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**SELF-EFFICACY, CONTEXTUAL FACTORS AND WELL-BEING:
THE IMPACT OF WORK ENGAGEMENT**

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ÖZET

ÖZ-YETERLİK, ORTAMSAL FAKTÖRLER VE ESENLİK: İŞE GÖNÜLDEN ADANMANIN ETKİSİ

2000'li yılların başından bu yana, Pozitif Psikoloji'ye olan ilginin de artmasıyla, endüstri ve örgüt psikolojisi alanındaki pek çok araştırmacı, çalışanların esenliğini olumlu yönde etkileyen faktörleri saptayan çalışmalar üzerinde yoğunlaşmaktadır. Bu araştırmada, bir pozitif örgütsel davranış kavramı olan işe gönülden adanma'nın (work engagement) merkezinde bulunduğu İş Talepleri-Kaynakları Modeli (Job Demands-Resources Model; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) incelenmiştir. Son yıllarda bu model üzerine araştırmalar yapılmaya başlanmış ve sonucunda çeşitli ortamsal faktörlerin çalışanların işe gönülden adanmasını olumlu yönde etkilediği ve bunun hem çalışanlar, hem de şirketler açısından pek çok olumlu sonucu olduğu ortaya konmuştur. Ancak, özellikle son birkaç yıl içerisinde söz konusu modelin bir takım eleştirilere maruz kaldığı saptanmıştır. Bu eleştiriler de dikkate alınarak, ortamsal faktörlere ilaveten önemli bir kişisel kaynak olan öz-yeterliğin de işe gönülden adanma kavramı için bir öncel olabileceği düşünülmüş ve modelin motivasyonel süreci araştırmacı tarafından bu şekilde genişletilmiştir. Bu bağlamda, farklı kaynakların çalışanların işe gönülden adanmasını olumlu yönde etkileyeceği, bunun sonucunda işten ayrılma niyetinin azalacağı ve çalışanların işle ilgili esenliklerinin artacağı düşünülmüştür. Genişletilmiş şekliyle model Türkiye'de ilk defa geniş kapsamlı bir saha çalışmasıyla incelenmiştir. Model bu şekliyle farklı sektörlerde faaliyet gösteren 21 şirkette çalışan ve tümü beyaz yakalı olan 1033 çalışan üzerinde uygulanmıştır. Araştırmanın sonuçları, önemli bir kişisel kaynak olan öz-yeterliğin işe gönülden adanma üzerinde ortamsal faktörlerden daha güçlü bir etkiye sahip olduğunu ortaya koymuştur. Bunun yanı sıra, işe gönülden adanmanın bağımlı ve bağımsız değişkenler arasında (geribildirim dışında) önemli bir ara değişken olduğu kanıtlanmıştır. Ayrıca, ortamsal faktörler arasında, özerkliğin işe gönülden adanma üzerinde en güçlü etkiye sahip olduğu, amir desteğinin ise çalışanların işten ayrılma niyetini olumsuz yönde en güçlü olarak etkileyen ve işle ilgili esenlik duygularını en çok artıran faktör olduğu görülmüştür. Araştırmanın sonuçları, hem işe gönülden adanma kavramının çalışanlar ve şirketler için önemi açısından, hem de günümüz iş ortamında bu kavramın örgütlerde nasıl yaygınlaştırılabileceğiyle ilişkilendirilerek tartışılmıştır.

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ABSTRACT

SELF-EFFICACY, CONTEXTUAL FACTORS AND WELL-BEING: THE IMPACT OF WORK ENGAGEMENT

Since the beginning of the year 2000, in line with the growing interest in Positive Psychology, many researchers the area of industrial-organizational psychology have attempted to uncover those factors which positively affect employee well-being. In this study, the Job Demands-Resources Model (JD-R Model; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), which has the positive organizational behavior concept of work engagement at its core is examined. During the recent years, the results of the studies regarding this model showed that various contextual factors are positively related to work engagement, and this in return has positive consequences for both the employees and organizations. However, especially during the last few years, the JD-R model has been criticized due to the fact that it neglects the role of the person in explaining well-being. In line with these views, in our study, the motivational process of the model was expanded with the inclusion of the crucial personal resource of self-efficacy, which was hypothesized as a possible antecedent of work engagement. Moreover, it was also hypothesized that, different kinds of resources would positively affect employee work engagement, which would then be positively related to employee well-being and negatively related to turnover intention. Hence, for the first time in Turkey, the expanded motivational process of the JD-R Model is tested by means of a comprehensive fieldwork. More specifically, the expanded model is applied to 1033 white-collar employees working in 21 different companies from various sectors. The results showed that, compared to the contextual factors, the crucial personal resource of self-efficacy has a stronger impact on work engagement. Furthermore, it was seen that work engagement has a mediating effect between the independent and dependent variables (except for performance feedback). Moreover, among the contextual factors, job autonomy has the strongest influence on employee work engagement and supervisor support has the strongest negative relationship with turnover intention as well as the strongest positive relationship with employee well-being. The results are discussed in relation to the significance of work engagement for both employees and organizations and as to how this affective-cognitive state can be fostered in the modern workplace.

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The four years that have passed from the day I started my PhD have proven to be a most worthwhile journey in my life. Though in the end, it has proven to be a most rewarding one, this journey was by no means easy. True, it has thought me many things, but above all, it has me thought how precious it is to be surrounded by people who always made me feel “loved”, whose presence and support was always by my side, and with me have rode along this rollercoaster for four years.

Throughout these years, there were many weekends when writing my thesis was the priority and family, friends, and everything about the life outside was “on hold”. The day after I defended my thesis, my husband and I had a long lunch at our favorite restaurant and I felt that “outside” there was a different kind of life than the one I was accustomed to for the past few years... Now, I’m trying to get used to this new life! But as I look back on it, I think that I’ve grown at a different level through this experience. I’ve learned that there is always a way if you try hard enough, if you are committed enough and if you hold on tight enough. I have actually lived through the words I had once read and highlighted in my favorite OB book: “*There is no difficulty that cannot be overcome through sustained effort*”. Of course, this journey would not be half as much precious if I wasn’t surrounded with the most supportive circle of both family members and friends.

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ABBREVIATIONS

APA	American Psychological Association
COR	Conservation of Resources
DCS	Demand Control Support
EU	European Union
GWA	Gallup Workplace Audit
GSE	Generalized Self-Efficacy
HR	Human Resources
IT	Information Technology
JCT	Job Characteristics Theory
JD-R	Job Demands - Resources
KMO	Kaiser-Meyer-Olkin
NA	Negative Affect
NIOSH	National Institute for Occupational Safety and Health
OBSE	Organizational Based Self-Esteem
OHP	Occupational Health Psychology
PA	Positive Affect
POB	Positive Organizational Behavior
QWL	Quality of Work Life
TQM	Total Quality Management
US	United States

UWES

Utrecht Work Engagement Scale

“To explore the challenge to the human soul in organizations is to build a bridge between the world of the personal, subjective, and even unconscious elements of individual experience and the world of organizations that demand rationality, efficiency, and personal sacrifice . . . we must be willing to shift our viewpoint back and forth between what organizations want of people and what constitutes human complexity: the contradictory nature of human needs, desires, and experience” (Briskin, 1998, p. xii.).

1. INTRODUCTION

1.1. THE CHANGING NATURE OF WORK AND ITS CONSEQUENCES

In advanced industrial countries, the last twenty years have seen sweeping changes in the nature of work brought about by economic pressures of globalization and deregulation, by technological innovation, and by the growth of service and knowledge work. Responding to these forces, companies have restructured themselves, becoming flatter and smaller; new management policies, such as total quality management and self-managed teams, have been adopted; and leaner production processes, such as “just-in-time” and outsourcing, have been implemented (Sauter & Hurrell, 1999).

Along with these adjustments by industry, the conditions of work and employment have changed significantly: The demand for skilled or multi-skilled workers has increased with the growth of information technology and leaner, flexible manufacturing processes that require workers to perform multiple tasks. Supervisory conditions have changed with the introduction of teamwork, the evaporation of middle management, and the trend toward flexi-place or at-home work arrangements. Jobs have become less stable and secure. In addition, the number of hours worked per week continues to increase for all occupations (Judy & D’Amico, 1997).

These types of changes in the work environment have brought work organization to the forefront of concern in occupational health. A 1991 Europe-wide study of working conditions found that “The proportion of workers who complain from *organizational constraints* [italics added], which are in particular conducive to stress, is higher than the proportion of workers complaining from physical constraints” ([European Foundation for the Improvement of Living and Working Conditions, 1992, p.113](#)). Thus far, there has been insufficient research to ascertain the health and safety risks posed by these recent changes in the organization of work.

1.1.1. The Magnitude of the Problem

Trends in occupational illness and injury statistics in the last two decades suggest a pattern of effects consistent with intensified organizational stressors in the workplace.

For instance, a survey carried out in 2000 in the 15 Member States of the European Union (EU) found that more than half of the 160 million workers report working at very high speeds (56%) or to tight deadlines (60%) for at least one quarter of their time. More than one third have no influence on task order; 40% report having monotonous work (Iavicoli, 2004).

These work-related stressors are likely to contribute to the health problems reported by the workers: 15% of the working population in the EU complained of headache, 23% of neck and shoulder pains, 23% of fatigue, 28% of stress and 33% of backache. Almost one in ten workers reported being subjected to intimidation at the workplace (Paoli & Merllie, 2000). A recent international survey among key stakeholders in the new EU Member States and the candidate countries revealed that almost 90% of the respondents stated that in their countries stress is considered a cause of disease, and that stress and mobbing result from poor work organization (Iavicoli, 2004).

Data from the individual Member States are disturbing. In Austria, 1.2 million workers reported suffering from work-related stress associated with time pressure. In

Denmark, 8% of employees reported being ‘often’ emotionally exhausted. In Germany, 98% of work councils claimed that stress and pressure of work had increased in recent years and 85% cited longer working hours. In Spain, 32% of workers described their work as stressful. In Sweden, 9 out of 10 white-collar workers reported working against the clock in their daily tasks, and 40% skipped lunch breaks (Koukoulaki, 2004).

In the United States for instance, an estimated 3.3 million workers are treated for occupational injuries yearly, and over 5,000 workers die each year from injuries sustained on the job ([Centers for Disease Control and Prevention, 1998](#)). In addition, an estimated 862,000 workers are afflicted by occupational illness annually, and an estimated 50,000–60,000 workers die from occupational illnesses each year ([Leigh, Markowitz, Fahs, Shin, & Landrigan, 1997](#); [Rosenstock, Olenec, & Wagner, 1998](#)).

In Turkey, every year approximately 16 out of 1000 people are formally diagnosed of occupation-related health issues. Turkish Ministry of Labor officials estimate that every year about 20.000 to 60.000 cases of occupational diseases and accidents are in fact left undiagnosed and that each year, more than 6.000 disability cases and 2.000 deaths are reported due to occupational health problems (T.C. Sağlık Bakanlığı, Ankara Meslek Hastalıkları Hastanesi, 2006). According to the International Labor Organization’s statistics, in the year 2006 (the most recent year in the database), there were a total of 3.868 reported injuries. Out of these, 1.601 were fatal and 2.267 were non-fatal cases. Also for this year, 1.849.016 working days were lost due to temporary incapacity caused by these injuries (<http://laborsta.ilo.org>).

1.1.2. Costs to Societies:

In the 15 Member States of the pre-2004 EU, the cost of stress at work and the related mental health problems is estimated to be on average between 3% and 4% of gross national product, amounting to €265 billion annually (Levi, 2002). Studies estimate that work-related stress alone costs the businesses and governments of those countries

about €20 billion in absenteeism and related health costs, in addition to the price of lower productivity, higher staff turnover, and reduced ability to innovate (Konkolewsky, 2004).

In the United Kingdom in 2000, one in five workers was ‘extremely’ or ‘very’ stressed as a result of occupational factors. Stress-related diseases are responsible for the loss of 6.5 million working days each year in the United Kingdom, costing employers around €571 million and society as a whole as much as €5.7 billion (Koukoulaki, 2004).

In Sweden in 1999, 14% of the 15.000 workers on long-term sick leave said the reason was stress and mental strain. The total cost of sick leave to the state in 1999 was 2.7 billion. In the Netherlands in 1998, mental disorders were the main cause of incapacity (32%) and the cost of work-related psychological illness is estimated to be €2.26 million a year (Koukoulaki, 2004).

1.2. OCCUPATIONAL HEALTH PSYCHOLOGY

There has always been some interface between the fields of psychology and occupational health. However, with only a few exceptions (e.g., studies in human factors–ergonomics and industrial fatigue), the interface has been limited until recent years. In the last several decades, though, numerous developments have helped to define a broader role for psychologists in the occupational safety and health field. For example, the growth of the workplace wellness movement in the 1960s and 1970s ([Glasgow & Terborg, 1988](#); [Gebhardt & Crump, 1990](#)) led to the involvement of psychologists in the design and delivery of employee assistance, stress management, and health promotion (employee fitness, health screening, health education) programs in the workplace.

But perhaps most important in bringing psychology into the occupational safety and health field, and providing the cornerstone for the emerging area of occupational health psychology (OHP), are several interrelated developments: (a) the growth of and recognition of stress-related psychological disorders as a costly occupational health problem; (b) the growing acceptance that psychosocial factors play a role in the etiology

of emergent occupational safety and health problems, such as upper extremity musculoskeletal disorders; and (c) recent and dramatic changes in the organization of work that foster both job stress and health and safety problems at work.

The main promise for psychology is in primary prevention, through better understanding and control of organizational risk factors for illness and injury. This emphasis on primary prevention and work organization is consistent with the perspective by [Raymond, Wood, and Patrick \(1990\)](#) who can be credited with first conceptualizing the OHP field. In advocating for the training of psychologists in occupational safety and health, Raymond et al. asserted the following:

“Beyond the basics of assuring that adequate mechanisms exist to deal with the negative consequences of work stress, the [psychology] profession has a responsibility to take on a more proactive role in advocating and developing healthful environments and policies that will ... prevent work stress.” (p. 1159)

1.2.1. Early Studies in Work Organization and Health

Organizational Health Psychology is embedded in many disciplines, and its beginnings can be traced to events early in this century in the fields of industrial–organizational and human factors psychology. In Great Britain during World War I, for example, the Industrial Fatigue Research Board (later named the Industrial Health Research Board) was organized to investigate fatigue and efficiency in relation to working hours, rest break schedules, and other aspects of job design ([Tiffin & McCormick, 1965](#)).

Antecedents of OHP can also be clearly seen in the work of [Mayo \(1933, 1945\)](#) and [Roethlisberger and Dickson \(1939\)](#), which began in the 1920s and paved the way to what was to become known as the “human relations” school of management. This school of thought held that the increased routinization and de-skilling of tasks brought about by the industrial revolution and scientific management principles ([Taylor, 1911](#)) created a threat to the well-being of both the worker and the organization.

Fueled by works such as those of [Eli Chinoy \(1955\)](#) and [Arthur Kornhauser \(1965\)](#) on physical and mental health problems among automobile (assembly line) workers, organizational theorists in the 1950s and 1960s became increasingly concerned about the impact of the job and the organization on the employee. These concerns soon became something of an international social movement, focusing the interest of management, labor, and governments on the satisfaction and health of the workforce (Sauter & Hurrell, 1999).

Interest in so-called psychosocial aspects of work flourished in the 1970s. The term *Quality of Work Life* (QWL) was also initially introduced in the late 1960s as a way of focusing on the effects of employment on worker health and general well-being, and ways to enhance the quality of a person's on-the-job experience (Bowditch & Buono, 1997). QWL is a way of ensuring adequate and fair compensation, safe and healthy working conditions, opportunities for personal growth and development, satisfaction of social needs at work, protection of employee rights, compatibility between work and non-work responsibilities, and the social relevance of work life. Some of the first stirrings of current interest in QWL occurred in Scandinavia when several automobile companies, notably Volvo, realized that to reduce turnover and to attract a "new breed" of workers into their plants, they had to make work more interesting and varied. The first QWL experiments as such occurred in the United States during the late 1960s and early 1970s. These efforts represented the work of organizational development specialists who posited that giving workers more say and putting the design of the social side of the enterprise on an equal terms with the technical side would produce results for both management and workers. This led to experimentation with semi-autonomous work teams at places such as Rushton (a small coal mine), or to opportunities for advanced education during working hours such as were provided at the Bolivar plant of Harmon International, an auto parts supplier (Zager & Rosow, 1985).

In the late 1960s, the U.S. Department of Labor, in collaboration with the National Institute for Occupational Safety and Health (NIOSH) and other organizations, sponsored the Quality of Employment Surveys, conducted by the University of Michigan. These national surveys in 1969, 1973, and 1977 enabled the first comprehensive studies in the

United States linking work organization to the safety, health, and well-being of workers ([Quinn & Staines, 1978](#)).

Parallel forces and research were clearly afoot in Scandinavia during the 1970s and can be seen in the works of Bertil Gardell and Lennart Levi (e.g., [Gardell, 1971](#); [Levi, 1971](#)). One of the most visible products of this line of research is the extensive body of recent studies of job demands and cardiovascular disease ([Karasek & Theorell, 1990](#)).

Spurred in part by the dramatic increase in worker compensation claims for job stress in the 1980s, NIOSH subsequently recognized stress-related psychological disorders as a leading occupational health risk ([Millar, 1984](#)) and proposed a national prevention strategy to address this growing problem ([Sauter, Murphy, & Hurrell, 1990](#)). At about the same time, work organization problems and job stress were increasingly implicated in the etiology of other new occupational health concerns (e.g., upper extremity musculoskeletal disorders and indoor air quality complaints). These developments supported the NIOSH program on job stress and served as the platform for current initiatives by APA (American Psychological Association) and NIOSH to promote the field of OHP.

1.2.2. Health and Safety Implications

As envisioned by NIOSH and APA, a main imperative for the field of OHP is to advance knowledge and expertise regarding organizational factors that threaten worker safety and health. This suggested disciplinary focus does not disregard individual-level risk factors, such as lifestyle, health behavior, coping, attitudes, personality, and so forth (which predominantly reflect the domain of health psychology), but it puts a premium on applying psychology to better understand the influence of workplace *environmental* stressors on worker safety and health. To help steer the OHP field in this direction, which is consistent with priorities in public health, the following definition of OHP was proposed by NIOSH: “Occupational Health Psychology concerns the application of psychology to improving the quality of work life, and to protecting and promoting the

safety, health and well-being of workers”. Framed in this fashion, this definition puts special emphasis on contributions that psychology could make toward primary prevention; first and foremost through health protection - reducing exposure to workplace risk factors for illness and injury by improving working conditions, and second through health promotion - equipping workers with the knowledge and resources to improve their own health and thereby resist hazards in the work environment (Sauter & Hurrell, 1999).

OHP builds on a strong foundation of behavioral science concepts and principles (Quick, 1999). OHP is an interdisciplinary, cross-functional field that attempts to break down traditional boundaries, broadening knowledge across a number of specialty areas within psychology (such as health, organizational, clinical, and social) and across a number of allied behavioral sciences (such as public health, management, medicine, and safety). As depicted in Figure 1, this discipline merges theoretical foundations and principles of practice from these diverse areas to develop professionals who are prepared to meet the growing challenges of working with people in an increasingly complex organizational environment (Schneider, Camara, Tetrick, & Stenberg, 1999).

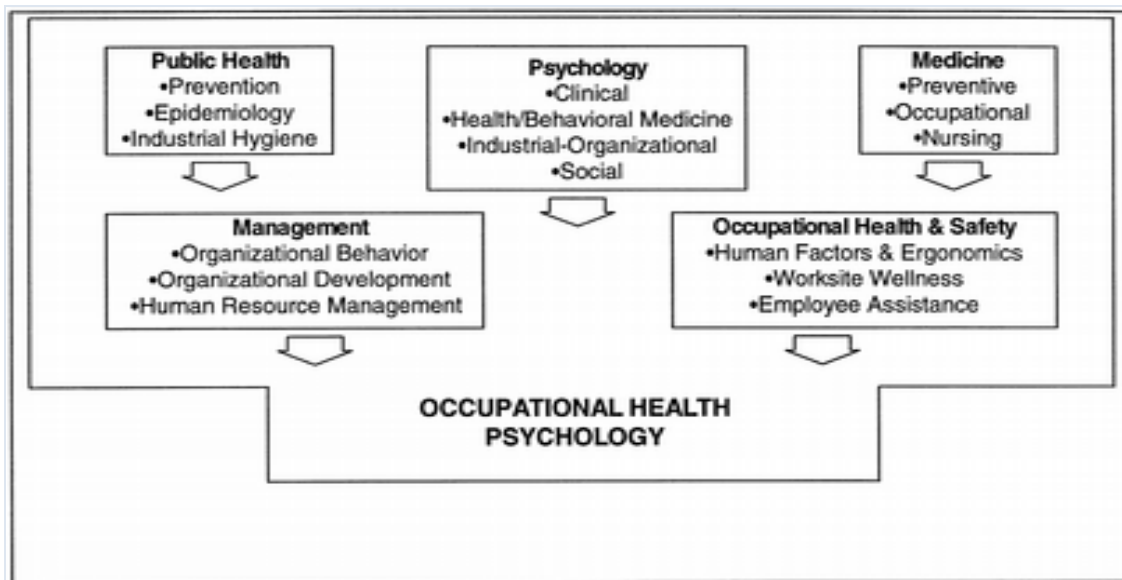


Figure 1. Systems of Knowledge and Practice Integrated within Occupational Health Psychology (Adkins, 1999)

In principle, OHP complies with the World Health Organization definition of health as a state of complete physical, mental and social well-being. However, in practice OHP adopts a traditional disease model that primarily focuses on fixing what is wrong, as opposed to developing what is right. For instance, a simple count reveals that over 90 per cent of the articles in the *Journal of Occupational Health Psychology* concern problems such as cardiovascular disease, labor accidents, burnout, workplace violence, work–home interference, bullying, and substance abuse (Schaufeli, 2004). Hence, despite the fact that important work has been on positive concepts such as job satisfaction, intrinsic motivation, social support, and work-related self-esteem, OHP is basically about ill-health. Since the turn of the century, a new trend towards a “positive psychology” has emerged that focuses on human strengths and optimal functioning, rather than on weakness and malfunctioning. Meanwhile, the relevance of this trend is also acknowledged for OHP (Wright & Copranzano, 2000; Wright, 2003). A radical shift in paradigm from a disease model towards a truly health model would open an entirely new and promising field of research including positive emotions (happiness, joy, pleasure, pride), effective ways of coping, resilience, authenticity, flow, engagement, hope, optimism, and self-determination. The traditional utilitarian approach in OHP that considers workers as a means to the desired end of higher organisational productivity needs to be supplemented by a genuine occupational *health* psychological perspective that considers the pursuit of workers’ happiness, health, and betterment as legitimate goals and ends in themselves (Schaufeli, 2004).

1.2.3. An Emerging Trend: Positive Psychology and Positive Organizational Behavior

The purpose of positive psychology ‘is to begin to catalyze a change in the focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities. Relatedly, but adopting a more utilitarian, cost-benefit perspective emphasizing the goal of enhanced workplace performance, Luthans (2002a, 2002b) clearly noted the need for a more relevant, proactive approach to organizational research, which he termed Positive Organizational Behavior (POB). More specifically,

Luthans (2003, p. 179) defined POB as ‘the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace’.

Such a definition of POB would seem to incorporate many existing Organizational Behavior concepts from the domains of attitudes, personality, motivation, and leadership. The concepts of confidence/self-efficacy, hope, optimism, subjective well-being and emotional intelligence especially meet the criteria for being included in POB by being positive, relatively unique to organizational behavior, measurable, and capable of being developed and managed for performance improvement in today’s workplace (Luthans, 2002a).

Demonstrating the desperate need for a POB approach, Luthans (2002b), in a computer search of contemporary literature in psychology, found approximately 375,000 articles on ‘negatives’ (i.e., mental illness, depression, anxiety, fear and anger), but only about 1000 articles about various positive concepts and capabilities of people. This constitutes a negative/positive publication ratio of approximately 375 to 1. These alarming findings are even more perplexing when one considers that Maslow (1954) first introduced the term ‘positive psychology’ almost 50 years ago. Maslow also noted that the ‘behavior of the healthy person is less determined by anxiety, fear, insecurity, guilt, shame, and more by truth, logic, justice, reality, fairness, fitness, beauty and rightness (1954, p.377).

While the utilitarian perspective - which focuses on the anticipated consequences of the particular action, with special emphasis on efficiency- has definitely provided a significant value-added for those interested in the ‘bottom line’ for business success, it has been much less articulate in proposing an agenda to proactively assist employees in their pursuit of healthier and more meaningful lives.

Thus, more than just considering employees as a means to the desired end of higher organizational productivity, to make a truly valuable contribution to the field, the

mission of POB must also include the pursuit of employee happiness, health, and betterment issues as viable goals or ends in themselves. POB must consider issues of employee betterment as intrinsic goods for which all should work and strive.

Especially during the recent years, the enhancement of work-related well-being has become a main concern to work and occupational health psychologists (Schabracq, Jacques, Winnubst, & Cooper, 2003). Although plenty of empirical evidence has been gathered over the years regarding the causes and consequences of employee wellness, a robust theoretical model is still missing (Cotton, Dollard, & De Jonge, 2006). This is mainly because scholars have relied on dominant theoretical models (Karasek, 1979; Siegrist, 1996) that provide some understanding of work-related well-being, but, due to their simplicity, do not manage to capture the complexity of working life (Halbesleben & Buckley, 2004).

In an attempt to overcome this theoretical shortcoming, a new model has recently been developed, the Job Demands-Resources (JD-R) Model (Demerouti, Bakker, Nachreiner, & Scahufeli, 2001). The JD-R model is a heuristic model that specifies how health impairment and motivation or involvement in any organization may be produced by two specific sets of working conditions.

1.3. THE JOB DEMANDS RESOURCES MODEL

The JD-R model (Demerouti et al., 2001) emerged from dominant models like Karasek's (1979; 1998) Demand-Control-Support (DCS) Model, and Hackman and Oldham's (1975) Job Characteristics Model, which exclusively focus on the role of the work environment in determining employees' adaptive functioning at work. The JD-R model uses these approaches as a starting point, and suggests that work characteristics are the main determinants of employee well-being. One central assumption of the JD-R model is that, although every occupation may have its own specific work characteristic associated with burnout, it is still possible to model these characteristics in two broad categories – namely job demands and job resources.

Job demands refer to those physical, psychological, social or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and are therefore associated with certain physiological and psychological costs. Examples are high work pressure, role overload, emotional demands, and poor environmental conditions.

Job resources on the other hand, refer to those physical, psychological, social or organizational aspects of the job that (1) are functional in achieving work goals; (2) reduce job demands and the associated physiological and psychological costs; or (3) stimulate personal growth and development. Accordingly, job resources are necessary to deal with job demands, but they are also important in their own right, as they play a crucial motivating role. Resources may be located at the level of the organization (e.g., salary, career opportunities, job security), interpersonal and social relations (e.g., supervisor and co-worker support, team climate), the organization of work (e.g., role clarity, participation in decision making), and the level of the task (e.g., performance feedback, skill variety, task significance, task identity, autonomy). In fact, these latter job resources are the core job dimensions included in Hackman and Oldham's (1975) well-known Job Characteristics Model. These researchers have argued and shown that these job characteristics have motivational potential because they make employees' work meaningful, hold them responsible for work processes and outcomes, and provide them with information about the actual results of the work activities (Hackman & Oldham, 1980).

1.3.1. Two Processes of the JD-R Model

According to the JD-R model, job demands and job resources initiate two different and independent processes, and thus have differential predictive value with regard to employee well-being. Initially, the model was applied to predict negative well-being, namely burnout (Demerouti et al., 2001). In the words of Maslach and Leiter (1997, p.17), "burnout is the index of the dislocation between what people are and what

they have to do. It represents an erosion in values, dignity, spirit and will – an erosion of the human soul”. Burnout is operationalized as a three-dimensional syndrome of exhaustion, cynicism towards work, and reduced professional efficacy, occurs among individuals in their work environment (Maslach, Jackson, & Leiter, 1996). *Exhaustion*, the most obvious manifestation of burnout, refers to energy depletion and is characterized by severe physical, mental, and emotional fatigue. *Cynicism* points to the development of negative, indifferent, and cynical attitudes toward one’s job. Finally, *lack of professional efficacy* is the tendency to evaluate one’s work negatively. It is believed that the objectives are not achieved, which is accompanied by feelings of insufficiency and poor professional self esteem (Schaufeli, 2007).

Thus, according to the JD –R model, in the first process, poorly designed jobs or high job demands (e.g., work overload, emotional demands) may exhaust employees’ mental and physical resources and may therefore lead to the depletion of energy (i.e., a state of exhaustion) and to health problems (e.g., Demerouti et al., 2000, 2001; Lee & Ashforth, 1996) (health impairment hypothesis). In the second process proposed by the JD-R model, a lack of job resources precludes actual goal accomplishment, which causes failure and frustration (Bakker, Demerouti, & Schaufeli, 2003).

Hence, the JD-R model proposes that burnout may be caused by a wide variety of different aspects of the work environment, which can be integrated into a relatively simple model shown in Figure 2. That is, exposure to job demands (duration and frequency) and lack of resources are predictive of burnout. More specifically, according to the JD-R model, the development of burnout follows along two lines. Following the first process, demanding aspects of work (e.g., work overload, physical job demands) may lead to exhaustion. According to the second process, a lack of resources (e.g., autonomy, performance feedback) causes failure and frustration. The long-term consequence of this frustration is disengagement from work (cynicism) and a reduced sense of professional efficacy.

Previous studies have found relationships between human service burnout (particularly cynicism) and poor job resources such as lack of social support (e.g., Leiter, 1991; Leiter & Maslach, 1988), skill underutilization (e.g., Leiter, 1990), low job control (e.g., De Jonge & Schaufeli, 1998; De Rijk, Le Blanc, Schaufeli, & De Jonge, 1998), and poor performance feedback (e.g., Maslach & Jackson, 1986). Again, in earlier studies among employees in various occupations, exactly the same resources have been related to a wide range of withdrawal reactions, such as reduced organizational commitment, turnover, and alienation (Buunk, De Jonge, Ybema, & Wolff, 1998; Kahn & Byosiene, 1992).

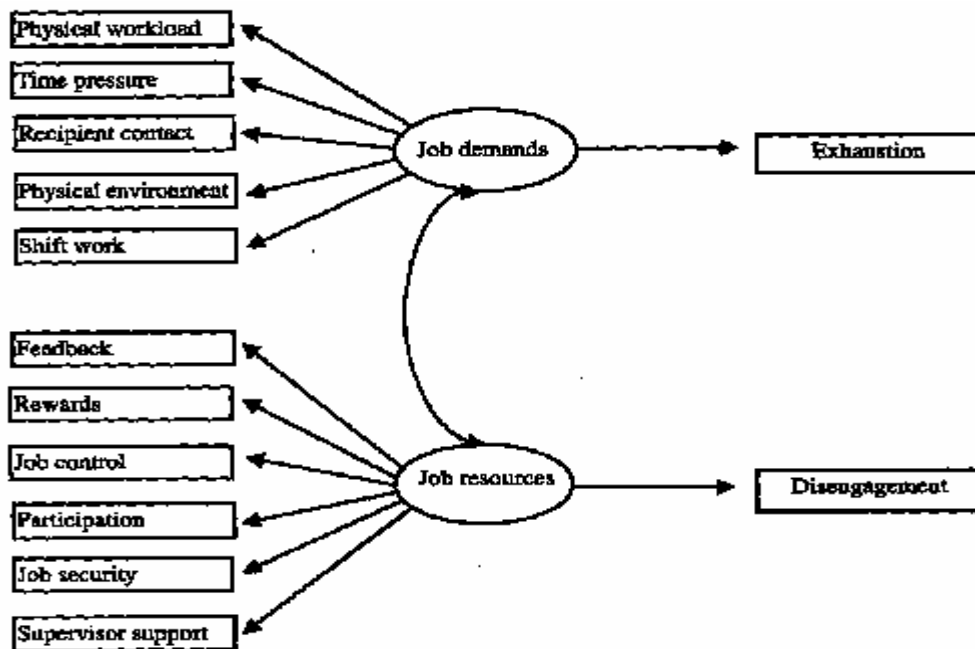


Figure 2. The Job Demands – Resources Model (Demerouti et al., 2001)

1.3.2. Extending the JD-R Model

There is abundant evidence that in the course of their careers, many employees experience a great deal of job stress that may include exhaustion, disengagement and health complaints, as a result of a demanding and emotionally charged work environment (Schaufeli & Greenglass, 2001; Schwarzer & Kleiber, 1996). These experiences, in turn,

may lead to poor performance, personnel turnover, and high levels of absenteeism. Consequently, for more than two decades, clinical observations have been made and empirical research has been conducted on this phenomenon called burnout.

However, to date, relatively little attention has been paid to concepts that might be considered opposites of burnout. An exception is ‘psychological presence’ or ‘to be fully there’, a concept that emerged from role theory and is defined as an experiential state that accompanies ‘personally engaging behaviors’ that involve the channeling of personal energies into physical, cognitive, and emotional labors (Kahn, 1990).

1.4. ENGAGEMENT

1.4.1. The Meaning of Engagement

Symbolized by the images of marriage, engagement is associated with the active participation and investment of an individual’s whole person - not only parts - into role performance. In the context of the workplace, engagement takes on a specific meaning. Within organizations these interactions manifest themselves in the contract of employment wherein employees promise their services to their employer, commit themselves to their job, and undertake the obligations of employment. Employees assume and embrace roles within organizations by investing their energies into these roles. In turn, they become attached to and are absorbed in the roles they perform.

Goffman (1959) was one of the first to use the term “embracement” to describe the investment of self and energy into one’s role. For Goffman, role embracement involved an admitted or expressed attachment to the role and an active engagement or spontaneous involvement in role activity; that is a visible investment of attention and effort (Goffman, 1959). Behaviors that signify a lack of separation between a person and a role were indicative of role embracement, whereas behaviors that separated a person from a disdained role indicated role distance. To explain the concept, Goffman (1959) contrasted a police officer directing rush hour traffic, dancing with his arms and legs and

blowing his whistle, as high role embracement. In contrast, a young man expressed role distance from his merry-go-round attendant job through inattentiveness and gestures such as yawning.

Using Goffman's view of role embracement, Kahn (1990) established a theoretical framework to understand where and why individuals invest varying degrees of themselves in work role performance. Through ethnographic interviews, Kahn explored engagement and disengagement among two groups of workers: counselors at a summer camp in the Caribbean and members of an architectural firm. Kahn explored conditions at work where people were personally engaged, i.e., expressed and employed their personal selves, or were disengaged and withdrew and defended their personal selves. From this, Kahn developed a definition of engagement to include "the simultaneous employment and expression of a person's 'preferred self' in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional), and active, full role performances" (Kahn, 1990, p.700). For Kahn, the individuals' engagement in their role was manifested by the investment of themselves along the above mentioned three dimensions. Implicit in this definition is the notion that the individuals' engagement is reflected by the investment of personal energies into their role, which can vary according to the contextual factors or requirements of the role. To illustrate this concept, Kahn (1990) described a diving instructor who exhibited moments of engagement with all three dimensions during a diving expedition. Kahn reported that the instructor employed himself *physically*, by checking supplies and leading the dive; *cognitively*, by being cautiously aware of divers, weather, and marine life; and *emotionally*, by his enthusiasm and empathy for the young divers who were both excited and fearful.

Hence, Kahn's (1990) premise is that people have dimensions of themselves that, given appropriate conditions, they prefer to use and express in the course of role performances. To employ such dimensions is to drive personal energies into physical, cognitive, and emotional labors. Such self-employment underlies what researchers have referred to as effort (Hackman & Oldham, 1980), involvement (Lawler & Hall, 1970), flow (Csikszentmihalyi, 1982), mindfulness (Langer, 1989), and intrinsic motivation

(Deci, 1975). To express preferred dimensions is to display real identity, thoughts, and feelings. Self-expression underlies what researchers refer to as creativity (Perkins, 1981), the use of personal voice (Hirschman, 1970), emotional expression (Rafaeli & Sutton, 1987) and authenticity (Baxter, 1982).

Consequently, according to the above-mentioned qualitative study conducted by Kahn (1990), three conditions influence an individual's personal engagement: meaningfulness, safety, and availability. *Experienced meaningfulness* is a feeling that one is valued for his or her work. In addition, one feels that his or her job is important and challenging. The degree of meaningfulness experienced is influenced by task interactions, work roles and work interactions, much like Hackman and Oldham's (1980) job characteristics. Jobs are more meaningful if they are challenging, include skill variety, and facilitate a sense of autonomy. Additionally, jobs that offer work roles which fit with how one wants to be viewed will lead to an experience of meaningfulness (Kahn, 1990). Lastly, jobs that include interpersonal interactions that promote a sense of dignity and professionalism will lead to greater meaningfulness (Kahn, 1990).

Safety is experienced when individuals can openly express themselves in their work roles. Furthermore, safety is experienced when expressing oneself will not jeopardize his or her ability to keep his or her job, maintain good reputations, and continue to feel a sense of self-worth. The amount of safety one experiences is influenced by interpersonal and organizational variables. These variables include 1) the relationships one has with his or her coworkers, supervisors, and subordinates, 2) the biases that occur within and between different work groups, 3) the procedures and interactions developed by management, and 4) the cultural norms of the organization (Kahn, 1990).

In addition to meaningfulness and safety, an individual must feel that he or she has enough mental, social, emotional, and physical resources available to engage himself in a work role (Kahn, 1990). This *sense of availability* might vary at different times and is influenced by the amount of physical and emotional energy one has. In addition, a sense

of availability is influenced by the different work/life demands with which one must cope (Kahn, 1990).

Kahn (1990) provided a good theoretical framework for studying personal engagement. The relationships found between each condition (i.e., meaningfulness, safety, availability) and personal engagement provided support for the study of antecedents in relation with personal engagement. However, although Kahn presents a comprehensive theoretical model of psychological presence, he does not propose an operationalization of the construct.

1.4.2. The Emerging Positive Organizational Behavior Concept: Work Engagement

A recent trend that emerged in burnout research points to a shift towards its opposite: job engagement. Thus, instead of looking exclusively to the negative pole, researchers recently extended their interest to the positive pole of workers' well-being. Seen from this perspective, burnout is rephrased as an erosion of engagement with the job. This development reflects the emerging trend towards a 'positive psychology' that focuses on human strengths and optimal functioning rather than on weaknesses and malfunctioning (Seligman and Csikszentmihalyi, 2000). Therefore, over the years, and influenced by the ideas of positive psychology (Seligman & Csikszentmihalyi, 2000), the JD-R model has been extended to a more comprehensive approach that does not restrict itself to employees' malfunctioning (i.e. burnout), but also includes work engagement (Schaufeli & Bakker, 2004).

1.4.2.1. The Definition of Work Engagement

There are two different schools of thought on the relationship between burnout and engagement. Maslach and Leiter (1997) assume that burnout and engagement are two opposite poles of one continuum. They rephrased burnout as an erosion of engagement with the job, whereby energy turns into exhaustion, involvement turns into cynicism, and

efficacy turns into ineffectiveness. Thus, in their view, engagement is characterized by energy, involvement and professional efficacy, which are the direct (perfectly inversely related) opposites of the three burnout dimensions. Consequently, low scores on the exhaustion and cynicism scales and high scores on the professional efficacy scale of the Maslach Burnout Inventory – General Survey (Maslach et al., 1996) would be indicative for engagement.

The second school of thought agrees with the assertion that work engagement is the opposite of burnout, but defines and operationalizes engagement in its own right (Schaufeli & Bakker, 2004). A separate operationalization of work engagement enables an investigation of situations in which employees are low (or high) on both burnout and engagement. For example, it is conceivable that employees in certain low demand–low responsibility jobs are not burned-out, but this does not necessarily mean that they are highly involved in their work (engaged). Thus, burnout and engagement are principally considered to be independent states. Yet, it is expected that, empirically speaking they are moderately high and negatively related.

Subsequently, in line with the second school of thought, Schaufeli, Salanova, Gonzalez-Roma, & Bakker (2002) define work engagement as a “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (p. 72). *Vigor* refers to high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulties. *Dedication* is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge at work. *Absorption* consists of being fully concentrated, happy, and deeply engrossed in one’s work whereby time passes quickly, and one has difficulty detaching oneself from work. Recent studies using confirmatory factor analysis have demonstrated a three-factor model of work engagement (Demerouti et al., 2001; Schaufeli & Bakker (2004) and Salanova, Agut, & Peiro, 2005).

This extension of the JD-R model to a more comprehensive framework that captures both positive and negative aspects of well-being resulted in a further refinement

of its main premise. Accordingly, job demands and job resources are important because they evoke two relatively independent processes, which determine well-being at work. Based on the first, *health impairment process*, high job demands exhaust employees' mental and physical resources and may therefore lead to energy depletion (Demerouti et al., 2001; Maslach, Schaufeli, & Leiter, 2001). For instance, the experience of a chronically high workload and time pressure may exhaust employees to such a degree that they are not able to attain their work goals anymore. In contrast, according to the *motivational process of the refined JD-R model*, job resources, due to their motivational potential, cause employees to meet their work goals, and in turn, may lead to work engagement. For example, quality supervisory feedback may foster learning, but may also increase the likelihood of reaching one's work goals successfully. In either case, the presence of feedback leads to work engagement, while its absence evokes negative attitudes towards work (e.g., cynicism).

1.5. ANTECEDENTS OF WORK ENGAGEMENT: CONTEXTUAL FACTORS

Mowday and Sutton characterize context as “stimuli and phenomena that surround and thus exist in the environment external to the individual, most often at a different level of analysis” (1993, p.198). They go on to describe context as consisting of constraints versus opportunities for behavior, proximal versus distal stimuli, and similarity versus dissimilarity among organizational members. Johns (2006) defines context as situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables. Johns also elaborates that context can serve as a main effect or interact with personal variables such as disposition to affect organizational behavior and thus can have both subtle and powerful effects on research results.

Herzberg (1966) believed that “the primary function of any organization, whether religious, political, or industrial, should be to implement the needs for man to enjoy a meaningful existence” (p.x). He and his colleagues (Herzberg, Mausner, & Snyderman,

1959) analyzed the content of the critical incidents they collected from engineers and accountants regarding when these people felt exceptionally good or exceptionally bad about their jobs in order to determine ways to increase productivity, decrease turnover and absenteeism, and smooth labor relations. The results showed that job content factors were reported by employees to be a primary source of motivation or satisfaction. Herzberg's lasting contribution to practitioners has been shifting their primary focus to the importance of the work itself rather than what he called hygiene variables (e.g., employee benefits). He forcefully drove home the message that the job must be enriched in ways that will allow people to become motivated to perform effectively.

Situationists in the 20th century (e.g., Herzberg; Hackman & Oldham) also believed that context (e.g., job characteristics) is a primary determinant of an employee's behavior, hence their focus on job and organizational design. Among the leading situationists in the present century are two Australian researchers, Cordery and Parker (Latham, 2007). Parker (2003) conducted a study which showed that unenriched, simplified jobs stemming from lean processes can affect an employee's level of job depression. To the extent that lean processes can be introduced in such a way as to allow job autonomy, skill use, and participation in decision making, the employee's well-being and motivation increases. Similarly, an analysis of survey data from Australian employees led Wright and Cordery (1999) to conclude that affective well-being declines with traditional job designs, particularly where there is production uncertainty, but increases under "high control" job designs.

Much of the early work on engagement placed the task as central to engagement (Kahn, 1990, 1992). For some, (e.g., Erickson, 2005), the attributes of tasks are still the key issue for promoting engagement. Not surprisingly, reference is made to the job characteristics research program (Hackman & Oldham, 1980) and work on the intrinsic nature of rewards (i.e., the intrinsic nature of tasks; Gagne & Deci, 2005) for specification of some of the issues that drive passion, commitment, involvement, and so forth. Interestingly, although the task is central, it is the degree to which the person can

implement his or her preferred self in the work that is key – but certain characteristics of tasks like autonomy, challenge, and variety seem to have main effects for most people.

In addition to the task itself, the conditions surrounding working have been a target for practice and research. For example, in the Gallup research program (emerging from many consulting projects; see Harter, Schmidt, & Hayes, 2002), a series of 12 key work conditions was identified, which, when present were correlated with unit performance – the inference being that when these work conditions existed, employees demonstrated engagement behaviors that resulted in the improved unit performance. These conditions are very diverse, referring among other conditions to attributes of the work, the boss, the availability of resources, coworkers and career progress issues. Gallup researchers deduced, however that there was an overriding issue, management and the degree to which managers made these things happen was key to having a productive work unit. Having this insight resulted in an additional set of research efforts to understand what differentiated effective and ineffective managers, especially with regard to scores those managers received on the 12 items when their employees were surveyed. A central answer was the following: Effective managers are those who get the work done with the people they have, do not try to change them, and attempt to capitalize on the competencies their people have, not what they, the managers, wished they had (Buckingham & Coffman, 1999).

What is clear from the Gallup research is that units that score more highly on the 12 items have superior performance in terms of productivity, customer satisfaction, revenues, and turnover. Some of the reasons why these conditions seem to create engagement have now been made clear. Psychologically, it appears to follow that when people have certain kinds of work to do (e.g., the work has challenge, variety, and autonomy) and when they work under certain kinds of managers (e.g., the managers make expectations clear, are fair, and recognize superior behavior), they feel engaged and behave in adaptive and constructive ways that produce results that were perhaps unexpected. (Macey & Schneider, 2008).

Common resources that have been studied in the burnout and engagement literature so far are social support (i.e., from supervisors, coworkers, friends, and family), autonomy, performance feedback, financial rewards, supervisor coaching, and opportunities for professional development (Riulli & Savicki, 2003; Bakker, Demerouti, & Schaufeli, 2003; Schaufeli & Bakker, 2004). Kahn and Byosiére (1992) recognized that there are particular resources that are related to the goals of most people and therefore can be averaged across individuals. Previous research in the burnout and engagement literature recognizes the importance of especially four such resources; job autonomy, supervisor support, performance feedback and rewards that deserve attention for the work-related well-being of most employees (Hackman & Oldham, 1980; Johnson & Hall, 1988; Lee & Ashforth, 1996). Thus, in our study, we have decided to include these four resources as the possible contextual antecedents of work engagement.

1.5. 1. Supervisor Support

Karasek and Theorell defined social support at work as “overall levels of helpful social interaction available on the job from coworkers and supervisors” (1990:69). Social support is a straightforward resource in that it is functional in achieving work goals. While all forms of support are believed to be important, there is evidence to suggest that supervisory support is particularly important in terms of detrimental strain in occupational settings (Leather, Lawrence, Beale, Cox, and Dickson, 1998; Winnubst, and Schabracq, 1996). Similarly, a high quality relationship with one’s supervisor may alleviate the influence of job demands (work overload, emotional demands, physical demands, and work–home interference) on burnout, because leaders’ appreciation and support puts demands in another perspective. Leaders’ appreciation and support may also aid the worker in coping with the job demands, facilitate performance, and act as a protector against ill health (Vaananen, Toppinen-Tanner, Kalimo, Mutanen, Vahtera, & Peiró, 2003).

Supervisors who foster a supportive work environment typically display concern for employees’ needs and feelings, provide positive feedback and encourage them to

voice their concerns, develop new skills, and solve work-related problems (Deci & Ryan, 1987). Such supportive actions enhance employee self-determination and interest in their work. Employees who are self-determined experience ‘a sense of choice in initiating and regulating one’s own actions’ (Deci, Connell, & Ryan, 1989, p. 580). These individuals are likely to feel safer to engage themselves more fully, try out novel ways of doing things, discuss mistakes and learn from these behaviors when they are in such supportive environments (Edmonson, 1996, 1999).

Previous research has also demonstrated that having a supportive supervisor also decreases the turnover intention of employees (Howes, Cropanzano, Grandey & Mohler, Ünler-Öz, 2007). These researchers also depicted that, in a supportive work environment, employees will feel more comfortable and thus act in a more sincere manner. Moreover, in a study conducted in Turkey among 463 participants from 38 different cities, Aycan, Eskin & Yavuz (2007) found that, supervisor support was one of the key resources that helped alleviate work-family conflict.

Moreover, social support from significant others has the potential to buffer the impact of stressors on strain. The buffering hypothesis has been examined in numerous studies on the role of social support in stressor-strain relationships (Cooper, Dewe, & O’Driscoll, 2001). For instance, many studies (e.g., Goff, Mount, & Jamison, 1990; Thomas & Ganster, 1995) have verified that the presence of social support reduces the negative consequences of work-related stressors and work-family conflict. A recent meta-analysis (Viswesvaran, Sanchez, & Fisher, 1999) confirmed that generally social support does play a buffering role in the relationship between work-related stressors and a variety of strain variables.

A longitudinal study by Parkes (1982), for instance, revealed that changes in social support were positively associated with changes in job satisfaction and negatively associated with changes in anxiety and depression (Sonnentag, 2003). Research also suggests that employees who have supportive supervisors or managers are less likely to experience work-family conflict (Anderson, Coffey, & Byerly 2002; Goff, Mount &

Jamison, 1990) and have lower levels of work distress (Frone, Yardley, & Markel, 1997), lower levels of absenteeism (Goff et al., 1990) and less intention to quit (Thompson, Beauvais, & Lyness, 1999).

1.5. 2. Job Autonomy

Job autonomy is defined as “the degree to which the job provides substantial freedom, independence and discretion in scheduling the work and in determining the procedures to be used in carrying it out” (Hackman and Oldham, 1975, p.162). In its most general form, job autonomy influences employees’ perceptions of their authority to initiate, perform, and complete tasks (Kaldenberg & Becker 1992; Xie & Johns 1995).

Autonomy has been identified as a crucial determinant of intrinsic motivation (e.g., Hackman & Oldham, 1980). For example, Richer and Vallerand (1995) demonstrated that a controlling supervisory style, whether punitive or nonpunitive, had a detrimental effect on subordinates’ intrinsic motivation. Providing employees with autonomy allows them to make certain choices and decisions about their work; these may concern how they plan their work (timing control) or the methods they use to carry out their work (method control). Karasek’s (1979) Demand-Control Model suggests that autonomy is particularly important for employees’ intrinsic motivation when they find themselves in highly demanding jobs.

Hackman and Oldham (1980) go on to explain that, when the job provides substantial autonomy to the people performing it, work outcomes will be viewed by those individuals as depending substantially on their own efforts, initiatives, and decisions rather than for example on the adequacy of the instructions from the boss or on the manual of job procedures. As autonomy increases, individuals tend to feel more personal responsibility for successes and failures that occur on the job and are more willing to accept personal responsibility for the outcomes of their work.

Job autonomy is also regarded to be crucial for the health of employees, mainly because greater autonomy is associated with more opportunities to cope with stressful situations (Karasek, 1979). Studies with the Demand-Control Model (Karasek, 1979) have indeed confirmed that autonomy may act as a buffer against the influence of job demands (work overload, time pressure; Van der Doef & Maes, 1999).

Autonomy is an important element in all theoretical models that deal with the relationship between individual task characteristics and psychological well-being. This is true for the Job Characteristics Model of Hackman and Oldham (1980), the Demand-Control-Support (DCS) Model of Karasek and Theorell (1990), and Warr's (1994) Vitamin Model. All these models predict positive relationships between autonomy and psychological well-being.

Similarly, the findings of a study by Thompson and Prottas (2006) provide strong evidence for the importance of job autonomy in the lives of employees. These researchers found that employees with higher levels of job autonomy were more likely to be satisfied with their job, family, and life in general; experienced more positive spillover between job and home; were less likely to be thinking about looking for a new job; and were less likely to feel stressed or experience either form of work–family conflict.

1.5.3. Performance Feedback

1.5.3.1. Feedback from the Job

The knowledge of the results of one's work is another critical psychological state generated by the job characteristics and it is affected directly by the amount of feedback one receives from doing the work. Feedback is defined as the "degree to which carrying out the work activities required by a job results in the individual's obtaining direct and clear information about the effectiveness of his or her performance" (Hackman and Oldham, 1976). Hackman and Oldham (1980) draw attention to the fact that feedback is obtained directly from the job, as when a television repairman turns on the set and finds

that it works after being repaired, when a salesman closes a deal, or when a physician treats a patient and sees the patient get well.

1.5.3.2. Feedback from the Agents

The knowledge of results derived from the work activities themselves is different from some other person who collects data and makes a judgment about how well the work is performed. This second type of feedback, which is termed by Hackman and Oldham (1980) as “feedback from the agents”, can also contribute to the overall knowledge an employee has of the results of his or her work (Bulutlar, 2005). Feedback from the agents refers to the degree which an employee receives clear information about his or her performance from supervisors or co-workers.

Constructive performance feedback not only helps employees do their work more effectively, but also improves communication between supervisors and employees. When specific and accurate information is provided in a constructive way, both employees and supervisors can improve or change their performance. Appraising employees of good performance helps maintain their motivation and signals them to continue in this direction (Hackman & Oldham, 1980). Communicating with employees in a positive manner when they need to improve their performance will help prevent work problems and minimize surprises during the performance review.

Harackiewicz (1979) demonstrated that individuals who were given positive informational feedback about their task performance (i.e., "you performed better on these puzzles than the average participant") exhibited higher levels of intrinsic motivation than individuals who were given no feedback. Finally, Bandura (1997) stated that, to motivate and guide efforts, goal systems must provide good feedback of performance on a regular basis.

1.5.4. Rewards

Lincoln and Kalleberg (1990) have argued that the rewards offered by an organization may have a powerful effect on employees' attitudes towards their job and the company for which they work. In this context, it is important to distinguish between intrinsic and extrinsic rewards. Intrinsic rewards are those that exist in the job itself, such as variety, challenge, and autonomy. Extrinsic rewards, on the other hand, comprise elements such as pay and fringe benefits, promotion or advancement opportunities within the organization, the social climate and physical working conditions. In a study carried out by O'Driscoll and Randall (1999) among dairy co-operative employees working in Ireland and New Zealand, the results showed that satisfaction with intrinsic (and to a lesser extent) extrinsic rewards was a salient predictor of job involvement and affective commitment, but not continuance commitment.

Sometimes there may be insufficient financial rewards, as when people are not receiving the salary or benefits compatible with their achievements. Even more important at times is the lack of social rewards, as when one's hard work is ignored and not appreciated by others. This lack of recognition devalues both the work and the workers. Landsbergis (1988) has demonstrated that the lack of rewards indeed leads to depersonalization (disengagement). Moreover, in a multigroup analysis of the Job Demands-Resources Model in four home care organizations, Bakker, Demerouti, & Schaufeli (2003) found a positive relationship between lack of rewards and the burnout dimensions of exhaustion, cynicism and lack of professional efficacy.

Moreover, in general, it is useful to make a distinction between different types of rewards; salary, esteem, and job security. The job choice literature shows that pay is among the most important factors that people take into account in seeking and accepting a job offer (Barber & Bretz, 2000). Drawing upon both need-hierarchy and expectancy theories, Lawler (1971) presented a model that contends that pay is important to the extent that it is perceived to be instrumental in satisfying a person's needs, and to the extent that these needs are important to the person. He cited empirical evidence that this

is particularly true when pay is seen by employees as instrumental for satisfying their needs for autonomy and security, and less likely for satisfying their needs for affiliation and self-actualization.

Edward Deci (1975), a social psychologist, claimed on the basis of his laboratory experiments, that money can kill a person's intrinsic motivation. The latter was defined as continuing to perform a task in the absence of an externally administered reward. He proposed that extrinsic rewards, especially if excessive, that are given for performing well on tasks that are intrinsically valued are perceived as "controlling" by an individual. Deci's theory of self-determination states that when this perception occurs, motivation as well as satisfaction decreases. He argued that people have the need to feel that their actions are chosen freely. Receiving a monetary reward for doing what one would have done anyway, because of its intrinsic appeal, causes one to make an attributional shift regarding the cause of one's behavior from self to others.

However, Bandura (1977) attacked Deci's logic. He stated that decreases in performance often reflect reactions to how incentives are presented rather than to the incentives themselves. He articulated that incentives can be used coercively (e.g., "you will not get any money until you do x"), as an expression of appreciation ("this is in recognition of your doing y"), or to convey evaluative reactions (e.g., "this is what this performance is worth to us"). In short, the same incentive can have differential effects on an individual's behavior depending on the message conveyed. As Bandura noted, it is unlikely that concert pianists lose interest in the keyboard just because they are offered high recital fees.

Finally, based on a meta-analysis by Cameron and Pierce (1994) of studies conducted between 1971 and 1991, plus their own review of subsequent research, they reached the following conclusions which are dramatically different from Deci's:

1. If a person is rewarded for completing a task, or attaining a goal for quality, and if that reward is abruptly stopped, the person still spends as much time on the activity as

was spent prior to the reward being introduced in the experiment (i.e., baseline performance).

2. When the reward is verbal praise, people spend more time on a task, despite the cessation of the praise, than they did prior to the introduction of praise in the experiments.
3. Moreover, people reported that they like the task more after receiving praise or money.
4. Reward for high creativity in one task enhances creativity in an entirely different task.
5. The only reliable effect of a reward having a detrimental effect on a person's performance during "free-time" occurred when an anticipated reward was presented on a single occasion without regard to quality of performance or task completion.

Thus, beginning with Dyer and Parker (1975), the conclusion that the distinction between intrinsic and extrinsic motivation is meaningful continues to be debated (Cameron & Pierce, 1994; Ford, 1992). Yet it seems plausible to expect that, rewards in will more often than not, have positive effects on the work motivation of employees.

1.6. CONSEQUENCES OF WORK ENGAGEMENT: TURNOVER INTENTION AND WELL-BEING

As mentioned previously, work engagement is a concept relevant for employee well-being and work behavior for several reasons. First, work engagement is a positive experience in itself (Schaufeli et al., 2002a). Second, it is related to good health and positive work affect (Demerouti, Bakker, De Jonge, Janssen, & Schaufeli, 2001). Third, work engagement helps individuals derive benefits from stressful work (Britt, Adler, & Bartone, 2001). And fourth, work engagement is positively related to organizational commitment (Demerouti et al., 2001) and is expected to affect employee performance (Kahn, 1990). In line with these findings, we believe that engagement is a crucial concept to study, since it is linked to both positive individual and work outcomes. Among the various outcomes mentioned, we have chosen to include turnover intention and well-being for our study.

1.6.1. Turnover Intention

Turnover is a major problem for many organizations today since it is often extremely costly for the employer, particularly in jobs which offer high education and extensive on the job training (Cascio, 1982).

Job turnover is generally defined as ‘voluntarily leaving the organization’ (Van Breukelen, 1988) and turnover intention is closely related to turnover. Literature regarding turnover suggests that its causes have not yet been studied systematically, starting from a framework that contains all core elements of a work-setting (Van Breukelen, 1988). In general, the literature shows that turnover is related to many different variables: economic, work-related, and individual (Muchinsky & Morrow 1980). With regard to the work-related factors, it seems that conditions of employment are particularly important correlates of turnover and propensity to leave. Rosse & Miller (1984) found that, in particular, lack of satisfaction with job aspects like salary, career opportunities, and work content were associated with turnover intention. Similar findings were reported by Pool, Meeuwsen, & Michels (1992) in Dutch health care settings. In addition, Stremmel (1991) reported in his study of child care workers that low salary, lack of career opportunities, and supervisor support were related to turnover intention. Janssen & Buunk (1990) also found that experienced deprivation concerning one's career was a strong predictor of turnover intention, even more so than general work satisfaction.

In a multi-sample study among employees of an insurance company, a large occupational health and safety service, a pension fund company, and a home care institution, Schaufeli & Bakker (2004) found a statistically significant relationship between job engagement, employee turnover intentions, and actual turnover statistics.

In a recent study conducted in a Turkish Bank with a sample of women managers, Koyuncu, Burke, and Fiksenbaum (2006) found a negative relationship between job engagement and intention to quit, and a positive relationship between job engagement and physical and emotional health. These findings are consistent with the results of an increasing number of recent studies (Hakkanen, Bakker, & Schaufeli, 2006; Langelan,

Bakker, Doornen & Schaufeli, 2006) which reflect the importance of understanding and increasing employees' job engagement within organizations.

Shin (2003) found that job engagement is a better predictor of negative outcomes (e.g., turnover intention, job dissatisfaction) instead of burnout, which also confirms Schaufeli et al.'s (2002b) finding on job burnout and job engagement.

Furthermore, a number of research studies have shown employee engagement to be positively associated with intent to remain with one's organization (e.g., Harter, Schmidt & Hayes, 2002; Schaufeli & Bakker, 2004).

1.6.2. Well-Being

Well-being is a many-faceted and value-laden concept (Campbell, 1976; Jahoda, 1958), but its primary indicator is its affective level and quality, in terms of positive affect (e.g., feelings of happiness, satisfaction, high self-esteem) and feelings of distress (e.g., anxiety, depression, sense of hopelessness; Warr, 1987, p. 247). Affect refers to mental states in which persons feel good or bad about what is happening to them (Watson, 2000). As described in terms of short-term emotions (e.g., sad, happy, enthusiastic), affect is transitory and situation specific (Warr, 1999). The model to describe affect consists of two dimensions – *pleasure* and *activation* (e.g., Russell & Carroll, 1999). The *pleasure axis* summarizes at the level of subjective experience how well one is feeling, whereas the *activation axis* refers to a sense of mobilization of energy. Negative affect (NA) and positive affect (PA) can be described using these two axes whereby NA is characterized by feelings like anger, fear, nervousness and subjective stress (Watson, 2000). Conversely, PA is characterized by feelings like enthusiasm, energy, and happiness.

1.6.2.1. The components of subjective well-being

The primary aim of the scientists studying subjective well-being has been finding out the components of well-being (Kafka & Kozma, 2002). However, the existence of different conceptualizations made the understanding of well-being difficult.

From the beginning of the 1940s, studies on psychological well-being have been established on the assumptions that psychological well-being is multidimensional and bipolar (Cifre and Salanova, 2002). For example, Bradburn (1969) demanded that subjective well-being consisted of two dimensions. Some scientists on the other hand, demanded that subjective well-being had five (Lawton, 1975), six (Neugarten et al., 1961; Ryff, 1989), and even seven dimensions (Reker & Peacock, 1981).

Although consensus on the number and content of the dimensions of subjective well-being has not been reached, scientists agree on the cognitive and affective components of well-being (Diener, 1984; Diener & Emmons, 1984; Warr, 1990; Diener & Larsen, 1993; Kafka & Kozma, 2002; Harris, Daniels, & Briner, 2003). Even when only the affective component is considered, well-being is defined as multi-dimensional. At least two components of well-being have been defined which are called as positive and negative affect (Watson & Tellegen, 1985). In this study, the effect of work engagement on employees' emotions will be examined and because of this reason, the affective component of well-being will be analyzed, leaving aside the cognitive component. In this respect, well-being at work will be evaluated by measuring affective well-being at the workplace. Because of this reason, among the various instruments developed to measure well-being, the instrument that was developed by Warr (1990) is chosen as the most appropriate one for the purposes of this study. In line with this reason, the components of subjective well-being will be defined in accordance with Warr's (1990) definitions.

1.6.2.2. Work-related well-being

In his article, Warr suggested that the studies done on subjective well-being have revealed the existence of two orthogonal dimensions, which account for the majority of observed variance (Russell, 1979, 1980; Watson and Tellegen, 1985; Watson, Clark & Tellegen, 1988). These are summarized in Figure 3, using the labels 'pleasure' and 'arousal' with illustrative affective states ordered around the perimeter.

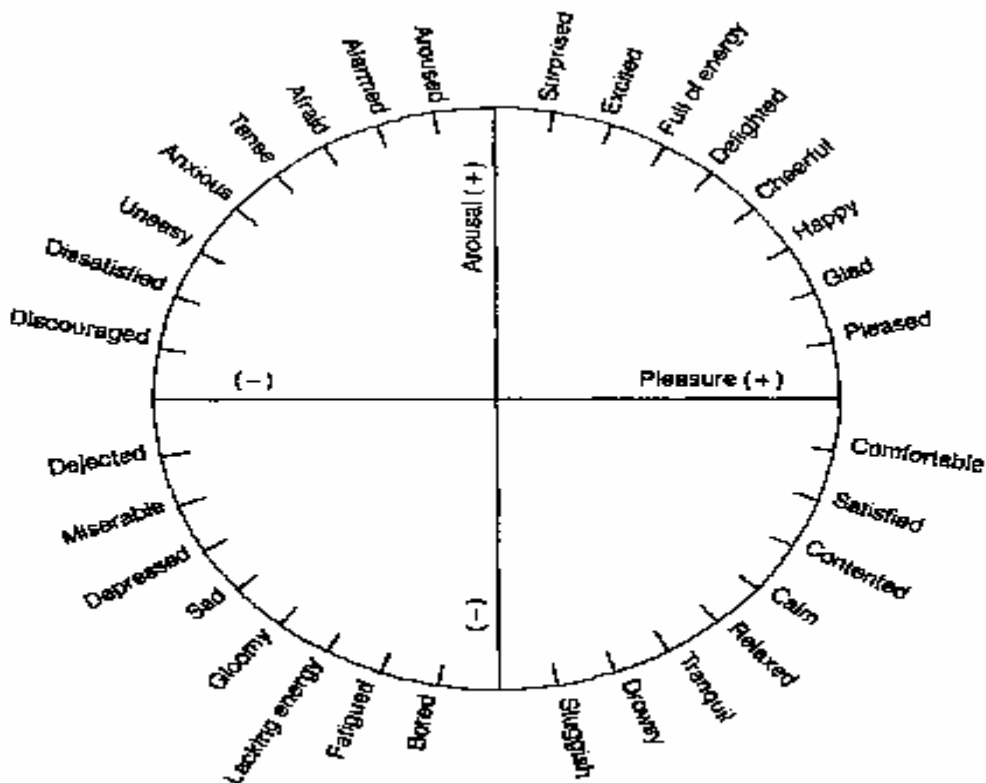


Figure 3. A Two-Dimensional View of Affective Well-Being (Warr, 1990).

As can be seen in the figure, 'arousal' and 'pleasure' is used to show the dimensions that the affective states which are positioned all around the circle belong to. Warr (1990) stated that any form of affective well-being could be described in terms of its location in relation to those separate dimensions and its distance from the mid-point of

the figure. Additionally, after explaining that a particular level of pleasure may be accompanied by high or low levels of arousal, and a particular level of arousal may be either pleasurable or unpleasurable, Warr (1990) concluded that in devising primary measures of well-being, decisions have to be taken about the location of key vectors in that two-dimensional space.

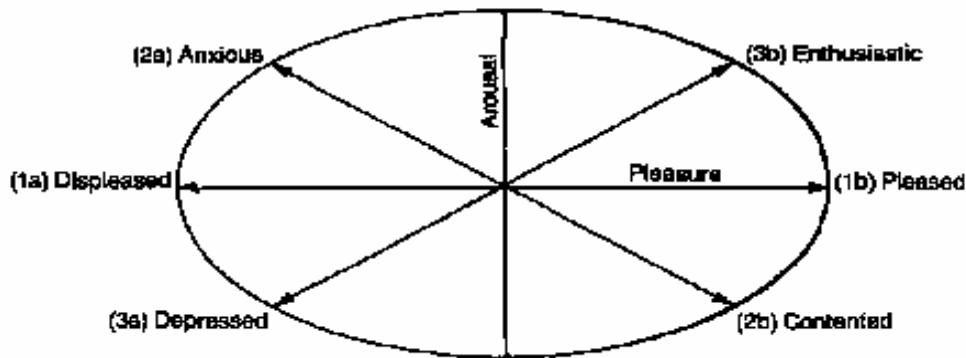


Figure 4. Three Principles Axes for the Measurement of Affective Well-Being (Warr, 1990)

Due to these reasons, as can be seen in Figure 4, Warr (1990) presented the diagram as an elongated (rather than circular) shape to indicate that pleasure is empirically given more weight than arousal. Experienced pleasure may differ substantially across situations, and these differences are more likely to be reflected in well-being, rather than variations in arousal. Thus, Warr measured the components of subjective well-being by the two diagonal axis (pleasure and arousal) through scales which use familiar adjectives and equally cover the four quadrants. Warr (1987, 1990) stated that, in this multi-dimensional model which is developed to measure job-related psychological well-being, there are three indicators of subjective well-being namely; pleasure, anxiety-contentment, and depression-enthusiasm.

Warr (1990) argued that the pleasure dimension which is shown horizontally had been successfully measured as 'job satisfaction' in various studies. Due to this reason, for the purpose of measuring the other two dimensions, he developed two different instruments. The aim of our study is also to explore the affective indicators of well-being. Within this framework, job-related well-being can be defined as having two components (Warr, 1990). The first one is enthusiasm-depression which includes negative feelings such as depression, anger, and gloom. This component is also related with the arousal of positive feelings like enthusiasm, excitement, etc. (Daniels, 2000). The second component is anxiety-contentment and includes negative feelings such as uneasiness, worry etc., and positive feelings such as enthusiasm and optimism.

Warr (1990) measures these two diagonal axes by the help of an instrument which is composed of well-known adjectives shown in Figure 3. In this study, Warr's (1987, 1990) instrument will be used and job-related well-being will be measured along the two dimensions of depression-enthusiasm and anxiety-contentment.

Warr (1987, 1994) focused on well-being *in a particular context* (i.e., at work). The advantage of conceptualizing well-being as a job-specific rather than as a context-free phenomenon is that, relationships with job-related antecedents are stronger for job-related well-being, thus potentially offering a better understanding of how particular work characteristics affect employees' well-being. Hence, Warr's (1994) approach has the important advantage that it specifically focuses on employee well-being.

In the context of occupational well-being, empirical evidence indicates that the pleasure-displeasure axis accounts for most of the covariance between aspects of affective well-being (Daniels, 2000). Moreover, many current instruments for measuring occupational well-being (e.g. job satisfaction, organizational commitment, tension at work and fatigue) primarily tap the affective dimension of well-being.

It has been suggested that engaged employees are characterized by high PA and to a somewhat lesser degree by low NA (Schaufeli et al., 2001), whereas burned-out

employees are characterized by high NA and to a somewhat lesser degree by low PA (Freudenberger, 1974).

Self Determination Theory research has consistently demonstrated that individuals who are “engaged” in what they are doing also experience greater physical and psychological well-being than those who are unmotivated or lack personal control (Ryan & Deci, 2000).

Hence, overall, recent research on the consequences of work engagement has shown its relationship with positive outcomes such as job satisfaction, low absenteeism, low turnover, and high organizational commitment performance, and positive work affect (Salanova, Llorens, Cifre, Martinez, & Schaufeli, 2003; Schaufeli & Bakker, 2004; Schaufeli, et al., 2002b; and Schaufeli, et al., 2002a).

1.7. EXPANDING THE MOTIVATIONAL PROCESS OF THE JD-R MODEL

1.7.1. Integrating Personal Resources into the Motivational Process of the JD-R Model

As mentioned before, the JD-R model exclusively focuses on how the work environment determines employees’ well-being and performance. However, even the very first influential organizational behavior theories, like French, Rodgers, and Cobb’s (1974) theory of Person-Environment Fit, or Hall’s (1976) work on psychological success, followed major trait theorists (Allport, 1961) and proposed that the adaptation to the work environment depends both on the characteristics of the work itself, and on the individual characteristics of employees.

The recent years have witnessed an emergence of interest in self-referent phenomena. One can point to several reasons why self processes have come to pervade

many domains of psychology. Self-generated activities lie at the very heart of causal processes. They not only contribute to the meaning of most external influences, but they also function as important determinants of motivation and action. The capacity to exercise control over one's own thought processes, motivation, and action is a distinctively human characteristic. Because judgments and actions are partly self-determined, people can effect change in themselves and their situations through their own efforts.

Social Cognitive Theory supports a model of emergent interactive agency (Bandura, 1986). According to this theory, persons are neither autonomous agents nor simply mechanical conveyers of environmental influences. Rather, they make a causal contribution to their own motivation and action. In this model of reciprocal causation; action, cognitive, affective, and other personal factors, and environmental events all operate as interacting determinants. Any account of the determinants of human action must, therefore, include self-generated influences as a contributing factor (Bandura, 1986).

Likewise, in reviewing the literature, Kanfer and Heggestad (1997) complained, “We view the broad neglect of person characteristics in scientific models of work motivation over the past several decades as a serious impediment to progress in the development of useful integrative work motivation models” (p. 3). Thus, existing models need to be revised to take dispositional traits and abilities into account and to incorporate into them the strong direct influences the distal characteristics may have on the criteria (Gully, 2002).

Most studies on burnout and engagement have looked at organizational and work predictors rather than individual characteristics. One such study has been conducted by Langelan et al. (2006) with employees from three different companies that examined whether burnout and engagement could be differentiated on the basis of personality and temperament. They found that burned-out employees were characterized by a high degree of neuroticism compared to non-burned-out employees, whereas engaged employees

were characterized by a low degree of neuroticism and a high degree of extraversion compared to non-engaged employees.

Until now most studies on the JD-R model have been restricted to work characteristics as potential antecedents of job strain and work engagement. As a result, the role of employees' personal resources, which can be important determinants of their adaptation to work environments (Hobfoll, 1989; Judge, Locke, & Durham, 1997), has been neglected.

The idea to expand the JD-R model is partly based on Hobfoll's (1989; 2002) *Conservation of Resources* (COR) Theory. In COR Theory, resources play a central role and are defined as those objects (e.g., adequate clothing), personal characteristics (e.g., sense of optimism), conditions (e.g., employment), or energies (e.g., knowledge) that are valued by the individual or that serve as a means for the attainment of these objects, personal characteristics, conditions or energies (Hobfoll, 1989). The basic premise of COR Theory is that resource loss results in negative outcomes (e.g., psychological strain). Therefore, individuals try to maintain and expand their levels of resources, which, in turn, result in positive outcomes (e.g., better coping with adverse situations and generalized well-being). COR Theory proposes that job resources (such as social support, job autonomy, and task variety, etc.) influence a wide range of health outcomes, which become more positive as one's job resources increase. This reasoning is supported by a large body of research on the effects of job characteristics on work-related health variables, including job stress and burnout (Lee & Ashforth, 1996; and Schaufeli, Maslach, & Marek, 1993).

However, additionally, in his definition of resources, Hobfoll (1989; 2002) also recognizes the unique role of personal resources for a successful adaptation to the environment. Accordingly, personal resources are those aspects of the self that are generally linked to resiliency and refer to individuals' sense of their ability to control their environment successfully (Hobfoll, Johnson, Ennis, & Jackson, 2003).

Previous studies have shown that personal resources are not only related to stress resilience, but also have positive effects on physical and emotional well-being (Chen, Gully, & Eden, 2001; Pierce, Gardner, Cummings, & Dunham, 1989; Scheier & Carver, 1992). Although people's perception of and adaptation to environments is variable, depending on their levels of personal resources, these resource levels are cultivated by environmental factors (Bandura, 2000). In other words, can be proposed that personal resources may function as a *moderators, mediator or antecedent* in the relationship between environmental factors and (organizational) outcomes, or they may even determine the way people comprehend the environment, formulate it, and react to it (Judge et al., 1997).

1.7.1.1. Personal Resources as *Mediators*

In a recent study, Xanthopoulou, Bakker, Demerouti and Schaufeli (2007) demonstrated that personal resources (self-efficacy, organizational-based self-esteem, and optimism) mediated the relationship between job resources and engagement/exhaustion. In this context, it has been shown that, when employees have control over the pace and way they perform a task, they are more confident that they will accomplish it successfully. As a result, they are more engaged and put more effort in the task (Llorens, Schaufeli, Bakker, & Salanova, 2007), and they perform better (Salanova, Agut, & Peiró, 2005). In other words, the existence of job resources tends to generate other resources (e.g. personal resources), thus initiating "resource caravans", which, in turn, may lead to positive psychological and organizational outcomes (Hobfoll, 2002; Luthans, Avey, Avolio, Norman, and Combs, 2006).

Furthermore, Pierce and Gardner (2004) concluded that organizational based self-esteem mediates the relationship between resourceful work characteristics (e.g., influence, fairness, support) and employee motivation, attitudes (e.g., satisfaction, commitment), and performance. In a similar vein, sense of coherence (a concept close to optimism) mediates the relationship between organizational climate and job security (as independent

variables) on the one hand and occupational well-being on the other (as the dependent variable) (Feldt, Kinnunen, & Mauno, 2000).

In line with the above, Luthans et al., (2006) showed that a resourceful work environment activates employees' "psychological capital" (i.e., hope, optimism, efficacy, and resiliency development), which in turn may bring financial profit.

These findings suggest that the existence of environmental (job) resources may activate personal resources and this, in turn, may result in positive psychological and organizational outcomes.

1.7.1.2. Personal Resources as *Moderators*

In relation to the role of personal resources as moderators, studies have mainly examined the relationship between unfavorable work characteristics and negative psychological and organizational outcomes. For example, Van Yperen and Snijders (2000) have shown that general self-efficacy moderates the relationship between job demands and psychological health symptoms.

Jex and Bliese (1999) found a two-way interaction effect between the job demands and generalized self-efficacy; self-efficacy moderated the relationship between hours of work, quantitative overload, and the meaning of the task with some strain variables such as job dissatisfaction, physical symptoms, propensity to leave, and poor organizational commitment.

Similarly, Pierce and Gardner (2004) concluded that organizational based self-esteem (OBSE) offsets the effects of demanding conditions (e.g., organizational changes, role ambiguity) on depression, physical strain, and job dissatisfaction.

Finally, under demanding work conditions (i.e., high time pressure, high job insecurity, and poor organizational climate), optimistic employees were found to report

lower levels of mental distress than their less optimistic colleagues (Makikangas & Kinnunen, 2003).

These studies suggest that employees with high levels of personal resources have greater mastery that helps them to deal more effectively with demanding conditions, and in turn prevent them from negative outcomes (i.e., exhaustion).

1.7.1.3. Personal Resources as *Antecedents*

The Core Self-Evaluations Theory (Judge, Locke, & Durham, 1997), suggests that personal resources (e.g., self-efficacy, self-esteem) determine how employees perceive their work environment. More specifically, Judge et al. (1997) suggest that, core evaluations are fundamental, bottom-line evaluations that individuals hold about themselves, the world and others. According to these researchers, core-evaluations influence people's appraisal of themselves, the world and the others, and do so subconsciously. Thus, situation specific appraisals (for example the evaluation of one's work or one's colleagues) are affected by these deeper and more fundamental self-appraisals, even though most people are not aware of the influence their self-evaluations have on their perceptions or behaviors as they occur (Bono & Judge, 2003).

Judge, Erez, and Bono (1998) argue that individuals with high core self-evaluations are more motivated to perform their jobs. Since motivation is a major determinant of job performance, it makes sense that individuals with positive self-views will perform most jobs better, due to increased confidence in their abilities. Indeed, Erez and Judge (2001)—in both laboratory and field studies—found that core self-evaluations were linked to motivation and that motivation mediated much of the relationship between core self evaluations and job performance. Core-self evaluations appear to play an important role in attitudes and behavior at work. Therefore, personal resources may also operate as *initiators* of the health impairment and the motivational process.

Similarly, Social Cognitive Theory (Bandura, 1997) assumes that high levels of efficacy are related to motivation, which is indicated by levels of engagement. There is indeed evidence to show that efficacy beliefs may act as an important determinant of the effort and persistence in pursuing goals (Bandura, 1997). This is in line with the idea that both engagement dimensions (i.e., vigor and dedication) constitute the main characteristics of “motivated” behavior (i.e., effort and persistence) (Locke & Latham, 1990). In other words, people are motivated at work when they feel vigorous and are dedicated to doing their work.

In line with these findings, it is quite plausible that personal resources, as core self-evaluations, may be *antecedents* of job demands and resources, and their respective outcomes (Judge et al., 1997; 1998). In other words, not only may personal resources be promoted by a meaningful, manageable and comprehensive environment (Feldt et al., 2000), but they may also determine the way people perceive or formulate this environment and how they react to it (Judge, Bono, & Locke, 2000).

Nevertheless, to date limited research has examined the role that personal characteristics play with respect to work engagement or its three dimensions. One such study evaluated the relationship of hardiness with positive work experiences (Britt et al., 2001) whereby personality hardiness was found to be positively related to engagement in soldiers. Another study carried out by Hallberg, Johansson, and Schaufeli (2007) demonstrated that Type A behavior was correlated with burnout and work engagement. The main conclusion was that the achievement striving aspect of Type A behavior appears as “non-toxic” and is related only to “work engagement”; however, the irritability/impatience aspect appears to be responsible for burnout complaints among Type A individuals.

1.7.2. Integrating Self-Efficacy into the Motivational Process of the JD-R Model:

Following Luthans' (2002a, p.59) suggestion to study "...positively oriented human resource strengths and psychological capacities" and Schaufeli and Salanova's (2007) call for future research to uncover the role of efficacy beliefs in the development of engagement, the basic personal resource of self-efficacy was included in the present study to examine how this resource operates in relation to the model's motivational processes.

1.7.2.1. The Construct of Self-Efficacy

Self-referent thought has become an issue that pervades psychological research in many domains. It has been found that a strong sense of personal efficacy is related to better health, higher achievement, and better social integration (Schwarzer, 1992; Bandura, 1997). The construct of self-efficacy represents one core aspect of Bandura's Social-Cognitive Theory (Bandura, 1977, 1997, 2000). Although both goals and outcome expectations appear prominently in Social-Cognitive Theory, self-efficacy is without a doubt the theory's central construct (Bandura, 1977, 1997). Bandura, in a unifying theory of behavior change, hypothesized that expectations of self-efficacy determine whether coping behavior will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and aversive experiences. While outcome expectancies pertain to the perception of possible consequences of one's action, perceived self-efficacy refers to personal action control or agency. A person who believes in being able to produce a desired effect can lead a more active and self-determined life. This "can do" cognition mirrors a sense of control over one's environment. It reflects the belief of being able to control challenging environmental demands by taking adaptive action. It can be regarded as an optimistic and self-confident view of one's capability to deal with certain life stressors.

According to theory and research, self-efficacy makes a difference in how people feel, think, and act (Bandura, 1997). In terms of feeling, a low sense of self-efficacy is

associated with depression, anxiety, and helplessness. Persons with low self-efficacy also have low self-esteem, and they harbor pessimistic thoughts about their accomplishments and personal development. In terms of thinking, a strong sense of competence facilitates cognitive processes and performance in a variety of settings, including quality of decision-making and academic achievement. Self-efficacy has an influence on preparing action because self-related cognitions are a major ingredient in the motivation process. Self-efficacy levels can enhance or impede motivation. People with high self-efficacy choose to perform more challenging tasks. They set themselves higher goals and stick to them. Actions are preshaped in thought, and people anticipate either optimistic or pessimistic scenarios in line with their level of self-efficacy. Once an action has been taken, highly self-efficacious people invest more effort and persist longer than those low in self-efficacy. When setbacks occur, they recover more quickly and maintain commitment to their goals. High self-efficacy also allows people to select challenging settings, explore their environment, or create new ones (Bandura, 1997).

There is a growing body of evidence that human attainments and positive well-being require an optimistic sense of personal efficacy (Bandura, 1986). This is because ordinary social realities are strewn with difficulties. They are full of failures, adversities, setbacks, frustrations, and inequities. People must have a robust sense of personal efficacy to sustain the perseverant effort needed to succeed. Self-doubts can set in fast after some failures or reverses. The important matter is not that difficulties arouse self-doubt, which is a natural immediate reaction, but the speed of recovery of perceived self-efficacy from difficulties. Some people quickly recover their self-assurance, others lose faith in their capabilities. Because the acquisition of knowledge and competencies usually requires sustained effort in the face of difficulties and setbacks, it is resiliency of self-belief that counts.

1.7.2.2. The Construct of Generalized Self-Efficacy

The construct of generalized self-efficacy refers to beliefs in one's capabilities to mobilize the motivation, cognitive resources, and course of action to meet given situational demands (Wood & Bandura, 1989). Generalized self-efficacy (GSE) is rooted in Bandura's (1977) Social Cognitive Theory which describes psychological functioning through the interactions between individuals' behaviors, cognitions, and their social environments. Bandura (1986, 1997) also stated that self-efficacy beliefs vary on three dimensions including levels of task difficulty, degree of certainty of successfully performing a particular task at a given level of difficulty, and the extent to which the magnitude and strength of efficacious beliefs generalize across various tasks and situations. However, self-efficacy has also been argued to be too narrow in focus as exemplified by Bandura's words ("given situational demands") in his definition. Many self-efficacy researchers studied the construct as a task-specific or state-like construct called situation-specific self-efficacy (Gist & Mitchell, 1992; Lee & Bobko, 1994) while others expressed interest in studying a trait-like general dimension which has since been termed generalized self-efficacy (Eden, 1988; Judge et al., 1998; Judge et al., 1997).

Generalized self-efficacy refers to an "individual's perception of his/her ability to perform across a variety of different situations" (Judge et al., 1998, p.170). Therefore, the distinction between the two self-efficacy constructs is rooted in people's tendencies to view themselves as capable in a task-specific situation or in a broad array of various contexts.

In addition to the development of generalized self-efficacy, many researchers also made distinctions between the two types from a motivational standpoint (Eden, 1988; Judge et al., 1997). These researchers argued that situation-specific self-efficacy is a motivational state while generalized self-efficacy is a motivational trait. Eden (1988) believes that both constructs illustrate beliefs that people have about their ability to reach desired outcomes, however the two constructs differ in terms of the performance domain. Therefore, the antecedents for developing either form of self-efficacy are congruent,

however, generalized self-efficacy is substantially more resistant to environmental influences than situation-specific self-efficacy (Eden, 1988). Sherer, Maddux, Merchant, Prentice-Dunn, Jacobs, and Rogers (1982) argue that the most powerful antecedent of generalized self-efficacy is the aggregation of previous experiences through various successes and failures across different task domains.

Generalized self-efficacy has been used recently as another dimension of self-efficacy in empirical research (e.g., Eden & Aviram, 1993; Eden & Kinnar, 1991; Eden & Zuk, 1995). Accumulation of successes in life as well as persistent positive experiences, augment general self-efficacy (Chen et al., 2001). Moreover, it has been shown that the general tendency to feel efficacious across tasks and situations may spill over into specific situations (Yeo & Neal, 2004).

The highest level of generality is provided when broad optimistic self-beliefs are examined, for example, when individuals under stress have to readapt to novel life circumstances over an extended period of time. In a study with cardiac surgery patients, Schröder et al. (1998) found that patients with high GSE scores had recovered better one week after surgery and experienced better quality of life half a year later than their low-GSE counterparts. Likewise, in a study among East German refugees, people with high GSE were healthier, socially better integrated, and more frequently employed two years after the stressful transition than their low-GSE counterparts (Schwarzer, 1992).

Interest in generalized self-efficacy has increased within the last decade (Eden, 1988; Gardner & Pierce, 1998; Judge et al., 1997). Moreover, a high general self-efficacy is expected to minimize the impact of external influences, such as negative feedback, thus acting as a buffer (Eden, 1988). More generally, individuals with high general self-efficacy are expected to perform well in a variety of tasks because their general tendency to feel efficacious is expected to spill over into specific situations (Sherer et al., 1982).

Although to date, there is no research carried out upon the impact of generalized self-efficacy on work engagement, empirical results demonstrate that employees from

various occupations who indicate a higher degree of generalized self-efficacy are likely to report lower levels of negative emotional arousal, anxiety and stress (e.g., Bandura, 1982).

2. OBJECTIVE OF THE STUDY, THE STUDY VARIABLES AND THE HYPOTHESES

2.1. The Objective of the Study

The objective of this study is to examine the role of self-efficacy and four contextual factors (supervisor support, performance feedback, job autonomy and rewards) as antecedents of work engagement. More specifically, the current study aims to expand the motivational process of the JD-R Model by integrating a crucial personal resource, namely self-efficacy. In addition, this study aims to examine turnover intention and job-related well-being as the consequences of work engagement.

2.2. The Assumptions Underlying the Proposed Hypotheses

2.2.1. The Relationship between Contextual Factors and Work Engagement

Several studies have pointed to the motivational potential of (job) resources. To illustrate, according to Job Characteristics Theory (JCT; Hackman & Oldham, 1976, 1980) every job has a specific motivational potential that depends on the presence of five core job characteristics: i.e., skill variety, task identity, task significance, autonomy, and feedback. The presence of these resources is linked to positive outcomes such as high quality work performance, job satisfaction, low absenteeism, low turnover, and high work motivation (Fried & Ferris, 1987; Tierney & Farmer, 2002).

Moreover, job resources such as colleague support, supervisory coaching or feedback have both an intrinsic and an extrinsic motivational potential (Bakker & Demerouti, in press). As intrinsic motivators, job resources, by fulfilling basic human needs, foster individuals' growth and development (Deci & Ryan, 1985). As extrinsic motivators, job resources promote employees' willingness to exert effort and increase the

likelihood of completing their work tasks (Gagné & Deci, 2005). For example, when employees know that they will receive help from their colleagues if they face difficulties, they will feel more confident that they will accomplish their work goals. In both cases, it is likely that the availability of job resources boosts employees' work engagement.

Moreover, as mentioned before, according to Self-Determination Theory (Deci & Ryan, 1985) work contexts which support psychological autonomy increase intrinsic motivation (Ryan & Frederick, 1997). For instance, proper feedback fosters learning, thereby increasing job competence, whereas decision latitude and social support satisfy the need for autonomy and the need to belong, respectively.

What is more, in a multi-sample study, Schaufeli and Bakker (2004) found evidence for the relationship between feedback, colleague support and supervisory coaching on the one hand, and work engagement on the other hand. Similarly in a study among Finnish teachers Hakkanen et al. (2006) provided evidence for the relationship between a variety of job resources (e.g., job control, information, climate) and work engagement.

In light of the above findings, the first hypothesis can be stated as:

H₁: Contextual factors have a positive effect on work engagement

2.2.2. The Relationship between Self-Efficacy and Work Engagement

Studies on work engagement are quite new, with a history of a decade. Hence, so far the relationship between personal resources and work engagement has rarely been examined. Nevertheless, previous research signals that personal resources have the potential to have a major impact upon work engagement and are thus worth the research attention.

There is indeed evidence to show that efficacy beliefs may act as an important determinant of the effort and persistence in pursuing goals (Bandura, 1997). This is in line with the idea that both engagement dimensions (i.e., vigor and dedication) constitute the main characteristics of “‘motivated” behavior (i.e., effort and persistence) (Locke & Latham, 1990).

Bandura (2000) suggests that perceived self-efficacy is a vital personal resource because it affects human functioning not only directly, but also indirectly through its impact on other important determinants like goal aspirations or outcome expectations. As a result, self-efficacy may enhance motivation and performance.

In addition, Salanova et al. (2005) showed that engagement may be increased by enhancing levels of efficacy beliefs in two samples of Spanish and Dutch university students, respectively. An upward positive spiral was found in which past academic success reinforces efficacy beliefs and engagement, resulting in more positive future efficacy beliefs. In this way, efficacy beliefs may boost engagement levels’ among students. Hence, the researchers concluded that a training program aimed at increasing levels of efficacy might result in increasing employees’ work engagement as well.

Also, as mentioned before, in previous studies, work engagement was found to be positively related with self-efficacy (Salanova et al., 2005), whereby it seems that self-efficacy may precede engagement as well as follow engagement (Bresó, Salanova & Schaufeli, 2007).

Therefore, in light of these findings, the second hypothesis is posed as:

H₂: Self-efficacy has a positive effect on work engagement

2.2.3. The Relationship between Work Engagement and the Outcome Variables

The possible consequences of work engagement pertain to positive attitudes towards work and towards the organization, such as job satisfaction, organizational commitment and low turnover intention (Demerouti et al., 2001; Schaufeli, Taris & Van Rhenen, 2008).

Additional support for the positive relationship between engagement and organizational and personal outcomes has been shown in a meta-analysis by Harter et al. (2002). In this study, which encompassed 7,939 business units in 36 companies, employee engagement measured by the Gallup Workplace Audit (GWA), demonstrated ture score correlations with employee turnover of $-.30$, customer satisfaction $.33$, and profitability $.17$.

Moreover, in contrast to burnout, individuals high in work engagement are by definition active and full of energy and can be expected to be in good mental and physical shape (Hakkanen et al. 2006; Schaufeli & Bakker, 2004). Energy and activity regulation are also under the influence of physiological mechanisms, In line with the suggestion that positive affective states are linked to favorable health outcomes (Steptoe & Wardle, 2005), one may expect optimal functioning of these systems in engaged individuals.

Engagement with one's work is important, given that work is a pervasive and influential part of an individual's well-being, affecting not only the quality of an individual's life but one's mental and physical health as well. Though few, there are indications that engagement is positively related to health, that is to low levels of depression and distress (Schaufeli et al., 2008) and psychosomatic complaints (Demerouti et al., 2001).

Similarly, in a Turkish Bank with a sample of women managers, the authors found a negative relationship between job engagement and intention to quit, and a

positive relationship between job engagement and physical and emotional health (Koyuncu et al., 2006).

In light of these findings, the third and fourth hypotheses are stated as follows:

H₃: Work Engagement has a negative effect on turnover intention

H₄: Work Engagement has a positive effect on work-related well-being

2.2.4. Work Engagement as a Mediator between Contextual Factors and the Outcome Variables

Several studies confirmed the mediating role of work engagement. The results of the study by Salanova et al. (2005) corroborate the model of Schaufeli and Bakker (2004); work engagement plays a mediating role between job resources (e.g., technical equipment, participation in decision making) and service climate and job performance (i.e., extra-role behavior and customer satisfaction). Moreover, in another study among over 500 ICT-workers, Salanova et al. (2005) observed that work engagement mediated the relationship between available resources (performance feedback, task variety, and job control) and proactive organizational behavior.

As mentioned previously, the results of Schaufeli & Bakker's (2004) multi-sample study among employees of an insurance company, a large occupational health and safety service, a pension fund company and a home-care institution demonstrated that engagement fully mediates the job resources-turnover intention relationship.

Supportive colleagues and proper feedback from one's superior increase the likelihood of being successful in achieving one's work goals. In either case, be it through the satisfaction of basic needs or through the achievement of work goals, the outcome is positive and engagement—a fulfilling, positive work-related state of mind—is likely to occur. In its turn, it is plausible to assume that engaged workers have a low tendency to leave the organization, and that they enjoy positive levels of well-being. After all, the

organization provides them with valued job resources that enhance learning, growth, and development (Houkes, Janssen, De Jonge, & Nijhuis, 2001). In other words, engagement is expected to mediate the relationship between job resources and (low) intention to leave and positive well-being. According to Self-Determination Theory (Deci & Ryan, 1985) work contexts that support psychological autonomy, competence, and relatedness enhance well-being (i.e., vitality). Besides, as mentioned before in greater detail, it is quite plausible that work engagement will mediate such a relationship.

As a result, the fifth and sixth hypotheses are stated as follows:

H₅: Work engagement mediates the effect of contextual factors on work-related well-being

H₆: Work engagement mediates the effect of contextual factors on turnover-intention

2.2.5. Work Engagement as a Mediator between Self-Efficacy and the Outcome Variables

Subsequent findings in the present century from meta-analyses have shown the importance of personality variables for predicting and explaining performance (e.g., Barrick, Mount, & Judge, 2001). Failure to express one's traits can lead to anxiety (Cote & Moskowitz, 1998). Mitchell and Daniels (2003) reported that research on personality is now the fastest growing area in the motivation literature.

Judge, Erez, and Bono (1998) argue that individuals with high core self-evaluations are more motivated to perform their jobs. Since motivation is a major determinant of job performance, it makes sense that individuals with positive self-views will perform most jobs better, due to increased confidence in their abilities. Indeed, Erez and Judge (2001)—in both laboratory and field studies—found that core self-evaluations were linked to motivation and that motivation mediated much of the relationship between core self evaluations and job performance. Similarly, Social Cognitive Theory (Bandura,

1997) assumes that high levels of efficacy are related to motivation, which is indicated by levels of engagement.

These research findings support the mentality of our next two hypotheses, since it is quite plausible that having a high level of self-efficacy will positively affect work engagement which in turn is expected to lead to positive outcomes for both the employee and the organization where the person works.

Thus, even though to date, there are still no studies regarding the mediating role of work engagement between self-efficacy and the outcome variables of turnover intention and work-related well-being, the previously cited strong relationships between self-efficacy and work engagement, and work engagement and the outcome variables makes it plausible to form the last two hypotheses of this study:

H₇: Work engagement mediates the effect of self-efficacy on well-being

H₈: Work engagement mediates the effect of self-efficacy on turnover-intention

2.3. The Research Model

As a summary of the theoretical framework, the study model is presented below:

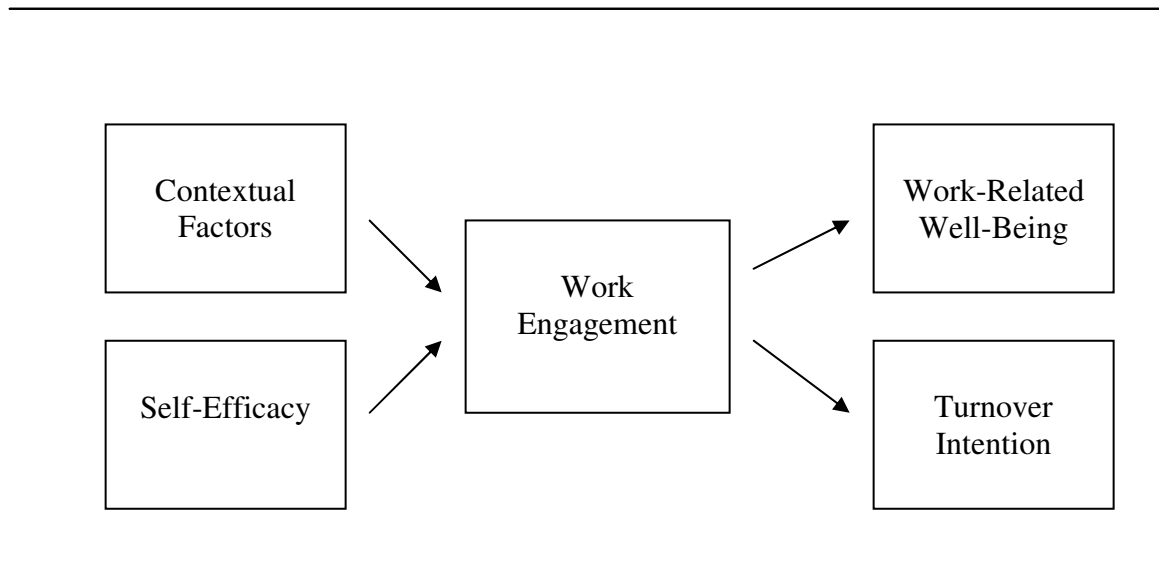


Figure 5. The Research Model

2.4. The Research Questions

In addition to the hypotheses outlined above, two research questions are posed:

1. What is the overall relationship between demographic variables (age, gender, tenure, marital status, managerial status & education) and work engagement?
2. Which concept has a stronger impact on employee (total) work engagement: Self-efficacy or any of the contextual factors?

3. METHOD

3.1. Sample

A total of 1033 white-collar employees; (319 female (31%) and 714 male (69%)) from 21 companies took part in the study. A total of 1033 questionnaires returned out of 1500 distributed, yielding a response rate of 69%.

The companies that participated in this study were chosen by convenience sampling from among those that were either recipients or candidates of the National Quality Award. The aim of this award is to encourage the implementation of Total Quality Management (TQM) among a wider range of companies. With this intention, since 1993, Tüsiad and Kalder have been awarding those companies who were chosen as the TQM best practice examples. The study advisors expected that the companies who had received this award would also by default have the necessary antecedent conditions that would create an engaging environment for their workforce.

Out of the 40 companies that were contacted by the researcher that qualified for the above-mentioned criteria, 21 of them accepted to take part in this study. The 21 companies that are represented in this study function in various sectors in Turkey, including health (2 companies), energy (1 company), durable white goods (8 companies),

steel (2 companies), automotive (3 companies), electronics (1 company), finance (1 company), consumer goods (2 companies) and transportation (1 company).

The mean age of the sample was 34 ranging with a SD of 7. 68% (N=701) of the participants were married and 32% (N=332) were single. In terms of their education levels, 20% of the participants (N=201) were high school graduates, 65% (N=669) had a bachelor's degree, 15% (N=155) had a masters degree and 0.5% (N=5) had PhD degrees. The mean career tenure at the present job was 9 years with a SD of 7 and the total career tenure mean was a total of 11 years with a SD of 7. 42% of the participants (N=430) had managerial duties, whereas 58% (N=603) did not have a managerial duty. Among those who had managerial duties, 22% (N=224) was a first-level manager, 17% (N=178) was a middle-level manager and 3% (N=28) was an upper level manager. The distribution is depicted in Table 1.

Table 1. Distributions of Gender, Marital Status, Education Level, Managerial Duty and Managerial Status

Variable	Groups	N	Percentage
Gender	Male	714	69%
	Female	319	31%
	TOTAL	1033	100%
Marital Status	Single	332	32%
	Married	701	68%
	TOTAL	1033	100%
Education Level	High School	201	20%
	University	669	64.5%
	Masters Degree	155	15%
	Doctoral Degree	5	0.5%
	TOTAL	1033	100%
Managerial Duty	Yes	430	42%
	No	603	58%
	TOTAL	1033	100%
Managerial Status	First Level	224	22 %
	Mid-Level	178	17%
	Upper Level	28	3%
	TOTAL	430	42%

Table 2. Means, Standard Deviations and Ranges of Age, Tenure at Present Job and Total Tenure

Variable	N	Mean	SD	Range
Age	1033	33.9	7.4	19 - 65
Tenure at Present Job	1033	9.3	7.4	1 - 36
Overall Tenure	1033	10.9	7.6	1 - 44

3.2. Instruments

Data were collected from the 21 companies in a questionnaire format. A five page survey with a total of 66 items, which consisted of the measures of contextual factors (supervisor support, job autonomy, performance feedback and rewards), generalized self-efficacy, work engagement, turnover intention and work-related well-being and a seven-item demographic questionnaire (asking for the participant's gender, marital status, educational level, career tenure- regarding one's whole work life, tenure in the current organization, managerial duty and the related managerial status) was used in the study (Appendix 2). The items measuring contextual factors were from 1 to 23 (items 4,7,11,15,18,21,23 measured supervisor support; items 2,3,8,12 measured job autonomy; items 1,5,9,14,17,20 measured performance feedback; and items 6, 10, 13,16, 19, 22 measured rewards); the items that measured work engagement were from 24 to 40; the items that measured generalized self-efficacy were from 41 to 50; the items that measured turnover intention were from 51 to 54; and the items that measured work-related well-being were from 55 to 66.

3.2.1. Instruments Used to Measure Contextual Factors

Four different scales including supervisor support, job autonomy, performance feedback and rewards were used to measure contextual factors in this study.

3.2.1.1. Supervisor Support Scale:

Supervisor Support was measured by a six-item scale developed by Grandey (1999) and a single item developed by Ünler-Öz (2007). The Turkish translation of the scale was done by Ünler-Öz (2007). The scale consists of seven items, all of which were rated on a 6-point scale ranging from ‘totally disagree’ to ‘totally agree’. The higher points depict higher levels of supervisor support. All of the translated items of the survey were examined by two bilingual English Language instructors working at the English Preparatory School of Yeditepe University and by the thesis advisor. These items were then back translated to see how the two versions compared and were used after the necessary corrections were made. To ensure content validity, the translated versions were given to 5 participants, all of whom were white-collar employees working at different companies. The wording of some items was changed according to specific input received. No reverse items were used in this measure. Sample items from this measure are “My supervisor helps me through demanding times at work”, “When things go wrong, I can let my supervisor know about it without being fearful”, etc. In this study, the internal consistency of this scale was found to be .890.

3.2.1.2. Job Autonomy Scale:

Job Autonomy was measured by a four-item scale from the Job Content Instrument developed by Karasek (1985). The scale consists of four items, all of which were rated on a 6-point scale ranging from ‘totally disagree’ to ‘totally agree’. The Turkish translation of the scale was done as in the supervisor support scale. The back translation and content validation process was carried out as mentioned previously. No reverse items were used in this measure. Sample items from this measure are “I set my own schedule for completing assigned tasks”, “I have flexibility in the execution of my job”, etc. In this study, the internal consistency of this scale was found to be .787.

3.2.1.3. Performance Feedback Scale

Performance Feedback was measured by six items from the Job Diagnostic Survey developed by Hackman & Oldham (1980). The scale consists of six items measuring both feedback from the job itself and feedback from agents, all of which were rated on a 6-point scale ranging from ‘totally disagree’ to ‘totally agree’. The Turkish translation of the scale was done by the researcher. The back translation and content validation process was carried out just like the previous two scales. Two reverse items (item no: 9 and 20) were used in this measure (“The job itself provides very few clues about whether or not I am performing well”, “The supervisors or co-workers on this job almost never give me any “feedback” about how well I am doing in my job”). Other sample items from this measure are “Just doing the work required by the job provides many chances for me to figure out how well I am doing”, “Managers or co-workers let me know how well I am doing on my job”, etc. In this study, the internal consistency of this scale was found to be .773.

3.2.1.4. Rewards Scale

Rewards were measured by a six-item scale developed by Litwin and Stringer (1968). The scale items were rated on a 6-point scale ranging from ‘totally disagree’ to ‘totally agree’. The Turkish translation of the scale was done by the researcher. The back translation and content validation process was carried out as mentioned previously. Three reverse items (item no: 10, 13, 19) were used in this measure (“There is a great deal of criticism in this organization”, “There is not enough reward and recognition given in this organization for doing good work”, “If you make a mistake in this organization, you will be punished.”). Other sample items from this measure are, “We have a promotion system here that helps the best man to rise to the top”, “In this organization, the rewards and encouragements you get usually outweigh the threats and the criticism”, etc. In this study, the internal consistency of this scale was found to be .794.

3.2.2. Self-Efficacy Scale

Self-Efficacy was assessed with the ten-item Generalized Self-efficacy Scale developed by Schwarzer & Jerusalem (1995). The scale items were rated on a 6-point scale ranging from ‘totally disagree’ to ‘totally agree’. The Turkish adaptation of the scale was made by Yeşilay, Schwarzer and Jerusalem (1996). The researcher and the thesis advisor made minor changes on this Turkish translation before including this scale in the final questionnaire. To ensure content validity, the translated versions were given to 5 participants, all of whom were white-collar employees working at different companies. The wording of some items was changed according to specific input received. No reverse items were used in this measure. Sample items from this measure are “I can always manage to solve difficult problems if I try hard enough”, “If someone opposes me, I can find the means and ways to get what I want”, “It is easy for me to stick to my aims and accomplish my goals”, etc. In this study, the internal consistency of this scale was found to be .904.

3.2.3. Work Engagement Scale

Work Engagement is operationalized and measured with the Utrecht Work Engagement Scale (Schaufeli et al., 2002b). The UWES includes seventeen items, which are assumed to assess the three underlying dimensions of engagement: vigor, dedication and absorption. Vigor (e.g., “At my work, I feel bursting with energy”, “At my job, I feel strong and vigorous”), Dedication (e.g., “I find the work that I do full of meaning and purpose”, “I am enthusiastic about my job”), and Absorption (“Time flies when I’m working”, “When I am working, I forget everything else around me”) items were all scaled on a seven-point rating scale ranging from “never” to “always”. The Turkish translation of the scale was done by the researcher. The back translation and content validation process was carried out as mentioned previously. No reverse items were used in the scale. In this study, the internal consistency of the three sub dimensions were found to be .878 (vigor), .754 (dedication) and .819 (absorption). The overall reliability of the work engagement was determined as .915.

3.2.4. Work-Related Well-Being Scale

Warr (1987, 1990) hypothesized a multidimensional model of work-related psychological well-being in which well-being is represented by two orthogonal dimensions (pleasure and arousal) but is measured by three dimensions: pleasure, anxiety–contentment and depression–enthusiasm. Warr (1990) proposed two scales to measure these last two dimensions, as he suggested that the dimension of pleasure had already been successfully measured in the literature by the construct of job satisfaction.

In line with this proposed direction, in this study, work-related well-being was measured by a 12-item scale (Item No: 55-66) (Warr, 1990). The scale items were rated on a 6-point scale ranging from ‘never to ‘always’. The Turkish translation of the scale was done by the researcher. The back translation and content validation process was carried out as mentioned previously.

The job-related items were preceded by the question, “Thinking of the past few weeks, how much of the time has your job made you feel each of the following”. As suggested by Warr, axis two regarding job-related anxiety-contentment, was assessed through the adjectives; tense, uneasy, worried, calm, contented and relaxed. Responses to the first three items were reverse-scored, so that high scores indicated positive well-being. Similarly, axis three, regarding job-related depression-enthusiasm, was tapped by the adjectives; depressed, gloomy, miserable, cheerful, enthusiastic and optimistic. The first three items were again reverse-scored. The overall internal consistency of this scale was found to be .705.

3.2.5. Turnover Intention Scale

Turnover Intention was measured by a four-item scale (Item No: 52-54) developed by Rosin and Korabik (1995). The scale items were rated on a 6-point scale ranging from ‘totally disagree’ to ‘totally agree’. The Turkish translation of the scale was done by the researcher. The back translation and content validation process was carried

out as mentioned previously for the other scales. No reverse items were used in this measure. Sample items from this measure are, “If I had the possibility, I would quit my current job”, In the last year, I have been thinking more often about quitting my job”, etc. In this study, the internal consistency of this scale was found to be .878.

3.3. Procedure

The researcher personally distributed the surveys in closed envelopes to the employees in 11 of the participating companies. During this process, the researcher worked in collaboration with the company Human Resources manager or specialist in the coordination of survey delivery across various departments in the companies. In most cases, the HR managers sent an e-mail to all employees before the day of the survey administration, letting them know about the process and that a researcher would join them ask their help in filling out a survey relating to her thesis study. This pre-notification was very helpful, since the participants were already aware of the process when the researcher arrived. The surveys were handed out to the participants in the morning and were collected before the end of the work day. During the day, the researcher individually visited all the participant employees to remind them that the surveys were due by the end of the workday.

The managers of the seven companies that participated in the study preferred to receive the surveys by cargo, and administer their distribution and collection themselves. So, the researcher sent the surveys to these companies’ managers by cargo and the full surveys were returned to her in a week or at the latest two weeks, depending on the workload of the specific company.

The remaining three organizations preferred to receive the surveys electronically, therefore, an electronic version of the surveys was designed by an IT professional and the link was sent to these companies HR managers to be shared with their employees. The electronic surveys were filled out and sent back to the researcher in approximately a week.

The data collection process took three months and was carried out between the months of September and December (2007). The overall response rate of the surveys was 69% (N=1033).

3.4. Statistical Analyses

Based on the proposed model and the hypotheses, several statistics were carried out for the reliability and factor analyses of the independent (contextual factors and self-efficacy), mediating (work engagement) and dependent (work-related well-being and turnover intention) variables. The reliabilities of the constructs in each scale were determined by Cronbach's Alpha and the correlations among all study variables were calculated by Pearson's Correlation. Regression analyses were carried out for testing the relationships between the independent variables (contextual factors and self-efficacy) and the mediating variable (work engagement); the mediating variable (work engagement) and the dependent variables (work-related well-being and turnover intention); and for testing the mediating variable (work engagement) between the independent (contextual factors and self-efficacy) and dependent (work-related well-being and turnover intention) variables.

4. FINDINGS

In this section, the results of the relationships among the study variables are stated.

4.1. Factor and Reliability Analyses of Work Engagement and Work-Related Well-Being Scales

In order to determine the factor structures of contextual factors, self-efficacy, work engagement, work-related well-being and turnover intention, the principal components analysis method of factor analysis with varimax rotation was used. Each step was conducted on one-item-a time basis by discarding any item with a factor loading of less than .50, or which loaded to more than one factor with a .10 or less difference, or that singly loaded on a factor. Those factors with Eigenvalues of 1.00 or more were taken into consideration in total variance explained. The internal consistencies of the scales were

calculated by Cronbach's Alpha, and the factors with Alpha values of .70 were considered to have sufficient reliability.

A principal components factor analysis with varimax rotation was carried out with all of the eight scales used in the study. Among these eight scales, only two of them (the work engagement and work-related well-being scales) sub-divided into more than one factor, and the rest were found to be made up of a single factor. For both of these multi-factor scales, the KMO values are found to be larger than .50 and the Bartlett's test values are significant.

4.1.1. Factor and Reliability Analyses of the Work Engagement Scale

Three factors were found as a result of the factor analysis of the work engagement scale. The KMO measure of sampling adequacy revealed a value more than .50, which means that it is statistically appropriate to rely on the sampling to see if the correlations are meaningful. In addition, loadings under each factor were examined and those items that have similar loadings under two or more factors were excluded from the analysis. Thus, the 9th item was discarded due to similar loadings with two of the other factors.

Three factors came out at the end of the analysis while the resulting KMO yielded a value of .940 and the Bartlett's test of sphericity yielded a significant result with a $p=.000$. Thus, it was concluded that the data is appropriate for carrying out the factor analysis and that the factor analysis results are valid. The 16 items loaded under three factors which explained 65.306% of the total variance. These three factors were named as **“work enthusiasm”**, **“absorption”** and **“vigor”**. In the original work engagement scale developed by Schaufeli et al. (UWES; 2002b), there are also three factors which are named as “vigor”, “dedication” and “absorption”. However, the factor analysis results carried out with the Turkish sample yielded a somewhat different factor structure. The results of the factor analysis conducted with the Turkish sample showed that, the absorption and vigor factors were maintained as the original scale's factors, yet lost some of their items- namely, three vigor items and one absorption item, loaded together with

the dedication factor. Thus, with the addition of these new items, the dedication factor of the original scale was renamed as “work enthusiasm” in this study. The Cronbach Alpha values were determined as .9170, .8242 and .7520 for the work enthusiasm, absorption and vigor factors respectively. The detailed tabulation of the Work Engagement Scale factor analysis is shown in Table 3.

Table 3**Factor and Reliability Analysis Results of the Work Engagement Scale**

Work Engagement Factors	Factor variance %	Factor loading	Cronbach Alfa
Factor 1: Work Enthusiasm	47.895		.9170
I am enthusiastic about my job		.862	
At my job, I feel strong and vigorous		.839	
At my work, I feel bursting with energy		.820	
When I get up in the morning, I feel like going to work		.743	
My job inspires me		.727	
I find the work that I do full of meaning and purpose		.675	
I am proud of the work that I do		.646	
To me, my job is challenging		.617	
Time flies when I'm working		.613	
Factor 2: Absorption	11.728		.8242
When I am working, I forget everything else around me		.838	
I am immersed in my work		.776	
I get carried away when I'm working		.760	
It is difficult to detach myself from my job		.675	
Factor 3: Vigor	5.683		.7520
At my job, I am very resilient, mentally		.764	
At my work, I always persevere, even when things do not go well		.709	
I can continue working for very long periods at a time		.586	
KMO: 0,94			
p: ,000 (Bartlett's Test)			
Total Variance Explained	65.306		

4.1.2. Factor and Reliability Analyses for the Work-related Well-being Scale

Two factors were found as a result of the factor analysis of the work-related well-being scale. The KMO measure of sampling adequacy revealed a value more than .50, which means that it is statistically appropriate to rely on the sampling to see if the correlations are meaningful. In addition, loadings under each factor were examined and those items that have similar loadings under two or more factors were excluded from the analysis. Thus, the 2nd and 3rd items were discarded due to similar loadings and contextual misfit with the two main factors.

The two factors yielded a KMO value of .850 and the Bartlett's test of sphericity yielded a significant result with a $p=.000$. Therefore, it was concluded that the data is appropriate for carrying out the factor analysis and that the factor analysis results are valid. The 10 items loaded under two factors which explained 70.000% of the total variance. These three factors were named as “**negative feelings**” and “**positive feelings**”. However, as with the work engagement scale, the factor analysis results for the work-related well-being scale carried out with the Turkish sample yielded a somewhat different factor structure. The two scales of anxiety–contentment and depression–enthusiasm which are used to measure work-related well-being originally had six items each namely, three positive and three negative adjectives. However, the results of the factor analysis carried out with the Turkish sample yielded 2 factors, one of which was made up of all six of the negative (adjective) items of the original Warr (1990) scale, and the other which was made of the four positive (adjective) items (as mentioned before, two of the remaining positive items from the original scale were discarded due to similar loadings under both factors and conceptual misfit with the original factors). Thus, the new factors were renamed as “negative feelings” and “positive feelings” in this study. The Cronbach Alpha values were determined as .9094, and .8547 for negative feelings and positive feelings respectively. The detailed tabulation of the Work-related Well-being Scale factor analysis is shown in Table 4.

Table 4**Factor and Reliability Analysis Results of the Work-related Well-being Scale**

Work-related Well-being Factors	Factor variance %	Factor loading	Cronbach Alfa
Factor 1: Negative Feelings	46.519		.9094
Gloomy		.889	
Worried		.866	
Uneasy		.860	
Miserable		.848	
Depressed		.777	
Tense		.672	
Factor 2: Positive Feelings	23.481		.8547
Optimistic		.845	
Cheerful		.836	
Contented		.818	
Enthusiastic		.801	
KMO: 0,85			
p: ,000 (Bartlett's Test)			
Total Variance Explained	70.000		

As a result of these factor analyses, the factors regarding work engagement and work- related well-being could be used to examine the proposed relationships between the independent, mediating and dependent variables.

4.2. Means, Standard Deviations and Correlations

The means, standard deviations and correlations related to all factors of the independent, mediating and dependent variables of the study, including sample size, are depicted in Table 5. All significant correlation coefficients imply low to high level relationships between the study variables, ranging from .118 ($p < .01$) to .696 ($p < .01$), and they were all in the anticipated direction. Even though there were a few high level relationships between certain study variables, none of these relationships exceeded the value of .70, thus there wasn't a multi-collinearity problem regarding the variable

Table 5. Means, Standard Deviations and Correlations for All Study Variables

Measures	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	34	7,33	1													
2. Tenure	8,28	6,63	.793(**)	1												
3. Total tenure	12,02	7,82	.901(**)	.814(**)	1											
4. Turnover Intention	2,01	1,20	-.029	-.020	-.033	1										
5. Negative Feelings	2,58	1,15	-.085(**)	-.074(*)	-.080(*)	.299(**)	1									
6. Positive Feelings	4,24	1,00	.054	.062(*)	.099(**)	-.587(**)	-.280(**)	1								
7. Performance Feedback	3,62	0,67	.069(*)	.087(**)	.091(**)	-.199(**)	.208(**)	.378(**)	1							
8. Job Autonomy	4,80	0,82	.139(*)	.118(**)	.136(**)	-.296(**)	-.140(**)	.448(**)	.426(**)	1						
9. Supervisor Support	4,38	0,96	.024	.026	.025	-.368(**)	-.181(**)	.525(**)	.460(**)	.598(**)	1					
10. Reward	3,16	0,76	-.036	-.036	-.025	-.202(**)	-.358(**)	.333(**)	.591(**)	.232(**)	.329(**)	1				
11. Self-efficacy	4,89	0,59	.095(**)	.087(**)	.120(**)	-.234(**)	-.136(**)	.437(**)	.235(**)	.417(**)	.258(**)	.147(**)	1			
12. Work Enthusiasm	4,52	0,92	.176(**)	.189(**)	.220(**)	-.505(**)	-.162(**)	.696(**)	.438(**)	.492(**)	.499(**)	.331(**)	.519(**)	1		
13. Absorption	4,09	1,01	.030	.053	.066(*)	-.162(**)	-.036	.295(**)	.211(**)	.206(**)	.224(**)	.153(**)	.304(**)	.481(**)	1	
14. Vigor	4,60	0,91	.092(**)	.114(**)	.142(**)	-.279(**)	-.118(**)	.500(**)	.292(**)	.427(**)	.366(**)	.204(**)	.581(**)	.660(**)	.577(**)	1

Note: All variables are scored on a 1 to 6 point scale except for work engagement which is scored on a 0 to 6 point scale.

N=1033

**Correlation is significant at the .01 level (2-tailed)

4.3. Regression Analyses

4.3.1. The Relationship Between the Independent Variables and Work Engagement

Regression Analyses were carried out to test the first four hypotheses. In order to test for the mediating effect of work engagement (hypotheses five to eight) multiple regression analyses were conducted.

In order to test Hypothesis 1; “Contextual factors have a positive effect on work engagement”; a multiple regression analysis was conducted to examine the contribution of contextual factors (supervisor support, job autonomy, performance feedback and rewards) to work engagement. It was seen that contextual factors as a whole, explain 26% of the variance in total work engagement. The analysis results also demonstrate that, among the contextual factor variables, job autonomy has the highest influence on work engagement (Beta=.251, $p=.000$), followed by supervisor support (Beta=.191, $p=.000$), performance feedback (Beta=.131, $p=.000$) and rewards (Beta=.069, $p=.041$) respectively.

Moreover, a more detailed analysis was carried out in order to search for the relationship between the four contextual factors and the three work engagement factors of work enthusiasm, absorption and vigor. The results showed that, out of the four contextual factors; job autonomy (Beta=.258, $p=.000$) had the strongest influence on the *work enthusiasm* dimension of work engagement, followed by supervisor support (Beta=.239, $p=.000$), performance feedback (Beta=.160, $p=.000$), and rewards (Beta=.098, $p=.002$) respectively. Regarding the *absorption* dimension of work engagement, supervisor support (Beta=.114, $p=.036$) had the strongest impact followed by performance feedback (Beta=.100, $p=.016$) and job autonomy (Beta=.087, $p=.026$). The analysis results showed that rewards had no significant influence on the absorption dimension of work engagement ($p=.345$). Finally, the strongest relationship among the contextual factors and the *vigor* dimension of work engagement was observed for job autonomy (Beta=.305, $p=.000$), supervisor support (Beta=.135, $p=.000$) and performance feedback (Beta=.073, $p=.050$) respectively. There was no significant relationship between rewards and the vigor dimension of work engagement ($p=.191$). In light of these findings, Hypothesis 1 was partially supported. The results of these analyses are presented in Tables 6 and 7.

Table 6. The Results of the Multiple Regression Analysis for Testing the Main Effect of Contextual Factors on Work Engagement

WORK ENGAGEMENT							
	R ²	Adj R ²	F	p	β	t	p
Contextual Factors	.258		.255	86.741	.000		
Performance Feedback					.131	3.551	.000
Job Autonomy					.251	7.197	.000
Supervisor Support					.191	5.356	.000
Rewards					.069	2.042	.041

Table 7. The Results of the Multiple Regression Analysis for Testing the Main Effect of Contextual Factors on the Three Dimensions of Work Engagement

WORK ENGAGEMENT							
Work Enthusiasm							
	R²	Adj R²	F	p	β	t	p
Contextual Factors	.349	.346	133.974	.000			
Performance Feedback					.160	4.639	.000
Job Autonomy					.258	7.889	.000
Supervisor Support					.239	7.159	.000
Rewards					.098	3.079	.002
Absorption							
	R²	Adj R²	F	p	β	t	p
Contextual Factors	.070	.066	18.862	.000			
Performance Feedback					.100	2.421	.016
Job Autonomy					.087	2.223	.026
Supervisor Support					.114	2.864	.004
Rewards					.036	0.944	.345
Vigor							
	R²	Adj R²	F	p	β	t	p
Contextual Factors	.211	.207	66.723	.000			
Performance Feedback					.073	1.922	.050
Job Autonomy					.305	8.470	.000
Supervisor Support					.135	3.676	.000
Rewards					.046	1.307	.191

In order to test Hypothesis 2; “Self-efficacy has a positive effect on work engagement”; a simple regression analysis was conducted to examine the contribution of the personal resource of self-efficacy to work engagement. It was seen that self-efficacy explains 30%

of the variance in total work engagement. A more detailed analysis was carried out in order to search the relationship between self-efficacy and the three work engagement factors of work enthusiasm, absorption and vigor. This analysis showed that self-efficacy explains 34% of the variance in vigor, 27% of the variance in work enthusiasm, and 9% of the variance in absorption. According to these results, self-efficacy as a personal resource has the strongest impact on vigor (Beta=.581, $p=.000$), followed by work enthusiasm (Beta=.519, $p=.000$) and absorption (Beta=.304, $p=.000$). In light of these findings, Hypothesis 2 was fully supported. The results of these analyses are presented in Tables 8 and 9.

Table 8. The Results of the Simple Regression Analysis for Testing the Main Effect of Self-efficacy on Work Engagement

WORK ENGAGEMENT							
	R²	Adj R²	F	p	β	t	p
Self-efficacy	.298	.297	425.764	.000	.546	20.634	.000

Table 9. The Results of Simple Regression Analyses for Testing the Main Effect of Self-efficacy on the Three Dimensions of Work Engagement

WORK ENGAGEMENT							
Work Enthusiasm							
	R²	Adj R²	F	p	β	t	p
Self-efficacy	.269	.269	369.811	.000	.519	19.230	.000
Absorption							
	R²	Adj R²	F	p	β	t	p
Self-efficacy	.092	.091	101.933	.000	.304	10.096	.000
Vigor							
	R²	Adj R²	F	p	β	t	p
Self-efficacy	.338	.337	512,559	.000	.581	22.640	.000

4.3.2. The Relationship Between Work Engagement and the Dependent Variables

In order to test Hypothesis 3; Work Engagement has a negative effect on turnover intention; a simple regression analysis was conducted to examine the contribution of work engagement to turnover intention. The results showed that, work engagement is indeed negatively related to turnover intention and that work engagement explains 13% of the variance in turnover intention. A more detailed analysis was carried out in order to search for the relationship between turnover intention and the three work engagement factors of work enthusiasm, absorption and vigor. The results demonstrated that, among the three work engagement factors, work enthusiasm has the strongest impact on turnover intention (Beta= -.505, p=.000), followed by vigor (Beta=-.279, p=.000) and absorption (Beta=-.162, p=.010). These findings provide full support for Hypothesis 3. The results of these analyses are presented in Tables 10 and 11.

Table 10. The Results of the Simple Regression Analysis for Testing the Main Effect of Work Engagement on Turnover Intention

TURNOVER INTENTION							
	R ²	Adj R ²	F	p	β	t	p
Work Engagement	.135	.134	156.570	.000	-.367	-12.513	.000

Table 11. The Results of the Multiple Regression Analysis for Testing the Main Effect of the Three Dimensions of Work Engagement on Turnover Intention

TURNOVER INTENTION							
	R ²	Adj R ²	F	p	β	t	p
Work Engagement	.265	.262	120.117	.000			
Work Enthusiasm					-.505	18.509	.000
Absorption					-.162	-5.186	.010
Vigor					-.279	-9.210	.000

The last simple regression analysis was performed to test the fourth hypothesis: Work Engagement has a positive effect on well-being. The results showed that, work engagement is indeed positively related to the positive feelings factor of work-related well-being (Beta=.581, p=.000) and that work engagement explains 34% of the variance on the positive feelings factor of work-related well-being. Moreover, the results also show that, as expected, work engagement is negatively related to the negative feelings factor of work-related well-being (Beta=-.123, p=.000) and that it explains a mere 2% of the variance. A more detailed analysis was carried out in order to search for the relationship between the three work engagement factors and the two work-related well-being factors. The results demonstrated that, among the three work engagement factors, work enthusiasm has the strongest impact on the positive feelings factor of work-related well-being (Beta= .665, p=.000), followed by vigor (Beta=.113, p=.001) and absorption (-.091, p=.001). The negative relationship between the absorption and positive feelings factor of work-related well-being is an unexpected finding and will be further elaborated in the discussion section of this thesis. Moreover, the results of the regression analysis between the work engagement factors and the negative feelings factor of work-related well-being demonstrate that, only work enthusiasm has a significant (and negative) relationship with this factor (Beta=-.161, p=.000) These findings provide partial support for Hypothesis 4. The results of these analyses are presented in Tables 12 and 13.

Table 12. The Results of the Simple Regression Analysis for Testing the Main Effect of Work Engagement on Work Related Well-Being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R²	AdjR²	F	p	β	t	p
Work Engagement	.337	.337	510.277	.000	.581	22.589	.000
Negative Feelings							
	R²	Adj R²	F	p	β	t	p
Work Engagement	.015	.014	15,382	.000	-.123	-3.922	.000

Table 13. The Results of the Multiple Regression Analysis for Testing the Main Effect of the Three Dimensions of Work Engagement on Work Related Well-Being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R²	Adj R²	F	p	β	t	p
Work Engagement	.493	.491	324.377	.000			
Work Enthusiasm					.665	21.920	.000
Absorption					-.091	-3.247	.001
Vigor					.113	3.466	.001
Negative Feelings							
	R²	Adj R²	F	p	β	t	p
Work Engagement	.030	.027	10,293	.000			
Work Enthusiasm					-.161	-3.830	.000
Absorption					.072	1.864	.063
Vigor					-.055	-1.210	.227

4.3.3. The Mediating Role of Work Engagement between Contextual Factors and Work-related Well-being

In order to test the fifth hypothesis; “Work engagement mediates the effect of contextual factors on work-related well-being”, the mediated model was tested using the three-step approach of Baron & Kenny (1986). In the first step, the mediator was regressed on the independent variable; in the second step, the dependent variable was regressed on the independent variable; and in the final step, the dependent variable was regressed on both the independent and the mediator variables. According to the three-step approach, if (1) the independent variable influenced the mediator in the first equation and (2) the dependent variable in the second equation, and if (3) the mediator influenced the dependent variable in the third equation while the influence of the independent variable on the dependent variable was either diminished (partial mediation) or completely disappeared (full mediation), then the mediation was evident. In the mediated model proposed for Hypothesis 5, contextual factors (supervisor support, job autonomy, performance feedback, and rewards) constituted the independent variable, work engagement was the mediator, and work-related well-being was the dependent variable. Since both the independent and the mediating variables of our study were made up of four and three factors respectively, the mediation analyses were carried out individually for each separate work engagement dimension in order not to leave out any significant relationships.

4.3.3.1. The Mediating Role of Work Enthusiasm between Contextual Factors and Work-related Well-being

The first analysis, which was conducted to predict “work enthusiasm” from contextual factors indicated that; all of the contextual factors significantly contribute to the prediction of the “work enthusiasm” dimension of work engagement. More specifically, contextual factors had 35% explanatory power on “work enthusiasm”. These results indicate that there is a significant relationship between the independent and mediating variables and supported the first assumption of the mediation analysis, thus enabling us to proceed to the second step of the mediation analysis. Detailed results for this first step are depicted in Table 7.

The second analysis, which was conducted to predict work-related well-being from the contextual factors, indicated that for the “positive feelings” dimension of work-related well-being, except for the “performance feedback” (Beta=.056, $p=.112$) dimension of contextual factors; all of the other contextual factors of job autonomy (Beta=.188, $p=.000$), supervisor support (Beta=.339, $p=.000$) and rewards (Beta=.145, $p=.000$) have a significant contribution. Overall, the three factors of job autonomy, supervisor support and rewards have 33% explanatory power on the “positive feelings” experienced by the employees. As for the “negative feelings” dimension of work-related well-being, all of the contextual factor dimensions of job autonomy (Beta=-.111, $p=.002$), supervisor support (Beta=-.322, $p=.000$), rewards (Beta=.386, $p=.000$) and performance feedback (Beta=.175, $p=.000$) were found to have a significant relationship with this outcome variable. The results demonstrated that overall, the four contextual factor scales had 25% explanatory power on the “negative feelings” experienced by the employees. The results of this second step of the mediating variable analysis are depicted in Table 14 indicating a significant relationship between the independent and dependent variables, except for the insignificant relationship between the contextual factor of “performance feedback” and the “positive feelings” dimension of “work-related well-being”. Thus, this contextual dimension was excluded in the last step of the mediation analysis that included the “positive feelings” dimension of work-related well-being as the dependent variable.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, both independent (contextual factors) and mediating (work enthusiasm) variables were entered as independent variables to examine their contribution on the dependent variable, “work-related well-being”. The results of the multiple regression analysis indicated that, for the “job autonomy” dimension of contextual factors, the work enthusiasm dimension of work engagement fully mediated the relationship between this contextual factor and the “positive feelings” dimension of work-related well-being, whereby the effect of job autonomy disappeared (Beta=.039, $p=.167$). Moreover, for the “supervisor support” and “rewards” dimensions of contextual factors, the work enthusiasm factor of work engagement partially mediated the relationship between these contextual factors and the “positive feelings” dimension of work-related well-being, whereby the effect of supervisor support (Beta=.201, $p=.000$) and rewards (Beta=.075, $p=.001$) diminished.

As for the “negative feelings” dimension of work-related well-being, it was found that, the “work enthusiasm” dimension of work engagement again fully mediated the relationship between “job autonomy” (Beta=-.051, p=.148) and this well-being dimension. Moreover, work enthusiasm also partially mediated the relationship between “supervisor support” and “negative feelings”, whereby the contribution of this contextual factor was diminished (Beta=-.267, p=.000). However, in this last step of the analysis, the contribution of “performance feedback” (Beta=.212, p=.000) and “rewards” (Beta=.409, p=.000) did not lessen or diminish after work enthusiasm entered the analysis. The results of the last step’s analysis are shown in Table 15a.

Table 14. The Results of the Multiple Regression Analysis for Testing the Main Effect of Contextual Factors on Work-Related Well-Being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.331	.329	124.063	.000			
Performance Feedback					.056	1.592	.112
Job Autonomy					.188	5.678	.000
Supervisor Support					.339	10.023	.000
Rewards					.145	4.487	.000
Negative Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.249	.246	82.740	.000			
Performance Feedback					.175	4.706	.000
Job Autonomy					-.111	-3.166	.002
Supervisor Support					-.322	-8.985	.000
Rewards					.386	11.287	.000

Table 15a. The Results of the Multiple Regression Analysis for Testing the Mediating Effect of Work Enthusiasm on the Relationship between Contextual Factors and Work-Related Well-being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.330	.328	164.033	.000			
Job Autonomy					.200	6.173	.000
Supervisor Support					.349	10.478	.000
Rewards					.172	6.260	.000
2. Contextual Factors	.532	.530	284.321	.000			
Job Autonomy					.039	1.383	.167
Supervisor Support					.201	7.011	.000
Rewards					.075	3.195	.001
Work Engagement							
Work Enthusiasm					.552	20.806	.000

Table 15a. cont'd

Negative Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.249	.246	82.093	.000			
Performance Feedback					.175	4.703	.000
Job Autonomy					-.111	-3.164	.002
Supervisor Support					-.322	-8.981	.000
Rewards					.386	11.278	.000
2. Contextual Factors	.284	.280	79.026	.000			
Performance Feedback					.212	5.769	.000
Job Autonomy					-.051	-1.448	.148
Supervisor Support					-.267	-7.422	.000
Rewards					.409	12.171	.000
Work Engagement							
Work Enthusiasm					-.232	-6.989	.000

4.3.3.2. The Mediating Role of Absorption between Contextual Factors and Work-related Well-being

The first analysis, which was conducted to predict “absorption” from contextual factors indicated that; all of the contextual factors except for “rewards” significantly contribute to the prediction of the “absorption” dimension of work engagement. More specifically, contextual factors had 7% explanatory power on “absorption”. These results indicate that, except for the insignificant relationship between the “rewards” dimension of contextual factors and “absorption”, there is a significant relationship between the independent and mediating variables. As a result, the “rewards” dimension of contextual factors was decided to be avoided from the last step of the mediation analysis. Detailed results for this first step are depicted in Table 7.

The second analysis was carried out the same way as previously discussed on pages 79-80. The results of this second step of the mediating variable analysis are depicted in Table 14 indicating a significant relationship between the independent and dependent variables, except for the insignificant relationship between the contextual factor of “performance feedback” and the “positive feelings” dimension of “work-related well-being”. Thus, this contextual dimension was excluded in the last step of the mediation analysis that included the “positive feelings” dimension of work-related well-being as the dependent variable.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, the two independent variables that satisfied the mediation criteria (“job autonomy” and “supervisor support”) and mediating (absorption) variable were entered as independent variables to examine their contribution on the dependent variable, “work-related well-being”. The results of the multiple regression analysis indicated that, for both the “job autonomy” and “supervisor support” dimensions of contextual factors, the absorption dimension of work engagement partially mediated the relationship between these contextual factors and “positive feelings”, whereby the effect of both job autonomy (Beta=.190, $p=.000$) and supervisor support (Beta=.373, $p=.000$) diminished.

As for the “negative feelings” dimension of work-related well-being, it was found against our expectations that, the “absorption” dimension of work engagement did not act as a mediating variable (Beta=-.030, $p=.318$). The results of the last step’s analysis are shown in Table 15b.

Table 15b. The Results of the Multiple Regression Analysis for Testing the Mediating Effect of Absorption on the Relationship between Contextual Factors and Work-Related Well-being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.304	.302	218.542	.000			
Job Autonomy					.209	6.357	.000
Supervisor Support					.400	12.153	.000
2. Contextual Factors	.331	.329	165.494	.000			
Job Autonomy					.190	5.861	.000
Supervisor Support					.373	11.465	.000
Work Engagement							
Absorption					.172	6.456	.000

Table 15b. cont'd

Negative Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.153	.150	60.249	.000			
Performance Feedback					.397	11.840	.000
Job Autonomy					-.142	-3.828	.000
Supervisor Support					-.279	-7.374	.000
2. Contextual Factors	.154	.150	45.436	.000			
Performance Feedback					.401	11.879	.000
Job Autonomy					-.140	-3.751	.000
Supervisor Support					-.276	-7.248	.000
Work Engagement							
Absorption					-.030	-.999	.318

4.3.3.3. The Mediating Role of Vigor between Contextual Factors and Work-related Well-being

The first analysis, which was conducted to predict “vigor” from contextual factors indicated that; all of the contextual factors except for “rewards” significantly contribute to the prediction of the “vigor” dimension of work engagement. More specifically, contextual factors had 21% explanatory power on “vigor”. These results indicate that, except for the insignificant relationship between the “rewards” dimension of contextual factors and “vigor”, there is a significant relationship between the independent and mediating variables. As a result, the “rewards” dimension of contextual factors was decided to be avoided from the last step of the mediation analysis. Detailed results for this first step are depicted in Table 7.

The second analysis was carried out the same way as previously discussed on pages 79-80. The results of this second step of the mediating variable analysis are depicted in Table 14 indicating a significant relationship between the independent and dependent variables,

except for the insignificant relationship between the contextual factor of “performance feedback” and the “positive feelings” dimension of “work-related well-being”. Thus, as mentioned before, this contextual dimension was excluded in the last step of the mediation analysis that included the “positive feelings” dimension of work-related well-being as the dependent variable.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, the two independent variables that satisfied the mediation criteria (“job autonomy” and “supervisor support”) and mediating (vigor) variable were entered as independent variables to examine their contribution on the dependent variable, “work-related well-being”. The results of the multiple regression analysis indicated that, for both the “job autonomy” and “supervisor support” dimensions of contextual factors, the “vigor” dimension of work engagement partially mediated the relationship between these contextual factors and “positive feelings”, whereby the effect of both job autonomy (Beta=.102, $p=.002$) and supervisor support (Beta=.343, $p=.000$) diminished.

As for the “negative feelings” dimension of work-related well-being, the results of the multiple regression analysis indicated that, for both the “job autonomy” and “supervisor support” dimensions of contextual factors, the “vigor” dimension of work engagement partially mediated the relationship between these contextual factors and “negative feelings”, whereby the effect of both job autonomy (Beta=-.115, $p=.003$) and supervisor support (Beta=-.266, $p=.000$) diminished. However, it was also found out that, the “vigor” dimension of work engagement had no mediating effect upon the relationship between “performance feedback” and “negative feelings”. The results of the last step’s analysis are shown in Table 15c.

Table 15c. The Results of the Multiple Regression Analysis for Testing the Mediating Effect of Vigor on the Relationship between Contextual Factors and Work-Related Well-being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.304	.302	218.542	.000			
Job Autonomy					.209	6.357	.000
Supervisor Support					.400	12.153	.000
2. Contextual Factors	.391	.389	214.181	.000			
Job Autonomy					.102	3.177	.002
Supervisor Support					.343	11.008	.000
Work Engagement							
Vigor					.331	11.975	.000

Table 15c. cont'd

Negative Feelings							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.153	.150	60.249	.000			
Performance Feedback					.397	11.840	.000
Job Autonomy					-.142	-3.828	.000
Supervisor Support					-.279	-7.374	.000
2. Contextual Factors	.159	.156	47.421	.000			
Performance Feedback					.406	12.092	.000
Job Autonomy					-.115	-3.000	.003
Supervisor Support					-.266	-7.011	.000
Work Engagement							
Vigor					-.091	-2.779	.006

Hypothesis 5 assumes that contextual factors are negatively related to the “negative feelings” dimension of work-related well-being. The analysis results demonstrated in Table 14 indeed show that, as expected job autonomy and supervisor support are negatively related to the “negative feelings” dimension of work-related well-being. However, the contextual factors of performance feedback and rewards yielded unexpected results since both seem to be positively related to “negative feelings”. These results are remarkable, since the correlations between these contextual factors and “negative feelings” were negative (see Table 5), which suggests that this unexpected result will be interpreted further in the discussion section.

As a result of the detailed analyses depicted on Tables 15a,15b and 15c, it can be concluded that, the fifth hypothesis; “Work engagement mediates the effect of contextual factors on work-related well-being” is partially supported.

4.3.4. The Mediating Role of Work Engagement between Contextual Factors and Turnover Intention

In order to test the sixth hypothesis; “Work engagement mediates the effect of contextual factors on turnover intention”, the mediated model was tested using the three-step approach of Baron & Kenny (1986). In the mediated model proposed for hypothesis six, contextual factors (supervisor support, job autonomy, performance feedback and rewards) constituted the independent variable, work engagement was the mediator, and turnover intention was the dependent variable. Since both the independent and the mediating variables of our study were made up of four and three factors respectively, (as was the case for the dependent variable of “well-being”) the mediation analyses were carried out individually for each separate work engagement dimension in order not to leave out any significant relationships.

4.3.4.1. The Mediating Role of Work Enthusiasm between Contextual Factors and Turnover Intention

The first analysis, is elaborated in detailed previously on page 79 for the mediation analysis with the dependent variable of “well-being”, whereby it was seen that all of the contextual factors significantly contribute to the prediction of the “work enthusiasm” dimension of work engagement. Detailed results for this first step are depicted in Table 7.

The second analysis, which was conducted to predict turnover intention from the contextual factors, indicated that except for the “performance feedback” (Beta=.046, $p=.240$) dimension of contextual factors; all of the other contextual factors of job autonomy (Beta=-.122, $p=.001$), supervisor support (Beta=-.281, $p=.000$) and rewards (Beta=-.108, $p=.003$) have a significant contribution. Specifically, the three contextual factors had 15% explanatory power on turnover intention. The results of this analysis are depicted in Table 16 indicating a significant relationship between the independent and dependent variables, except for the insignificant relationship between the contextual factor of performance feedback and turnover intention. Thus, these findings supported the second assumption of the mediation analysis and enabled us to proceed to the third step with excluding the performance feedback dimension of contextual factors.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, both the independent variables that satisfied the mediation criteria (“job autonomy”, “supervisor support”, and “rewards”) and the mediating (work enthusiasm) variable were entered as independent variables to examine their contribution on the dependent variable “turnover intention”. The results of the multiple regression analysis indicated that, for the “job autonomy” and “rewards” dimension of contextual factors, “work enthusiasm” fully mediated the relationship between these contextual factors and turnover intention, whereby the effect of “job autonomy” (Beta=-.012, $p=.732$) and “rewards” disappeared (Beta=-.010, $p=.721$). Moreover, for the “supervisor support” dimension of contextual factors, “work enthusiasm” partially mediated the relationship between this contextual factor and turnover intention, whereby the effect of supervisor support diminished (Beta=-.158, $p=.000$). The results of the last step’s analysis are shown in Table 17a.

Table 16. The Results of the Multiple Regression Analysis for Testing the Main Effect of Contextual Factors on Turnover Intention

TURNOVER INTENTION							
	R ²	Adj R ²	F	p	β	t	p
Contextual Factors	.152	.149	44.881	.000			
Performance Feedback					.046	1.175	.240
Job Autonomy					-.122	-3.282	.001
Supervisor Support					-.281	-7.367	.000
Rewards					-.108	-2.981	.003

Table 17a. Results of the Multiple Regression Analysis for the Mediating Effect of Work Enthusiasm on the Relationship between Contextual Factors and Turnover Intention

TURNOVER INTENTION							
	R²	Adj R²	F	p	β	t	p
1 Contextual Factors	.151	.148	59.230	.000			
Job Autonomy					-.113	-3.097	.002
Supervisor Support					-.272	-7.268	.000
Rewards					-.086	-2.774	.006
2 Contextual Factors	.273	.270	93.741	.000			
Job Autonomy					-.012	.343	.732
Supervisor Support					-.158	-4.410	.000
Rewards					-.010	-.357	.721
Work Engagement							
Work Enthusiasm					-.428	-12.949	.000

4.3.4.2. The Mediating Role of Absorption between Contextual Factors and Turnover Intention

The first analysis is previously elaborated in detail on page 84 for the mediation analysis with the dependent variable of “well-being”, whereby it was seen that all of the contextual factors except for “rewards” significantly contribute to the prediction of the “absorption” dimension of work engagement. As a result, the “rewards” dimension of contextual factors was decided to be avoided from the last step of the mediation analysis. Detailed results for this first step are depicted in Table 7.

The second analysis, as mentioned previously was conducted to predict turnover intention from the contextual factors, indicated that except for the “performance feedback” dimension, all of the other contextual factors have a significant contribution on this dependent

variable. The results of this analysis are depicted in Table 16. these findings supported the second assumption of the mediation analysis and enabled us to proceed to the third step with excluding the performance feedback dimension of contextual factors.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, both the independent variables that satisfied the mediation criteria (“job autonomy”, and “supervisor support”) and the mediating (absorption) variable were entered as independent variables to examine their contribution on the dependent variable “turnover intention”. The results of the multiple regression analysis indicated that, for the “job autonomy” and “supervisor support” dimensions of contextual factors, “absorption” partially mediated the relationship between these contextual factors and turnover intention, whereby the effect of “job autonomy” (Beta=-.109, p=.003) and “supervisor support” (Beta=-.286, p=.000) diminished. The results of the last step’s analysis are shown in Table 17b.

Table 17b. Results of the Multiple Regression Analysis for the Mediating Effect of Absorption on the Relationship between Contextual Factors and Turnover Intention

TURNOVER INTENTION							
	R ²	Adj R ²	F	p	β	t	p
1 Contextual Factors	.144	.143	84.612	.000			
Job Autonomy					-.117	-3.221	.001
Supervisor Support					-.298	-8.170	.000
2 Contextual Factors	.150	.147	58.780	.000			
Job Autonomy					-.109	-2.985	.003
Supervisor Support					-.286	-7.803	.000
Work Engagement							
Absorption					-.075	-2.497	.013

4.3.4.3. The Mediating Role of Vigor between Contextual Factors and Turnover Intention

The first analysis is previously elaborated in detail on page 87 for the mediation analysis with the dependent variable of “well-being”, whereby it was seen that all of the contextual factors except for “rewards” significantly contribute to the prediction of the “vigor” dimension of work engagement. As a result, the “rewards” dimension of contextual factors was decided to be avoided from the last step of the mediation analysis. Detailed results for this first step are depicted in Table 7.

The second analysis, as mentioned previously was conducted to predict turnover intention from the contextual factors, indicated that except for the “performance feedback” dimension, all of the other contextual factors have a significant contribution on this dependent variable. The results of this analysis are depicted in Table 16. these findings supported the second assumption of the mediation analysis and enabled us to proceed to the third step with excluding the performance feedback dimension of contextual factors.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, both the independent variables that satisfied the mediation criteria (“job autonomy”, and “supervisor support”) and the mediating (vigor) variable were entered as independent variables to examine their contribution on the dependent variable “turnover intention”. The results of the multiple regression analysis indicated that, for the “job autonomy” dimension of contextual factors, “vigor” fully mediated the relationship between this contextual factor and turnover intention, whereby the effect of “job autonomy” disappeared ($\text{Beta} = -.069$, $p = .068$). Moreover, for the “supervisor support” dimension of contextual factors, “vigor” partially mediated the relationship between this contextual factor and turnover intention, whereby the effect of “supervisor support” diminished ($\text{Beta} = -.272$, $p = .000$). The results of the last step’s analysis are shown in Table 17c.

Table 17c. Results of the Multiple Regression Analysis for the Mediating Effect of Vigor on the Relationship between Contextual Factors and Turnover Intention

TURNOVER INTENTION							
	R ²	Adj R ²	F	p	β	t	p
1 Contextual Factors	.144	.143	84.612	.000			
Job Autonomy					-.117	-3.221	.001
Supervisor Support					-.298	-8.170	.000
2 Contextual Factors	.162	.160	64.735	.000			
Job Autonomy					-.069	-1.829	.068
Supervisor Support					-.272	-7.449	.000
Work Engagement							
Vigor					-.150	-4.639	.000

As a result of these detailed analyses, it can be concluded that, the sixth hypothesis; “Work engagement mediates the effect of contextual factors on turnover intention” is also partially supported.

4.3.5. The Mediating Role of Work Engagement between Self-efficacy and Work-related Well-being

In order to test the seventh hypothesis; “Work engagement mediates the effect of self-efficacy on well-being”, a mediated model was tested using the three-step approach (Baron & Kenny, 1986). In the mediated model proposed for hypothesis seven, self-efficacy was the independent variable, work engagement was the mediator, and work-related well-being was the dependent variable.

The first analysis, which was conducted to predict work engagement from self-efficacy, indicated that self-efficacy significantly contributes to the prediction of all of the three factors of work engagement. That is, self-efficacy had 27% explanatory power on the “work enthusiasm” (Beta=.519, p=.000), 9% on the “absorption” (Beta=.304, p=.000), and

34% on the “vigor” ($Beta=.581$, $p=.000$) factors of work engagement. The results of this first step of the analysis have already been reported for hypothesis two (Table 9). These results indicate that there is a significant relationship between the independent and mediating variables.

The second analysis, which was conducted to predict work-related well-being from self-efficacy, indicated that self-efficacy also significantly contributes to the prediction of the two factors of work-related well-being (positive feelings and negative feelings). Specifically, self-efficacy had 19% explanatory power on the “positive feelings” ($Beta=.437$, $p=.000$) and 2% on the “negative feelings” ($Beta=-.136$, $p=.000$) dimension of work engagement. The results of these analyses are depicted in Table 18, indicating a significant relationship between the independent and dependent variables.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, both independent (self-efficacy) and mediating (work engagement) variables were entered as independent variables to examine their contribution on the dependent variable, “work-related well-being”.

The results of the multiple regression analysis indicated that, for the “positive feelings” factor of work-related well-being, all of the three factors of work engagement partially mediate the relationship between self-efficacy and this outcome variable. More specifically, the results of the third equation showed that “work enthusiasm” ($Beta=.643$, $p=.000$), “absorption” ($Beta=-.083$, $p=.003$) and “vigor” ($Beta=.073$, $p=.037$) significantly contributed to the prediction of “positive feelings” whereas the effect of self-efficacy diminished ($Beta=.086$, $p=.003$). As for the “negative feelings” factor of work-related well-being, only the “work enthusiasm” ($Beta=-.143$, $p=.001$) factor of work engagement fully mediates the relationship between self-efficacy and this outcome variable. More specifically, “work enthusiasm” significantly contributed to the prediction of “negative feelings” whereas the effect of self-efficacy disappeared ($Beta=-.070$, $p=.075$). The results demonstrated that the “absorption” ($Beta=.066$, $p=.090$) and “vigor” ($Beta=-.022$, $p=.648$) factors of work engagement do not act as mediators between the independent variable of self-efficacy and the “negative feelings” factors of work-related well-being. The results of these analyses are summarized in Table 19.

Overall, (1) the independent variable (self-efficacy) influenced the mediator (work engagement) in the first equation and (2) the dependent variable (work-related well-being) in the second equation, and (3) the mediator (work engagement) influenced the dependent variable (work-related well-being) in the third equation while the influences of the independent variable (self-efficacy) on the dependent variable (work-related well-being) partially or completely disappeared. Therefore, results suggested a mediated model. Thus, as a result of this three-step mediating variable analysis, the seventh hypothesis; “Work engagement mediates the effect of self-efficacy on well-being” was partially supported.

Table 18. The Results of the Simple Regression Analysis for Testing the Main Effect of Self-Efficacy on Work-Related Well-Being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R ²	Adj R ²	F	p	β	t	p
Self-efficacy	.191	.190	237.455	.000	.437	15.410	.000
Negative Feelings							
	R ²	Adj R ²	F	p	β	t	p
Self-efficacy	.019	.018	19.031	.000	-.136	-4.362	.000

Table 19. Results of the Multiple Regression Analysis for Testing the Mediating Effect of Work Engagement on the Relationship between Self-Efficacy and Work-Related Well-being

WORK-RELATED WELL-BEING							
Positive Feelings							
	R²	Adj R²	F	p	β	t	p
1 Self-efficacy	.191	.190	237,062	.000	.437	15.397	.000
2 Self-efficacy	.498	.496	247.567	.000	.086	3.030	.003
Work Engagement							
Work Enthusiasm					.643	20.687	.000
Absorption					-.083	-2.975	.003
Vigor					.073	2.094	.037
Negative Feelings							
	R²	Adj R²	F	p	β	t	p
1 Self-efficacy	.019	.018	19.281	.000	-.137	-4.391	.000
2 Self-efficacy	.033	.029	8,533	.000	-.070	-1.784	.075
Work Engagement							
Work Enthusiasm					-.143	-3.308	.001
Absorption					.066	1.698	.090
Vigor					-.022	-.456	.648

4.3.6. The Mediating Role of Work Engagement between Self-efficacy and Turnover Intention

In order to test the last hypothesis; “Work engagement mediates the effect of self-efficacy on turnover intention”, again, the mediated model was tested using the three-step approach of Baron & Kenny (1986). In the mediated model proposed for hypothesis eight, self-efficacy was the independent variable, work engagement was the mediator, and turnover intention was the dependent variable.

As previously noted, the first analysis indicated that self-efficacy significantly contributes to the prediction of all of three factors of work engagement. The results are previously discussed on page 98 and depicted in Table 9. As mentioned before, these results indicate that there is a significant relationship between the independent and mediating variables.

The second analysis, which was conducted to predict turnover intention from self-efficacy indicated that self-efficacy also significantly contributes to the prediction of turnover intention. Specifically, self-efficacy had 6% explanatory power on turnover intention (Beta=-.234, $p=.000$). The results of this analysis are depicted in Table 20, indicating a significant relationship between the independent and dependent variables.

The last step of the mediation analysis was conducted in light of the above findings. To test the third step of the mediating variable analysis, both independent (self-efficacy) and mediating (work engagement) variables were entered as independent variables to examine their contribution on the dependent variable, “turnover intention”. The results of the multiple regression analysis indicated that, for turnover intention, two of the factors of work engagement fully mediate the relationship between self-efficacy and this outcome variable. More specifically, the results of the third equation showed that “work enthusiasm” (Beta=-.587, $p=.000$) and “absorption” (Beta= .089, $p=.009$) significantly contributed to the prediction of turnover intention whereas the effect of self-efficacy disappeared (Beta=.017, $p=.630$). The results demonstrated that the “vigor” (Beta=.048, $p=.257$) factor of work engagement does not act as a mediator between the independent variable of self-efficacy and turnover intention. The results of these analyses are summarized in Table 21.

Overall, (1) the independent variable (self-efficacy) influenced the mediator (work engagement) in the first equation and (2) the dependent variable (turnover intention) in the second equation, and (3) the mediator (work engagement) influenced the dependent variable (turnover intention) in the third equation, while the influences of the independent variable (self-efficacy) on the dependent variable (turnover intention) completely disappeared for two factors of the mediating variable. Therefore, results suggested a mediated model. Thus, as a result of this three-step mediating variable analysis, the eighth hypothesis; “Work engagement mediates the effect of self-efficacy on turnover intention” was partially supported.

Table 20. The Results of the Simple Regression Analysis for Testing the Main Effect of Self-Efficacy on Turnover Intention

Turnover Intention							
	R ²	Adj R ²	F	p	β	t	p
Self-efficacy	.055	.054	58.267	.000	-.234	-7.633	.000

Table 21. The Results of the Multiple Regression Analysis for Testing the Mediating Effect of Work Engagement on the Relationship between Self-Efficacy and Turnover Intention

Turnover Intention							
	R ²	Adj R ²	F	p	β	t	p
1 Self-efficacy	.055	.054	58.020	.000	-.234	-7.617	.000
2 Self-efficacy	.265	.262	90.077	.000	.017	.481	.630
Work Engagement							
Work Enthusiasm					-.587	-15.616	.000
Absorption					.089	2.625	.009
Vigor					.048	1.133	.257

4.4. The Relationship between Work Engagement and the Demographic Variables

In order to answer research question 1, below, the results of those demographic variables that have a significant relationship with work engagement are reported. As a result of the analyses carried out between work engagement and the demographic variables; age, tenure, total tenure, marital status, and managerial duty were found to have a significant relationship with this variable. However, there wasn't a significant relationship between the demographic variables of gender, education level, and managerial duty level and work engagement, thus so they are not reported below.

4.4.1. The Relationship between Age and Work Engagement

The results of our study regarding the demographic variables were similar to previous research. We found minor, yet significant correlations between age and the three engagement dimensions. Our results also support the previous findings such that, the older the employees, the more engaged they feel. The size of the correlations in our study is also small ($<.20$). More specifically, age had small yet positive correlations with “work enthusiasm” ($r = .176$, $p < .01$) and “vigor” ($r = .092$, $p < .01$). Our results also showed that there is no correlation between age and “absorption”.

4.4.2. The Relationship between Tenure, Total Tenure and Work Engagement

Results regarding tenure and total tenure also depict small yet positive correlations between the work engagement dimensions and these demographic variables. Employee tenure at current company shares a correlation of $.189$ ($p < .01$) with “work enthusiasm” and $.114$ ($p < .142$) with “vigor”. Similar to the above results, there is no correlation between tenure and “absorption”. Finally, total employee tenure yielded significant correlations with all of the engagement dimensions of “work enthusiasm” ($r = .220$, $p < .01$), “absorption” ($r = .066$, $p < .05$) and “vigor” ($r = .142$, $p < .01$).

4.4.3. The Relationship between Marital Status and Work Engagement

The relationship between marital status and work engagement was analyzed by using a t-test. The results of the analyses show that, there was a significant difference between the work engagement scores of these two groups of employees who are labeled as either single or married. More specifically, the married employees report higher engagement levels.

Table 22 The Relationship between Marital Status and Work Engagement

	Marital Status	N	Mean	Std. Deviation	t	p
Work Engagement	Single	332	4.30	.889	2.676	0,01
	Married	701	4.45	.753		

4.4.4. The Relationship between Managerial Duty and Work Engagement

The relationship between managerial duty, and work engagement was also analyzed by using a t-test. The result of the analysis shows that there was a significant difference between the engagement scores of these two groups and that, those employees who have managerial responsibilities also have higher levels of engagement, as depicted by the mean scores.

Table 23 The Relationship between Managerial Duty and Work Engagement

	Managerial Duty	N	Mean	Std. Deviation	t	p
Work Engagement	Yes	430	4.54	.741	5.011	0,00
	No	603	4.30	.827		

10.5. The Relationship between Contextual Factors, Self-Efficacy and Total Work Engagement

In order to test for research question 2, a multiple regression analysis was conducted with contextual factors and self-efficacy as the independent variables and total work engagement as the dependent variable. The results as depicted in Table 23 show that, self-efficacy has the stronger impact on work engagement (Beta=.428) when compared to the contextual factors. Furthermore, in the order of the strength of the relationship on work engagement, self-efficacy is followed by supervisor support, feedback and job autonomy. Moreover, there doesn't seem to be a significant relationship between rewards and total work engagement, even though the p values is very close to the level of significance for this variable (p=.051).

Table 24. The Results of the Multiple Regression Analysis for Testing the Main Effect of Contextual Factors and Self-Efficacy on Work Engagement

WORK ENGAGEMENT							
	R ²	Adj R ²	F	p	β	t	p
	.408	.405	137.581	.000			
Contextual Factors							
Performance Feedback						.107	3.227 .001
Job Autonomy					.082	2.495	.013
Supervisor Support					.197	6.174	.000
Rewards					.059	1.951	.051
Self-Efficacy					.428	15.918	.000

5. DISCUSSION

The current study had “work engagement” at the heart of its model. More specifically, this thesis dealt with exploring the role of work engagement, as a mediating variable, between contextual factors (i.e., job autonomy, feedback, supervisor support, rewards) and self-efficacy on the one hand, and well-being and turnover intention on the other hand. Most of the previous empirical studies on work engagement have focused on work situation alone (Maslach et al., 2001). However, we argued that individual factors may additionally contribute to understanding work engagement.

In a nutshell, our findings reveal that, though differentially, the independent variables of our study are positively related to the mediating variable of “work engagement” and that in return, this variable is also positively related to well-being and negatively related to turnover intention. As expected, we have found both partial and full mediation relationships between the variables of our study. There were also some unexpected findings along the way, such as the negative relationship between “absorption” and “positive feelings”, and the positive relationship between “absorption” and “turnover intention”. These and other findings are discussed in detail below.

We begin our discussion with the factor analysis results of the work engagement scale. Our factor analysis results yielded three separate dimensions, and the findings of our study will be reviewed in relation to these dimensions. Therefore, we first discuss the factor analysis results of the work engagement scale.

The factor analysis results of the work engagement scale yielded a different factor structure than the original scale (Schaufeli et al, 2002b). As mentioned before, the original scale is made up of three factors which are, *dedication*, *vigor*, and *absorption*. The results of our study revealed three factors as well, two of which are found to be the same as those of the original scale, and so they are given the same name as the factors of the original scale, namely “*vigor*” and “*absorption*”. However, in our analysis, a new factor emerged, which was made up of the items of the *dedication* factor of the original scale along with three items from the original *vigor* scale and one item from the original *absorption* scale. This new factor was named as “*work enthusiasm*” and was employed under this label in our analyses. In the original work engagement scale, dedication is assessed by five items that refer to deriving a sense of significance from one’s work, feeling enthusiastic and proud about one’s job, and

feeling inspired and challenged by it. Thus, those who score high on dedication strongly identify with their work because it is experienced as meaningful, inspiring, and challenging. The results of our factor analysis demonstrated that, three “vigor” items (“At my job, I feel strong and vigorous”, “At my work I feel bursting with energy”, “When I get up in the morning, I feel like going to work”) and one “absorption” item (“Time flies when I’m working”) also loaded together with the dedication factor. This result is in fact understandable, since the three dimensions are closely related. Previous studies about the three engagement factors have also shown that correlations between the three scales usually exceed .65 (e.g., Demerouti et al., 2001; Salanova & Schaufeli, 2000; Schaufeli et al., 2002a, 2002b).

5.1.The Relationship between Work Engagement and the Independent Variables

5.1.1. The Relationship between Contextual Factors and Work Engagement

The results of our analysis showed that, except for the insignificant relationship between the “rewards” dimension of contextual factors with the “vigor” and “absorption” dimensions of work engagement, there was a significant relationship between all of the contextual factors and the three work engagement dimensions. Among these, the strongest relationship was observed between “job autonomy” and “vigor” ($\text{Beta}=.305$, $p=.000$). This result was not surprising since previous research has frequently highlighted the significant impact of job autonomy on motivational processes (eg.; Hackman & Oldham, 1980; Karasek, 1979; De Jonge & Schaufeli, 1998; De Rijk, Le Blanc, Schaufeli & De Jonge, 1998). Moreover, it was also observed that the four contextual factors had the strongest explanatory power on the “work enthusiasm” factor of work engagement (35%), followed by “vigor” (21%) and “absorption” (7%) respectively. This finding seems logical given the fact that “work enthusiasm” is the dominant work engagement factor and that, the literature findings we’ve mentioned earlier supports the positive relationship between contextual factors and work engagement.

A more detailed scrutiny of our results reveal that, “performance feedback” has its strongest impact on “work enthusiasm” ($\text{Beta}=.160$, $p=.000$), “job autonomy” has its strongest impact on “vigor”($\text{Beta}=.305$, $p=.000$), “supervisor support” has its strongest impact on “work enthusiasm”(Beta=.239, $p=.000$) and “rewards” has an impact again on “work enthusiasm” ($\text{Beta}=.098$, $p=.002$). These results were expected, since autonomy may have increased work

engagement (especially “vigor”) because employees could decide for themselves when and how to respond to workplace demands which may aid them to persevere at their tasks even when things do not go well. A high-quality relationship with the supervisor may have acted as instrumental help and emotional support for employees, thus increasing their levels of “work enthusiasm”. Moreover, feedback may have helped because it provided employees with the information necessary to maintain their performance and to stay healthy and hence has increased their work enthusiasm. Rewards on the other hand, may have acted as an extrinsic motivation factor for employees (Kahn & Byosiore, 1992).

Previous research is also in line with these findings whereby work engagement is positively associated with job characteristics that might be labeled as resources, motivators or energizers, such as social support from co-workers and one's superior, performance feedback, coaching, job autonomy, task variety, and training facilities (Demerouti et al., 2001; Salanova, & Schaufeli, 2000; 2003; Schaufeli, Taris & Van Rhenen, 2008).

Moreover, our results resemble the results of a study conducted by Demerouti et al. (2001), which found that among the job resources, feedback ($\text{Beta}=.62$) had the highest impact on work engagement, followed by rewards ($\text{Beta}=.57$), job control (.53), and supervisor support ($\text{Beta}=.43$) respectively.

In a recent study conducted among Turkish female managers, Koyuncu et al. (2006) found that respondents indicating higher levels of employee control on the job, reward and recognition and value fit were more work engaged. Thus, our results seem to be in line with the previous research findings in terms of the relationship between context and work engagement.

In our study, the concept of reward is operationalized as “the perceived fairness of the pay and promotion policies”. The insignificant relationship between this concept and the two work engagement dimensions of “absorption” and “vigor” might be explained with the previously mentioned inconsistent results cited from the literature regarding the effect of rewards on motivation. Indeed, some researchers passionately advocated the position that rewards are not always positively related to employee motivation and performance. These researchers stated that rewards might also have detrimental consequences (Lawler, 1971; Deci,

1975). Thus, the results of our study seem to be in line with this line of research since no significant relationship is observed between rewards and these two engagement dimensions.

5.1.2. The Relationship between Self-efficacy and Work Engagement

Our results demonstrated that, self-efficacy explains 30% of the variance in work engagement. More specifically, self-efficacy explains 34% of the variance in “vigor”, 27% of the variance in “work enthusiasm”, and 9% of the variance in “absorption”. Even though there is no study conducted so far on the main effect of self-efficacy on work engagement, previous research that has included constructs similar to self-efficacy is in line with our findings. Moreover as depicted in Table 23, our analyses regarding the main effect of contextual factors and self-efficacy on work engagement also provide an affirmative answer to the second research question of this study, such that self-efficacy has a stronger influence on work engagement compared to the contextual factors.

As mentioned before, research carried out by Bono and Judge (2003) demonstrated that, core-self evaluations (self-esteem, generalized self-efficacy and neuroticism) appear to play an important role in attitudes and behavior at work. Our results provide support for this proposition since in our case, self-efficacy is found to be positively related to work engagement. It is also interesting to note that the highest influence is observed between self-efficacy and the “vigor” dimension of work engagement. This finding is understandable since, as mentioned previously, Bandura (1986) has stated that perceived self-efficacy refers to personal action control or agency, as well as the level of persistence one displays to reach goals through difficult times and “vigor” is defined as the willingness to invest effort in one’s work and persistence even in the face of difficulties.

Self-efficacy beliefs have also proven to be a relevant variable in theory and research on job burnout. For instance, Cherniss (1993) assumes that lack of confidence in one’s own competence is a critical factor in the development of burnout. Leiter, (1991) even goes one step further by considering burnout essentially as “a crisis in self-efficacy”. Research on burnout shows the potential impact of self-efficacy among different samples (Grau, Salanova, & Peiro, 2000; Rabinowitz, Kushnir, & Ribak, 1996; Van Yperen, 1998). For instance, teachers with high levels of self-efficacy displayed fewer signs of burnout compared to those

who rated their capability as low (Brouwers, 1999). Since work engagement has a strong negative relationship with burnout, these research findings provide a back up for our findings.

Moreover, in a study among Dutch nurses, Janssen, Schaufeli and Houkes (1999) found that emotional exhaustion was significantly (negatively) associated with self-esteem. This suggests that employees with high self-esteem experience relatively low levels of emotional exhaustion compared to individuals with poor self-esteem. This finding is also in line with the results reported by Rosse, Boss, Johnson, & Crown (1991). Thus, regarding burnout as a process, it is plausible that high self-esteem prevents people somewhat from becoming exhausted. Individuals with high self-esteem tend to perceive themselves as more competent and more in control of life and are therefore likely to experience less negative emotions compared with individuals with poor self-esteem. These results also support our findings since, self-esteem and self-efficacy have a very high correlation ($r=.85$) (Schwarzer, 1996).

A recent study conducted by Naudé and Rothmann (2006) examined the influence of the personality disposition of sense of coherence on the work engagement of emergency workers. The results demonstrated that, those workers with a strong sense of coherence were found to experience less burnout and more work engagement – presumably because they are predisposed to experiencing stimuli from the environment in a positive manner. This result is also consistent with previous findings (e.g., Basson & Rothmann, 2002; Schaufeli & Bakker, 2004). These findings provide further support for our findings since sense of coherence and self-efficacy are also similar constructs by definition.

5.2.The Relationship between Work Engagement and the Dependent Variables

5.2.1. The Relationship Between Work Engagement and Turnover Intention

Though limited, previous research has demonstrated that, the possible consequences of work engagement pertain to positive *attitudes* towards work and towards the organization, such as low turnover intention (Schaufeli, Taris & Van Rhenen, 2008).

Likewise, our results also illustrate that, work engagement explains 13% of the variance in turnover intention. More specifically, among the engagement factors; work enthusiasm (Beta=-.505, $p=.000$), vigor (Beta=-.279, $p=.000$), and absorption (Beta=-.162, $p=.010$) have the greatest influence on turnover intention respectively. Compared to the other work engagement dimensions, it is worth noting the high (negative) explanatory value of the “work enthusiasm” dimension on turnover intention. Since the “work enthusiasm” dimension of work engagement is mainly composed of “dedication” items, our results support the findings of a recent study carried out in Turkey (Koyuncu et al., 2006) which found that respondents indicating higher levels of dedication reported less intent to quit. This result was expected since, as mentioned before, “work enthusiasm” is the dominant engagement factor and that the significant negative relationship between engagement and turnover intention has been documented before (eg., Pool et al., 1992; Stremmel, 1991; Schaufeli & Bakker, 2004; Bakker, Demerouti & Schaufeli, 2003).

Since no actual measure of turnover was used in our study, the results cannot be interpreted as suggesting which variables can prevent turnover, but only intentions to do so. However, it is quite clear that turnover intentions are strong predictors of actual turnover (e.g. Mobley et al., 1977; Parasuraman, 1989). Thus, especially the strong (negative) relationship found between work enthusiasm and turnover intention is noteworthy. This particular result calls attention to the fact that, in order to decrease the turnover intention in an organization, managers need to promote those resources that have a positive impact on employees’ levels of dedication. In our study these resources were identified as job autonomy, supervisor support, feedback, and rewards (in the order of relationship strength).

5.2.2. The Relationship Between Work Engagement and Work-related Well-being

Although there is no comprehensive research regarding the relationship between engagement and well-being yet, previous research has shown some indications that engagement is positively related to health, that is, to low levels of depression and distress (Schaufeli, Taris & Van Rhenen, 2008) and psychosomatic complaints (Demerouti et al., 2001).

So far, only two studies included work engagement and perceived health (Schaufeli & Bakker, 2004; Hakanen, Bakker & Schaufeli, 2006). The model that was tested in both studies assumed that engagement was unrelated to psychosomatic health problems. However, the results showed that “vigor” and “dedication” showed weak to moderate positive correlations with perceived health. In other words, there is limited evidence that at least two aspects of engagement are positively related to perceived health. These findings also agree with the qualitative study of Schaufeli, Taris, Le Blanc, Peeters, Bakker & De Jonge (2001) which suggests that engaged workers enjoy good mental health.

Our results indicate that, engagement explains 34% of the variance in “positive feelings” and only 2% of the variance in “negative feelings” dimensions of work-related well-being. A more detailed scrutiny of the results demonstrates that, as expected the “work enthusiasm” and “vigor” dimensions of engagement are positively related to “positive feelings”, whereas surprisingly, “absorption” is found to be negatively related to the “positive feelings” dimension of work-related well-being. A possible reason of this unexpected finding regarding absorption may be that, vigor and dedication are considered to be the core dimensions of engagement, whereas absorption was found to be a relevant aspect of engagement after some thirty in-depth interviews were carried out (Schaufeli & Bakker, 2001). Moreover, similar results to our study were observed in a research conducted by Naudé and Rothmann (2006) whereby, respondents indicating higher levels of dedication also reported fewer psychosomatic symptoms. However, those indicating higher levels of absorption reported more psychosomatic symptoms.

Similarly, in a study conducted by Koyuncu et al. (2006), the measures of work engagement accounted for a significant increment in explained variance on all four indicators of well-being. In three of the four of these cases, (exhaustion, psychosomatic symptoms, emotional health) respondents indicating higher levels of vigor also reported more positive psychological well-being. Respondents indicating higher levels of dedication also reported fewer psychosomatic symptoms but respondents indicating higher levels of absorption reported more psychosomatic symptoms. These results are compatible with our findings as well, since we also found a negative relationship between “work enthusiasm” (mainly made up of dedication items) and “negative feelings”; and as mentioned before, a negative relationship between “absorption” and “positive feelings”. This means that, those employees who find the work that they do full of meaning and purpose, who are proud of their work and

who derive a sense of challenge from their work experience less “negative feelings”. However, it is also interesting to note that, getting carried away while working and having difficulty detaching oneself from work might indeed have harmful consequences for employees.

Thus, our results find some support from the literature regarding the relationship between absorption and well-being. Maslach et al. (2001) also implied that very high levels of engagement can cause burnout. Moreover, Britt (2003) has explored the negative consequences of high levels of engagement where individuals face significant challenges to getting their jobs done effectively. In a survey of US army rangers, Britt (2003) found that obstacles to high performance, such as work overload, resulted in lower levels of morale and job satisfaction. Notably, however, these effects were greatest for the most highly engaged soldiers. Indeed, “the most committed and personally invested rangers, the ones who ranked work relevant values as the most important, ranked morale and job satisfaction lower in the face of overwhelming difficulties. Simply put, the rangers who cared most about their work were the most demoralized when they were thwarted from doing their best.

Another possible explanation for the negative relationship between the “absorption” dimension of work engagement and “positive feelings” could be provided by a recent study carried out by Schaufeli, Taris & Rhenen (2008). These authors investigated whether workaholism, burnout, and work engagement can be distinguished empirically in a sample of 587 telecom managers. The results showed that, absorption not only loads on work engagement (as expected) but also on workaholism even though the latter factor loading is relatively weak. This double loading of absorption might be explained by the fact that workaholism is characterized by a reluctance to disengage from work (McMillan et al., 2001) and by a compulsory indulgence in work (Porter, 1996). Such descriptions clearly overlap with absorption that is characterized by being fully immersed in one’s work and having difficulties detaching from it (Schaufeli et al., 2002a). Thus, our analyses suggest that workaholism and work engagement overlap as far as feelings of being absorbed in one’s work is concerned. Accordingly, this conceptual closeness of absorption to workaholism might explain the negative relationship we have found between this dimension and “positive feelings”.

5.3. The Role of Work Engagement as a Mediating Variable

5.3.1. Work Engagement as a Mediator between Contextual Factors and Work-related Well-being

The results of our analyses indicate that engagement has a mediating role between contextual factors and work-related well-being. Our findings demonstrate that, engagement fully mediates the relationship between “job autonomy” and “positive feelings”; and also that it partially mediates the relationship between “supervisor support” and “positive feelings”. Moreover, a partial mediation through engagement was also observed between “job autonomy”, “social support” and the “negative feelings” dimension of work-related well-being.

So far, no study has been conducted regarding the role of work engagement as a mediator between contextual factors and work related well-being. However, previous research provides some solid findings that these three variables are indeed closely related. To illustrate, the fact that job resources have a motivational potential signifies that work fulfills basic human needs for employees, such as the needs for autonomy (De Charms 1968), competence (White 1959), and relatedness (Baumeister and Leary 1995). According to self-determination theory (Deci and Ryan, 1985), work contexts that support psychological autonomy, competence, and relatedness enhance intrinsic motivation and increase well-being (Ryan and Frederick, 1997). For instance, proper feedback fosters learning thereby increasing job competence, whereas decision latitude satisfies the need for autonomy. As mentioned before, this intrinsic motivational potential of job resources is also recognized by more traditional theories, such as Job Characteristics Theory (JCT) (Hackman and Oldham, 1980).

Similarly, resources are also related to well-being. Thompson and Prottas (2006) analyzed data from the 2002 National Study of the Changing Workforce (N=3,504) to investigate the relationships among availability of job autonomy, informal organizational support (work-family culture, supervisor support, and co-worker support), perceived control, and employee attitudes and well-being. Using hierarchical regression, the authors found that the availability of job autonomy and informal organizational support were associated with almost all the outcomes. The findings of this study also provided strong evidence for the importance of job autonomy and especially supervisor support in the lives of employees. The

authors found that these resources were most strongly related to the employees' attitudes toward the job itself. These results also support the notion that the nature of a job can be positively related to employees' well being.

Furthermore, in a study conducted among employees working in the call center of a Dutch telecom company, Bakker, Demerouti, and Schaufeli (2003) found that an increase in job resources coincided with a small decrease in health problems. This suggests that some resources may directly prevent energy depletion. Indeed, previous research has shown that social support *may* play such a role (Lee & Ashforth, 1996).

Regarding other contextual factors, research has demonstrated that, on the most basic level, social support satisfies a human need for companionship and group affiliation, thereby promoting feelings of satisfaction. Moreover, workplace support may also serve as a resource to reduce the impact of job demands, and may lead to lower levels of anxiety and emotional exhaustion. Thus, different job characteristics are more or less important in relation to different aspects of well-being (De Jonge & Schaufeli, 1998).

Similarly, the findings of a study carried out by Mierlo, Rutte, Seinen, and Kompier (2001) indicated that, individual autonomy and the quality of social relationships are related to decreased psychological fatigue, which is a dimension of psychological well-being.

We've also found an interesting result regarding the relationship between performance feedback and well-being that deserves attention. Our results showed that feedback is positively related to "negative feelings". Kluger and DeNisi (1996) conducted a meta-analysis which also demonstrated that the effect of feedback on performance is variable. In fact, they found that 38% of feedback interventions had negative effects on a person's performance. These researchers proposed that task focused individuals who receive feedback are likely to allocate their cognitive resources to the task, whereas ego involved people allocate their cognitive resources to themselves. In the latter case, this decreases the potential for future task success following the feedback the person receives. The equivocal impact of feedback was also demonstrated by a research study carried out by Rodopman (1999) in Turkey. Her results revealed that, among the five job characteristics used in the study as defined by Hackman and Oldham (1980), the least desired factor was 'feedback'. Mean values of the 'feedback' items revealed that compared to other dimensions, employees are reluctant to get both affirmative

and negative feedback. Hence, these research findings demonstrate that the effect of feedback may differ according to the attribution made about its content, which makes our results more comprehensible.

Interestingly, our results also illustrate that, rewards are positively related to both “positive” and “negative” feelings. Actually, the previously mentioned debate between Deci (1975) and Bandura (1977) sheds more light on this finding. To reiterate, Deci (1975) had claimed that, extrinsic rewards, especially if excessive, that are given for performing well on tasks that are intrinsically valued are perceived as “controlling” by an individual. Deci’s theory of self-determination states that when this perception occurs, motivation as well as satisfaction decreases. He argued that people have the need to feel that their actions are chosen freely. Receiving a monetary reward for doing what one would have done anyway, because of its intrinsic appeal, causes one to make an attributional shift regarding the cause of one’s behavior from self to others. Thus, this reasoning puts the negative relationship between rewards and “positive feelings” into perspective. Moreover, on the other hand, Bandura (1977) had opposed Deci’s (1975) logic, and claimed that people react differently to rewards; where their responses reflect reactions to how incentives are presented rather than to the incentives themselves. He articulated that incentives can be used coercively, as an expression of appreciation, or to convey evaluative reactions. In short, the same incentive can have differential effects on an individual’s behavior depending on the message conveyed. This interpretation regarding the differential effects of rewards points to the possible positive relationship between this contextual factor and “positive feelings”; thus providing support for our findings.

Thus, overall our results took the previous research findings one step further by demonstrating that the expected positive relationship between contextual factors (especially “job autonomy” and “supervisor support”) and well-being was mediated by work engagement. More specifically, the “work enthusiasm” dimension of work engagement fully mediated the relationship between “job autonomy” and both “positive” and “negative” feelings. This means that, when employees have discretion over their work, this helps them find the work that they do inspiring and full of meaning and purpose which results in more positive feelings and lessened feelings of disturbance. We also found that, “work enthusiasm” partially mediates the relationship between “supervisor support”, “rewards” and “positive feelings”. Moreover, this work engagement dimension also acts as a partial mediator between “supervisor support”

and “negative feelings”. These findings suggest that, those employees who feel backed up by their supervisors and feel that they are adequately rewarded, are more proud of the work that they do and are more enthusiastic about their work, which leads to “positive feelings”. Moreover, having a supportive supervisor, also seems to help make the employee “feel like going to work” in the morning, thus aiding in reducing feelings of disturbance. Our results also demonstrate that, the “absorption” dimension of work engagement partially mediates the relationship between “job autonomy”, “supervisor support” and “positive feelings”. Hence, these findings indicate that, when employees have discretion over their jobs and feel backed up by their supervisors, they find it easier to immerse themselves in their work, which leads to a positive state of well-being. Finally, we have also found that, the “vigor” dimension of work engagement partially mediates the relationship between “job autonomy”, “supervisor support” and both “positive” and “negative feelings”. These findings demonstrate that, having discretion over one’s work and having a supportive supervisor helps employees persevere at their jobs even when things do not go well and help them maintain a high energy level, consequently leading to increased levels of positive well-being and decreasing the status of disturbance.

5.3.2. Work Engagement as a Mediator between Contextual Factors and Turnover Intention

Even though there are few studies that tested the mediating role of work engagement between contextual factors and turnover intention, as mentioned before, previous research provides ample proof especially about the negative relationship between contextual factors and turnover intention (eg., Bakker, Demerouti & Schaufeli, 2003).

As cited previously, in a study conducted among the employees working in the call center of a Dutch telecom company, Bakker et al. (2003) found that job resources were the most important predictors of involvement (i.e., commitment and dedication), which in turn, predicted (reduced) turnover intentions. In total, the JD-R Model explained 60% of the variance in turnover intentions. More specifically, call center employees who can draw upon job resources such as social support from colleagues and performance feedback feel more dedicated to their work and more committed to their organization, and consequently, are less inclined to leave the organization. This research evidence is in line with our findings, since we also found that all three dimensions of work engagement partially mediate the relationship

between supervisor support and turnover intention. Hence, our findings suggest that, among other things, having supportive supervisors help employees feel enthusiastic about their jobs, lead them to immerse themselves in their work and aid them to persevere even when things do not go well, thus resulting in more employee retention and less intention to quit. A body of evidence also suggested that the engagement-turnover intention link depends in large part on how satisfactory employees find their relationship with their supervisors to be (e.g., Judge, Thoresen, Bono & Patton, 2001; Harter et al., 2002). However, the partial mediation results here point to the possibility that there are factors other than the mentioned work engagement dimensions which also affect the supervisor support, turnover intention relationship.

Furthermore, in line with the previous research findings, our results demonstrated that, through its “work enthusiasm” and “vigor” dimensions, work engagement fully mediates the relationship between “job autonomy” and turnover intention. These results suggest that, providing job autonomy to employees helps them engage in their work (eg., by being more dedicated to it and through being more energetic when performing their jobs) and leads to lower levels of turnover intention. Moreover, we also found that, “absorption” partially mediates the relationship between “job autonomy” and “turnover intention”. This means that, having discretion over one’s job enables an employee to immerse him/herself at the task at hand thus, declining the intention to leave. We also found that, “work enthusiasm” fully mediates the relationship between “rewards” and “turnover intention”. Having mentioned the possible equivocal impact of rewards on employee reactions, this is an interesting piece of finding, since it suggests that being adequately rewarded in this case, leads to a state of dedication for employees which results in less intention to leave.

Finally, overall, our results are also in agreement with the findings of a study that has investigated four independent occupational samples; where engagement was found to mediate the relationship between job resources and turnover intention (Schaufeli & Bakker, 2004).

5.3.3. Work Engagement as a Mediator between Self-efficacy and Work-related Well-being

As no previous studies had tested the empirical associations between self-efficacy, work engagement and work-related well-being, we formulated *ad hoc* that self-efficacy would

be positively associated with work engagement and this would lead to work-related well-being for employees (Hypothesis 5).

Some researchers have argued that core self-evaluations, like personal resources, may be the prime determinants of employees' adaptation (Judge et al., 1997), and empirical findings supported a reciprocal effect between personal resources and job characteristics (Kohn & Schooler, 1982). In this context, the results of the present study revealed that employees who hold personal resources, are confident about their capabilities and optimistic about their future, and thus may identify or even create more aspects of their environment that facilitate goal attainment. This capability leads to goal confrontation and consequently to work engagement. Nevertheless, personal resources do have a negative relationship with exhaustion suggesting that efficacious or optimistic employees report lower levels of severe fatigue, meaning that they might be more resistant to adverse conditions (Hobfoll, 1989; 2002). In conclusion, supporting our findings, the study of Xanthopoulou et al. (2007) also proposes that personal resources play a significant role in the JD-R model since, together with job demands and job resources, they contribute in explaining variance in exhaustion and work engagement.

Previous studies have demonstrated a relationship between self-esteem and subjective well-being (eg., Czaja, 1975; Reid & Ziegler, 1980). Previous research has also shown that efficacy beliefs mediated the relationship between job demands and burnout/engagement (Salanova, Llorens, Cifre, Martinez & Schaufeli, 2003).

As part of social cognitive theory, Bandura (1997) hypothesized that people's self-beliefs, particularly their perceived self-efficacy, influences their well-being. Moreover, in our research, consideration was also given to findings that general self-efficacy has been associated with well-being (e.g., Hobfoll, 2002; Schwarzer, 1992).

Our findings demonstrate that, the three engagement dimensions partially mediate the relationship between self-efficacy and "positive feelings". More specifically, "work enthusiasm" has the highest impact as the partial mediator between self-efficacy and "positive feelings". This finding was expected since, having a firm belief in one's competence, leads one to feel strong and vigorous, thus resulting in positive psychological states. Moreover, we also found that "vigor" partially mediates the "self-efficacy" and "positive feelings"

relationship. Hence, when employees have firm beliefs in their capabilities, they feel energetic at their tasks and persevere against difficulties, thus experiencing a positive sense of well-being. However, we also found an interesting finding, namely that “absorption” negatively partially mediates the “self-efficacy” and “positive feelings” relationship. This is actually, in line with our previous findings, where “absorption” has behaved ambiguously. These results demonstrate that, having a high sense of self-efficacy indeed leads to higher levels of absorption, however this heightened level of absorption may result in a decreased state of well-being. Our results also illustrate that, the “work enthusiasm” dimension of work engagement fully mediates the self-efficacy and “negative feelings” relationship. This finding is noteworthy since it demonstrates that through its impact on “work enthusiasm”, self-efficacy decreases the negative state of well-being experienced by employees.

5.3.4. Work Engagement as a Mediator between Self-efficacy and Turnover Intention

Our results demonstrate that, the “work enthusiasm” and “absorption” dimensions of work engagement fully mediate the self-efficacy – turnover intention relationship. The results of a recent study conducted by Llorens et. al. (2007) among Spanish university students showed that efficacy beliefs play a mediating role between task resources and engagement. That is, the perception of task efficacy leads to high levels of energy and persistence in the face of demands (i.e., vigor) and fulfillment of personal needs and job identification (i.e., dedication).

There is empirical evidence suggesting that these efficacy beliefs “regulate emotional states by supporting effective courses of action to transform the environment in ways that alter its emotional potential” (Bandura, 2002, p.137). In this sense, efficacy beliefs act as a self-motivating mechanism: people perceive their own level of competences to be high, and consequently they set themselves goals and are motivated to spend considerable effort and persistence in overcoming obstacles (Bandura, 2001). This reasoning is consistent with our findings, since we found that self-efficacy triggers a process which positively influences engagement, consequently leading to lower levels of turnover intention. Thus it seems that, those who are enthusiastic about their work and are absorbed in their jobs do not feel a need to search for alternative job options.

5.4. The Relationship between Work Engagement and the Demographic Variables

Though research on this topic is yet scarce, there doesn't seem to be a strong relationship between various demographic variables and the construct of work engagement. Thus, in a nutshell, our findings regarding the relationship between the demographic variables of our study and work engagement indicate that; the older, married employees with a managerial duty who have longer years of overall and on the job tenure are more engaged than their counterparts.

Some research support for our findings in this area comes from the burnout literature. As mentioned before, since burnout and work engagement are highly negatively correlated, the relationship between burnout and demographic variables might also give us an idea about the relationship between work engagement and demographics. Maslach et. al. (2001) claim that, among younger employees, the level of burnout is reported to be higher than among those over 30 or 40 years old. Moreover, just as like the what we have found for work engagement, the demographic variable of sex has not been a strong predictor of burnout (despite some arguments that burnout is more of a female experience). Some studies show higher scores for men and others find no overall difference. Furthermore, similar to our findings, with regard to marital status, those who are unmarried, (especially men), seem to be more prone to burnout compared with those who are married. Singles seem to experience even higher burnout levels than those who are divorced (Maslach et al., 2001).

As stated, previous research on the relationship between work engagement and demographic variables is still limited, but a major resource in this area is the Utrecht Work Engagement Scale Manual (Schaufeli & Bakker, 2003). For the purpose of carrying out psychometric evaluations of the UWES, Schaufeli & Bakker compiled a database that includes 23 studies conducted between 1999 and 2003 in 9 countries. These studies took place either in a single organization, sometimes including multiple sites, or included specific professional groups such as teachers or police officers. As shown in Appendix 1, the total international sample was made up of 12,631 participants.

In the total sample of 12,631 participants, practically no relationship was observed between work engagement and age; except for a correlation of .05 with vigor that lacks any

practical relevance. Correlations with age in the separate samples from the 9 countries are significantly positive. Thus, the older the employees, the more engaged they feel. Generally speaking the size of the correlations is rather small ($r < .20$), with the exception of the Canadian sample ($.30 < r < .35$). As shown in Table 5, our findings also demonstrated that, age had a significant yet weak positive correlation with the “work enthusiasm” ($r=.18$) and “vigor” ($r=.09$) dimensions of engagement respectively.

Likewise, again in the total UWES (2003) database, men ($N = 6,469$) score significantly higher than women ($N= 5,722$), on all three aspects of engagement: means for men on vigor, dedication and absorption are 4.28, 3.83, and 4.36, respectively; against 4.11, 3.77, and 4.26 for women. Although these differences are statistically significant, they lack practical significance because their size is very small; i.e. much less than one standard deviation. With a few exceptions, the picture emerges from the analyses of the separate samples: generally speaking, compared to women, men show slightly higher values on the three aspects of engagement, but in none of the cases this difference is of practical importance (Schaufeli & Bakker, 2003). However, in our study we couldn't find a significant relationship between gender and work engagement.

The results of another recent study carried out in Turkey (Koyuncu, 2006) indicated that the predictors of personal demographic characteristics they used, which were age, marital status, and level of education, did not account for a significant amount of variance in any of the engagement measures.

Finally, our results demonstrated that, as depicted in Table 5, the work enthusiasm ($r=.19$) and vigor ($r=.11$) dimensions of work engagement have positive yet weak relationships with tenure. Similarly, the work enthusiasm ($r=.22$), absorption ($r=.07$), and vigor ($r=.14$) dimensions of work engagement are also positively yet weakly related to total tenure. Although no previous study has yet tackled these demographic factors in engagement research, our findings seem to be logically plausible. Overall, these results provide an answer to the third research question which inquired about the relationship between work engagement and the demographic variables of our study.

5.5. Conclusion

The results of a recent Gallup poll suggested that the economic impact of workers who are not engaged in their work costs U.S. businesses an estimated \$300 billion annually in productivity losses. Moreover, this economic impact may be surpassed by the cost of psychological and medical consequences that result from workers' feelings of disengagement, with a majority of disengaged employees reporting that their work has a negative effect on their physical health (Rich, 2007). Despite the deleterious social and economic impact of disengagement on organizations and their members, relatively few academic studies have attempted to address the concept of work engagement. Perhaps more importantly, only a few research studies have explicitly examined the relationship between an individual's job engagement and the organizational and personal outcomes that may result from this engagement. Thus, it was our aim to contribute to the growing literature on this subject and shed more light on the concept of work engagement as well as its antecedents and consequences.

Previous research has suggested that, engaged employees are characterized by high positive affect (PA) and to a somewhat lesser degree by low negative affect (NA) (Schaufeli et al., 2001). Unfortunately, however, to date there are few studies conducted on the relationship between affect and work engagement. Thus, a significant contribution of our research to engagement literature is the inclusion of work-related well-being in our study model. Even though our results await further replication, they demonstrate that, as discussed previously, the three factors of work engagement are differently related to the work related well-being dimensions.

In our study, the decision to focus on personal resources instead of stable personality characteristics that also have been proven to affect employee well-being (i.e. burnout and work engagement; Langelaan et al. (2006) has to do with the fact that personal resources are acquired, and, as such, they are prone to change. Thus, as proposed by both Bandura (2000) and Seligman (1991), there are specific strategies that may lead to the enhancement of employees' positive self-evaluations regarding their capabilities to deal successfully with their environment. Therefore, when the main question is *how* to create healthy and flourishing workforces, it is more crucial to focus on personal resources that are sensitive to change, rather than on personality characteristics.

It is also important to note that an increase in some resources may not always coincide with a decrease in symptoms of burnout. Warr (1987) argued that job resources such as autonomy, social support, and feedback may act like vitamins and have a *nonlinear* effect on well-being. Just like an overdose of vitamins may lead to a toxic concentration in the body and ill health, an overdose of job resources may undermine employee well-being and foster burnout. Job autonomy, for example, is assumed to follow an inverted U-shape pattern: Very high levels of job autonomy are potentially harmful for employee well-being because it implies uncertainty, difficulty in decision making, and high responsibility on the job (Warr, 1987). There is indeed some evidence for a curvilinear relationship between job resources and employee well-being (De Jonge & Schaufeli, 1998; Warr, 1990).

Moreover, our findings seem to be compatible with accumulating evidence that engagement is constituted by *two* core dimensions: vigor and dedication respectively (Schaufeli & Bakker, 2004; Demerouti, Bakker, Nachreiner, & Ebbinghaus, 2002; Hakanen et al., 2006). Thus, the equivocal results between absorption and the outcome variables have led us to speculate that, absorption is perhaps not a unique feature of work engagement. However, to state this possibility more firmly, this conclusion warrants more research attention.

To sum up, our findings suggest that engagement at work is associated with positive work and individual well-being outcomes and that organizational experiences and the personal resource of self-efficacy are major contributors to levels of employee engagement. They are consistent with the results of an increasing number of recent studies (Gonzalez-Roma, Schaufeli, Bakker & Lloret, 2006; Hakanen, Bakker, & Demerouti, 2005; Langelan et al., 2006; Montgomery et al., 2003; Sonnentag, 2003) reflecting the importance of understanding and increasing employee engagement. However, we would also add that we need to be very careful in romancing the notion of engagement when it embraces behaviors more closely aligned with workaholic tendencies that are dysfunctional to the individual and eventually to the organization.

In conclusion, we truly hope that our study has made a contribution to a better understanding of employees' occupational well-being, and has brought new insights into human strengths and potentials in the working arena.

5.6. Limitations of the Study

The present study was exclusively based on self-reports which means that the magnitudes of the effects that we reported may have been biased due to common method variance, or the wish to answer consistently (Conway, 2002). However, it can be argued that such constructs as personal resources and work engagement are nearly impossible to measure in any other way than by self-reports (Makikangas, & Kinnunen, 2003). Moreover, longitudinal designs are also necessary in order to validate our findings over time, and in order to provide insights regarding causality.

Another important limitation of this study concerns the method of sampling used. Even though one of the major strengths of this study is its large sample size, we used convenience sampling for data collection which limits the generalizability of the results to other populations of employees and organizations. Thus, our hypotheses also await replication with other samples for validation purposes.

5.7. Practical Implications

The results indicated that while personal demographic characteristics were generally unrelated to levels of work engagement, work experiences were found to be strong predictors of all three engagement factors: vigor, work enthusiasm, and absorption. In particular, job autonomy and supervisor support emerged as important work experiences in this regard. Work engagement, in turn, was found to have fairly consistent, but moderate relationships with turnover intention and indicators of psychological well-being. Engagement it seems, has potentially positive consequences for both employees and their employing organizations.

Thus, despite the limitations mentioned above, the present findings may have important implications for organizational practice. Our research is important for practice because it points to factors that managers can influence. For example, instead of trying to address work engagement head-on, a manager can control the amount of job autonomy granted and the fairness of rewards.

Similarly, in order to lower turnover intentions, the availability of job resources (social support, job autonomy, performance feedback, and rewards) should be considered. Schaufeli

and Enzmann (1998) have described several interventions at the organizational level that can be used to attain this, including job redesign, job coaching, and organizational development programs.

Leiter (2005) offers the most comprehensive look at interventions in the workplace designed to enhance engagement with work. Increasing engagement with work is a challenging and complex undertaking. As the research findings show, engagement stems partly from the employees' contact with a work environment. Leiter offers a conceptual framework to build engagement with work that considers the *targets of intervention*, *strategies for intervention*, and *potential consequences*. Intervention targets include energy at work, involvement with one's work, and efficacy at work. Intervention strategies involve both individuals and organizational or workplace levels. It is critical to remember that individuals have different views and values about work, which can change over time, and that employees must participate in building engagement at work. Finally, the four areas of work life considered in the present study can serve as targets for change (e.g. job autonomy, performance feedback, rewards, and supervisor support).

Regarding job resources, which act as facilitators in the performance process, first of all, according to our results and consistent with job enrichment approaches, it is crucial to increase employees' job autonomy. More specifically, employees could have more say in the decisions regarding their jobs. Second, supervisors can play a key role in creating a healthy working environment. Supervisors' roles may range from instrumental support to employees during task execution, to conflict management and emotional support. Thus, supervisors may be trained in adopting a coaching leadership style, to give adequate feedback about employees' performance, and to avoid role conflicts. Performance feedback, leading to awareness about the quality of performance, also seems to be an important job resource. As we mentioned, performance feedback and task variety are also postulated in the model of Hackman and Oldham (1976) as factors that promote motivational potential. Furthermore, our results suggest that it is important to reward employees adequately in order to boost employee engagement. Our findings demonstrate that, each of these interventions may contribute to the prevention and reduction of disengagement among the workforce. Moreover, these interventions may be part of a broader development strategy of organizations, aimed at the promotion of a healthy and productive working environment.

Furthermore, the concept of self-efficacy was selected as an independent variable for our study because of its practical application potential. Demonstrated to be dynamic and modifiable, interventions have been used successfully to raise self-efficacy in several domains of older adult functioning such as cognitive memory skills and physical exercise (e.g., Bandura, 1997). Thus, in light of the study findings, practitioners are recommended to be aware of their clients' self-efficacy beliefs. Services aimed at improving self-efficacy may be helpful in raising employees' subjective well-being. Strategies for such interventions can be adapted from prior research:

“Increasing self-efficacy for any activity...requires a gradual series of experiences, which begin at the person's initial level of confidence and comfort. It is important to provide clear evidence of success with appropriate encouragement and congratulatory feedback. Success at each level is followed by the presentation of a slightly greater challenge” (Rowe & Kahn, 1998, p.138).

According to the Social Cognitive Theory (Bandura, 1997) people's personal efficacy beliefs may develop in four different ways. The most effective way of creating a strong sense of efficacy is through *mastery experiences*. That is, successes build a robust belief in one's personal efficacy, while failures lower it. A second way is through the *vicarious experiences* provided by social models. *Social persuasion* is a third way of increasing people's efficacy beliefs. Finally, the fourth way, and the focus of our study, is that people also rely on their somatic and emotional states in judging their capabilities. People interpret their stress reactions and tensions as signs of inefficacy, whilst *positive emotional states* enhance efficacy beliefs. When experiencing a positive state of mind individuals may perceive themselves as more efficacious in performing tasks, which in turn may generate perceptions of greater task resources.

According to Fox, Dwyer, and Ganster, “The construct of most importance is an individual's personal belief in his or her control over a work situation. This meaning is clearly evident in Karasek's (1979) initial work and follows from an extensive body of work in experimental psychology” (1993: 291-292). Thus, managers implementing job redesign interventions designed to increase employee control in order to reduce health risks should be sure (1) that employees are confident of their abilities to utilize this control and (2) that each employee directly experiences the enhanced control. Employee involvement in job redesign may be essential for both purposes.

Finally, Schaufeli and Salanova (2007) propose some practical implications of work engagement for organizations, in particular ways that organizations can go about building engagement. These include the assessment and evaluation of employees (placing the right people in the right jobs to enhance fit), job redesign, work changes (reducing job stressors while increasing job resources), leadership that sets a positive socio - emotional climate, and training and career development that builds employee self-efficacy beliefs and offers opportunities for learning while following a career.

5.8. Suggestions for Future Research

We believe that future research could greatly benefit from including more objectively measured variables such as company records for measuring actual working time, turnover, and absenteeism rates; peer ratings, supervisor ratings, and expert ratings for social support, performance and job characteristics; and medical consumption, and physiological and immunological markers as indicators of health. By using these types of assessments, the previously mentioned problems with self-reports would be avoided.

Future studies should examine a broader range of resources. Ideally, research with the JD-R Model starts with a qualitative analysis, including organizational document research and explorative interviews with job incumbents from different layers of the organization (representatives from management, staff, shop floor). Such an analysis can reveal a wide range of potentially relevant job resources, which can then be examined quantitatively by including these constructs in a questionnaire. Thus, a task of researchers and practitioners is to uncover the specific constellations of job resources that are prevalent in specific job types, since this may facilitate primary and secondary workplace interventions. Therefore, future studies should also include other major resources such as social support from various sources and job enhancement opportunities such as participation in decision making (Burke & Richardsen, 1993; Cordes & Dougherty, 1993).

Future researchers could also extend our model longitudinally to include actual turnover. We note that meta-analyses report that turnover intentions correlate with actual turnover from .31 to .36, which means that turnover intention should not be used as a surrogate for turnover (e.g., Dalton et al., 1999). Turnover intention does not always result in

turnover because a number of other factors enter the equation. Missing factors include geographic or locality preferences, the availability of outside job opportunities, the expected utility of those opportunities (Mobley, 1977), and intention to search for another job (Arnold and Feldman, 1982).

Together with self-efficacy, dominant theoretical paradigms propose that other personal resources, such as self-esteem or optimism, may also play a crucial role in the understanding of employees' adaptation in their work environments (Hobfoll, 2002; Luthans et al., 2006). A potential subject of future research might be the influence of other personal characteristics on our proposed pattern of relationships. For instance, people with a high growth need strength might experience stronger intrinsic work motivation as a consequence of job enrichment than people with a low growth need strength (Hackman & Oldham, 1980). Therefore, it is essential that future studies will not exclusively focus on self-efficacy, but also examine the role of other personal resources in the motivational process of the JD-R model. By focusing on the positive aspects of the work environment and on developing employees' competences, it is more likely that researchers will trace ways of (re)designing work in a way that will lead to flourishing workforces and organizations.

REFERENCES

- Adkins, J. A. (1999). Promoting organizational health: The evolving practice of occupational health psychology. *Professional Psychology*, 30, (2), 129-137.
- Allport, G.W. (1961). *Pattern and growth in personality*. New York: Holt, Rinehart, & Winston.
- Anderson, S. E., Coffey, B. S., & Byerly, R. T. (2002). Formal organizational initiatives and informal workplace practices: Links to work–family conflict and job-related outcomes. *Journal of Management*, 28, 787–810.
- Antonovski, A. (1987). *Unraveling the mystery of health. How people manage stress and stay well*. San Francisco: Jossey-Bass.
- Arnold, H. J., & Feldman, D. C. (1982). A multivariate analysis of the determinants of job turnover. *Journal of Applied Psychology*, 67, 6, 691-700
- Aycan, Z., Eskin, M., & Yavuz, S. (2007). *Hayat Dengesi: İş, Ail eve Özel Hayatı Dengeleme Sanatı*. Sistem yayıncılık: İstanbul, Türkiye.
- Bakker, A.B., Demerouti, E., De Boer, E., Schaufeli, W.B. (2003a). Job demands and job resources as predictors of absence duration and absence frequency. *Journal of Vocational Behavior*, 62, 341-356.
- Bakker, A.B., Demerouti, E. & Schaufeli, W.B. (2003). Dual processes at work in a call centre: An application of the Job Demands – Resources model. *European Journal of Work and Organizational Psychology*, 12, 393-417.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 2, 170- 180.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, New Jersey: Prentice Hall.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior*, 4, 71-81. New York: Academic Press.
- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York

- Bandura, A. (2000). Cultivate self-efficacy for personal and organizational effectiveness. In E. A. Locke (Ed.), *The Blackwell handbook of principles of organizational behavior* (pp.120-136). Oxford, UK: Blackwell.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1-26.
- Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review*, 51, 269-290.
- Barber, A. E. & Bretz, R. D., Jr. (2000). Compensation, attrition and retention. In S. L. Rynes and B. Gerhart (Eds.), *Compensation in organizations: Current research and practice* (pp. 32-60). San Francisco, Jossey-Boss.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment*, 9, 9-30.
- Basson, M.J., & Rothmann, S. (2002). Sense of coherence, coping and burnout of pharmacists. *South African Journal of Economic and Management Sciences*, 5, 1, 35-62.
- Baumeister, R. F. , & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 3, 497-529.
- Baxter, B. 1982. *Alienation and authenticity*. London: Tavistock Publications.
- Bono, J. E. & Judge, T. A. (2003). Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality*, 17, 5- 18.
- Bowditch, J. L., & Buono, A. F. (1997). *A Primer on Organizational Behavior*. New York: John Wiley & Sons, Inc.
- Bradburn, N. M. (1969). The structure of psychological well-being. In, G. J. Kafka, A. Kozma, (2002). The construct validity of Ryff's scales of psychological well-being (SPWB) and their relationship to measures of subjective well-being. *Social Indicators Research*, 57, 2.
- Bresó, E., Salanova, M. & Schaufeli, W.B (2007). In search of the 'third dimension' of burnout: Efficacy or inefficacy? *Applied Psychology: An International Review*, 56, 460-478

- Britt, T. W., Adler, A. B., & Bartone, P. T. (2001). Deriving benefits from stressful events: The role of engagement in meaningful work and hardiness. *Journal of Occupational Health Psychology*, 6, 1, 53-63.
- Britt, T. W. (2003). Black hawk down at work. *Harvard Business Review*, 81, 16-17.
- Brouwers, A. (1999). Teacher burnout and self-efficacy: an interpersonal approach. Unpublished PhD Thesis. Heerlen: Open University, The Netherlands.
- Buckingham, M., & Coffman, C. (1999). *First, break all the rules*. New York: Simon & Schuster.
- Bulutlar, F. (2005). *The mediating effect of subjective well-being on the relationship between organizational learning climate, performance and organizational citizenship*. Unpublished doctoral dissertation, Marmara University, Istanbul, Turkey.
- Burke, R. J., & Richardsen, A. M. (1993). *Psychological burnout in organizations*. Unpublished manuscript, York University, Toronto, Ontario, Canada.
- Buunk, B. P., de Jonge, J., Ybema, J. F., de Wolff, C. J. (1998). Psychosocial aspects of occupational stress. In P. J. D. Drenth, H. Thierry, & C. J. de Wolff (Eds.), *Handbook of work and organizational psychology: Vol. 2. Work psychology* (2nd ed., pp. 145-182). Hove, United Kingdom: Psychology Press.
- Cameron, J., & Pierce, W. D. (1994). Reinforcement, reward and intrinsic motivation: A meta-analysis. *Review of Educational Research*, 64, 363-423.
- Campbell, A. (1976). Subjective measures of well-being. *American Psychologist*, 31, 117-124.
- Cascio, W. F. (1982). *Costing human resources: The financial aspect of human behavior in organizations*. PWS-Kent, Boston.
- Centers for Disease Control and Prevention (1998). Fatal occupational injuries: United States 1980-1994. *Morbidity and Mortality Weekly Report*, 47, 297-302.
- Chen, G., Goddard, T. G., & Casper, W. J. (1999). *Be specific! The role of context in core evaluations of the world and the self*. Paper presented at the annual meeting of Academy of Management, Chicago.
- Chen, G., Gully, S.M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4, 62-83.
- Cherniss, C. (1993). Role of professional self-efficacy in the etiology and amelioration of burnout. In Schaufeli, W.B., Maslach, C., & Marek, T. (Eds.), *Professional*

- Burnout: Recent Developments in Theory and Research* (pp. 135-149). Washington DC: Taylor & Francis.
- Chinoy, E. (1955). *Automobile workers and the American dream*. Garden City, NJ: Doubleday.
- Cifre, E., Salanova, M. (2002). Multidimensionality and bipolarity of a Spanish version of Warr's (1990) well-being measures. *The Journal of Psychology*, 136, 1, 69-75.
- Cohen, A. (1992). Antecedents of organizational commitment across occupational groups: A meta-analysis. *Journal of Organizational Behavior*, 13, 539-558.
- Cohen, S. & Wills, T. A. (1985). Stress, social support and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.
- Conway, J. M. (2002). Method variance and method bias in industrial and organizational psychology. In S. G. Rogelberg (Ed.). *Handbook of research methods in organizational and industrial psychology* (pp.344-365). Malden, MA: Blackwell Publishers.
- Cook, T.D. & Campbell, D.T. (1979). *Quasi-experimentation: Design and Analysis Issues for Field Settings*. Boston: Houghton Mifflin.
- Cooper, C. L., Dewe, P., & O'Driscoll, M. P. (2001). *Organizational stress : a review and critique of theory, research, and applications*. Thousand Oaks, California: Sage.
- Cordes, C. L., & Dougherty, T. W. (1993). A review and integration of research on job burnout. *Academy of-Management Review*, 18, 621-656.
- Cote, S. & Moskowitz, D. S. (1998). On the dynamic covariation between interpersonal behavior and affect: Prediction from neuroticism, extraversion, and agreeableness. *Journal of Personality and Social Psychology*, 75, 1032-1046.
- Cotton, S., Dollard, M.F., & De Jonge, J. (2006). A review of the Job Demands- Resources (JD-R) model: A move towards wellness. *Manuscript Submitted for Publication*.
- Csikszentmihalyi, M. 1982. *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.
- Czaja, S. J. (1975). Age differences in life satisfaction as a function of discrepancy between real and ideal self concepts. *Experimental Aging Research*, 1, 1, 81 - 89
- Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of Directors and Financial Performance: A Meta-Analysis. *The Academy of Management Journal*, 42, 6, 674-686.
- Daniels, K. (2000). Measures of five aspects of affective well-being at work. *Human Relations*, 53, 275-294.
- Deci, E. L. (1975). *Intrinsic Motivation*. New York: Plenum.

- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74, 580–590.
- Deci, E.L. & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.
- Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior. *Journal of Personality and Social Psychology*, 53, 1024–1037.
- De Charms, R. (1968). *Personal Causation; The Internal Affective Determinants Of Behavior*. Academic Press.
- De Jonge, J., & Schaufeli, W. B. (1998). Job characteristics and employee well-being: A test of Warr's vitamin model in health care workers using structural equation modeling. *Journal of Organizational Behavior*, 19, 387-407.
- De Rijk, A.E., Le Blanc, P.M., Schaufeli, W.B., & De Jonge, J. (1998). Active coping and need for control as moderators of the job demand - control model: Effects on burnout. *Journal of Occupational and Organizational Psychology*, 71, 1-18.
- Demerouti, E., Bakker, A.B., De Jonge, J., Janssen, P.P.M. & Schaufeli, W.B. (2001a). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal for Work Environment and Health*, 27, 279-286.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2000). A model of burnout and life satisfaction among nurses. *Journal of Advanced Nursing*, 32(2), 454-464.
- Demerouti, E. Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001). The job demands - resources model of burnout. *Journal of Applied Psychology*, 86, 499-512.
- Demerouti, E., Bakker, A. B., Nachreiner, & Ebbinghaus, M. (2002). From mental strain to burnout. *European Journal of Work and Organizational Psychology*, 11, 423- 441.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542-575.
- Diener, E., Larsen, R. J., & Emmons, R. A. (1984). Person x Situation interactions : Choice of situations and congruence response models. *Journal of Personality and Social Psychology*, 47, 580-592.
- Diener, E., & Larsen, R. J. (1993). The experience of emotional well-being. In C. Harris, K. Daniels, R. B., Briner. (2003). A daily diary study of goals and affective well-being at work. *Journal of Occupational and Organizational Psychology*, 76, 3, 401- 411.
- Dyer, L., & Parker, D. F. (1975). Classifying outcomes in work motivation research: An examination of the intrinsic-extrinsic dichotomy. *Journal of Applied Psychology*, 60, 455-458.

- Eden, D. (1988). Pygmalion, goal setting and expectancy: Compatible ways to boost productivity. *Academy of Management Review*, 13, 639-652.
- Eden, D., & Kinnar, J. (1991). Modeling Galatea: Boosting self-efficacy to increase volunteering. *Journal of Applied Psychology*, 76, 770-780.
- Eden, D., & Aviram, A. (1993). Self-efficacy training to speed reemployment: Helping people to help themselves. *Journal of Applied Psychology*, 78, 352-360.
- Eden, D., & Zuk, Y. (1995). Seasickness as a self-fulfilling prophecy: Raising self-efficacy to boost performance at sea. *Journal of Applied Psychology*, 80, 628-635.
- Edmondson, A. (1996). Learning from mistakes is easier said than done: Group and organizational influences on the detection and correction of human error. *Journal of Applied Behavioral Science*, 32, 5-32.
- Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment and innovation. *Journal of Applied Psychology*, 75, 51-59.
- Elovainio, M., Kivimäki, M., Steen, N., & Kalliomäki-Levanto, T. (2000). Organizational and individual factors affecting mental health and job satisfaction: A multilevel analysis of job control and personality. *Journal of Occupational Health Psychology*, 5, 2, 269-277.
- Erez, A., & Judge, T. A. (2001). Relationship of core self-evaluations to goal setting, motivation, and performance. *Journal of Applied Psychology*, 86, 1270-1279.
- Erickson, T. J. (2005). Testimony submitted before the U.S. Senate Committee on Health, Education, Labor and Pensions, May 26.
- European Foundation for the Improvement of Living and Working Conditions. (1992). *First European survey on the work environment, 1991-1992*. Luxembourg, Belgium: Office of the Official Publications of the European Community.
- Feldt, T., Kinnunen, U., & Mauno, S. (2000). A mediational model of sense of coherence in the work context: A one-year follow-up study. *Journal of Organizational Behavior*, 21, 461-476.
- Ford, M. E. (1992). *Motivating humans*. Newbury Park, CA: Sage.
- Fox, M.L., Dwyer, D.J. & Ganster, D.C. (1993). Effects of stressful job demands and control on physiological and attitudinal outcomes in a hospital setting. *Academy of Management Journal*, 36, 289-318.
- French, J.R.P., Rodgers, W.L., & Cobb, S. (1974). Adjustment as person-environment

- fit. In Coelho, G., Hamburg, D., & Adams, J. (Eds.) *Coping and adaptation*, (pp. 316-333). New York: Basic Books.
- Freudenberger, H.J. (1974). Staff burnout. *Journal of Social Issues*, 30, 1, 159-165.
- Fried, Y., & Ferris, G. R. (1987). The validity of job characteristics model : A review and meta-analysis, *Personnel Psychology*, 40, 287-332.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work– family interface. *Journal of Vocational Behavior*, 50, 145–167.
- Gagné, M., & Deci, E.L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331-326.
- Gardell, B. (1971). Alienation and mental health in the modern industrial environment. In L. Levi (Series & Vol. Ed.), *Society, stress, and disease: Vol. I. The psychosocial environment and psychosomatic diseases: Proceedings of an international interdisciplinary symposium held in Stockholm, April 1970* (pp. 148-180). New York: Oxford University Press.
- Gardner, D. G., & Pierce, J. L. (1998). Self-Esteem and Self-Efficacy within the Organizational Context An Empirical Examination. *Group & Organization Management*, 23, 1, 48-70
- Gebhardt, D. L., & Crump, C. E. (1990). Employee fitness and wellness programs in the workplace. *American Psychologist*, 45, 262-272.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, 17, 183-211.
- Glasgow, R. E., & Terborg, J. R. (1988). Occupational health promotion programs to reduce cardiovascular risk. *Journal of Consulting and Clinical Psychology*, 56, 365-373.
- Goff, S. J., Mount, M. K., & Jamison, R. L. (1990). Employer supported child care, work–family, and absenteeism: A field study. *Personnel Psychology*, 43, 793– 809.
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. Doubleday: Garden City, New York.
- Gonzalez-Roma, V., Schaufeli, W.B., Bakker, A.B. and Lloret, S. (2006), Burnout and work engagement: independent factors or opposite poles? *Journal of Vocational Behavior*, 68, 165-74.
- Grandey, A. A. (1999). *The Effects of Emotional Labor: Employee Attitudes, Stress and Performance*. Published Doctoral Dissertation, Colorado State University, Colorado

- Grau, R., Salanova, M., & Peiro, J. M. (2000). Efectos moduladores de la autoeficacia en el estrés laboral. [Moderating effects of the self-efficacy in the job stress]. *Apuntes de Psicología*, 18, 1, 57–75.
- Hackman, J.R., & Oldham, G.R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60, 268-279.
- Hackman, J.R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- Hackman, J.R., & Oldham, G. R. (1980). *Work Redesign*. Reading, MA: Addison-Wesley.
- Hakanen, J.J., Bakker, A.B., & Demerouti, E. (2005). How dentists cope with their job demands and stay engaged: the moderating role of job resources. *European Journal of Oral Science*, 113, 479-87.
- Hakanen, J.J., Bakker, A.B., & Schaufeli, W.B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495-513.
- Halbesleben, J.R.B., & Buckley, R.M. (2004). Burnout in organizational life. *Journal of Management*, 30, 859-879.
- Hall, D.T. (1976). *Careers in organizations*. Pacific Palisades, CA: Goodyear.
- Hallberg, E. U., & Schaufeli, W.B. (2006). “Same same” but different? Can work engagement be discriminated from job involvement and organizational commitment? *European Psychologist*, 11, 2, 119-127.
- Hallberg, U., Johansson, G. & Schaufeli, W.B. (2007). Type A behavior and work situation: Associations with burnout and work engagement. *Scandinavian Journal of Psychology*, 48, 135-142.
- Harackiewicz, J. M. (1979). The effects of reward contingency and performance feedback on intrinsic motivation. *Journal of Personality and Social Psychology*, 37, 8, 1352-1363.
- Harris, C., Daniels, K., Briner, R. B. (2003). A daily diary study of goals and affective well-being at work. *Journal of Occupational and Organizational Psychology*, 76, 3, 401-411.
- Harter, J.K., Schmidt, F.L., & Hayes, T.L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87, 268-279.
- Herzberg, F. (1966). *Work and the nature of man*. New York: The World Publishing Company.

- Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work*. New York: Wiley.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Cambridge, Mass.: Harvard University Press.
- Hobfoll, S. E. (1989). Conservation of resources: a new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.
- Hobfoll, S.E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307-324.
- Hobfoll, S.E., Johnson, R.J., Ennis, N., & Jackson, A.P. (2003). Resources loss, resources gain and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84, 632-643.
- Houkes, I., Janssen, P. M., De Jonge, J., & Nijhuis, F. J. N. (2001). Specific relationships between work characteristics and intrinsic work motivation, burnout and turnover intention: A multi-sample analysis. *European Journal of Work and Organizational Psychology*, 10, 1, 1-23.
- Howes, J. C., Cropanzano, R., Grandey, A. A., & Mohler, C. J. (2000). Who is supporting whom: Quality team effectiveness and perceived organizational support. *Journal of Quality Management*, 5, 2, 207-223
- Iavicoli, S. (2004). Fact-finding survey on the perception of work-related stress in EU candidate countries. In: Iavicoli, S., ed. *Stress at work in enlarging Europe*. Rome, National Institute for Occupational Safety and Prevention, 81-97.
- International Labor Organization. Retrieved 06 June 2007 [WWW document]. URL <http://laborsta.ilo.org>
- Jahoda, M. (1958). *Current concepts on mental health*. New York: Basic Books.
- Janssen P.P.M. & Buunk A.P. (1990) The effect of relative deprivation upon turnover in various career stages (in Dutch). *Gedrag and Organisatie* 3, 2, 126-137.
- Janssen, P. M., Schaufeli, W. B., & Houkes, I. (1999). Work-related and individual determinants of the three burnout dimensions. *Work & Stress*, 13, 1, 74-86.
- Jex, S. M. & Bliese, P. D. (1999). Efficacy beliefs as a moderator of the impact of work-related stressors: A multi-level study. *Journal of Applied Psychology*, 84, 349-361.
- Johns, G. (2006). The Essential Impact of Context on Organizational Behavior. *Academy of Management Review*, 31, 2, 386-408.

- Johnson, J. V. & Hall, E. M. (1988). Job strain, work place social support and cardiovascular disease: a cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health*, 78, 1336-1342.
- Judge, T.A., Erez, A., & Bono, J.E. (1998). The power of being positive: The relationship between positive self-concept and job performance. *Human Performance*, 11, 167, 187.
- Judge, T.A., & Bono, J.E., & Locke, E.A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85, 237-249.
- Judge, T. A., Locke, E. A., & Durham, C.C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, 19, 151-188.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction- job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127, 376-407
- Judge, T.A., & Watanabe, S. (1993). Another look at the job satisfaction-life satisfaction relationship. *Journal of Applied Psychology*, 78, 6, 939-948.
- Judy, R. W., & D'Amico, C. (1997). *Workforce, 2020: Work and workers in the 21st century*. Indianapolis, IN: Hudson Institute.
- Kafka, G. J., & Kozma, A. (2002). The construct validity of Ryff's scales of psychological well-being (SPWB) and their relationship to measures of subjective well-being. *Social Indicators Research*, 57, 2, 171.
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 4, 692-724.
- Kahn, R. L., & Byosiore, P. (1992). Stress in organizations. In M. D. Dunette, J. M. R. Hough, & H. C. Triandis (Eds.), *Handbook of industrial and organizational psychology* (Vol. 4: pp. 571-650). Palo Alto, CA: Consulting Psychologists Press.
- Kaldenberg, D. O., and Becker, B. W. (1992). Workload and Psychological Strain: A Test of the French, Rodgers, and Cobb Hypothesis. *Journal of Organizational Behavior*, 3, 617-624.
- Kanfer, R. (1990). Motivation Theory and Industrial and Organizational Psychology. In M. D. Dunnette & L. M. Hough (Eds.) *Handbook of Industrial and Organizational Psychology*, 1, (pp. 1-53). Chichester, England: Wiley.
- Kanfer, R. & Heggstad, E. D. (1997). Motivational traits and skills: A person-centered approach to work motivation. *Research in Organizational Behavior*, 19, 1-56.

- Karasek, R. A. (1979). Job demands, job decision latitude and mental strain: implications for job redesign. *Administrative Science Quarterly* 24, 285-308.
- Karasek, R.A. (1985). *Job Content Instrument: Questionnaire and user's guide* (Rev. 1.1). Los Angeles: University of Southern California.
- Karasek, R. A., Brisson, C., Kawakami, N., Houtman, I., & Bongers, P. (1998). The job content questionnaire (JCQ): an instrument for internationally comparative assessments of psychological job characteristics. *Journal of Occupational Health Psychology*, 3, 322-355.
- Karasek, R., & Theorell, T. (1990). *Healthy work: stress, productivity, and the reconstruction of working life*. New York, NY: Basic Books, 89-103.
- Kohn, M.L., & Schooler, C. (1982). Job conditions and personality: A longitudinal assessment of their reciprocal effects. *American Journal of Sociology*, 87, 1257- 1286.
- Kluger, A. V., & DeNisi, A. (1996). The effects of feedback interventions on performance. A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119, 254-284.
- Kochan, T. A., Smith, M., Wells, J. C., & Rebitzer, J. B. (1994). Human resource strategies and contingent workers: The case of safety and health in the petrochemical industry. *Human Resource Management*, 33, 1, 55-77.
- Konkolewsky, H.H. (2004). Stress speech: European week for safety and health. In: Iavicoli, S., ed. Stress at work in enlarging Europe. Rome, National Institute for Occupational Safety and Prevention, pp. 29-43.
- Kornhauser, A. (1965). *Mental health of the industrial worker*. New York: Wiley.
- Koukoulaki, T. (2004). Stress prevention in Europe: trade union activities. In: Iavicoli, S., ed. Stress at work in enlarging Europe. Rome, National Institute for Occupational Safety and Prevention, pp. 17-27.
- Koyuncu, M., Burke, R.J., & Fiksenbaum, L. (2006). Work engagement among women managers and professionals in a Turkish bank. *Equal Opportunities International*, 25, 299-310.
- Landsbergis, P. A. (1988). Occupational stress among health care workers: A test of the job demands-resources model. *Journal of Organizational Behavior*, 9, 3, 217-239.
- Langelaan, S., Bakker, A. B., Van Doornen, L.J.P., & Schaufeli, W. B. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40, 521-532.

- Langer, E. J. (1989). *Mindfulness*. Reading, Mass.: Addison-Wesley.
- Lasch, C. (1984). *The minimal self*. New York: Norton.
- Latham, G. (2007). *Work Motivation: History, Theory, Research and Practice*. Thousand Oaks, California: Sage Publications.
- Lawler, E. E. (1971). *Pay and psychological effectiveness: A psychological view*. New York: McGraw-Hill.
- Lawler, E. E., & Hall, D. T. (1970). Relationships of job characteristics to job involvement, satisfaction, and intrinsic motivation. *Journal of Applied Psychology*, 54, 305-312.
- Lawton, M. P. (1975). The philadelphia geriatric center morale scale: A revision. In G. J. Kafka, G. J., & Kozma, A. (2002). The construct validity of Ryff's scales of psychological well-being (SPWB) and their relationship to measures of subjective well-being. *Social Indicators Research*, 57, 2, 171.
- Leather, P., Lawrence, C., Beale, D., Cox, T., & Dickson, R. (1998). Exposure to occupational violence and the buffering effects of intra-organizational support. *Work and Stress*, 12, 161-178.
- Lee, R.T., & Ashforth, B.E. (1996). A meta-analytic examination of the three dimensions of burnout. *Journal of Applied Psychology*, 81, 123-133.
- Lee, C., & Bobko, P. (1994). Self-efficacy beliefs: Comparison of five measures. *Journal of Applied Psychology*, 79, 364-369.
- Leigh, J. P., Markowitz, S. B., Fahs, M., Shin, C., & Landrigan, P. J. (1997). Occupational injury and illness in the United States: Estimates of costs, morbidity, and mortality. *Archives of Internal Medicine*, 157, 1557-1568.
- Leiter, M. P. (1990). The impact of family resources, control coping and skill utilization on the development of burnout: A longitudinal study. *Human Relations*, 43, 1067-1083.
- Leiter, M. P. (1991). Coping patterns as predictors of burnout. *Journal of Organizational Behavior*, 12, 123-144.
- Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment of burnout and organizational commitment. *Journal of Organizational Behavior*, 9, 297-308.
- Leiter, M.P. (2005), "Engagement with work: issues for measurement and intervention", in Burke, R.J. and Cooper, C.L. (Eds), *The Human Resources Revolution: Why Putting People First Matters*, Elsevier, Oxford, pp. 213-30.

- Levi, L. (1971). In Society, stress and disease: Vol. 1. *The psychosocial environment and psychosomatic diseases: Proceedings of an international interdisciplinary symposium held in Stockholm, April 1970*. New York: Oxford University Press.
- Levi, L. Spice of life or kiss of death? (2002). *Working on Stress*, 5, 11–13 (http://agency.osha.eu.int/publications/magazine/5/en/MAGAZINE5_EN.PDF).
- Lincoln, J. R., & Kalleberg, A. L. (1990) *Culture, Control, and Commitment: A Study of Work Organization and Work Attitudes in The United States and Japan*, New York: Cambridge University Press.
- Litwin, G. H., & Stringer, R. A. (1968). *Motivation and organizational climate*. Cambridge: Harvard University Press.
- Llorens, S., Salanova, M., Bakker, A.B. & Schaufeli, W.B. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computers in Human Behavior*, 23(1), 825-841.
- Locke, E. A., & Latham, G. P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological Science*, 1, 240-246.
- Lucas, R. E., Diener, E. & Shu, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71, 616-628.
- Luthans, F. (2002a). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, 23, 695-706.
- Luthans, F. (2002b). Positive Organizational Behavior: Developing and managing psychological strengths. *Academy of Management Executive*, 16, 1.
- Luthans, F. (2003). Positive organizational behavior: implications for leadership and HR development and motivation. In L. W. Porter, G. A. Bigley, & R. M. Steers (Eds.), *Motivation and Work Behavior* (pp. 178-195). New York: McGraw-Hill/Irwin.
- Luthans, F., Avey, J.B., Avolio, B.J., Norman, S.M., & Combs, G.M. (2006). Psychological capital development: toward a microintervention. *Journal of Organizational Behavior*, 27, 387-393.
- Macey, W. H., & Schneider, B. (2008). The Meaning of employee engagement. *Industrial and Organizational Psychology*, 1, 3-30.
- Mäkikangas, A., & Kinnunen, U. (2003). Psychosocial work stressors and well-being: Self-esteem and optimism as moderators in a one-year longitudinal sample. *Personality and Individual Differences*, 35, 537-557.

- Maslach, C., & Jackson, S. E. (1986). *Maslach Burnout Inventory: Second edition*. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., Jackson, S.E., & Leiter, M.P. (1996). *Maslach Burnout Inventory manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., & Leiter, M.P. (1997). *The truth about burnout*. San Francisco, CA: Jossey Bass.
- Maslach, C., Schaufeli, W. B., & Leiter, M.P. (2001). Job Burnout. *Annual Review of Psychology*, 52, 397-422.
- Maslow, A. H. (1954). *Motivation and personality*. New York: Harper.
- Mayo, E. (1933). *The human problems of an industrial civilization*. New York: Macmillan.
- Mayo, E. (1945). *The social problems of an industrial civilization*. Boston: Harvard University Press.
- McMillan, L.H.W., O'Driscoll, M.P., Marsh, N.V., & Brady, E.C. (2001). Understanding workaholism: Data synthesis, theoretical critique, and future design strategies. *International Journal of Stress Management*, 8, 69-91.
- Millar, J. (1984). The NIOSH-suggested list of the ten leading work-related diseases and injuries [Letter to the editor]. *Journal of Occupational Medicine*, 26, 340-341.
- Mitchell, T.R., & Daniels, D. (2003). Motivation. In W. C. Borman, D. R. Ilgen, R. J. Klimoski (Eds.), *Comprehensive handbook of psychology: Industrial organizational psychology* (Vol.12, pp.225-254). New York: Wiley & Sons.
- Mobley, W.H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62, 237-240.
- Montgomery, A.J., Peeters, M.C.W., Schaufeli, W.B. & Den Ouden, M. (2003). Work- home interference among newspaper managers: Its relationship with burnout and engagement. *Anxiety, Stress and Coping*, 16, 195-211.
- Mowday, R. T., Sutton, R. I. 1993. Organizational behavior: Linking individuals and groups to organizational contexts. *Annual Review of Psychology*, 44, 195-229.
- Muchinsky P.M. & Morrow P.C. (1980) A multidimensional model of voluntary employee turnover. *Journal of Vocational Behavior* 17, 3, 263-290.
- Naude, J.L.P. & Rothmann, S. (2006). Work-related well-being of emergency workers in Gauteng. *South African Journal of Psychology*, 63-81.
- Neugarten, B., & R., Tobin, S. (1961). The measurement of life satisfaction. Kafka, G. J., & Kozma, A. (2002). The construct validity of Ryff's scales of psychological well-being

- (SPWB) and their relationship to measures of subjective well-being. *Social Indicators Research*, 57, 2, 171.
- O'Driscoll, M. P., & Randall, D. M. (1999). Perceived Organisational Support, Satisfaction with Rewards, and Employee Job Involvement and Organisational Commitment. *Applied Psychology* 48, 2, 197–209
- Paoli, P., & Merllié, D. Third European survey on working conditions 2000. Luxembourg, European Foundation for the Improvement of Living and Working Conditions, 2001 (<http://www.eurofound.eu.int/publications/files/EF0121EN.pdf>).
- Parasuraman, S. (1989). Nursing turnover: An integrated model. *Research in Nursing Health*, 12, 4, 267-277.
- Parasuraman, S., Greenhaus, G.H., & Granrose, C.S. (1992). Role stressors, social support, and well-being among two-career couples. *Journal of Organizational Behavior*, 339-356.
- Parker, S. K. (2003). Longitudinal effects of lean production on employee outcomes and mediating role of work characteristics. *Journal of Applied Psychology*, 88, 620- 634.
- Parkes, K. R. (1982). Occupational stress among student nurses: A natural experiment. *Journal of Applied Psychology*, 67, 764-796.
- Perkins, D. N. 1981. *The mind's best work*. Cambridge, Mass.: Harvard University Press.
- Pierce, J.L., & Gardner, D.G. (2004). Self-esteem within the work and organizational context: A review of the organizational-based self-esteem literature. *Journal of Management*, 30, 591-622.
- Pierce, J.L., Gardner, D.G., Cummings, L.L., & Dunham, R.B. (1989). Organizational- based self-esteem: construct definition, measurement, and validation. *Academy of Management Journal*, 32, 622-648.
- Pool J., Meeuwsen E.A.M. & Michels K.J.A.M. (1992) Turnover and management of turnover (in Dutch). In *Personeelsmanagement in De Gezondheidszorg*. (van Dijk J.K., Gruénveld J.E. & Pool J., eds), Boon, Staeu, van Loghum, Houten, pp. 77-94.
- Porter, G. (1996). Organizational impact of workaholism: Suggestions for researching the negative outcomes of excessive work. *Journal of Occupational Health Psychology*, 1, 70-84.
- Quick, J. C. (1999). Occupational health psychology: The convergence of health and clinical psychology with public health and preventive medicine in an

- organizational context. *Professional Psychology: Research and Practice*, 30, 123-128.
- Quinn, R. P., & Staines, G. L. (1978). *The 1977 quality of employment survey*. Ann Arbor, MI: Institute for Social Research.
- Rabinowitz, S., Kushnir, T., & Ribak, J. (1996). Preventing burnout: Increasing professional self efficacy in primary care nurses in a Balint Group. *Journal of the American Association of Occupational Health Nurses*.
- Rafaeli, A., & Sutton, R. I. 1987. The expression of emotion as part of the work role. *Academy of Management Review*, 12, 23-37.
- Raymond, J. S., Wood, D. W., & Patrick, W. D. (1990). Psychology training in work and health. *American Psychologist*, 45, 1159-1161.
- Reker, G. T., Peacock, E. J. (1981). The Life Attitude Profile (LAP) : A multidimensional instrument for assessing attitudes towards life. In G. J., Kafka, & A. Kozma, (2002). The construct validity of Ryff's scales of psychological well-being (SPWB) and their relationship to measures of subjective well-being. *Social Indicators Research*, 57, 2, 171.
- Rowe, J. W., & Kahn, R. L. (1998). *Successful aging*. New York Pantheon.
- Russel, J. A. (1979). Affective space is bipolar. *Journal of Personality and Social Psychology*, 37, 345-356.
- Russel, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, 39, 1161-1178.
- Rice, R. W. (1984). Organizational work and the quality of life. In *Applied Social Psychology Annual*, 5, 155-178.
- Rich, B. L. (2007). *Job engagement: Construct validation and relationships with job satisfaction, job involvement, and intrinsic motivation*. Unpublished Doctoral Dissertation. University of Florida, Florida.
- Richer, S. F., & Vallerand, R. J. (1995). Supervisors' interactional styles and subordinates' intrinsic and extrinsic motivation. *The Journal of Social Psychology*, 135, 6, 707-722.
- Richardson, A. M., Burke, R. J., & Martinussen, M. (2006). Work and health outcomes among police officers: The mediating role of police cynicism and engagement. *International Journal of Stress Management*, 13 (4), 555-574.

- Richter P. & Hacker, W. (1998). *Workload and Strain: Stress, Fatigue and Burnout in the Work Life*. Asagner, Heidelberg.
- Rioli, L., & Savicki, V. (2003). Optimism and coping as moderators of the relation between work resources and burnout in information service workers. *International Journal of Stress Management*, 10, 235-252.
- Rodopman, A. (1999). The perception of core job characteristics by Turkish employees and its relation to job satisfaction. Unpublished Master's Thesis. Marmara University, İstanbul, Turkey.
- Roethlisberger, P., & Dickson, W. J. (1939). *Management and the worker*. Cambridge, MA: Harvard University Press.
- Rosenstock, L., Olenec, C., & Wagner, G. (1998). The national occupational research agenda: A model of broad stakeholder input into priority setting. *American Journal of Public Health*, 88, 353-356.
- Rosin, H., & Korabik, K. (1995). Organizational Experiences and Propensity to Leave: A Multivariate Investigation of Men and Women Managers. *Journal of Vocational Behavior*, 46, 1, 1-16.
- Rosse J.G. & Miller H.E. (1984) Relationships between absenteeism and other employee behaviors. In Absenteeism (Goodman P.S. & Atkin R.S., eds), The Jossey Bass, San Francisco, pp. 194-228.
- Rosse, J. G., Boss, R. W., Johnson, A. E., & Crown, D. F. (1991). Conceptualizing the role of self-esteem in the burnout process. *Group and Organization Studies*, 16, 428-451.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, 55, 68-78.
- Ryan, R. M., & Frederick, C. (1997) On Energy, Personality, and Health: Subjective Vitality as a Dynamic Reflection of Well-Being. *Journal of Personality*, 65, 3, 529–565.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. In G. J., Kafka, & A. Kozma, (2002). The construct validity of Ryff's scales of psychological well-being (SPWB) and their relationship to measures of subjective well-being. *Social Indicators Research*, 57, 2, 171.
- Sadri, G., & Robertson, I. T. (1993). Self-efficacy and work-related behavior: A review and meta-analysis. *Applied Psychology: An International Review*, 42, 139-152.

- Salanova, M. & Schaufeli, W.B. (2000). Exposure to information technology and its relation to burnout. *Behaviour & Information Technology*, 5, 385-392.
- Salanova, M., Llorens, S., Cifre, E., Martínez, I.M. & Schaufeli, W.B. (2003). Perceived collective efficacy, subjective well-being, and task performance among electronic work groups: An experimental study. *Small Group Research*, 34, 43-73.
- Salanova, M., Agut, S., & Peiró, J.M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90, 1217-1227.
- Sauter, S. L., Murphy, L. R., & Hurrell, J. J., Jr. (1990). Prevention of work-related psychological disorders: A national strategy proposed by the National Institute for Occupational Safety and Health (NIOSH). *American Psychologist*, 45, 1146- 1158.
- Sauter, S.L. & Hurrell, J. J. (1999). Occupational Health Psychology: Origins, Content and Direction. *Professional Psychology: Research and Practice*, 30,(2), 177-122.
- Schabracq, M.J., Jacques A. M. Winnubst, J.A.M., Cooper, C.L. (Eds.) (2003). *The handbook of work and health psychology (2nd Ed.)*. Chichester: Wiley.
- Schaufeli, W. B. (2004). The future of occupational health psychology. *Applied Psychology: An International Review*, 53, 4, 502-517.
- Schaufeli, W.B. (2007). Burnout in health care. In P. Carayon (Ed.). *Handbook of human factors and ergonomics in health care and patient safety* (pp. 217-232). Mahway, NJ: Lawrence Erlbaum.
- Schaufeli, W.B., & Bakker, A.B. (2001). Werk en welbevinden: Naar een positieve benadering in de Arbeids- en Gezondheidspsychologie [*Work and well-being: Toward a positive approach in occupational health*].
- Schaufeli, W. B., & Bakker, A. B. (2003). UWES Utrecht Work Engagement Scale. Preliminary Manual Version 1. Occupational Health Psychology Unit. Utrecht University.
- Schaufeli, W. B. Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25, 293-315.
- Schaufeli, W.B. & Buunk, B.P.(2003). *Burnout: An overview of 25 years of reseacrh and theorizing*. In M.J. Schrabracq, J.A.M. Winnbst & C.L. Cooper (Eds), *Handbook of Work and Health Psychology*. Chichester:Wiley, 383-425.

- Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A crossnational study. *Educational and Psychological Measurement*, 66, 701-716.
- Schaufeli, W. B., & Enzmann, D. (1998). *The Burnout Companion to Research and Practice: A Critical Analysis*. Taylor & Francis, London.
- Schaufeli, W. B., & Greenglass, E. R. (2001). Introduction to special issue on burnout and health. *Psychology and Health*, 16, 501-510.
- Schaufeli, W.B., Martinez, I., Marques Pinto, A. Salanova, M. & Bakker, A.B. (2002b). Burnout and engagement in university students: Across national study. *Journal of Cross- Cultural Psychology*, 33, 464-481.
- Schaufeli, W.B., Maslach, C. & Marek, T. (1993). The future of burnout. In: W.B. Schaufeli, C. Maslach & T. Marek (Eds.). *Professional Burnout: Recent developments in theory and research* (pp. 253-259). New York: Taylor & Francis.
- Schaufeli, W. B., Salanova, M., Gonzales-Roma, V. & Bakker, A.B. (2002a). The measurement of engagement and burnout: A confirmative analystic approach. *Journal of Happiness Studies*, 3, 71-92.
- Schaufeli, W.B. & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationship with efficacy beliefs. *Anxiety, Stress & Coping*, 20, 177-196.
- Schaufeli, W.B., Taris, T., Le Blanc, P., Peeters, M., Bakker, A., & De Jonge, J. (2001). Can work produce health? The quest for the engaged worker. *De Psycholoog*, 36, 422-428.
- Schaufeli, W. B., Taris, T. W., & Rhenen, W. (2008). Workaholism, Burnout, and Work Engagement: Three of a kind or three different kinds of employee well-being? *Applied Psychology: An International Review*, 57(2), 173-203.
- Scheier, M.F., & Carver, C.S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research*, 16, 201-228.
- Schein EH. (1985). *Organizational culture and leadership*. San Francisco: Jossey-Bass.
- Schneider B. (1975). Organizational climates: An essay, *Personnel Psychology*, 28, 447- 479.
- Schneider B. (1983a). Interactional psychology and organizational behavior. In Cummings LL, Staw BM (Eds.). *Research in organizational behavior*, Vol 5 (pp. 1-31). Greenwich, CT: JAI Press.

- Schneider B. (1983b). An interactionist perspective on organizational effectiveness. In Cameron KS, Whetten DS (Eds.), *Organizational effectiveness: A comparison of multiple models* (pp. 27-54). New York: Academic Press.
- Schneider B. (1985). Organizational behavior. *Annual Review of Psychology*, 36, 573- 611.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40, 437-453.
- Schneider, D. L., Camara, W. J., Tetrick, L. E., & Stenberg, C. R. (1999). Training in occupational health psychology: Initial efforts and alternative models. *Professional Psychology: Research and Practice*, 30, 138-142.
- Schröder, E. E., Schwarzer, R., & Konertz, W. (1998). Coping as a mediator in recovery from cardiac surgery. *Psychology & Health*, 13, 1, 83 - 97
- Schwarzer, R. (Ed.). (1992). *Self-efficacy: Thought control of action*. Washington, DC: Hemisphere.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, United Kingdom: NFER-NELSON.
- Schwarzer, R., & Kleiber, D. (1996). Professional burnout. *Anxiety, Stress and Coping*, 9, 181-184.
- Seligman, M.E.P. (1991). *Learned optimism*. New York: Random House.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: an introduction. *American Psychologist*, 55, 5-14.
- Sherer, M., Maddux, J. E., Mercadante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports*, 51, 663-671.
- Shin, K. H. (2003). *Job engagement and job burnout in a South Korean sample*. Doctoral Dissertation for Doctor of Philosophy, Kansas State University.
- Siegrist, J. (1996). Adverse health effects of high effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1, 27-41.
- Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: a new look at the interface between nonwork and work. *Journal of Applied Psychology*, 88, 518-28.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124, 240-261.

- Steptoe, A., & Wardle, J. (2005). Positive affect and biological function in everyday life. *Neurobiology of Aging*, 26, 108-113
- Stremmel A.J. (1991) Predictors of intention to leave child care work. *Early Childhood Research Quarterly* 6, 2, 285-298.
- T.C. Sağlık Bakanlığı Ankara Meslek Hastalıkları Hastanesi (2006). Meslek Hastalıkları. Retrieved 15.February.2007 [WWW document]. URL http://www.ankarameslek Hastanesi.gov.tr/hastalik_detay.asp?id=11
- Taylor, F. W. (1911). *Scientific management*. New York: Harper.
- Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 1, 6-15
- Thompson, C. A., Beauvais, L., & Lyness, K. S. (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. *Journal of Vocational Behavior*, 54, 392-415.
- Thompson, C. A., & Prottas, D. J. (2006). Relationships among organizational family support, job autonomy, perceived control, and employee well-being. *Journal of Occupational Health Psychology*, 11, 1, 100-118.
- Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45, 6, 1137-1148.
- Tiffin, J., & McCormick, E. J. (1965). *Industrial Psychology* (5th ed.). Engelwood Cliffs, NJ: Prentice Hall.
- Ünler-Öz, E. (2007). *Duygusal Emek Davranışlarının Çalışanların İş Sonuçlarına Etkisi*. İstanbul: Beta Basım Yayın.
- Vaananen, A., Toppinen-Tanner, S., Kalimo, R., Mutanen, P., Vahtera, J., & Peiro', J. M. (2003). Job characteristics, physical and psychological symptoms, and social support as antecedents of sickness absence among men and women in the private industrial sector. *Social Science & Medicine*, 57, 807-824.
- Van der Doef, M., & Maes, S. (1999). The job demand-control (support) model and psychological well-being: A review of 20 years of empirical research. *Work & Stress*, 13, 87-114.

- Van Mierlo, H., Rutte, C. G., Seinen, B., & Kompier, M. (2001). Autonomous teamwork, and psychological well-being. *European Journal of Work and Organizational Psychology*, 10, 1, 291-301.
- Van Veldhoven, M., De Jonge, J., Broersen, S., Kompier, M., & Meijman, T. (2002). Specific relationships between psychosocial job conditions and job related stress: A three-level analytic approach. *Work and Stress*, 16, 207-228.
- Van Yperen, N. W. (1998). Informational support, equity and burnout: The moderating effect of self-efficacy. *Journal of Occupational and Organizational Psychology*, 71, 1, 29-33
- Van Yperen, N.W., & Snijders, T.A.B. (2000). A multilevel analysis of the demands-control model: Is stress at work determined by factors at the group level or the individual level. *Journal of Occupational Health Psychology*, 5, 182-190.
- Warr, P. B. (1987). *Work, unemployment, and mental health*. Oxford, England: Clarendon Press.
- Warr, P. B. (1990). Decision latitude, job demands, and employee well-being. *Work & Stress*, 4, 285-294.
- Warr, P. B. (1994). A conceptual framework for the study of work and mental health. *Work and Stress*, 8, 2, 84-97.
- Watson, D., Clark, L. A. Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scales. *Journal of Personality and Social Psychology*, 54, 1063-1070.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin*, 98, 219-235.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297-333.
- Winnubst, J. A. M., & Schabracq, M. J. (1996). Social support, stress and organization: Towards optimal matching. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *Handbook of Work and Health Psychology* (pp. 131-154). Chichester: John Wiley.
- Wood, R. E., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14, 361-384.
- Wright, T.A., & Cropanzano, R. (2000). The role of organizational behavior in occupational health psychology: A view as we approach the millennium. *Journal of Occupational Health Psychology*, 5, 5-10.

- Wright, T. A., & Cordery, J. L. (1999). Production uncertainty as a contextual moderator of employee reactions to job design. *Journal of Applied Psychology*, 84, 456-463.
- Wright, T. A. (2003). Positive organizational behavior: an idea whose time has truly come. *Journal of Organizational Behavior*, 24, 437-442.
- Xanthopoulou, D, Bakker, A., Demerouti, E. & Schaufeli, W. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 2, 121-141.
- Xie, J. L., and Johns, G. (1995). Job Scope and Stress: Can Job Scope Be Too High?, *Academy of Management Journal*, 38, 5, 1288-1309.
- Yeo, G.B., & Neal, A. (2004). A multilevel analysis of effort, practice, and performance: effects of ability, conscientiousness, and goal orientation. *Journal of Applied Psychology*, 89, 231-247.
- Yetim,Ü. (2002). The impacts of individualism/collectivism, self-esteem, and feeling of mastery on life satisfaction among the Turkish university students. *Social Indicators Research*, 61, 297-317.
- Yeşilay, A., Schwarzer, R., & Jerusalem, M. (1997). Turkish adaptation of the general perceived self-efficacy scale. Retrieved May 10, 2007, from <http://userpage.fu-berlin.de/~health/turk.htm>
- Zager, R., & Rosow, M. P. (1985). The innovative organization: Productivity programs in action. *Industrial and Labor Relations Review*, 38, 4, 679-681.

APPENDICES

APPENDIX I

COUNTRIES INCLUDED IN THE INTERNATIONAL DATABASE OF THE UTRECHT WORK ENGAGEMENT SCALE (UWES, 2002)

	Country	N	%
1	Australia	473	3.7
2	Canada	267	2.1
3	Finland	3,651	28.9
4	France	221	1.7
5	Germany	821	6.5
6	Greece	470	3.7
7	Norway	2,349	18.6
8	South Africa	2,547	20.2
9	Spain	1,832	14.5
	Total	12,631	100

APPENDIX II
THE QUESTIONNAIRE

MARMARA ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
ÖRGÜTSEL DAVRANIŞ DOKTORA PROGRAMI

Elinizdeki bu form Marmara Üniversitesi **İngilizce İşletme Ana Bilim Dalı Örgütsel Davranış Bilim Dalı'nda gerçekleştirilen Doktora Tezi araştırmasında** kullanılmak için hazırlanmıştır. Bu araştırma, Türkiye'de yöneticilerin ve çalışanların verimini ve iş motivasyonunu olumlu yönde etkileyen bireysel, durumsal ve ortam faktörlerini ve bunların sonuçlarını kapsamaktadır.

Formda yer alan ifadelere vereceğiniz cevaplarla çeşitli konulara ilişkin görüşlerinizi aktararak bu konuların incelenmesine katkıda bulunmuş olacaksınız. Hiçbir ifadenin doğru veya yanlış cevabı yoktur. **Önemli olan cevabın içtenlikle ve düşünülerek verilmesi ve cevaplanmamış madde bırakılmamasıdır.**

Araştırma için kimliğinizin belirlenmesi önemli olmadığından, anket formlarına lütfen **isim ve soyadı yazmayınız**. Cevaplamış olduğunuz anketler sadece araştırmacı tarafından bilimsel amaçla değerlendirilecektir.

Bu araştırmanın sonuçlarıyla ilgileniyorsanız, lütfen cevap formunun en son sayfasına size ulaşabileceğimiz bir e-posta veya posta adresi yazınız.

Katılımınız, ilgi ve yardımlarınız için şimdiden çok teşekkür ediyoruz.

Doktora Tez Danışmanı

Prof. Dr. Handan Kepir Sinangil

Doktor Adayı

Esra Atilla Bal

BÖLÜM 1: Aşağıdaki ifadelere hangi oranda katıldığınızı uygun rakamı işaretleyerek belirtiniz.

1 Kesinlikle katılmıyorum	2 Çok az katılıyorum	3 Biraz katılıyorum	4 Oldukça katılıyorum	5 Çoğunlukla katılıyorum	6 Tamamen katılıyorum
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1. Çoğu zaman üstlerim iş performansıyla ilgili görüşlerini benimle paylaşırlar.	1	2	3	4	5	6
2. İşimle ilgili kararlarda söz sahibi olabilirim.	1	2	3	4	5	6
3. Sorumlusu olduğum işlerin sırasını kendim belirleyebilirim.	1	2	3	4	5	6
4. Başımdan geçen zor durumlardan amirime bahsederim.	1	2	3	4	5	6
5. Üstlerim ve çalışma arkadaşlarım işimi ne kadar iyi yaptığımla ilgili düşüncelerini benimle paylaşırlar	1	2	3	4	5	6
6. Bu iş yerindeki çalışanlar, yaptıkları işin mükemmelliği oranında ödüllendirilir.	1	2	3	4	5	6
7. Amirime kolaylıkla danışabilirim.	1	2	3	4	5	6
8. Yapılan işin doğru bulmadığım yönleri olduğunda bunları söyleyebilirim.	1	2	3	4	5	6
9. Yaptığım işin kendisi performansım hakkında bana çok az ipucu verir.	1	2	3	4	5	6
10. Burada yapılan iyi işler yeterince fark edilmez ve ödüllendirilmez.	1	2	3	4	5	6
11. Amirim tüm çalışanlarına sahip çıkar.	1	2	3	4	5	6
12. Yaptığım işle ilgili bütün sorumluluğu alabilirim.	1	2	3	4	5	6
13. Bu iş yerinde bir hata yaptığınızda cezalandırılırsınız.	1	2	3	4	5	6
14. Sadece işimin gerektirdiklerini yaparak nasıl bir performans gösterdiğimi anlayabilirim.	1	2	3	4	5	6
15. Zor durumlarla karşılaştığımda amirim benim bu durumlardan kurtulmama yardımcı olur.	1	2	3	4	5	6
16. Bu iş yerinde ödül ve teşvikler, ceza ve eleştirilerden daha fazla kullanılır.	1	2	3	4	5	6
17. İş arkadaşlarım ve üstlerimden aldığım geribildirim yanısıra, işimin kendisi de bana performansıyla ilgili bilgi sağlar.	1	2	3	4	5	6
18. Molaya ihtiyaç duyduğumda, amirim benim işimi üstlenerek yokluğumu kapatır.	1	2	3	4	5	6
19. Bu işletmede herkes birbirini tenkit eder.	1	2	3	4	5	6
20. Üstlerim veya çalışma arkadaşlarım işimi ne kadar iyi yaptığım hakkında bana neredeyse hiçbir zaman geribildirim vermezler.	1	2	3	4	5	6

21. İşler sarpa sardığında, bunu amirime rahatlıkla söyleyebilirim.	1	2	3	4	5	6
22. Terfi sistemimiz, iyi performans gösterenlerin yükselmesine olanak tanır.	1	2	3	4	5	6
23. İşler zorlaştığında, amirimin bu zorluğu çözeceğine inanırım.	1	2	3	4	5	6

BÖLÜM 2: Aşağıdaki ifadelerin işinizle ilgili duygularınızı ne kadar yansıttığını uygun rakamı işaretleyerek belirtiniz.

0	1	2	3	4	5	6
Hiçbir zaman	Neredeyse hiçbir zaman	Nadiren	Bazen	Sık sık	Çok sık	Her zaman

24. İşimde kendimi enerji dolu hissederim.	0	1	2	3	4	5	6
25. Yaptığım işin amaç ve anlamı vardır.	0	1	2	3	4	5	6
26. Çalışırken zamanın nasıl geçtiğini fark etmem.	0	1	2	3	4	5	6
27. İşimde kendimi canlı ve güçlü hissederim.	0	1	2	3	4	5	6
28. İşim bana heyecan verir.	0	1	2	3	4	5	6
29. Çalışırken etrafımdaki herşeyi unuturum.	0	1	2	3	4	5	6
30. İşim bana ilham verir.	0	1	2	3	4	5	6
31. Sabah kalktığımda işe gitmeye istekli olurum.	0	1	2	3	4	5	6
32. Yoğun tempoda çalıştığımda kendimi mutlu hissederim.	0	1	2	3	4	5	6
33. Yaptığım işle gurur duyarım.	0	1	2	3	4	5	6
34. Çalışırken adeta işime gömülürüm.	0	1	2	3	4	5	6
35. Çok uzun süre çalışmaya devam edebilirim.	0	1	2	3	4	5	6
36. İşim benim için gelişim fırsatlarıyla doludur.	0	1	2	3	4	5	6
37. Çalışırken kendimi işime kaptırırım.	0	1	2	3	4	5	6
38. İşimde zihinsel olarak oldukça dayanıklıyım.	0	1	2	3	4	5	6
39. Kendimi işe çok kaptırdığım için işten kopmakta zorlanırım.	0	1	2	3	4	5	6
40. İşler yolunda gitmediği zamanlarda bile kararlı davranışımı sürdürürüm.	0	1	2	3	4	5	6

BÖLÜM 3: Aşağıdaki ifadelerle hangi oranda katıldığınızı uygun rakamı işaretleyerek belirtiniz.

1 Kesinlikle doğru değil	2 Doğru değil	3 Pek doğru değil	4 Biraz Doğru	5 Doğru	6 Kesinlikle doğru
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41. Yeni bir durumla karşılaştığımda ne yapmam gerektiğini bilirim.	1	2	3	4	5	6
42. Beklenmedik durumlarda nasıl davranmam gerektiğini her zaman bilirim.	1	2	3	4	5	6
43. Bana karşı çıkıldığında kendimi kabul ettirecek yolları bulurum.	1	2	3	4	5	6
44. Her türlü zorluğun üstesinden gelirim.	1	2	3	4	5	6
45. Eğer gayret edersem güç sorunların çözümünü her zaman bulurum.	1	2	3	4	5	6
46. Tasarılarımı gerçekleştirmek ve hedeflerime erişmek bana zor gelmez.	1	2	3	4	5	6
47. Bir sorunla karşılaştığım zaman onu çözebilmeye yönelik birçok fikrim vardır.	1	2	3	4	5	6
48. Güçlükleri soğukkanlılıkla karşılarım, çünkü yeteneklerime her zaman güvenebilirim.	1	2	3	4	5	6
49. Ani olayların da üstesinden geleceğime inanıyorum.	1	2	3	4	5	6
50. Her sorun için bir çözümüm vardır.	1	2	3	4	5	6

BÖLÜM 4: Aşağıdaki ifadelerle hangi oranda katıldığınızı uygun rakamı işaretleyerek belirtiniz.

1 Kesinlikle katılmıyorum	2 Çok az katılıyorum	3 Biraz katılıyorum	4 Oldukça katılıyorum	5 Çoğunukla katılıyorum	6 Tamamen katılıyorum
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51. Eğer imkanım olsaydı işimden ayrılırdım.	1	2	3	4	5	6
52. Son bir yıl içinde işimden ayrılmayı daha sık düşünmeye başladım.	1	2	3	4	5	6
53. Aktif olarak yeni bir iş arıyorum.	1	2	3	4	5	6
54. İşimden ayrılmayı düşünüyorum.	1	2	3	4	5	6

BÖLÜM 5: Geçtiğimiz son birkaç haftayı düşünerek, işinizle ilgili olarak aşağıda yer alan ifadeleri ne sıklıkta hissettiğinizi uygun rakamı işaretleyerek belirtiniz.

1	2	3	4	5	6
Hiçbir zaman	Ara sıra	Bazen	Çoğu zaman	Hemen hemen her zaman	Her zaman

55. Memnun	1	2	3	4	5	6
56. Sakin	1	2	3	4	5	6
57. Rahat	1	2	3	4	5	6
58. Gergin	1	2	3	4	5	6
59. Tedirgin	1	2	3	4	5	6
60. Endişeli	1	2	3	4	5	6
61. Hevesli	1	2	3	4	5	6
62. İyimser	1	2	3	4	5	6
63. Neşeli	1	2	3	4	5	6
64. Bunalmış	1	2	3	4	5	6
65. Kederli	1	2	3	4	5	6
66. Perişan	1	2	3	4	5	6

Lütfen aşağıdaki bölümü doldurunuz:

1. Yaşınız: _____
2. Cinsiyetiniz: () Kadın () Erkek
3. Medeni Durumunuz: () Bekar () Evli
4. En son mezun olduğunuz eğitim kurumu: () Lise () Üniversite () Yüksek Lisans () Doktora
5. Kaç yıldır bu işyerinde çalışıyorsunuz? _____
6. Kaç yıldır çalışma hayatı içindesiniz? _____
7. a) Yöneticilik göreviniz: () Var () Yok
b) Eğer varsa, yöneticilik düzeyiniz: () İlk Kademe () Orta Kademe () Üst Kademe