# Many hands lighter work?

# Deciphering the relationship between Adverse Working Conditions and Organization Citizenship Behaviors in SMEs during a severe economic crisis

## Abstract

"What is the relationship between Adverse Working Conditions (AWCs) and employees' Organizational Citizenship Behavior (OCB) in small and medium-sized enterprises (SMEs) operating under a severe economic crisis?" To address this question, a survey of 312 frontline workers was undertaken in 62 Greek SMEs - an instrumental setting where the current deterioration of working conditions is acute. Our contribution is twofold. First, we develop and test a scale for measuring AWCs. Second we decipher the extent to which such conditions relate to organizational and individual aspects of OCB, considering job satisfaction's mediating role. Through this research we extend the OCB literature within the context of SMEs operating under severe economic crisis and highlight the implications for managing human resources in SMEs, a sector conspicuous for its socio-economic significance and its vulnerability during economic downturns.

**Key-Words:** *SMEs, Organizational Citizenship Behavior, Adverse Working Conditions, Job Satisfaction, Economic Crisis* 

#### Introduction

Although many studies have focused on employee discretionary efforts, little is known about the relationship Adverse Working Conditions (AWCs) and Organizational between Citizenship Behavior (OCB). AWCs are a conspicuous feature of working life in countries stricken by economic crisis and are particularly prevalent in their Small & Medium Enterprise (SME) sectors. Given the socio-economic significance of SMEs and the impact of economic crises on many European countries, this research advances knowledge in this domain. We study the relationship between AWCs and OCB in SMEs that operate in a crisis environment. Working conditions, according to the ILO (2016, p. n/a), "cover a broad range of topics and issues, from working time to remuneration, as well as the physical conditions and mental demands that exist in the workplace". The term AWCs refers to the negative aspects of working life that are exhibited simultaneously in a workplace and sustained over the long-term (e.g. increased workload, decreased earnings, decreased job security). Although, AWCs may be caused by a variety of internal factors (e.g. structural or operational deficiencies), we focus on an external factor - economic crisis.

Research to date has focused on various aspects of AWCs. Studies have explored the impact of high workload and psychological demands on physical and mental health (e.g. Baumert *et al.*, 2014; Cottini and Lucifora, 2013; Hemstrom, 2005; Rugulies *et al.*, 2013; van Emmerik, 2004). In addition, research on working conditions within the context of organizational crisis has focused on the direct consequences on employees (Mellahi and Wilkinson, 2008; Prouska and Psychogios, 2016; Psychogios *et al.*, 2016a; Shah *et al.*, 2011) and HR responses (Carvalho and Area, 2015; Erburu *et al.*, 2013; Sparrow *et al.*, 2014).

The recent economic downturn has pressured organizations to adapt through job redesign and enrichment, therefore affecting working conditions and the duties and expectations of employees (Markovits *et al.*, 2014). Organizations promoted structural adjustments and redundancies (Naude *et al.*, 2012). These have been posited to turn companies into hostile working places (Roche *et al.*, 2011) and make working conditions harder (Psychogios *et al.*, 2014). Indeed, OECD (2016a) data suggests that job quality in European countries has deteriorated during the deep and prolonged economic crisis affecting job security and the quality of the working environment (e.g. Estonia, Hungary, Italy, Poland, Portugal, Slovakia, Spain). In the case of Greece, economic crisis has created a sharp rise in unemployment and brought the overall quality of working conditions at lower than EU average levels. This is even more pronounced in SMEs (Rose and Spiegel, 2012), a vital sector in most national economies (Psychogios and Wood, 2010; European Commission, 2015b).

OCB is a critical scholarly component in the organizational behavior field. OCB can be defined as an individual behavior that is positively related to the "social and psychological environment in which task performance takes place" (Organ, 1997, p. 95). OCB has an active form when employees identify themselves with organizational values and goals and are willing to exert additional effort, beyond their 'call of duty', in order to benefit the organization (Podsakoff *et al.*, 2014; Podsakoff *et al.*, 2009; Podsakoff *et al.*, 2000; Tanghe *et al.*, 2010; Ullrich *et al.*, 2007; van Dick *et al.*, 2006) demonstrating what has been termed the 'good soldier syndrome' (Organ, 1988). In this respect, OCB has been posited to significantly impact individual performance (Rotundo and Sackett, 2002), team performance (Ohana, 2016) and organizational effectiveness (Turnipseed and Rassuli, 2005).

The majority of this research comes from larger organizations, which are well resourced compared to SMEs. There is also research, albeit more limited, exploring OCB in SMEs. Employees' discretionary efforts have been found particularly valuable in SMEs, given that such firms operate with limited resources (Saridakis *et al.*, 2013). They are characterized by structures of reduced complexity (informal nature of relationships) and a high degree of centralization (Psychogios et al., 2016b), therefore making OCB a source of competitive advantage by enabling these organizations to achieve employee flexibility and involvement (Mesu et al., 2013; Popescu et al., 2015). SME employees are expected to be flexible and take up a variety of tasks outside the formal job description. In other words, engagement in OCB is a critical success factor for SMEs, encouraging their employees' to provide extra efforts so vital to success (Mesu et al., 2013). Therefore, it is crucial to examine how AWCs have influenced OCB levels in SMEs, where business performance has been linked to organizational culture, job satisfaction, and organizational commitment (Purnama, 2013). Yet specific research on OCB in SMEs is scarce, particularly in the presence of a deep economic crisis. Given the severity of the economic crisis in Greece and its impact on working conditions, the Greek SME can been seen as an instrumental setting for examining the relationship between AWCs and OCB.

Although many studies on OCB have been conducted following the onset of the 2008 global financial crisis and the 2010 Eurozone crisis (e.g. MacKenzie *et al.*, 2011; Nasurdin *et al.*, 2013; Podsakoff *et al.*, 2014), to our knowledge, only one explores how OCB may be affected in an economic crisis (Conway *et al.*, 2014). Our study adds and builds on this work by drawing on the crisis-bound SME context. Although a few studies refer to small working groups in large organizations (Chi *et al.*, 2011), OCB in SMEs has been surprisingly neglected, as has the significance of AWCs in influencing critical organizational behavioral

aspects in such firms. Therefore, our paper addresses the aforementioned gaps and makes two significant contributions. Firstly, by developing and validating a scale for measuring AWCs and, secondly, by examining the relationship between AWCs and OCBs in SMEs operating under hard economic conditions.

#### **Theoretical Framework and Hypotheses Development**

# **Conceptualizing Adverse Working Conditions**

Our literature review found three main aspects of AWCs. The first one is related to increased workload (Ramlall, 2009), which is connected to organizational workforce reduction practices (Vermeulen, 2011). Workload increases primarily because the number of employees is reduced while work stays the same and must be reallocated, usually in a disproportionate manner (Mellahi and Wilkinson, 2008). Expectations increase significantly (Amon and Dorfleinter, 2013) and austerity measures adopted imply that employees are expected to do more with less (Wynen and Op de Beeck, 2014). As a result, employees face shorter, unrealistic, deadlines and are often 'forced' or coerced into working even longer hours, usually without additional payment (Kroon *et al.*, 2013; Shah *et al.*, 2011). Increased workload may also lead to a series of other outcomes which may exacerbate the situation. Employees can become physically, emotionally and mentally exhausted. This leads to a state of burnout, making employees feeling demotivated and ultimately leading to lower job interest and performance decline (Maslach and Leiter, 2008).

Secondly, an economic crisis leads to job insecurity. In the literature, downsizing, salary cuts and wage freezes have been shown to be the most frequently cited cost cutting techniques employed by SMEs (Naude *et al.*, 2012). Yet, such behaviors have been found to hinder SME

performance in the mid/long run. In addition, the majority of SMEs do not appear to effectively support those who remain after downsizing leading to job insecurity (Adam and Flatau, 2006). Particularly in the SME sector, austerity measures mean fewer jobs, redundancies, downsizing and business closures (OECD, 2016b). Job losses affect people's perceptions of employer stability (Wynen and Op de Beeck, 2014). Downsizing breaches the employee-employer expectations that employee contributions are reciprocated with a stable and positive work environment that results in employment security (Van Dierendonck and Jacobs, 2012). In addition, Naude *et al.*, (2012) suggested that a heightened sense of uncertainty was evident in organizations where there was friction and the threat of industrial action. This pressure can lead towards even greater levels of dissatisfaction and demotivation and to poorer job performance (Maki *et al.*, 2005).

Thirdly, job insecurity experienced by both employees and managers during an economic crisis can increase the risk of negative employer/manager attitudes such as bullying at work (De Cuyper *et al.*, 2009; Giorgi *et al.*, 2015; Salin, 2003). Kranz and Steger (2013) argue that when an economic crisis turns into a corporate crisis, it leads to hierarchical decision-making and authoritarian leadership styles. Abusive supervision leads to employee feelings of emotional exhaustion (Xu *et al.*, 2015). Abusive managers influence employee and organizational outcomes and negatively affect employee feelings of meaningful work (Rafferty and Restubog, 2011). Based on the above aspects, this study develops an AWCs measure and explores their influence on OCB and job satisfaction.

## Adverse Working Conditions and Organizational Citizenship Behavior

There are two key dimensions of OCB (Organ, 1997). The first is directed to the organization (OCBO). It relates to employee loyalty towards one's organization that can be viewed

through the extent to which one defends and protects (Borman and Motowidlo, 1997; Graham, 1991). The second is directed to the individual (OCBI) and refers to individual employees being supportive towards their colleagues, demonstrating, among others, altruism, courtesy, interest, and interpersonal facilitation (Nasurdin *et al.*, 2013; Organ, 1990). Most OCB studies took place before the global financial crisis of 2008 (Podsakoff *et al.*, 2014). Although some studies have been conducted between 2009 and 2014 (see MacKenzie *et al.*, 2011; Nasurdin *et al.*, 2013; Podsakoff *et al.*, 2014), only the study by Conway *et al.*, (2014) explores how crisis affects OCB. Their study, however, does not link such behaviors directly with AWCs, does not study a severe economic crisis, nor does it study the private sector (SMEs in particular). Conway *et al.* (2014) explored how organizational change, caused by the UK austerity and recession following the global crisis, predicted a psychological contract breach among public sector employees which, in turn, decreased contributions towards the organization but left contributions towards co-workers unaffected. Although this study provides a useful foundation for studying the impact of the crisis on OCBO and OCBI, there is a clear need for more research on the subject especially in relation to SMEs.

Evidence suggests that when working conditions become worse both OCBI and OCBO are negatively affected. For example, according to Bolino and Turnley (2005), increased levels of stress, work overload and work-family conflict can have dysfunctional implications on OCB. Markovits *et al.* (2014) argue that the last economic crisis had negative effects on employee job satisfaction and commitment. The reason is that this crisis negatively influenced working conditions, rendering them adverse. It would appear that this has a direct, unfavorable, result on OCB, whereby employees feel less loyal (Markoczy *et al.*, 2009).

The vast majority of the above research comes from larger organizations, which are well resourced compared to SMEs, and has been conducted in the absence of economic crises. In SMEs, the relationships among employees and between employees and owners/managers are characterized by close social and spatial proximity, which alludes to both positive and negative effects for both parties (Edwards and Ram, 2009; Marlow *et al.*, 2010). This urges SMEs to retain their workforce and minimize turnover (Saridakis *et al.*, 2013). However, when a crisis is ongoing and severe, organizations have no other choice but to implement harsh measures affecting employees' engagement in OCBs. For example, the redundancy of a close friend or colleague may discourage one from "going the extra mile" (Hoffman, 2008; Ucanok and Karabati, 2013). Respectively, employees may become more competitive and decrease OCB directed to their colleagues.

Based on the above we propose the following two hypotheses in relation to SMEs that operate in an economic crisis context:

Hypothesis 1: AWCs are negatively related to OCBs directed to the organization (OCBO).

Hypothesis 2: AWCs are negatively related to OCBs directed to colleagues (OCBI).

## Adverse Working Conditions, Job Satisfaction and Organizational Citizenship Behavior

The attempt to positively relate favorable working conditions with job satisfaction (JS) has been evident since the late 1970's (Roustang, 1977). JS is defined as an individual's positive emotional orientation towards work (Brown and Lam, 2008) and relates to, and depends on, different job aspects such as security, salary, workload, working hours, environment, support, interpersonal relationships and job autonomy (Brown and Lam, 2008). Positive employee perceptions and emotions lead to work satisfaction, while their absence leads to low JS rates (Llobet and Fito, 2013). Research on JS in SMEs (Saridakis *et al.*, 2013) has elicited similar conclusions.

Many authors have studied the positive relationship between JS and positive organizational outcomes in SMEs and have indicated lower rates of work absenteeism, employee turnover and employee health issues. According to Tokuda *et al.* (2009), high JS significantly enhances individual employee performance and increases organizational productivity. Yunxia and Jianmin (2010) also suggested that such employees show increased motivation to contribute to additional projects or tasks beyond their job description. Broadly speaking, despite the fact that smaller organizations often offer poorer quality employment compared with larger ones, the conventional "small is beautiful" argument in the literature assumes harmonious relations (e.g. Edwards and Ram, 2009, Marlow *et al.*, 2005). Employees, due to close proximity and tighter working level relationships, tend to identify more with the organization and their colleagues which, in turn, may translate to higher levels of JS and willingness to go beyond the call of duty; however, the fact that SMEs are less likely to have sophisticated HRM practices, and that informality may actually result in poorer employment quality, has led commentators to characterize such firms as "bleak house" (Bacon and Hoque,

2005). This is somewhat at odds with the conventional wisdom of "small is beautiful", which implies higher satisfaction and OCB levels. It has been recently argued that people management and employment relations (including working conditions) in SMEs are shaped by individual, economic and social considerations, which render such dualism too simplistic; they are neither beautiful, nor bleak, simply complex (Harney and Dundon, 2006; Theodorakopoulos, 2014).

Whatever the case, understanding the effect of working conditions on JS as a mediator to OCB in the context of SMEs operating under a severe economic crisis remains limited. Conceivably, lower JS levels of SME employees due to a deterioration of working conditions may translate into lower degrees of organizational identification, as well as antagonistic relationships among employees, rendering OCB less pronounced. In a counterargument, employees see a deterioration of working conditions as an inevitable consequence of crisis; as a necessity for firm survival. Hence, in order that the SME survives the crisis, regardless of decreases or resilience in JS levels, employees may paradoxically identify more with the organization in such harsh times further entrenching their OCB. In this line of reasoning we hypothesize the following in relation to SMEs in an economic crisis context:

Hypothesis 3: AWCs are negatively related to JS

Hypothesis 4a: JS mediates the relationship between AWCs and OCBO

Hypothesis 4b: JS mediates the relationship between AWCs and OCBI

# The Greek SME as an Instrumental Setting

The Greek crisis, in contrast to other EU countries, has taken a long-term form and is now considered institutionalized (Wood *et al.*, 2015). Job insecurity increased by 22% during the

crisis, compared to an EU-27 average of 4%, while minimum wage reduction was the highest in the EU (Eurofound, 2013). Greek SMEs were disproportionately hit by the crisis compared to larger enterprises and are still struggling to cope with the economic contraction (GSEVEE, 2014). Employment in SMEs fell between 2008 and 2014 with some modest signs of growth since 2014, while aggregate value added fell by 33% in the same period (European Commission, 2015a). But Greek SMEs have still not reached 2008 levels in employment and value added, in comparison, for example, with Germany, France, Sweden and the UK which have all surpassed their SME employment (European Commission, 2015b).

Greece is relying on SMEs for employment and value add for the economy; 85% of private employment is concentrated in SMEs of which 50% are classified as micro enterprises (<10 employees) (GSEVEE, 2014), in comparison, for example, with the UK where 60% of private employment is concentrated in SMEs, of which 96% are micro enterprises (Department for Business Innovation and Skills, 2015).

However, the crisis has increased the vulnerability of Greek SMEs in terms of access to finance (Psillaki and Eleftheriou, 2015) upon which many SMEs are relying for their business operations (Beck and Demirguc-Kunt, 2006). Access to finance was restricted due to declining turnovers and unusual levels of liquid assets (European Central Bank, 2016) and this impacted AWCs (Prouska and Psychogios, 2016). Since 2009 SMEs have faced many challenges in overcoming increased taxation, and coping with the inability of the country's banks to financially support them. Liquidity problems made SMEs unable to pay suppliers and employees (Casey and O'Toole, 2014; Kouretas and Vlamis, 2010). Responses from SMEs included cutting costs to restore profitability and reducing production (leading to a reduced wage bill through lay-offs), as well as searching for additional sources of liquidity

(e.g. extending own payment delays) (OECD, 2009). Liquidity problems intensified in June 2015 with the implementation of capital controls (Samitas and Polyzos, 2016). Moreover, increased layoffs and decreased salaries led to high uncertainty and employee dissatisfaction (Arghyrou and Tsoukalas, 2010). This resulted in fewer people being employed by SMEs, and, therefore, increased levels of workload and pressure for those remaining (INE/GSEE, 2013). Therefore, given the severity of the economic crisis and the impact on AWCs, SMEs in Greece constitute an instrumental setting for examining the impact on OCB.

## Methods

## **Procedure and Sample**

The data were collected between February and June of 2014 (i.e. during the second more substantial and influential period of crisis from June 2012 to December 2014) (see Wood *et al.*, 2015). Given that the Greek crisis officially started in June 2010, the participants had already experienced its impact, especially on working conditions, for at least four years.

A web-based survey questionnaire was developed and an e-mail invitation sent to front-line employees in Greek SMEs who had at least five years of SME working experience. We targeted front-line staff given they are more likely to 'suffer' the most during a severe economic crisis due to job insecurity, possible redundancies and incessant pressuring behaviors from the manager/employer. We focused on non-relatives, so as to eliminate any potential bias emanating from respondents' family ties with the ownership. The e-mail explained the rationale of the study and guaranteed anonymity and confidentiality to participants. It was initially distributed to a pool of personal contacts. Participants were prompted to forward the questionnaire to other front-line employees who were not related to

the owners of the company, whom they knew from similar or different SMEs. In the cover letter accompanying each questionnaire we further highlighted that respondents should not be biologically related to the owners of the company.

For each of our personal contacts (to whom we firstly sent the e-mail invitation) we created a different survey code. We also asked them to forward to us a list with the e-mails of their contacts (to whom they sent the questionnaire) for verification purposes. Upon completion of the data collection and transfer of the data to the SPSS software, we chose to audit 10% of the entries (i.e. 31 cases) by asking specific demographic questions (e.g. gender, level of education and years of organizational tenure) and the name of the contact, from whom they received the e-mail invitation. In this way, we were able to compare the demographic data against a small number of cases (the ones who completed the link of the specific contact) rather than all the 312 cases. In total, we e-mailed 54 individuals, 31 of whom confirmed to have replied to the questionnaire, 15 replied that they did not complete the questionnaire and six failed to respond back to our e-mails. The adopted 'snowball' sampling technique (Goodman, 1961) was preferred for the following reasons: first, the collection of such data is challenging during turbulent times especially in the context of SMEs in which respondents are more easily identifiable. Indeed, Wright et al. (2002) followed the same approach in order to collect data on the sensitive subject of ethical behavior. Second, this sampling method enables the collection of data from the targeted population (i.e. front-line employees in SMEs) in an instrumental setting, such as the severe economic crisis in Greece. A case in point is the study conducted by Segers et al. (2011), who adopted the same technique to collect data from HR managers in Belgium.

312 fully completed questionnaires were screened and brought forward for analysis. The screening process ensured that respondents indeed worked for SMEs and had a minimum of five years of experience providing a measure of certainty that they could participate in our study. The majority of the sample included 167 females (53.5%), held a postgraduate qualification (61.5%) and were aged between 26 and 34 years old (43.6%). Most reported more than 10 years of work experience (45.8%) and had been employed in the same organization from four to seven years (62.8%). In addition, respondents were from manufacturing (18.6%), service (42.6%) and retail (38.8%). Nearly 35% of respondents worked in SMEs of less than 20 employees, 20% worked in SMEs with 20 to 99 employees, and 45% in SMEs employing between 100 and 249 workers.

A typical procedure regarding scale development and validation is to randomly split the sample in half so as to, firstly, identify the factor structure of the scale (first half of the sample) and, secondly, to confirm the identified structure using a different set of data (second half of the sample) (Hinkin *et al.*, 1997). Hence, the sample was randomly split into half using SPSS version 21; the first half was comprised of 149 participants while the second half of 163 participants. Thereupon, exploratory factor analysis (EFA) was used to analyze the first half of the sample and confirmatory factor analysis (CFA) was employed to examine the second half of the sample. Upon attainment of a sufficient factor structure for the newly introduced scale, the second half of the sample was further used to, firstly, test the measurement model of the study and, secondly, to assess the structural model (hypotheses) of the study.

## **Adverse Working Conditions - Instrument Construction**

The items for the AWCs scale were developed following a robust review of the literature on difficult and "under recession" working conditions. In this regard, AWCs include items that are related to perceived changes in the work environment. We focused on perceived changes since employees' perceptions influence their attitudes and behavior (Dysvik and Kuvaas, 2012; Purcell and Hutchinson, 2007). Indeed, individuals act upon specific situations depending on their perceptions of the situations at hand (Schein, 2009). Moreover, employee perceptions demonstrate implemented rather than intended practices (Arthur and Boyles, 2007; Kuvaas and Dysvik, 2010). We originally developed 18 items categorized into three themes: workforce reduction practices, job insecurity and negative workplace attitudes. Content validity was assessed by 15 Human Resource (HR) experts (HR senior academics and practitioners), who reduced the number of items to five. Specifically, we asked our pool of HR experts to indicate in a spreadsheet the relevancy of each item to each of the categories or to identify a different category or a different scale. Through this process, we discarded seven questions, which most experts (10) found related to stress/health issues identified as a consequence of AWCs (item example: increased stress due to increased workload). Further, we deleted two additional items, given that the majority of the experts (8) could not relate them to any of the three categories (item example: increased difficulties with finding a job in the case of job loss). In our attempt to keep the scale short so as to eliminate boredom or fatigue-related response bias (Schmitt and Stults, 1985) and at the same time, internally consistent and representative of the above three themes, we chose to keep all the items (five in number) for which, the experts agreed in terms of their relevancy to these themes (included in Table 1). This is in line with Hinkin et al. (1997) who recommended the development of scales of four to six items. The resultant scale with the five items asked participants to answer how often they may have experienced specific situations in the last two to five (2-5) years. This retrospective longitudinal approach enables participants to reflect and assess the changes

in question comprehensively (Blossfeld and Rohwer, 1995). In order for this to be possible, the study targeted participants with work experience prior to the beginning of the crisis (i.e. minimum of five-years of work experience at the time of the data collection). The sample items included: 'Cuts in financial resources (salaries, bonuses, resources for training and development)' and 'Fear of losing your job'. A Likert scale ranging from 1 (Not at all) to 7 (Almost every day) was developed.

The first part of the randomly split in half sample (n=149) was used to examine the factor structure of the scale. Kaiser-Meyer-Olkin's (KMO) statistic (KMO=0.783) and Bartlett's test of sphericity  $\chi^2$  (710) = 258.08, p<.001 indicated that both the sample size and the item correlations were adequate for exploratory factor analysis (EFA). One eigenvalue was identified over Kaiser's (1960) criterion of 1, which was in accordance with the inflection on the screen plot.

M-plus (Muthén and Muthén, 1998-2012) software was used to run the EFA adopting a geomin factor rotation and maximum likelihood (ML) parameter estimator. Geomin was preferred as a factor rotation method because it allows the factors to correlate with each other, while ML was selected as an extraction method since it provides goodness of fit estimates, tests of statistical significance for both the factor loadings and correlations, and the findings are generalizable to a larger population (Fabrigar *et al.*, 1999; Field, 2013; Muthén and Muthén, 1998-2010). The analysis revealed that, although the model fit the data well [ $\chi^2$  (5)=7.088, p >.05; CFI=0.992, TLI=0.984, RMSEA=.053, SRMR=.029], the factor loading of one of the items (WC4) was not above the cut-off value of 0.45 (which would allow for significant factor loadings based on our sample of 163 respondents; Hair *et al.*, 2009) and hence, it was removed (see Appendix 1 for the scale and instructions for measuring AWCs).

A second EFA demonstrated that all four remaining items loaded significantly on a single factor, while the fit indices indicated that the model fit well to the data [ $\chi^2(2)$ =3.449, p >.05; CFI=0.994, TLI=0.983, RMSEA=.070, SRMR=.020]. Table 1 exhibits the items of the scale and their factor loadings. With regard to the reliability of the newly constructed scale, the analysis yielded a strong Cronbach's alpha at .84.

#### (Insert Table 1 about here)

#### Instrument Validation

The second half of the randomly split sample (n=163) was used to validate the above fouritem scale and test the hypotheses. Confirmatory factor analysis (CFA) was employed using M-plus (Muthén and Muthén, 1998-2012) software. Standardized factor loadings were above 0.3 (see Table 2), while the model fit indices rendered an excellent fit to the data [ $\chi^2$ (2)=1.988, p>.05; CFI=1.000, TLI=1.000, RMSEA=.000, SRMR=.021]. Although the Average Variance Extracted of the scale lies on the lower end of acceptable values (.401), its Composite Reliability (CR) is satisfactory at .718. According to Fornell and Larcker (1981), CR is adequate to assume convergent validity. Given satisfactory factor loadings, excellent fit to the data, and that this is a newly developed scale, we chose not to delete additional items so as to maintain its content validity. These data were also used to test our research hypotheses. To do so we first ensured that all the scales were reliable and valid. Thereupon, we calculated the descriptive statistics and correlations and finally tested the mediations.

(Insert Table 2 about here)

# Measurement Information of already Validated Scales

The survey was administered in Greek adopting Brislin's (1976) translation-back-translation technique. The following instruments were used in addition to the AWCs scale in the survey and thus, in the hypotheses testing:

Job Satisfaction: The short form of the Minnesota Satisfaction Questionnaire (Weiss *et al.*, 1967) was used, which comprised 20 items. Sample items include: 'The chances for advancement on this job' and 'The praise I get for doing a good job'. A Likert scale ranging from 1 (Extremely dissatisfied) to 7 (Extremely satisfied) was utilized.

OCB directed at individuals (OCBI): We used the scale developed by Lee and Allen (2002) and it was comprised of eight items. Sample items include: 'Help others who have been absent' and 'Go out of the way to make newer employees feel welcome in the work group'. A Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree) was used to collect the data.

OCB directed at organizations (OCBO): We also used Lee and Allen's (2002) eight-item scale for this measure. Sample items include: 'Defend the organization when other employees criticize it' and 'Take action to protect the organization from potential problems'. A Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree) was utilized.

Carpenter *et al.* (2014) conducted a meta-analysis to compare the use of self-ratings and other-ratings of OCB and found that self-reported levels of OCBO were similar to those rated by the supervisor, while self-reported levels of OCBI were similar to those rated by the coworkers, hence offering support to the arguments that supervisors may not be entirely aware of the employee's OCBI and similarly, coworkers may not be fully aware of the

employee's OCBO. Moreover, they found that other ratings of OCB added little incremental value over and above the contribution of self-ratings of OCB to most of the correlates (including self-rated job satisfaction) in the OCB nomological network. This finding is rather significant as it justifies the use of self-ratings in a study such as ours that focuses on job satisfaction and the simultaneous examination of both OCBO and OCBI. Indeed, Carpenter *et al.* (2014) concluded that self-ratings are not only methodologically adequate, but also may "represent a preferred manner of measuring employee OCB" (p. 564).

Further to the above, we included as control variables the participants' age and organizational tenure as well as organizational size and industry type in alignment with previous studies on OCBI and OCBO (Anand *et al.*, 2010; Chattopadhyay, 1999; Lee and Allen, 2002; Williams *et al.*, 2002). We used categories, which participants could select to indicate their age (up to 25, 26-34, 35-44, and 45 and above years old), their organizational tenure (below 4, 4-7, 8-10, and above 10 years), the industry in which they were employed (Manufacturing, Services and Retail) and the size of the organization (<20 employees, 20 to 99, and 100 to 249 employees). For the analysis, we recoded the categories into dummy variables. It is worth mentioning that we chose to use categories for all the control variables so as to maximize the chances of an adequate response rate from employees of small organizations, who could be easily identified from the specific combination of their age, year of work experience and organization tenure. Indeed, eventually more than one third of our total sample (34.9%) in the main study was from SMEs with less than 20 employees (i.e. 109 participants).

#### Results

#### Measurement model

Validity of the factor structure of the model of the study was established by conducting CFA on the four scales above. Given that the total sample used for the CFA (n=163) was less than the recommended (number of items x 5=200; Bentler and Chou, 1987), the technique of item parceling was adopted. Since the scales measuring AWC, OCBO and OCBI were unidimensional, we adopted the random assignment to parcel technique (Little et al., 2002), according to which the items are allowed to be assigned to parcels randomly. Specifically, the AWCs scale was comprised of four items in total and hence, it was divided into two parcels of two items each. Both OCB scales were comprised of seven items. Thus, they were divided into three parcels, two of which contained two items and one of which contained three items. Regarding the multidimensional scale measuring JS (comprised of two dimensions: intrinsic and extrinsic JS; Fields, 2002), we adopted the internal consistency approach (Kishton and Widaman, 1994; Little et al., 2002) to parcel the items, according to which each parcel created represents one of the dimensions of the scale and includes, all the items under that dimension. Hence, we created two parcels, one of which included the items related to intrinsic JS and one of which contained the items related to extrinsic JS. Table 3 summarizes the measurement indicators, standardized loadings and average variances extracted (AVE), which are all above the suggested .50 limit (Bagozzi and Yi, 1988).

Table 4 demonstrates that the hypothesized four-factor model fitted the data well  $[\chi^2(29)=91.378, p<.001; CFI=.943, TLI=.912, RMSEA=.115, SRMR=.066]$  and was a significantly better fit than a three ( $\Delta\chi^2=180.64$ ,  $\Delta df=3$ , p<.001), two ( $\Delta\chi^2=249.88$ ,  $\Delta df=5$ , p<.001), and one ( $\Delta\chi^2=344.22$ ,  $\Delta df=6$ , p<.001) factor models.

(Insert Table 3 about here)

(Insert Table 4 about here)

# Descriptive Statistics, Correlations and Reliability Coefficients

Table 5 summarizes the descriptive statistics, zero-order correlations and Cronbach's alpha reliability coefficients for the measures.

(Insert Table 5 about here)

# Structural Model

We assessed the hypothesized model, depicted in Figure 1, using structural equation modeling (SEM) and in particular, the procedure of path analysis with manifest variables. Path analysis is a commonly used technique that allows the simultaneous examination of the relationship between multiple predictor (including mediators) and multiple dependent variables (Brunetto *et al.*, 2010; Huang *et al.*, 2015). The mediation hypotheses were tested using the method of bootstrapping (10000 samples). To assess model fit, we also incorporated paths from the control variables (age, organizational tenure, organizational size, industry type) to both OCBO and OCBI, while we incorporated paths from age and organizational tenure to JS. In line with the conventional assumptions of path analysis, the disturbance terms were not correlated (Lleras, 2005; Hauser & Goldberger, 1971; Olobatuyi, 2006). The hypothesized model demonstrated a very good fit to the data [ $\chi^2$  (3)= 3.423, p>.05; CFI=.996, TLI=.975, RMSEA=.029, SRMR=.026].

(Insert Figure 1 about here)

# Hypotheses Testing

Figure 1 depicts the estimates for the hypothesized model. Specifically, AWCs were not significantly related to OCBO ( $\beta$ =.09, p>.05) but instead, positively and significantly related to OCBI ( $\beta$ =.15, p<.05). In this respect, hypothesis 1 and 2, which assumed a direct negative relationship between AWCs and OCBO and OCBI respectively could not be supported.

That said, AWCs were found to be negatively and significantly related to JS ( $\beta$ =-.20, p<.01), offering support for hypothesis 3. In turn, JS was positively and significantly related to both OCBI ( $\beta$ =.27, p<.01) and OCBO ( $\beta$ =.87, p<.001). Further, path analysis yielded a negative and significant indirect relationship between AWCs and OCBO through JS ( $\beta$ =-.17, p<.05) while the 95% bootstrapped confidence intervals (CI) excluded the value of zero (CI: -.33, -.06). Hence, the findings offer support for hypothesis 4a, since JS appears to mediate the relationship between AWCs and OCBO. Further, the analysis yielded an insignificant indirect relationship between AWCS and OCBO. Further, the analysis yielded an insignificant indirect relationship between AWCS and OCBI through JS ( $\beta$ =-.05, p>.05) albeit the 95% confidence intervals excluded the value of zero (CI: -.13, -.01). Thus, hypothesis 4b could not be supported. We also performed a robustness check whereby we performed the path analysis without the inclusion of the control variables and found the same relationships to hold and similar results.

#### **Discussion and Conclusions**

#### **Contribution and Implications**

This paper aimed at addressing: "What is the relationship between adverse working conditions and employees' OCB in SMEs operating under a severe economic crisis?" The findings indicated an indirect, negative relationship between AWCs and OCBO through JS,

and a direct positive relationship between AWCs and OCBI. Based on our modeling and testing, our study makes the following contributions. First, research to date has focused on various aspects of AWCs (e.g. Baumert *et al.*, 2014; Carvalho and Area, 2015; Cottini and Lucifora, 2013; Psychogios and Garev, 2012; Rugulies *et al.*, 2013; Shah *et al.*, 2011; Sparrow *et al.*, 2014), without, however, attempting to define this construct or develop and validate a measurement scale. Our study develops and validates a scale for AWCs in order to examine the role of AWCs in the discretionary effort of employees working in SMEs operating under economic crisis. In this respect, it helps address the performance challenges SMEs face in a long-term economic downturn (European Commission, 2015a, b). Specifically, we divided the sample in two parts and, thereupon, used the first half for scale development and the remaining for scale validation. The scale has been tested for dimensionality, content and discriminant validity, and reliability. In this regard, the study expedites future research which may use this scale to explore the role of AWCs in relation to both employee and organizational related outcomes.

Second, our results cast light on the relationship between AWCs and the important work outcomes of OCBO, OCBI and JS in a SME context. Our modeling considers OCB (e.g. Ohana, 2016; Podsakoff *et al.*, 2009; Rotundo and Sackett, 2002; Turnipseed and Rassuli, 2005) and JS (e.g. Tokuda, 2009; Yunxia and Jianmin, 2010) since both have been found to be linked to increased performance. In doing so, we extend existing research examining this link (e.g. Llobet and Fito, 2013; Tokuda, 2009; Yunxia, 2010) by drawing on AWCs as an antecedent of both. Specifically, the findings indicated an indirect, negative, relationship between AWCs and OCBO through JS. The significant mediation demonstrates that JS plays an important role in OCB directed to the organization. While this supports the literature (Miao, 2011; LePine *et al.*, 2002; Podsakoff *et al.*, 2000), it enhances our understanding of

the SME context, as it appears that working conditions represent a hygiene factor (Herzberg *et al.*, 1959) that may not directly relate to employees' positive discretionary behavior towards the organization, but to overall employee satisfaction. As such, the significant indirect relation between AWCs and OCBO indicates that, although employees in SMEs may not withdraw or reduce their discretionary behavior towards the organization due to AWCs, they may be less willing to go the "extra mile" as their job satisfaction has been decreased due to the deteriorating working conditions.

More importantly, this work builds on earlier research conducted by Conway et al. (2014) exploring how organizational change, caused by the recent UK austerity and recession, predicted psychological contract break among public sector employees, which in turn decreased OCBO but left OCBI unaffected. Our study extends this research, demonstrating a direct positive relationship between AWCs and OCBI in the SME private sector. This denotes that within the context of SMEs, where tighter relationships exist among employees (Edwards and Ram, 2009; Marlow et al., 2005; Theodorakopoulos, 2014), they draw even closer to each other during a crisis period. Conceivably, employees become more altruistic in their attempt to manage challenges through solidarity. This is an interesting outcome given that one would expect a surge of antagonism among employees facing job uncertainty, especially in the private sector. One plausible explanation is that by supporting each others' increasing job demands, they create a positive environment which emotionally supports them to put in extra effort helping their organizations and maintaining their jobs. Moreover, although the findings indicate a negative relationship between AWCs and JS, and a positive relationship between JS and OCBI, the hypothesis relating to the mediation of JS (between AWCs and OCBI) could not be supported. This further emphasizes the solidarity of

employees under challenging times and demonstrates that such camaraderie remains strong even when employee satisfaction deteriorates.

Given the socio-economic significance of SMEs and the need for a more comprehensive understanding of the relationship between OCB and AWCs, this research adds to the growing body of literature on OCB and the impact of the economic crisis on SMEs and their work life. This suggests that what really matters for organizations is OCBO, as it is directly linked to employees' beneficial behavior for the organization (Lee and Allen, 2002) while OCBI is only indirectly related to organizational performance (Isen and Levin, 1972).

Finally, our study has important practical implications. Under such crisis conditions SME owners/managers need to facilitate employee citizenship behaviors much more rigorously. Literature has shown the importance of managers' behavior to the emergence of important team outcomes, such as OCB (Nohe and Michaelis, 2016). Such behaviors include keeping employees informed about workplace changes (Malhotra and Ackfeldt, 2016), while also explaining to them their necessity (Szamosi and Duxbury, 2002). SME owners/managers need to achieve a higher level of transparency and demonstrate ways in which actions taken are mutually beneficial (Alfes *et al.*, 2013). This development may actually lead towards a heightened awareness level of OCB. It appears possible to attenuate the consequences of a decrease in JS due to the deterioration of working conditions. Further, based on these findings with regard to OCBI, SME owners/managers may need to consider workplace redesign so as to further facilitate employee collaboration and camaraderie (Shantz *et al.*, 2013). By doing so, they are more likely to promote higher levels of employee solidarity, which may alleviate their dissatisfaction with their working conditions and optimize their contribution towards organizational survival.

## Limitations and Future Research

Despite these contributions, this study has some limitations. First, the data used in the study were collected from a single source (i.e. SME employees), which increases the possibility of a common method bias/variance (CMV) (Podsakoff et al., 2003). To decrease any likelihood of bias, we took the following actions: first, we highlighted to the participants the anonymity and confidentiality of the study; second, we conducted a CFA, which indicated that a fourfactor model fit better to the data and, thus, supported the factor structure and scale validity. In addition to this, the scale anchors used in the questionnaire were different (Podsakoff *et al.*, 2003). In particular, the anchors (values) of the AWCs scale ranged from "not at all" to "almost every day", the JS scale varied from "extremely dissatisfied" to "extremely satisfied" and the OCBI and OCBO scales alternated from "strongly disagree to "strongly agree". Although we used the same Likert scale and values for the OCBI and OCBO scales, the findings of the study appear controversial to the findings one would expect if CMV was present. In case of a consistency motif, a transient mood state or an acquiescence type of bias (Podsakoff *et al.*, 2003), one would expect to find a similar type of relationship between the variables AWCs-OCBO and AWCs-OCBI. Nevertheless, the results indicated a negative, indirect, relationship between AWCs and OCBO and a positive, direct, relationship between AWCs and OCBI, hence decreasing the likelihood of CMV.

In addition, we used different scale formats (Podsakoff, 2003); for AWCs and JS, respondents were asked to select one of the seven exhibited numbers (which better represented their situation), while for OCBI and OCBO respondents were asked to type in the number which better represented their behavior for each item. We believe that we have taken

necessary and reasonable remedial actions to reduce the likelihood of CMV while maintaining the focus of the study on front-line employees in SMEs. Be that as it may, and despite many authors acknowledging that there is little likelihood of CMV rendering findings and theoretical argumentation invalid (Malhotra *et al.*, 2006; D'Abate *et al.*, 2009; Spector, 2006), future studies may use alternative methods to avoid CMV, including temporal separation and the use of different raters.

Second, we divided our sample in half in order to use the first half for scale development and the second for scale validation and hypotheses testing. In regards to scale validation, the newly developed AWCs scale achieved an AVE on the lower end of acceptable values. While we opted to keep the four items so as to preserve scale content validity, replication studies are warranted to further support the convergent validity of the scale. Regarding the CFA for the hypothesized model, the reduction in sample size in relation to the estimated parameters inflated RMSEA, is sensitive to the sample size and often over-rejects models with small samples that fit well the population (Hu and Bentler, 1999). Given that the rest of the fit statistics were within acceptable values, we concluded that the model fits the data adequately. Although future studies validating the AWCs scale may not have to divide their sample in half, we recommend the adoption of a smaller number of parameters (e.g. the use of only continuous variables) so as to maximize the possible degrees of freedom and hence, not to influence RMSEA.

Indeed, while the statistical power of our study was adequate for hypotheses testing (0.999 for OCBO and 0.997 for OCBI), we need to acknowledge that the collection of continuous (instead of ordinal) data in terms of age and tenure would have rendered the hypothesized

model less complex. In our case, we chose to use categories for our data collection to ensure anonymity and confidentiality of responses from small organizations (i.e. <20 employees). Future studies may opt for the collection of continuous data.

Moreover, while we see our one-point data collection approach as retrospectively longitudinal, we acknowledge the deficiencies relating to potential respondent rationalization and delimited power of causal inferences. With regard to potential respondent rationalization, however, we argue that the flipside is enlightened rationalization. The main advantage of this retrospective longitudinal approach that considers a long period of time lies in the fact that respondents can reflect and assess holistically the changes that happened during the episode in question quantitatively or qualitatively, as opposed to expressing their views disjointly over one or multiple points in time. As for the ability to make causal inferences, given that working conditions in general have been shown to influence OCBI (Bolino and Turnley, 2005) and JS (Markovits *et al.*, 2014), we believe that the possibility of reverse causality is low. Nevertheless, we acknowledge the downside of longitudinal retrospection (i.e. the potential to conceal retrospective bias) as well as the possibility of missing the views of employees who have recently left the organization and the respondents' varied lengths of work experience in SMEs as limitations. Further research may adopt a prospective longitudinal research design, strengthening confidence over results and causality.

Further, to address the overreliance of past SME research on the perspectives of owners/managers, our study focused on front-line employees. Future studies could include the perspectives of owners/managers, adopting a mixed methods research design. Such an

approach could shed more light on the relationship between AWCs and employee discretionary behavior, while also triangulate views of SME members.

Further still, the relationship between AWCs and OCBO as well as between AWCs and OCBI may be moderated by the way in which HR is practiced at firm level. Given that organizational size, maturity, industry as well as clientele are related to the way in which HR practices are used within each SME (Harney and Dundon, 2006), future studies may choose to examine facets of SME diversity as boundary conditions pertaining to the relationship between AWCs and OCB.

Notably, this study took place within the context of the Greek economic crisis. In this regard, careful consideration should be given to the generalizability, considering the severity and types of crises, such as a diversity crisis (James and Wooten, 2006) or a crisis caused by reputational damage (Rhee and Valdez, 2009). In that regard, there is a need for comparative studies among different crisis contexts as well as between SMEs and larger companies. Finally, future research may focus on developing and establishing further the AWCs measurement testing it in different contexts.

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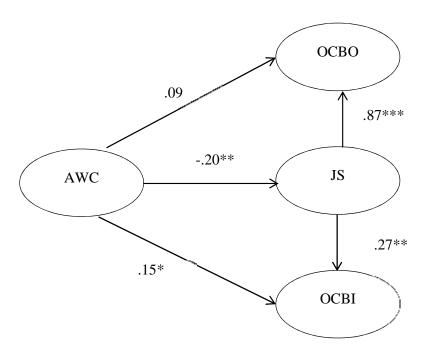


Figure 1. The hypothesized model

	Factor Loadings		
Items	1 <sup>st</sup> EFA	$2^{nd}$	
		EFA	
AWC1 Cuts in financial resources (salaries, bonuses, resources for	0.864*	0.864*	
training and development)			
AWC2 Layoffs	0.823*	0.824*	
AWC3 Increased amount of work per person (workload)	0.125	-	
AWC4 Negative attitudes from the side of employer/manager	0.557*	0.555*	
(yelling, excessive criticism, mobbing-physical and mental abuse,			
threatening)			
AWC5 Fear of losing your job	0.775*	0.774*	
*p<.05			

## Table 1. One factor solution derived from EFA of AWC Scale

*Table 2. Standardized factor loadings from confirmatory factor analysis on AWCs Scale* 

Items	Factor Loadings	Standard Error
Cuts in financial resources (salaries, bonuses, resources for training and development)	0.631***	0.064
Layoffs	0.838***	0.062
Negative attitudes from the side of employer/manager (yelling, excessive criticism, mobbing-physical and mental abuse, threatening)	0.512***	0.073
Fear of losing your job	0.491***	0.073
*** p <.001		

Construct	Standardized Factor Loadings	Average Variance Extracted		
Adverse Working Conditions				
awc1	0.946	0.83		
awc2	0.622			
Job Satisfaction				
js1	0.938	0.96		
js2	0.754			
OCB Individual				
ocbi1	0.884	0.95		
ocbi2	0.861			
ocbi3	0.737			
OCB Organization				
ocbo1	0.953	0.98		
ocbo2	0.902			
ocbo3	0.944			

Table 3. Measurement and Indicators

Table 4. Confirmatory Factor Analysis Results for Hypothesized Variables

	2		2	5	71	÷		
	$\chi^2$	df	$\Delta \chi^2$	CFI	TLI	RMSEA	SRMR	AIC
Four-factor model	91.38	29		.943	.912	.115	.066	4182.168
Three-factor model	272.02	32	180.64***	.781	.693	.215	.125	4357.402
Two-factor model	341.26	34	249.88***	.720	.630	.235	.146	4422.641
One-factor model	435.60	35	344.22***	.635	.531	.265	.159	4514.988
***p<.001								

Table 5. Means, Standard Deviations, Correlations and Reliability Estimates

Variables	Μ	SD	1	2	3	4	5	6	7	8	9
1. DAge	0.40	0.49									
2. DTen	0.26	0.44	0.38**	*							
3. DManuf	0.18	0.38	0.08	-0.02							
4. DRetl	0.39	0.49	-0.04	0.04	-0.37***	k					
5. DSize	0.63	0.48	0.16*	0.13	0.02	-0.01					
6. AWCs	5.10	1.06	-0.04	0.21*	*0.03	0.11	0.01	(.71)			
7. OCBI	5.20	0.95	-0.13	0.14	-0.14	0.14	-0.11	0.16*	(.89)		
8. OCBO	4.87	1.45	-0.05	0.08	0.02	-0.03	-0.08	-0.03	-0.52**	* (.95)	
9. JS	4.37	0.88	0.01	0.04	-0.10	0.11	0.04	-0.22**	0.23	0.01	(.88)

DAge = Dummy Variable (DV) for Age equals to 0 if respondent (RESP) is up to 34 years old, and equals to 1 if RESP is above 34 years old; DTen= DV for Organizational Tenure equals to 0 if RESP works less than 8 years in the organization (ORG) and equals to 1 if RESP works 8 years and above in the ORG; DManuf = DV for Industry equals to 1 if RESP works in Manufacturing; DRetl= DV for Industry equals to 1 if RESP works in Retail; DSize= DV for Organizational Size equals to 0 if RESP works in an ORG of less than 1000 employees, and equals to 1 if RESP works in an ORG of 100-249 employees.

N=163; \*= p<.05; \*\*=p<.01; \*\*\*=p<.001; Cronbach's alpha reliability coefficients in brackets. Two-tailed tests.

Appendix 1. Scale and instructions for measuring Adverse Working Conditions

How often have you experienced the following conditions during the last two to five (2-5) years?

1 = Never; 2 = Very Rarely; 3 = Rarely, 4 = Neither rare nor often; 5 = Often; 6 = Very Often; 7 = Almost every day

Cuts in financial resources (salaries, bonuses, resources for training and development).

Layoffs.

Negative attitudes from the side of employer/manager (yelling, excessive criticism, mobbing-physical and mental abuse, threatening).

Fear of losing your job.