2008) found that work overload also often leads to work-related stress, which in turn can cause burnout syndrome. Furthermore, according to Taylor, Repetti, & Seeman (1997), employees who feel they have to work too long and too much on too many tasks report more stress, poorer health habits, and more health complaints than employees who do not suffer from work overload. As mentioned previously, Jex & Elacqua (1999) found that the relationship between work–family conflict and health was strongest among respondents who reported using more time management. Specifically, regarding time management as a moderator between work–family conflict and strain, Jex & Elacqua's results showed that time management behaviors did not moderate the effects on strain. Furthermore, strain was positively associated with overload, implying that time management may have had an influence as a moderator between work–family conflict and overload, although the links are not direct.

However, all dimensions of time management were negatively related to workload, implying that those who engage in more time management are less likely to suffer from work overload and consequently are better able to balance work and life, according to Skinner & Pocock (2008). Fenner & Renn (2010) highlighted the fact that individuals who practice time management are able to separate their work behaviors from their family behaviors. Macan (1994) also found that practicing time management behaviors was associated with lower levels of work–related tension, and thus of overload, and

higher levels of job satisfaction. Moreover, the effects of work overload can be minimized through time management (Macan, 1994). Previous studies and numerous guidebooks suggest that one can use and improve time efficiently and productively by setting short- and long-term goals, keeping time logs, prioritizing tasks, making to-do lists and schedules, while also organizing one's workspace (Claessens, van Eerde, Rutte, & Roe, 2007; Macan, 1994). The purpose of time management is to increase the nature of activities to be carried out within a limited period, which means that activities are planned wisely and one can limit the effects of overload (Karakose, 2015). Additionally, effective time management provides an individual with the opportunity to devote more time to his/her family and relatives despite being loaded with work, and enjoy life nonetheless (Karakose and Kocabas 2009). Consequently, by minimizing the effects of work overload and improving time management skills, one can establish a better work–life balance (Karatepe, 2013; Aryee, Srinivas, & Tan, 2005; Vogel, 2012; Chawla and Sondhi, 2011).

**H3a:** *Time management moderates the relationship between overload and work life balance. For high levels of time management, the relationship is less negative.*

## 2.6 Time Management as Moderator between Work Overload and Job Performance

Time management can be helpful in avoiding work overload and possibly improving an individual's work performance. Karatepe (2013) stated that work overload often leads to ineffective work performance; therefore, limiting work overload would benefit the individual's job performance. Employees who are overworked in terms of the number of tasks to be completed report more stress, practice poorer health habits, and report more health complaints (Taylor et al., 1997). These causes of overwork lead to employee dissatisfaction at work, which has been shown to reduce an individual's job performance (Ali & Farooqi, 2014). Brown & Benson (2005) suggested that stress not only causes employees not to perform at their best, but also can cause high performers in an organization to take shortcuts in their work

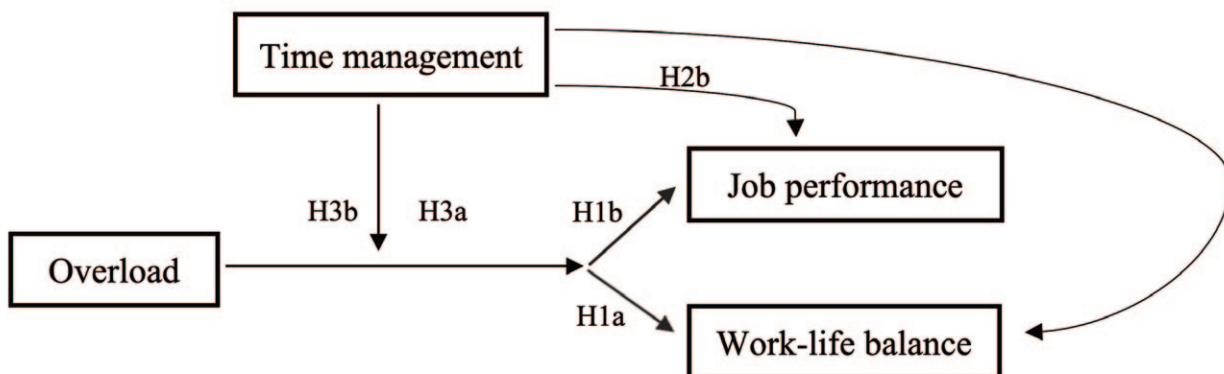
or even be tempted to leave the organization because they feel pressured at work. Daniel (2020) found that when time management is high, individuals are better able to cope with pressure at work and their work performance also increases. The value of time management lies in identifying and managing tasks according to their importance and coordinating them with other resources. Time management keeps things in order, which allows one to be more productive and fulfilled. This positive or negative time management is reflected in the performance of the organization, which is why it is so important for managers (Daniel, 2020).

Jex & Elacqua (1999) found overload to be positively related to strain, and time management behaviors were positively related to feelings of control over time. Moreover, individuals who have a feeling of control over time experience lower levels of strain. Thus, feelings of control over time were negatively related to overload, implying that individuals who engage in more time management behaviors are less likely to be affected by overload (Jex & Elacqua, 1999). In addition, Macan (1994) found that time management behavior operates through perceptions of control over time. If a person believes that he or she has control over time, his or her work performance will increase. Using these two studies, we can conclude that with high time management, the relationship between overload and job performance is less negative, which means that when overload is higher, the use of time management can increase an individual's job performance, because they have a feeling of control over time.

In addition, Ahmad et al. (2012) found that job performance is affected significantly by time management. They also pointed out that it is crucial for organizations to train their employees in the proper management of their time, because this is an important factor in achieving high employee performance, which then is reflected in organizational performance. Specifically, employees pointed out that time management can be extremely beneficial for them to maintain their job performance when they do not have enough time to complete all their tasks (Ahmad et al., 2012). Ahmad et al. (2012) suggested that by analyzing and prioritizing tasks and making to-do lists, employees can structure and distribute their workload, and consequently improve their performance. Employees also can save time through the use of technology, which also was recommended by Packard (2016), who emphasized the positive effects of the use of various apps to organize everything from work to personal life. Technology in conjunction with scheduled breaks can help an employee clear their mind and fully focus on current scheduled activities (Packard, 2016). Specifically, the use of the Evernote application was suggested, because it proved to be the most efficient (Packard, 2016). However, nowadays there are numerous applications on the market that can help employees improve their time management and performance, such as Trello, Asana, and ClickUp.

**H3b:** *Time management moderates the relationship between overload and job performance. For high levels of time management, the relationship is less negative.*

Figure 1: Research model





The relationships between work overload, work–life balance, time management, job performance, and time management as a moderator between work overload and job performance and between work overload and work–life balance are expressed by the six formulated hypotheses visualized in Figure 1.

### 3 METHODOLOGY

#### 3.1 Sample and collection of data

To test the hypothesized relationships between overload, job performance, work–life balance, and how time management moderates these relationships, we surveyed 127 working professionals. Of these respondents, 41% were students, 33% were full-time employees, and 3% were self-employed individuals. Percentages of individuals who were retired, out of work or looking for work, unable to work, and other were negligible. This study was quantitative in nature, based on questionnaire survey technique. The survey method was used for data collection; a questionnaire was used as an instrument of the survey method, and the questionnaire was distributed to a sample of the population.

#### 3.2 Measurement

Our sampling type was convenience sampling, which is a nonprobability sampling method and includes individuals who are most accessible to the researcher (McCombes, 2019). Participants in convenience sampling are selected based on their availability and willingness to take part in research (Barratt & Shantikumar, 2010).

The survey was distributed through social media sites, emails, direct contact with persons, and direct messages. Our constructs in the survey consisted of workload, work–life balance satisfaction, time management (assessment of time management skills), well-being/stress scale, and job performance. Work mode (before, during, and after COVID-19, and preference for work mode in the future) and demographic-based questions were also assessed. The questionnaire contained a total of 20 questions, including seven demographic questions; four questions about work mode before, during,

and after COVID-19 (physical location, hybrid, or work from home; if it has changed; do respondents like it; and what will they prefer in the future); four scales from another group we worked with; and five scales of our own. The first scale, workload, consisted of nine items or statements to which respondents selected responses ranging from “strongly disagree” to “strongly agree.” The second scale, time management, consisted of 15 items. The third scale, well-being or overload, consisted of six items. The fourth scale, work–life balance satisfaction, consisted of seven items. The fifth scale, job performance, consisted of six items. This was followed by questions about work mode, demographic questions, and work experience.

The survey was open for 26 days and was sent to 421 individuals, from whom 260 questionnaires were incomplete and 34 were partially finished, leaving us with 127 usable questionnaires (30% response rate). These 127 questionnaires were used for the final analysis of the study.

Matrix questions were used for well-being, job performance, time management, work–life balance, and workload. Respondents selected responses ranging from “strongly disagree” to “strongly agree” with the statement that was part of the question on a particular construct. All constructs were measured using 7-point Likert scales ranging from 1 = strongly disagree to 7 = strongly agree. Multiple-choice, open-ended questions were used for work mode and demographic data.

The questionnaire was based on previously validated scales. For workload, we followed questions used by De Bruin & Taylor (2006) (Cronbach’s alpha = 0.137). When creating the work–life balance questionnaire, we used Omar, Mohd, & Ariffin’s (2015) Satisfaction with Work-Life Balance scale (2013) (Cronbach’s alpha = 0.922). For time management, we applied the questionnaire by White, Riley, & Flom (2013) (Cronbach’s alpha = 0.591). For well-being, work overload and for examining the impact on work performance, we used the study by Rodwell, Kienzle, & Shadur (1998) (Cronbach’s alpha = 0.717). The questions on demographics were based roughly on the questionnaire of Omar, Mohd & Ariffin (2015), with adaptations for our research constructs and our target group of respondents.



## 4 RESULTS

Table 1 summarizes the respondents' age, mean, and standard deviation for our constructs. For age, we asked a multiple-choice question with response options of 17 and younger, 18 to 24 years, 25 to 34 years, 35 to 44 years, 45 to 54 years, and 54 or older. The mean was 3.02, which means that the average age of the respondents was between 25 and 34 years old, with a standard deviation of 1.198, which means that the responses were between 18 and 44 years old. The average age of 25–34 years indicates that the respondents on average probably already were working or studying at some point in time, which was consistent with our target group. In response to our question about employment, 41% of respondents answered that they were students and 33% answered that they were full-time employees, which was consistent with our desired sample, because these two groups were the most affected by the change due to COVID-19 in terms of work. This means that their work–life balance was challenged, and that their perceived overload had changed, which may lead to a different work performance. Our study also investigated whether these effects could be tamed through time management.

Table 1 lists the means, standard deviations, and Pearson correlation coefficients for the main variables. Interestingly, the correlation between work–life balance and overload is moderate, negative, and statistically significant. This implies that the

work–life balance of individuals with higher levels of overload worsens. Another interesting finding is that the linear relationship between time management and work–life balance is positive and of moderate to high strength. This means that, on average, the higher the level of time management, the better was the work–life balance. Therefore we can conclude that, on average, time management has a positive impact on our lives.

The mean values for workload show that, on average, respondents are not exposed to excessive workload or that their workload is in line with their expectations. The standard deviation shows that a small number of respondents' answers were far from the global mean, which means that they had similar answers.

Analysis of the results for time management indicated that, on average, respondents agreed that they managed their time well (mean = 4.84), but they disagreed, on average, that they could correctly estimate how much time they need to complete a task (mean = 3.16). However, on average, respondents tended to agree (mean = 5.29) that they made to-do lists, which shows that although respondents felt that they controlled time, their time management was not necessarily effective.

Based on our hypotheses, when we examined overload and well-being, we found that respondents who planned their daily activities (mean = 5.13) or engaged in time management answered, on average,

*Table 1: Descriptive statistics and correlations*

No.	Variable	Mean	SD	1	2	3	4	5	6
1	Age	3.02	1.198	1					
2	Workload	3.922	0.627	–0.057	1				
3	Time management	4.588	0.605	–0.119	–0.014	1			
4	Well-being	4.379	1.157	0.183*	–0.227**	–0.205*	1		
5	Work–life balance	4.963	1.143	–0.024	0.155	0.453**	–0.484**	1	
6	Job performance	5.178	0.873	0.250**	–0.182*	0.406**	0.005	0.247**	1

\* denotes correlation significant at the 0.05 level (2-tailed)

\*\* denotes correlation significant at the 0.01 level (2-tailed)

that they had enough time to do their work properly (mean = 5.13). Interestingly, when asked if most people feel overwhelmed by work at their job, respondents answered that they agreed with this statement (mean = 4.7), but, on average, they tended to disagree that work overwhelmed them (mean = 3.8).

The overall mean scores for work–life balance show that, on average, most respondents were successful in balancing their work and personal lives and had a good work–life balance (mean = 4.96). However, the standard deviation for all work–life balance scores is somewhat high (standard deviation = 1.14), which means that the responses were more scattered around the mean. When asked if respondents were satisfied with their work–life balance, on average they tended to somewhat agree (mean = 5), with 34% of responses rated as agree.

Interestingly, 23% of respondents indicated that they felt that they run out of time before getting important things done, the mean for which was 4.3 (neither agree nor disagree = 4), but they also indicated that they felt they were among the slowest at work (mean = 5.36; 31% agree and 20% strongly agree). This shows that it is not necessarily poor time management that causes them to run out of time to do their work; it also could be the speed of the work that the respondents are doing.

#### 4.1 Hypotheses testing

To test Hypotheses 1a, 1b, 2a, and 2b, we used linear regression. For Hypotheses 3a and 3b, we used the process method with linear regression. Linear regression is used when the value of one variable

is to be predicted based on the value of another variable (Isobe & Feigelson, n.d.). First, we tested the relationship between work overload and work–life balance resulting from Hypothesis 1a. Work–life balance is the dependent variable, and the constant is represented by work overload. The model summary of Hypothesis 1a is presented in Table 2.

The values of  $R$  and  $R^2$  are given. The  $R$  value indicates the simple correlation, which is 0.155 for Hypothesis 1a, which does not indicate a high degree of correlation. The  $R^2$  value indicates how much of the total variation in the WLB variable can be explained by the workload variable; in this case, only 2.4% of the total variation can be explained, which is not very much. Significance indicates how well the regression model predicts the dependent variable. In our case, the statistical significance of the regression performed was not sufficient:  $p = 0.072$ , which is more than 0.05, and means that the regression model did not predict the outcome variable statistically significantly. We found that the empirical results do not support Hypothesis 1a.

Secondly, we tested the hypothesis that lower perceived overload leads to higher job performance. Job performance is the dependent variable, and the constant is represented by work overload. The model summary of Hypothesis 1b is presented in Table 2, with the  $R$  and  $R^2$  values. The  $R$  value was 0.182 and the  $R^2$  value is 0.033. This means that 3.3% of job performance can be explained by work overload, which is not much. We also can determine whether the regression model predicts the dependent variable significantly well. The significance value indicates the statistical significance of the re-

Table 2: Model summary of hypotheses

	$R$	$R^2$	$p$ -value (significance)	$b$ -value (coefficient)	$\beta$	Standard error of the estimate
H1a	0.155	0.024	0.072	0.283	0.155	1.13380
H1b	0.0182	0.033	0.037	0.258	0.182	0.86175
H2a	0.406	0.165	0.000	0.577	0.406	0.80098
H2b	0.453	0.205	0.112	0.849	0.453	1.02332
H3a	0.1799	0.0324	0.9747	0.0017	—	0.3872
H3b	0.2695	0.0726	0.0247	-0.1434	—	0.3597

gression model performed. The  $p$ -value is 0.037, which is less than 0.05 and indicates that the whole regression model does predict the outcome variable statistically significantly. On this basis, we can accept Hypothesis 1b.

The next hypothesis we tested states that better time management has a positive effect on work–life balance. In this case, the dependent variable is work performance and the independent variable is time management. The model summary of Hypothesis 2a is presented in Table 2, which gives the values of  $R$  and  $R^2$ . The  $R$  value, which indicates the simple correlation, is 0.406, which indicates a high degree of correlation. The  $R^2$  value in this case is 0.165, which is higher than that of other models. The  $p$ -value is less than 0.05. The  $p$ -value allows us to support Hypothesis 2a, which means that the regression model as a whole predicts the outcome variable statistically significantly.

Hypothesis 2b states that better time management leads to higher work performance. Table 2 summarizes this model. The dependent variable is WLB, and the independent variable again is time management. The  $R$ -value is 0.453, and the  $R^2$  value is 0.205, which is slightly higher than that of the previous models. To support or reject our hypothesis, the significance Value was determined. The  $p$ -value is 0.112, which is higher than 0.05. The overall regression model did not statistically significantly predict the outcome variable. Consequently, empirical data did not support Hypothesis 2b.

The last two hypotheses we tested involved time management as a moderator of the relationships between the other domains. Hypothesis 3a states that time management moderates the relationship between overload and work–life balance. When the level of time management is high, the relationship is less negative. In this case, the dependent variable is workload, and the independent variables are represented by work–life balance and time management. The summary of the model for this hypothesis is presented in Table 2. The  $R$  value or simple correlation is 0.1799, which is not very high and does not indicate a high degree of correlation. The  $R^2$  value, which indicates how much of the total variation in the workload variable can be explained by the WLB and time management vari-

ables, indicates in this case that only 3.24% of the total variation can be explained, which is significantly sufficient. The  $p$ -value is 0.9747, which is significantly higher than 0.05. Therefore, we cannot accept Hypothesis 3a.

Hypothesis 3b states that time management moderates the relationship between overload and job performance. When time management is high, the relationship is less negative. Again, we used linear regression, with work overload as the dependent variable and work performance and time management as the independent variables. The results are summarized in Table 2. The  $R$ -value is 0.2695, and the  $R^2$  is 0.0726, which is quite high compared to the other models. Most importantly, the  $p$ -value indicates how well the regression model predicts the dependent variable, and in this case, the statistical significance of the regression performed was sufficient, because the  $p$ -value is 0.0247 which is less than 0.05. This means that we can support Hypothesis 3b.

## 5 DISCUSSION AND CONCLUSION

### 5.1 Theoretical Contributions

Time management is becoming increasingly important due to the amount and variety of work to which people are exposed. As a result, people often are subject to overload, which affects their work–life balance and job performance. This issue is particularly important because people’s workspaces and locations have changed during the pandemic. From a theoretical perspective, our study investigated whether and how overwork affects work performance and work–life balance. We tested this on a different sample of individuals who were affected by the pandemic COVID-19.

We found that time management as a moderator can help reduce the negative relationship between work overload and work performance when time management is high. However, we cannot demonstrate this for the relationship between work overload and work–life balance. In this case, the relationship is not less negative even when time management is high. As far as we are aware, these relationships have not been studied before. Consequently, our study provides additional empirical ev-

idence of how focusing on time management can improve job performance even when work overload is present. Unfortunately, the same cannot be said for the relationship between work overload and work–life balance.

Contrary to the findings of Brown & Benson (2005), who showed a positive correlation between workload and job performance, our study found that lower perceived overload leads to higher job performance. This is in line with research by Ladebo & Awotunde (2007), who showed that overload leads to employee exhaustion when it is impossible for them to meet the resource requirements of job demands.

In line with the research of Chadegani et al. (2015), Ali & Farooqi (2014), and Karatepe (2013), all of whom found that work overload leads to poorer employee performance, our study showed that lower overload leads to higher work performance. Thus, we confirmed the findings in the literature. However, we cannot say the same for the relationship between overload and work–life balance. Although the previous studies by Frone et al. (1997) and Skinner & Pocock (2008) indicated a positive correlation between work hours and work–life conflict, our results refute the statement that higher overload leads to poorer work–life balance. This could be due to the change in workplace of the individuals whose work was shifted from office to home.

According to Jex & Elacqua (1999), time management actually leads to better work–life balance and satisfaction, which is consistent with our findings. We can confirm that better time management has a positive effect on work–life balance. In contrast, we cannot claim that time management leads to higher job performance. This is consistent with research by Macan (1994), who found that certain time management behaviors can have positive effects on tension and job satisfaction, but not on job performance.

We found that better time management is not necessarily associated with higher job performance. This is in contrast to Khatib (2014), who found that time management has a positive effect on perceived stress and that individuals with better time management and consequently lower stress also perform better academically.

Our study found that, on average, respondents agreed that they could manage their time well, but disagreed that they could correctly estimate how much time they need to complete a task. They also agreed, on average, that they tended to write to-do lists. All of this shows that although the respondents felt that they had control over time, their time management was not necessarily effective, which is contrary to Macan's (1994) research which showed that positive outcomes occur when a person feels that they have control over time. In our study, this was not the case, because, on average, respondents were confident that they could complete their daily tasks, but they also somewhat agreed that they often ran out of time before they could get important things done and that they did not manage their time well.

## 5.2 Practical Implications

From a practical perspective, we can say that our research has the potential to raise awareness of the importance of time management, job performance, work–life balance, and work overload in both corporate culture and personal life. The boundary between work and personal life slowly is disappearing, which has become one of the biggest problems today. In particular, during the COVID-19 pandemic, many people reported that they had difficulty juggling work and personal life. Our study found that time management has a positive effect on the relationship between overload and job performance, suggesting that organizations would benefit from time management training for their employees. Consequently, these findings can be very useful for managers if they want to increase the efficiency and job performance of their employees. It is of great importance for them to know that placing a heavy workload on their employees will not lead to the desired results. In contrast, if they impose only as much work on their employees as they can handle, the results are likely to be better than expected. One of the main aspects of this study is the concept of time management, which, if used properly, can be very useful for managers. As mentioned previously, by developing their employees' time management skills, managers can expect to have a positive impact on their employees' work–

life balance, which can benefit both the company and the employees themselves. With a better work–life balance, employees can focus fully on their work and give 100% because they are less preoccupied with non-work-related concerns. Time management is useful not only when it comes to work–life balance; as mentioned previously, it also can serve as a mediator between overload and job performance. Thus, when managers provide time management training to their employees, it can have a positive impact on the relationship between overload and job performance and make the relationship less negative, which ultimately can lead to better work outcomes and higher employee satisfaction.

### 5.3 Limitations and Future Research

This research was conducted with 127 respondents, which is a slightly smaller sample size than we expected. This could be due to the lack of time. We merged the survey with another group with similar topics, which resulted in a larger questionnaire and longer survey completion time. This could be why many respondents did not complete the survey. Furthermore, all the main variables were measured based on a single survey, which possibly could lead to bias in the common methodology.

For future research, we suggest conducting the questionnaire with a larger sample. We also recommend conducting some interviews with different selected respondents, e.g., full-time employees, students, self-employed people, managers, etc. This not only would provide a larger number of responses on which to base the analysis, but also would show whether the survey results are credible.

Our study was limited in time and resources; therefore, we did not examine the long-term effects of COVID-19 on perceived work overload and work–life balance. Therefore, for future research, it would be interesting to compare the perceived work overload and work–life balance of individuals who work in an office with those of individuals who work from home after the pandemic. According to Telser (2021), working from home could be a problem because the boundaries between work and leisure could become blurred. When people live and work in the same space, their home and work could

merge, leading to higher perceived work overload and consequently to a poorer work–life balance (Telser, 2021). In this context, future research could conduct a longitudinal study that would show the long-term effects of changes in the work environment on people.

For some people, working from home is better than working in an office; for others, it is the opposite. In a future study, we will investigate whether working from home has a positive or negative effect on work performance when it is associated with a higher workload. It could be that people who have a lighter workload to manage at home start to become preoccupied with their personal tasks, which can make them feel overworked and reduce their job performance. However, if they have more work to do, this could lead to better job performance because they do not have time for personal tasks during working hours. This would be contrary to the findings of Ladebo & Awotunde (2007), who showed that increased workload leads to employee exhaustion, which in turn leads to lower job performance.

### 5.4 Conclusion

In today's world, better time management is becoming increasingly important as demands increase in both professional and personal life, also known as work–life balance. Work–life balance often is affected by work overload. Especially in a corporate culture, many employees are overworked, which can lead to both poorer work–life balance and poorer job performance. It is important that companies figure out how to help their employees improve their time management skills, because this can increase the success of the company and the health of employees as they learn to better balance their work and personal lives. Our study confirms that companies can help their employees achieve a better work–life balance and increase their job performance through better time management. It also is important for managers to know that our research shows that business results are likely to be better when employees are less overworked. We also showed that advanced time management moderates the relationship between overload and work performance, making the relationship be-



tween the two less negative. The results are important for organizations, and especially for managers. If they provide sufficient time management training, they can increase employee satisfaction as well as work efficiency and company results. The results also can be very helpful for employees, who can learn that higher work pressure or overload usually does not lead to higher work performance. Employees also can understand how important mastering time management is to their career and performance, as well as to their health and family relationships.

One of the main objectives of this study was to analyze time management as a moderator between other domains in which, to our knowledge, there is a gap in the literature. Our research provided new insights into time management, which is becoming increasingly important in daily life. Given the fast pace of everyday life, it is important for both individuals and organizations to pay more attention to time management. As this study proved, employees can improve their work performance if they pay more attention to their time management skills, and this is extremely important for companies.

## EXTENDED SUMMARY/IZVLEČEK

Zahteve v poklicnem in zasebnem življenju se povečujejo, zato postajata delovna preobremenitev in upravljanje časa, v povezavi z ravnovesjem med delom in družino, vse pomembnejša. Oba imata prav tako lahko resne posledice na individualno delovno uspešnost, zato je ta študija proučila, kako uspešno upravljanje časa blaži učinek delovne preobremenitve na delovno uspešnost, in razmerje med delovno preobremenitvijo ter ravnovesjem med poklicnim in zasebnim življenjem. Rezultati kažejo, da delovna preobremenitev negativno vpliva tako na uspešnost pri delu kot tudi na ravnovesje med poklicnim in zasebnim življenjem. Ugotovljeno je bilo, da uspešno upravljanje časa ugodno vpliva na temeljno razmerje in ga naredi manj negativno. Te ugotovitve kažejo na pomembnost tega, da posamezniki in organizacije več pozornosti namenijo upravljanju časa, saj le-ta lahko izboljša delovno uspešnost in ravnovesje med poklicnim in zasebnim življenjem.

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## THE INTERACTION BETWEEN INDIVIDUAL CHARACTERISTICS AND MODE OF WORK IN PREDICTING RESILIENCE AND JOB SATISFACTION

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### Abstract

*Since the COVID-19 virus has become part of our lives, organizations have been looking for ways to adjust work arrangements and adopt different modes of work (e.g., hybrid and remote work) while maintaining job satisfaction among their employees. This paper explored the relationships between employee's personality traits and their mindset and their influence on employee resilience and job satisfaction. Additionally, we investigated whether the relationship between personality traits, employee mindset, and desired outcomes varied across different modes of work. This study is important for managers because it helps them better understand the importance of their employees' individual characteristics in relation to desired outcomes.*

**Keywords:** *personality traits, resilience, mindset, job satisfaction, mode of work*

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## 1 INTRODUCTION

The COVID-19 pandemic is currently reshaping our world and impacting not only our personal lives, but our work lives as well. The way we work is changing from the office to hybrid or even completely remote workplaces, and different people are reacting differently to all the changes and protective measures (Shokrkon & Nicoladis, 2021). Job satisfaction has an impact on material advantage and well-being. Em-

ployees who are happier at their jobs are more satisfied, and their performance is affected positively, which is why job satisfaction is relevant and needs to be explored (Adigun, Oyekunle & Onifade, 2017). Resilience is another important factor, because there is clear evidence that more-resilient people are able to bounce back from difficult experiences, adapt, develop, and in some cases even grow (Luthans, Vogelgesang & Lester, 2006). Many employers are focusing increasingly on the critical factors that influ-

ence a company's resilience, and resilience seems to be as important to companies as the bottom line (Noopur, 2021). Despite clearly being recognized as salient, many factors that potentially can impact job satisfaction and resilience have not been studied yet and need to be explored further.

Some studies have shown the relationship between employee personality traits and their impact on job satisfaction and resilience. For example, recent research has found that extraverts are more prone to depression (Wijngaards, Sisouw de Zilwa & Burger, 2020), and that people with a positive attitude cope better with current circumstances (Fuller & Huseth-Zosel, 2021). In a study of the Latvian National Guard, extraverted employees were found to be less resilient than introverts (Kalinnikova, Zavodilov & Dmitrijeva, 2020), which could mean that introverts experience far less stress due to their resilience. In addition, one study showed that people with a positive mindset have higher job satisfaction (Orkibi & Brandt, 2015). Luthans and Youssef (2007) found a positive correlation between the contribution of hope, optimism, and resilience (i.e., elements of positive psychological capital or positive mindset) and job satisfaction and job happiness. Due to recent developments in the environment in which COVID-19 circumstances have evolved suddenly, the topic also is quite new and unexplored, and as such provides a unique opportunity for scientific insight.

The literature does not give us answers to the question of what happens when subjects are not exposed to extreme conditions as in the study by Kalinnikova et al. (2020), but are observed in their natural environment. Moreover, no clear study has confirmed that introverts are more resilient when exposed to any kind of stressful situation (e.g., the COVID-19 situation). Wei (2020) showed that introverts actually reported worse psychological changes than extraverts as a result of the pandemic (i.e., a stressful situation) and had higher levels of depression, anxiety, and loneliness. Because of these conflicting claims, we determined which of these claims proves to be true. In addition, many studies focused on the effects of a positive mindset on performance, which of course is relevant for organizations, but they focused less on the effects on job satisfaction, which we also believe is important and should be researched more. We also found a lack of research

on the correlation between employee positivity or negativity and organizational resilience, and because this currently is a hot topic and a desirable trait, we explored this in greater depth. Finally, to the best of our knowledge, no research has addressed whether the relationship between personality traits, employees' mindsets, and desired outcomes varies across different modes of work.

Our study explored interrelationships among employees' personality traits, their mindset, and how they affect their resilience and job satisfaction, in the hope of finding clues about which type of trait might be more successful in coping with stress, and whether any of these traits are better predictors of employees' resilience. This could make an important contribution to the scholarly discussion initiated by Cain (2012) regarding the strength of introverts in the workplace and their job satisfaction. By conceptualizing and testing our model, organizations can gain perspective on the importance of positivity in the workplace and can educate their employees toward a more positive attitude.

This study advances the research area examining personality traits and their effects on job satisfaction and resilience. We wanted to find out whether more-extraverted people are more resilient, because studies in this area seem to be contradictory (Kalinnikova et al., 2020; Wei, 2020). On the other hand, the research on individual mindset and resilience seems to be fairly clear, so we want to confirm findings from the existing theory. However, if the results of our research showed the opposite, this could point us in a new direction to find an optimistic aspect of pessimistic thinking within specific settings related to modes of work. Along these lines, we wanted to find out whether there is a relationship between the mode of work and workers' resilience. If such a relationship exists, our study could be an important help for many different people—managers, HR managers, employees, and others—in making decisions about how to work after the COVID-19 constraints have been relaxed. In addition, this study could be highly significant if we find a positive relationship between the mode of work and employee job satisfaction. Our study fills some gaps in the literature on the relationship between positive mindset and job satisfaction, because research on this topic is very scarce.

## 2 THEORETICAL BACKGROUND

### 2.1 Personality Traits

Personality traits can be defined as patterns of thoughts, feelings, and behaviors that reflect how an individual tends to react in certain situations under certain circumstances (Sanchez-Roige, Gray, MacKillop, Chen & Palmer, 2017). The five-factor model of personality was developed by several researchers (Digman, 1990) who agreed that there are five trait dimensions that capture a wide range of individual differences in personality, namely neuroticism, agreeableness, openness to experience, conscientiousness, and extraversion (Soto, Kronauer & Liang, 2015; Roccas, Sagiv, Schwartz & Knafo, 2002). We decided to focus on extraversion because it recently has been included in scientific debates (Shokrkon & Nicoladis, 2021) and seems to be a topical issue.

The idea of extraversion can be depicted with a bell curve, in which introversion and extraversion are at opposite ends (Houston, 2021). People who supposedly are extraverts engage in social activities to a greater extent, prefer group activities, and become energized by social interactions (Lucas, Le & Dyrenforth, 2008; ter Bogt, Engels & Dubas, 2006). The opposite might be true for introverts, who tend to prefer solitary activities and easily are overwhelmed by too much stimulation from social gatherings and engagement (Goby, 2006). Both terms, introvert and extravert, were introduced by Carl Jung (1921), but his original definitions have been interpreted in various ways. He also introduced the term ambivert, which lies in the middle of the spectrum, and Conklin (1923) added that ambiverts draw energy interchangeably from both ends of the spectrum.

With the idea of a spectrum, we can say that it is difficult to create a benchmark and say when someone is introverted or extraverted. Instead, we can use the spectrum of extraversion as a scale to determine where people fall in terms of behavior compared to others (Houston, 2021). Therefore, we decided to not use the terms introvert and extravert in our study, because it is difficult to put a benchmark on a scale and categorize people into groups of introverts and extraverts based solely on the data obtained. Instead, we categorized our participants from more to less extraverted.

As attitudinal standards are much more “extraverted” these days, society has tried to cure introverts in some ways (Taylor, 2020; Lounsbury, Moffitt, Gibson, Drost & Stevens, 2007). It has been shown that there is a relationship between extraversion and selection success (Stewart, Dustin, Barrick & Darnold, 2008), because extraverts tend to present themselves better (Kristof-Brown, Barrick & Franke, 2002). According to Wilmot, Wanberg, Kammermeyer-Mueller & Ones (2019), extraverts perform better in the workplace than their introverted counterparts due to their proactive nature and constant suggestions to improve their career and company. Therefore, and because they tend to earn more than their introverted counterparts (Gensowski, 2018), we could say that extraverts have the upper hand when it comes to being more satisfied with their jobs than introverts.

However, because extraverts are more likely to be satisfied in roles that involve high levels of social interaction (Huang et al., 2016), they currently are in a poor position to be completely satisfied with their jobs because the pandemic has taken away this opportunity. This was confirmed by Liu et al. (2021), who found that extraverts showed higher levels of distress due to the inability to interact socially. In addition, Kalinnikova et al. (2020) showed that introverted national guards showed lower levels of stress and thus higher levels of resilience than their extraverted counterparts. However, Wei (2020) indicated that introverts actually experienced worse psychological changes than extraverts as a result of the pandemic (i.e., a stressful situation) and exhibited higher levels of depression, anxiety, and loneliness. Taken together, these studies report conflicting information about the response of people with different personality types.

### 2.2 Mindset

Mindset is a certain belief of how someone perceives the world and themselves. There are many types of mindset (Rhinesmith, 1992). For example, Dweck (2007) distinguished between the growth mindset and the fixed mindset, which are associated with abilities. The fixed mindset is associated with innate abilities that cannot grow. A growth mindset, on the other hand, is associated with hard work that

can lead to success. On the other hand, Sagiv and Schwartz (2007) developed a theory that there are eight types of mindsets, namely hierarchical individualism, egalitarian individualism, hierarchical synergism, egalitarian synergism, hierarchical populism, egalitarian populism, hierarchical collectivism, and egalitarian collectivism. There is a relationship between these eight types of mindsets (Yolles & Fink, 2013). A positive mindset also can be associated with optimism, which refers to a person's future. It is about having hope for the future. Optimism has a positive impact on well-being (Carver, Scheier & Segerstrom, 2010). In our research, we decided that the definition of positive and negative mindset was the most suitable for our research because we think that these terms are used first when we use the word mindset.

The positive mindset described in conservation of resources theory gains positive outcomes such as well-being (Hobfoll, 2011). Individuals who are more likely to have positive thinking balance work better and experience positive life outcomes. Individuals' positivity is more likely to lead to success because positive individuals are more likely to face their problems (Carver & Scheier, 1998; Scheier & Carver, 2003). In one study, it was found to have no effect on performance, but positive people are more determined, which can lead to better performance in the long run (Tenney, Logg & Moore, 2015). Sagone and Caroli (2015) showed a positive correlation with resilience: individuals with a more positive attitude toward life exhibited higher resilience. People who are more positive tend to be more resilient than less positive-minded people.

### 2.3 Mode of Work

The last decade witnessed a trend of increasing use of work from home, an increasing number of digital nomads, and the formation of different modes of work. The first mode of work is a traditional office specified for employees who do their entire work at the company's physical location. The opposite is remote work, in which people can work from anywhere. Between these are two types of hybrid systems. First hybrid option is one in which the employees can choose to work from home or in the office. Another hybrid system is called hybrid

rotation, in which working groups have a schedule for working in the workplace and from home or another location. As a result of the pandemic, there has been some digital transformation in most companies. There is a growing trend for companies to focus on employee well-being in the workplace and develop more-flexible working models such as hybrid systems. The question of the best way to work post-pandemic remains for many companies (Rubin, Nikolaeva, Nello-Deakin & te Brömmelstroet, 2020).

A traditional office means that employees primarily work in a designated space on the premises of the company. (Hill, Ferris & Martinson, 2003). A rotation system, one of the possible hybrid systems, means that groups of students or employees rotate on a fixed schedule among different learning or working modalities. The rotation system always includes at least one station for online working or learning. One of the benefits of the rotation system is that it allows working in smaller groups. That mode of work might be the answer to dealing with the lack of facilities (Staker & Horn, 2012). The second hybrid system arranges the employee's working location according to their preferences. In this case, work can be done partly at home and partly at the workplace (Employers' Federation of India, 2020).

"Work from home" is a term used for labour activities accessed through the use of information technology and is performed away from the traditional workplace' (Employers' Federation of India, 2020). Work from home is a subcategory of remote work, which first was defined as "periodic work away from the main office one or more days per week" either at home or from abroad (Nilles, 1998). During COVID-19, the lockdown has led to an increasing use of work from home. Companies with experiences in different types of remote work have found some advantages and disadvantages compared with working in the office. For example, Google learned that the key to successful remote work was both formal and informal communication. Employees sometimes struggled with the feeling of not being connected to the outside world, and there also were some logistical difficulties such as coordinating schedules when employees were in different time zones (Katz, 2019).



Work from home entails a number of long-term unexplored problems, such as social distancing, self-management, household dilemmas, employer dilemmas, work–life balance, being less recognized by superiors, putting sensitive information at risk, higher costs of computer devices and internet for the employee, etc. Some constraints are culture- or industry-specific. (Jewson, 2002). International research on experiences of working from home during the first year of the COVID-19 pandemic found that the top disadvantages were lack of social contacts, inability to focus, and worse work–life balance (Rubin et al., 2020).

On the other hand, working remotely increases productivity when one needs a controlled environment; it enables working flexible hours and eliminates commuting costs. Another advantage of working remotely is that enabling more freedom in choosing the mode of work in organizations as a “dual agenda” meets both organizational goals and the ability to integrate the demands of work and personal life (Rapoport, Bailyn, Fletcher & Pruitt, 2002). A work-from-home experiment at Ctrip with 16,000 employees found a 13% increase in performance due in part to working more minutes per shift and in part to more calls per minute in a more comfortable and quiet home environment (Bloom, Liang, Roberts & Ying, 2014). Employees also reported an improvement in job satisfaction (Bloom et al., 2014).

## 2.4 Job Satisfaction

There is no clear definition of job satisfaction. Different authors define job satisfaction differently. However, the issue is important in organizations, both today and in the past (Aziri, 2011).

Vroom (1964) defined it as a workplace that focuses on employees who are oriented to their role at work. Hoppock (1935) said that satisfaction is a combination of environmental, psychological, and physiological conditions of an individual who consequently takes pride in his or her work. It has something to do with how a person feels and what elements are the cause of satisfaction. Workers most commonly associate satisfaction with their feelings toward work. It reflects to what extent they

loathe or like their jobs (Aziri, 2011). According to Davis, Leach and Clegg (1985) satisfaction is the extent to which the expectations of a worker are met in his or her position and, it is related closely to how people behave at work. Job satisfaction is in a sense success at work. Usually, it is associated with productivity and personal well-being. It means that a person enjoys doing his or her job and receives a reward for it. It suggests happiness, and can lead to fulfilment (Kaliski, 2007). It also is defined as a collection of beliefs and feelings about a person’s work. It can range from extreme satisfaction to extreme dissatisfaction, and is described as an attitude toward a job.

Job satisfaction can be an essential element of efficiency and productivity of an organization. Workers should be treated morally by considering their needs, wants, and other aspects. It is said that a satisfied employee is a successful employee. When satisfaction is not present, other negative consequences occur, such as absenteeism, dissatisfaction, lack of loyalty, etc. (Dziuba, Ingaldi & Zhuravskaya, 2020).

We assumed from previous research that positive-minded people are more satisfied with their job. Because the literature is scarce, we wanted to confirm our hypothesis. Orkibi and Brandt (2015) showed that satisfaction comes from people with positive mindset. Luthans and Youssef (2007) studied job satisfaction, and the results showed a positive correlation between hope (an element of positive capital) and job satisfaction.

**H1a:** *Employees’ positive mindset is positively related to job satisfaction.*

In line with Bloom (2014) and Rapoport (2002), we assumed that working from home, when employees have a positive mindset, also contributes to higher job satisfaction through improved perception of freedom, and brings more passion to work with easier integration of work and personal life.

**H1b:** *Mode of work moderates the positive relationship between employees’ positive mindset and job satisfaction such that the basic relationship is more positive when employees work from home.*

Next, because Huang et al. (2016) suggested that more-extraverted individuals are more satisfied with jobs that demand high social interaction, we wanted to see if this could be generalized for all types of jobs, and therefore we propose the following hypothesis:

**H2a:** *Employees' extraversion is positively related to their job satisfaction.*

Due to a lack of social interaction, which extroverted employees need in order to thrive (Huang et al., 2016; Liu et al., 2021), we expect them to be less satisfied when they work from home. Therefore, we propose the following hypothesis:

**H2b:** *Mode of work moderates the positive relationship between extraversion personality type and job satisfaction such that the basic relationship is more negative when employees work from home.*

## 2.5 Resilience

Resilience is the ability to cope with shocks and continue to function in the same way. It is a measure of a society, business, or ecosystem that demonstrates the ability to change before passing a tipping point. It includes capabilities such as adaptation, change, and restructuring in coping with disruption. "It is about changing to avoid being changed" (Walker, 2020).

According to Walker (2020), nine attributes promote overall resilience: exposure to disruption; diversity of response; modularity or interconnectedness; ability to respond quickly to change or shock; readiness for transformation; thinking, planning, and managing across scales; and leading rather than directing. Therefore, exposure to variability is necessary to build and maintain resilience, whereas attempting to protect a system from shocks reduces its resilience.

On the other hand, resilience can be understood as a capacity to rebuild and recover quickly (Herbane, 2015) or as a response to a crisis (Pal, Torstensson & Mattila, 2014). Furthermore, resilience can be seen as a characteristic that an organization possesses before, during, and after an event. Four categories of resilience in relation to time are resilience as a proactive attribute, an absorptive and adaptive attribute, a reactive attribute, or a dynamic attribute (Conz & Magnani, 2020).

As a proactive attribute, resilience can be understood as an ability to be ready in times of crisis and maintain superior organizational performance (Pal et al., 2014). In addition, resilience as an absorptive attribute is defined as the ability to persist in the face of significant change or to withstand disruption and catastrophic events (Acquaah, Amoako-Gyampah & Jayaram, 2011). A third definition of resilience as a reactive attribute explains it as the ability to survive disruptions (McPhee, 2014).

From a dynamic perspective, resilience is conceptualized as a temporal process consisting of two pathways: adaptive and absorptive (Conz & Magnani, 2020). The goal of resilience as a dynamic attribute is to develop multiple sources of competitive advantage (Reinmoeller & van Baardwijk, 2005).

From a psychological perspective, there is some evidence showing a relationship between loneliness, mental health, and resilience in the era of COVID-19 (Killgore, Taylor, Cloonan & Dailey, 2020). Child adjustment is determined in many cases by the influence of family members. Relationship quality, marital conflict, family beliefs, and communication have significant effects (especially during COVID-19) on family well-being and resilience (Prime, Wade & Browne, 2020). We assumed that a positive mindset is positively related to resilience, because a positive mindset and resilience both are reinforced by similar factors, such as positive family beliefs and quality relationships, as discussed by Prime, Wade and Browne (2020).

**H3a:** *Employees' positive mindset is positively related to resilience.*

**H3b:** *Mode of work moderates the positive relationship between employees' positive mindset and resilience such that the basic relationship is more positive when employees work from home.*

Because less-extraverted individuals tend to have more mental health problems (Janowsky, 2001) and more adjustment problems in general (Davidson, Gillies & Pelletier, 2015), we developed the following hypothesis:

**H4a:** *Employees' extraversion is positively related to their resilience.*

This might be based on the suggestion that extraverted individuals show increased levels of help-seeking behavior (Kakhnovets, 2011). However, contrary to Kalinnikova et al. (2020), who showed that less-extraverted individuals tend to be more resilient when exposed to extreme stress, Wei (2020) suggested that the change of mode of work should be salient in this line of inquiry. Although this contradicts the general belief that more-extraverted individuals need social interaction to function “normally” (Lucas et al., 2008; ter Bogt, Engels & Dubas, 2006), we decided to test Wei’s (2020) assumption.

**H4b:** *Mode of work moderates the positive relationship between the personality trait of extraversion and resilience such that the basic relationship is more positive when employees work from home.*

### 3 METHODOLOGY

#### 3.1 Sample and collection of data

The survey was conducted online using the 1KA web-based survey tool. The survey was distributed via Facebook, Instagram, LinkedIn, and email randomly to different age groups. It was available from 18 June 2021 to 13 July 2021. A total of 421 people started participating in our survey, of whom 230 (55%) skipped the entry page and 161 (38%) started answering our questions but did not finish; only 127 (30%) surveys were completed in total. Of the 127 respondents, 81 were female and 45 were male. Most respondents (50%) were between the ages of 18 and 24, and the average age was 30.5 years. The education level of the respondents varied; 57 had completed high school, 39 had a bachelor’s degree, 27 had a master’s degree, and 2 had a professional degree. Regarding marital status, 71 respondents identified as single, 51 identified as married or cohabiting, one identified as widowed, and four identified as divorced. In terms of work status, 67 respondents were students, 53 had full-time jobs, one was retired, one was unable to work, and five were self-employed.

#### 3.2 Measurement

The research questionnaire consisted of 11 sets of questions, from which one set of questions involved mindset; one involved resilience; one involved personality traits; one involved job satisfaction; one

set contained four questions about work mode before, during, and after COVID-19; and another set of questions involved demographic data (including gender, age, education, marital status, employment status, monthly income, and years of work experience).

There were 10 statements in the question set measuring mindset, 10 statements measuring personality traits, six statements measuring resilience, and five statements measuring job satisfaction. With three sets of four statements, we measured the mode of work (i.e., office/physical location, hybrid system as rotation, hybrid system as working at the preferable destination, and work from home) before and during COVID-19, and the preferred mode of work in the future.

All the measuring scales were validated and checked beforehand, but for easier analysis, we converted the measuring scale from 5-point to 7-point Likert scales. In the quantitative part of the survey, each item was rated on a 7-point Likert scale from 1 for “strongly disagree” to 7 for “strongly agree.”

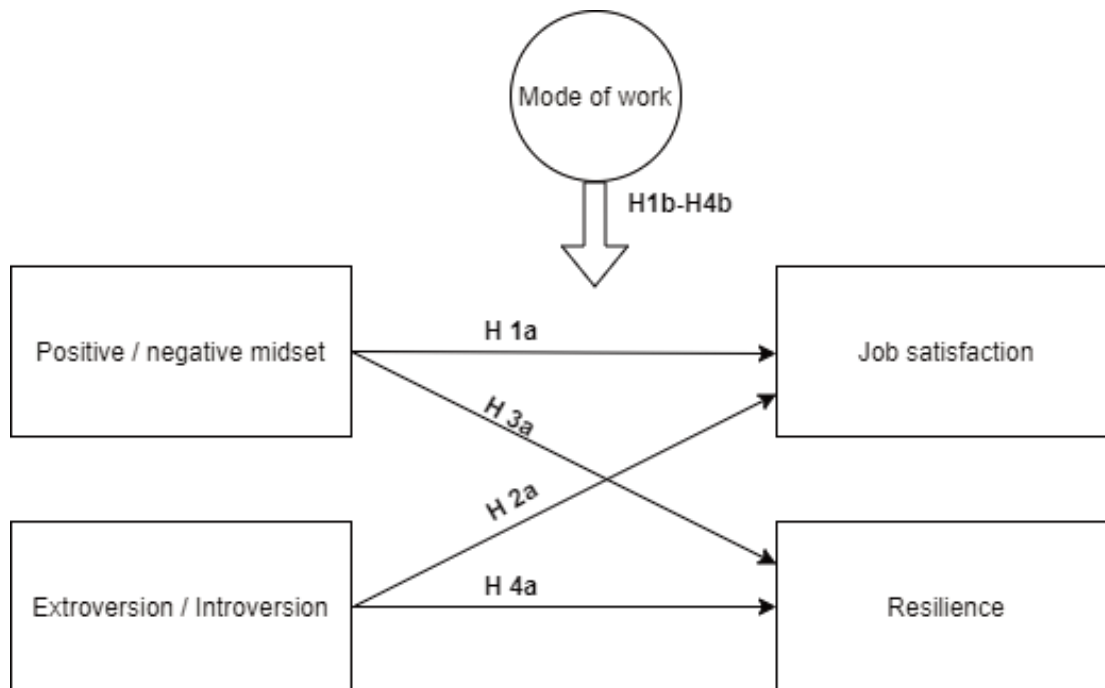
Scheier, Carver, and Bridges’ (1994) 10-item scale (Cronbach’s alpha = 0.546) was used to measure perceived mentality. Personality traits were measured using the 10-item scale (Cronbach’s alpha = 0.899) by Topolewska-Siedzik (2014). Job satisfaction was measured using the five-item scale (Cronbach’s alpha = 0.905). To measure resilience, we used the Brief Resilience Scale (BRS) (Cronbach’s alpha = 0.758), which consists of six items and was developed by Smith, Dalen, Tooley, Christopher and Bernard (2008).

To analyze the respondents’ work practises, we asked three questions about their primary work practises before COVID-19 and after COVID-19, and their preferred work practises in the future. For each of the three questions, there were four response options: office/physical location, hybrid - rotation, hybrid (being able to choose to work from home or in the office), and from home/remote.

#### 3.3 Research Model

In our research model, we hypothesized that job satisfaction and resilience can be predicted by mindset and personality traits. We assumed that the relationship between the variables is moderated by the conditional variable “mode of work.”

Figure 1: Research model with hypotheses



### 3.4 Procedure

To obtain an overview of the data, we first performed a descriptive analysis, obtaining the means, standard deviations (SDs), and Pearson correlation coefficients of our main variables. Then we conducted a multiple linear regression analysis to examine the relationships between extraversion and resilience, mindset and resilience, extraversion and job satisfaction, and mindset and job satisfaction. In addition, we conducted moderated regression using Model 1 in PROCESS macro version 3 (Hayes, 2018) to examine the moderating effect of mode of work on the basic association between the observed variables.

## 4 RESULTS

Through descriptive analysis in SPSS, we obtained the following data (Tables 1 and 2). From 148 valid answers ( $N = 148$ ) we obtained a general idea about the individuals' mindsets, indicating that our participants had, on average, more positive mindsets ( $M = 4.4572$ ). Standard deviations showed that all data were quite clustered ( $SD = 0.77789$ ).

For our measurement of extraversion, the number of valid answers decreased ( $N = 145$ ). The mean score was approximately in the middle of the extraversion spectrum ( $M = 4.1869$ ), yet the standard deviation was quite high, as expected, because people are different in terms of their extraversion ( $SD = 1.20521$ ).

In terms of job satisfaction, our participants ( $N = 132$ ) were more on the satisfied side ( $M = 5.3924$ ,  $SD = 1.06216$ ). Finally, for our last measured trait, resilience, which also had the fewest valid answers ( $N = 128$ ), the scoring was about average for our group of participants ( $M = 4.3346$ ,  $SD = 0.97149$ ).

Most respondents (32.3%;  $N = 127$ ) said that before COVID-19 they mostly worked from the office/physical location, and during the COVID-19 crisis, this percentage increased to 42%. Furthermore, 35% said their mode of work had not changed and that they liked it, but for future preferences, most participants said that they would prefer to work from the office/physical location again.

Table 1: Descriptive statistics

	N	Minimum	Maximum	Mean	Standard deviation	Skewness		Kurtosis	
						Statistic	Standard error	Statistic	Standard error
Age	127	2	5	3.02	1.198	0.685	0.215	-1.141	0.427
Employment	127	1	7	1.70	1.143	2.911	0.215	9.330	0.427
Income	127	1	6	3.16	1.883	0.167	0.215	-1.455	0.427
Job satisfaction mean	132	1.00	7.00	5.3924	1.06216	-1.453	0.211	3.603	0.419
Mindset mean	148	2.00	6.00	4.4572	.77789	-0.602	0.199	0.838	0.396
Personality mean	145	1.00	6.80	4.1869	1.20521	-0.219	0.201	-0.330	0.400
Resilience mean	128	1.00	6.67	4.3346	.97149	-0.246	0.214	1.288	0.425
Work mode before	127	1	4	1.45	.906	1.846	0.215	2.032	0.427
Work mode change satisfaction	127	1	4	2.13	.920	0.102	0.215	-1.168	0.427
Work mode during	127	1	4	2.65	1.313	-0.195	0.215	-1.721	0.427
Work mode wish	127	1	4	2.09	.968	0.251	0.215	-1.177	0.427
Valid N (listwise)	127								

Table 2: Symmetry measures

		Personality mean	Job satisfaction mean	Resilience mean	Mindset mean	Work mode during
N	Valid	145	132	128	148	127
	Missing	16	29	33	13	34
Skewness		-.219	-1.1453	-.246	-.602	-.195
Standard error of skewness		.201	.211	.214	.199	.215
Kurtosis		-.330	3.603	1.288	.838	-1.721
Standard error of kurtosis		.400	.419	.425	.396	.727
Range		5.80	6.00	5.67	4.00	3

In the next step, linear regression was conducted. The results are summarized in Table 3. Model 1 had mindset as a predictor and job satisfaction as the dependent variable), and Model 2 had personality as pre-

dictor and job satisfaction as the dependent variable. In Model 3, mindset was the predictor and resilience was the dependent variable. In Model 4, personality was the predictor and resilience was the dependent variable.

Table 3: Linear regression results

Model	R	R <sup>2</sup>	F	B-value	p-value
Model 1	0.364	0.133	19.888	0.481	0.000
Model 2	0.310	0.096	13.842	0.272	0.000
Model 3	0.455	0.207	32.902	0.545	0.000
Model 4	0.412	0.170	25.803	0.329	0.000



To test Hypothesis H1a, Model 1 with mindset as predictor and job satisfaction as the dependent variable had an  $R$ -value of 0.364 and  $R^2 = 0.133$ . Therefore, 13.3% of variation in job satisfaction could be explained by variation in mindset. However, the  $p$ -value, which means statistical significance, was 0.000. Hence, we can accept our hypothesis that employees' positive mindset is positively related to job satisfaction, and with a 1% increase in the mindset score, we would expect a 0.481% increase in job satisfaction.

In Model 2, testing the H2a hypothesis, with personality as the predictor and job satisfaction as the dependent variable, the  $R$ -value was 0.310 and  $R^2 = 0.096$ , meaning that only 9.6% of variation in job satisfaction could be explained by variation in the personality trait of extraversion. A  $p$ -value of 0.000 indicated statistical significance, and therefore with 1% increase in the personality trait of extraversion, we would expect a 0.272% increase in job satisfaction. Therefore we can accept our hypothesis that employees who are more extraverted are more satisfied with their job than those who are less extraverted.

Model 3, which tested Hypothesis H3a, had an  $R$ -value of 0.455 and  $R^2 = 0.207$ , meaning that 20.7% of variation in resilience can be explained by a variation in mindset. The  $p$ -value was 0.000, which means that there is a connection between mindset and resilience, and we can accept our hypothesis and say that employees' positive mindset is positively related to resilience. Based on our results, with a 1% increase in an individual's mindset, we can expect a 0.545% increase in the resilience score.

There appears to be a connection between the personality trait of extraversion and resilience as we predicted with Hypothesis H4a and as described in Model 4. The  $R$ -value for Model 4 was 0.412 and  $R^2 = 0.170$ , meaning that 17.0% of variation in re-

silience can be explained by variation of personality trait of extraversion. The  $p$ -value was 0.000, so we can accept our hypothesis that employees who are more extraverted are more resilient than the ones who are less extraverted. With a 1% increase in the personality trait of extraversion, we would expect a 0.329% increase in the resilience score.

Finally, the results of the analysis with the PROCESS macro modelling tool (Hayes, 2018) in SPSS are reported in Table 4. With mode of work during the COVID-19 lockdown set as a moderator, regressions were run. Model 1 had mindset as the independent variable and job satisfaction as the dependent variable, and in Model 2 the dependent variable was job satisfaction and the independent was the individual's personality traits (extraversion). In Model 3, the dependent variable was changed to resilience and the observed independent variable was mindset. In Model 4, personality trait (extraversion) was the independent variable and the dependent variable was resilience.

In our first hypothesis, we predicted that mode of work moderates the relationship between mindset and job satisfaction (H1b). The  $p$ -value for Model 1 (mindset and job satisfaction) was 0.2351, so we can reject Hypothesis H1b and say that mode of work does not moderate the positive relationship between employees' positive mindset and job satisfaction such that the basic relationship is more positive when employees work from home.

Next, we tested whether mode of work moderates the relationship between extraversion and job satisfaction (H2b). Model 2 (personality trait and job satisfaction) had a  $p$ -value of 0.5225, so we reject Hypothesis H2b that mode of work moderates the positive relationship between extraversion personality type and job satisfaction such that the basic relationship is more negative when employees work from home.

Table 4: Moderated linear regression

Model	$R$	$R^2$	$F$	$B$ -value	$p$ -value
Model 1	0.3804	0.1447	6.931	0.364	0.2351
Model 2	0.3206	0.1028	4.6978	0.310	0.5225
Model 3	0.5536	0.3065	18.1192	0.455	0.0021
Model 4	0.4940	0.2440	13.2337	0.412	0.1534

Our third hypothesis (H3b) tested whether mode of work moderates the relationship between mindset and resilience. Model 3, with mindset as the independent variable and resilience as the dependent variable, indicated statistically significant results, with a  $p$ -value of 0.0021. The  $R^2$  value indicates that about 30.65% of the variability in resilience can be explained by changes in mindset. Therefore, we can accept our hypotheses that an employee's positive mindset is positively related to resilience and that mode of work moderates the positive relationship between employees' positive mindset and resilience such that the basic relationship is more positive when employees work from home.

The fourth moderator hypothesis (H4b), Model 4, with personality traits (extraversion) as the independent variable and resilience as the dependent variable, had the second best significance, with a  $p$ -value of 0.1534. The  $R^2$  value indicates that extraversion could be accountable for 24.40% of the variability in resilience. Still, we have to reject the hypothesis that mode of work moderates the positive relationship between personality trait of extraversion and resilience.

## 5 DISCUSSION AND CONCLUSION

### 5.1 Interpretation of Findings

We systematically approached our goal and used different methods of research to determine if there are any existing connections between the individual characteristics (personality trait of extraversion and positive mindset) of employees and their job satisfaction and resilience. We also determined if mode of work as a moderator had any impact on those connections. Based on the obtained results, we can draw some conclusions. The descriptive statistics indicate that our sample was quite representative in terms of mean scores for each observed variable. Job satisfaction varies between countries—it is highest in India (79%) and lowest in Japan (42%); the value for Europe is about 73% (Randstad, 2021). The number of participants who had a mean score of five or higher indicates that 75% of them appear to be satisfied with their jobs. This again suggests that our sample is representative. Furthermore, 73 participants also scored above the mean

in extraversion, which represents an approximate middle of the extraversion scale spectrum; we could say that approximately 61% of participants can be classified as extraverts. This agrees with the general approximation that extraverts make up 50%–74% of the population (Buettner, 2012). Therefore, we can say that our sample is representative because the percentage of extraverts appears to be similar to that in real life.

Linear regression confirmed all our hypotheses and the existing connections between the observed variables. The strongest connections were between the individual's mindset and resilience ( $R^2 = 0.207$ ) and between the personality trait of extraversion and resilience ( $R^2 = 0.170$ ). However, PROCESS macro modelling using mode of work during COVID-19 as a moderator confirmed only the hypothesis that employees' positive mindset is positively related to resilience and that mode of work moderates the positive relationship between employees' positive mindset and resilience such that the basic relationship is more positive when employees work from home. Mode of work during COVID-19 was chosen because we were measuring job satisfaction, which is a dynamic parameter and is very situation-dependent. Therefore we had to use the current situation to obtain the best results. All the other hypotheses with mode of work during COVID-19 set as moderator were rejected. We found existing connections between observed variables. There appear to be stronger connections between mindset, extraversion and resilience, whereas job satisfaction was not connected strongly to any of those variables.

### 5.2 Theoretical Contributions

Our research provides some theoretical contributions in the field of extraversion and its effect on job satisfaction and resilience. We found that a weak connection between extraversion and job satisfaction. This means that other factors have more impact on job satisfaction, and, theoretically, a very introverted and a very extraverted individual could be equally satisfied with their jobs regardless of their mode of work. Because no significant connection was found between job satisfaction and extraversion with mode of work as moderator, we advance and contrast the findings of Huang et al.

(2016) by showing that more-extraverted individuals need more stimulation to be satisfied with their jobs. We confirmed the hypothesis that more-extraverted individuals tend to be more resilient than those who are less extraverted and we. We also reinforced what the has literature already suggested, that there is a strong connection between mindset and resilience. Our research also helps to fill the gap about the connections between mindset and job satisfaction, which was very scarce; we showed that there in fact is a weak connection.

### 5.3 Practical Contributions

As a practical contribution, we can say that managers need to encourage their employees to build a positive mindset, because this seems to strengthen the resilience we need in times of crisis. Furthermore, we rejected the hypothesis that mode of work moderates the positive relationship between extraversion personality type and job satisfaction, which means that actions regarding returning to the office after the COVID-19 epidemic has passed (or at least calmed down) require a more individualized approach than was thought. Therefore, managers will need to consult with their employees to make decisions, because our research found that less-extraverted individuals are not necessarily more likely to want to work from home.

### 5.4 Limitations

The first problem with the questionnaire we used was that it was too long, so our completion rate was very low. To improve this, we should have created a separate questionnaire from another research group to make it shorter, which probably would have given us a larger sample and thus a better insight into the phenomenon. In addition, we should have worded some of the questions better and added some additional questions to avoid possible bias and to determine whether other variables could have an impact on our research subjects. For example, we could ask participants if they recently have been exposed to very stressful events (e.g., the death of a relative, illness, failing a course, being fired, etc.). If so, this could be a factor affecting resilience, and we might therefore expect to see a

change in resilience scores. Furthermore, the timing of our survey could have been better. Because we conducted the survey just before the summer holidays, we could have expected that some of the employees might have been annoyed and not interested in our survey, or that their answers might have been biased. For example, if their boss gave them a bonus just before the holidays, they may have been more likely to say that they currently were very satisfied with their job than if they were surveyed at another time. The sampling method we used was not random; opportunity sampling was used, which had an effect on our sample, as is evident from the demographic information. Many of the participants were in the same age group as the researchers, and many of them said that they were still full-time students, which was not ideal for measuring job satisfaction, because they did not have experience or their experience was limited. From this perspective, we could improve our research by sending our survey directly to large companies, which would distribute it to their employees. Of course, we would have to be careful to include as many different industries as possible and determine if there are any differences between them.

### 5.5 Future Research

Our research raises some questions and points to some areas and issues that could be explored further. One possible issue is the impact of ambition on job satisfaction. Some research suggests that extraverts are more likely to respond to rewards than are introverts (Ashton, Lee & Paunonen, 2002; Lucas & Diener, 2000), which could mean that extraverts currently are more frustrated, because climbing the social ladder is seen as a reward. It would be interesting to test whether there is a correlation between individuals' personality traits and their ambitions in terms of how they respond to working from home and how it affects their job satisfaction. Next, we also could investigate whether the tasks that participants have to complete at their workplace correlate with their satisfaction. Previous research has shown that tasks that do not match personality traits and personal preferences can cause irritability, boredom, anxiety, and dissatisfaction (Edwards & Harrison 1993; Kristoff-Brown et al., 2005). The displacement

of these tasks as a result of the epidemic could lead to individuals being less satisfied with their jobs. Furthermore, we could determine whether certain areas are preferred by employees with different personality traits. In conducting this type of research, we also could examine the design of office spaces, because different people have different preferences for their workspace (Davis et al., 2011). Because introverts are more easily overstimulated by the environment, it would be interesting to see if the design of their current workspace affects their job satisfaction. Based on recent studies, we also could study whether less-extraverted people find the current form of remote work more satisfying than those who are more extraverted. In addition, current employer preferences and their impact on employee job satisfaction could be explored further. Aziz and Pangil (2017) found that individuals who are more extraverted and therefore “better at selling themselves” (Kristof-Brown et al., 2002) are more likely to be hired than are their introverted counterparts;

however, some studies suggest that introverts may outperform their extraverted counterparts in making risky decisions, yet they often are overlooked (Kuhnen & Chiao, 2009). Lastly, the aspect of resilience also could be included here, because introverted employees often feel excluded and overlooked (McCord & Joseph, 2020). Research here could include both perspectives—that of the employer, and that of the employee. We could study how well introverted employees perform under stress (taking safety precautions into account) and how they behave after making mistakes. This could be interesting, because Brebner and Cooper (1978) found that extraverts become faster after making a mistake, whereas introverts tend to pause and examine what happened to avoid making the same mistake in the future. Especially in times of uncertainty brought about by the pandemic, it would be interesting to observe how individuals with different personality traits deal with risk and how the mistakes they make affect their job satisfaction.

## EXTENDED SUMMARY/IZVLEČEK

Organizacije so v času pandemije COVID-19 iskale nove načine, kako prilagoditi ureditev dela in vpeljati različne pojavne oblike dela (npr. hibridno delo, delo na daljavo) ter ob tem ohraniti zadovoljstvo svojih zaposlenih. Ta članek je raziskal razmerje med osebnostnimi karakteristikami zaposlenih in njihovimi vplivi na trdoživost zaposlenih in zadovoljstvo pri delu. Študija je prav tako raziskala ali se ta razmerja razlikujejo v različnih pojavnih oblikah dela. Izsledki raziskave so pomembni za managerje, saj jim pomagajo razumeti povezavo med individualnimi karakteristikami zaposlenih in rezultati pri delu v okviru določene pojavnosti oblike dela.

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Berndt, T. J. (1981).

Berndt, T. J. (1999).

References that have the same first author and different second and/or third authors are arranged alphabetically by the last name of the second author, or the last name of the third if the first and second authors are the same.

For other examples, see the DRMJ website.