

Investigating the Effect of Organizational Climate on Work Engagement

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Abstract

The present study attempt to investigate if organizational climate could strengthen work engagement. The study is the first to investigate if the climate version of Competing Values Framework (CVF) and training climate could relate to work engagement. The sample involved 96 participants from one police district in Norway. Regression analysis was employed to statistically test if work engagement could be strengthen by organizational climate. The results provided support for the relationship between job support and work engagement, however we failed to find support for the other hypothesis. This paper then proceeds to discuss the outcome of the results, and what implication this might have for future research.

Keywords: Work engagement, global climate, training climate, job-demands resource model

1. Introduction

Imagine a person who is explaining something work related with enthusiasm and passion, someone who does their job exceptionally well, and someone who is fully immersed in their work. This person would be engaged in their work, or in other words motivated. You might have met someone like that, or maybe you find yourself like this from time to time. The face value of this is obvious; we would like workers to be in this state, not just for the benefit of the company but also for their own sake. Empirically speaking work engagement has been linked to positive work outcomes such as job satisfaction and work performance. Naturally, high levels of work engagement would thus be favorable within the organization, but how does employees get this engagement?

Many constructs has been investigated as possible predictors of work engagement through the years, some have been found to be important and others not so much. One particular construct that so far has received little attention within this context is organizational climate. Organizational climate is “the shared perception of and the meaning attached to the policies, practices, and procedures employees experience and the behaviors they observe getting rewarded and that are supported and expected” (Schneider, Ehrhart, & Macey, 2013, p. 362). Organizational climate is linked to many outcomes in the organization, for instance general outcomes such as job satisfaction and turnover intention, or facet-specific outcomes such as innovation and safety (Kuenzi, 2008). Organizational climate is something that exist in every organization and their influence would be in many aspects within an organization, thus it could be quite beneficial to figure out how organizational climate functions and what outcomes could come as a result – such as work engagement.

When talking about organizational climate there is usually a distinction between global (molar) climate and specific (facet-specific) climate. The former is a climate that is more general in nature, whereas the latter is a climate that is aimed at a particular topic (such

as safety climate). This is important because they are generally linked to either global outcomes or the specific outcomes. However some would argue that global climate could be a good predictor of specific outcomes as well (Kuenzi, 2008). In this paper, we will investigate global climate as well as one specific climate (training climate), and then we will examine if these might be able to strengthen work engagement.

1.1. Work Engagement

Arnold Bakker is one of the leading researchers on work engagement and had great influence in one of the most important models for explaining work strain and well-being (Job demands-resource model). Bakker (2011) define work engagement as “an active, positive work-related state that is characterized by vigor, dedication, and absorption” (p. 265). Vigor is a state that refers to raised levels of mental strength and energy, while dedication on the other hand refers to the sense of being strongly committed to the work. Absorption is the state of being happily engaged in the work (Bakker, 2011). Bakker (2011) argues that work engagement have a positive impact on job performance, and that workers that perform well and are engaged in their work will be able to create their own resources, thus it would result in a positive gain spiral. This last part is quite interesting because it suggests that it is not just a simple one-way street. Nevertheless, now it would be interesting to figure out what could cause workers to become engaged. This is when the Job Demands Resource (JD-R) model (Bakker & Demerouti, 2007) comes into play.

According to Bakker & Demerouti (2007) the Job Demands-Resources model have shown to be comparable to more traditional models of work strain and motivation like the demand-control model (DCM; Karasek, 1979) and the effort-reward imbalance (ERI) model (Siegrist, 1996). At the same time Bakker & Demerouti (2007) argue that it extends both models and are more flexible and rigorous, depending on the context of occupation under study, which yields more opportunities to include many types of job demands and resources.

The JD-R model specifies that even if every occupation may have its own unique aspects related to work engagement and burnout, they can generally be categorized into two conditions, namely job demands or job resources (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Job demands are the demanding aspects (physical, psychological, social or organizational) of work that leads to stress, and in the long run might lead to burnout (Garrosa, Moreno-Jiménez, Rodríguez-Muñoz, & Rodríguez-Carvajal, 2011). The second working condition is job resources which refers to those aspects (physical, psychological, social or organizational) that may (1) reduce job demands and those related physiological and psychological costs, (2) are beneficial for achieving work goals or (3) stimulate learning, development and personal growth (Salanova, Del Líbano, Llorens, & Schaufeli, 2013). Earlier researchers focused mainly on the negative aspects of work environments (like exhaustion), now they have to a bigger degree implemented the positive aspects into their research, investigating strength and improvements, rather than just looking at weaknesses and malfunctions (Schaufeli, Salanova, González-romá, & Bakker, 2002).

It would seem that the way to go is to limit job demands and increase job resources to promote a better work environment. This is partly true, however the model is more complex than that, job demands would normally be the dimensions of the work that creates value for the organization (such as money). That is, without having any demands; the organization might not be very productive. In other words it would be all about balancing these two constructs to get the best of both worlds, this is very much in line with more traditional models of work environment (such as DCM). This view of work environment is still a bit too simplistic according to the JD-R model, which brings us to some recent research. Bakker & Sanz-Vergel (2013) argued that job demands can be divided into two distinct demands. The first is hindering demands, which are considered destructive for the work environment, these are the demands we want very little of. Secondly, we have the challenging demands and these

demands could actually have positive effects on the work environment, especially when job resources are high. This would also make sense, a job without challenges might not be very motivating, but to have some challenges in your work accompanied with resources to deal with them could very well be. Now we will investigate the proposed link between organizational climate and work engagement, and figure out if it would make sense to argue that work engagement could be strengthened by organizational climate.

Work engagement and organizational climate. Organizational climate is considered a job resource in the JD-R model, and job resources has been shown to be good predictor of work engagement (Bakker, 2011; Bakker & Demerouti, 2014). Organizational climate itself has also shown to predict work engagement. Bakker, Hakanen, Demerouti, & Xanthopoulou (2007) conducted a study on Finnish teachers to investigate if job demands (pupil misbehavior) strengthen work engagement when job resources was high, they did find support for this assumption, and these types of demands are considered challenging job demands (as mentioned earlier). However, they also used organizational climate as one of the job resource and they found that it could be significantly related to work engagement. Thus, this study indicates that there might very well be reason to believe that organizational climate could strengthen work engagement. The following study also provide us with some insight.

Chaudhary, Rangnekar, & Barua (2012) conducted a study to investigate the mediating and moderating effect of occupational self-efficacy between a specific/facet climate (human resource development) and work engagement. They found support for a partial mediation, and a moderation effect that was stronger for the individuals with low self-efficacy, versus the high self-efficacious ones. Both of these studies above provides us with information that organizational climate could strengthen work engagement. There is however not much existing research that involves the relationship between organizational climate and work engagement. Nevertheless, the research that has been conducted provide us with

promising results, and consequently it does argue for the importance of the current research and future research on this particular topic.

In this thesis, we are using different instrument of organizational climate compared to the ones above, we use one that measure global/molar climate, and one that attempts to measure a specific type of climate known as training climate. The two studies above does however use an operationalization that could resemble our two constructs.

1.2. Global Climate

Global climate represents the general work environment, however, it is more than just the sum of specific climates; it represents the organizations shared perceptions of priorities in the broad environment relating to the general structure and focus of the social system (Kuenzi, 2008). Kuenzi (2008) argues that climate is rooted in the organization's value system. These values are incorporated into procedures, policies and practices of the organization, and in turn, the individual's perception of these would then result in work climate perceptions.

Accordingly, the organizational values are indirectly linked to perception of climate; however, the values themselves are not climate. To build upon this assumption Kuenzi (2008) build upon the popular Competing Values Framework (CVF) which originally was developed to explain culture. Even though some talk about climate and culture as the same thing, there are some important differences among them and Kuenzi (2008) lists three main distinctions between organizational culture and climate. First, they have a different origin, organizational culture stems from the anthropology literature, whereas organizational climate stems from Lewinian psychology. Second organizational culture incorporates a deeper and different dimension than organizational climate, whereas climate is more on a surface-level, in other words, "how things are done around here". Finally, they have a different scope; culture studies the manifestation of the phenomena through its forms (such as symbols, myths and artifacts), which reveals the cultures shared values. Climate on the other hand studies the

process of which these shared values are attended to. Nevertheless, when it all comes down to it, culture also have some overlap with climate, both concepts is about the creation and influence of social context in the organization (Kuenzi, 2008). Yet, why use a framework for culture and not one that was already designed for climate? Kuenzi (2008) argued that the current existing instrument of organizational climate had several limitations, both metrological and theoretical issues. She argues that these limitations would be accounted for by using CVF as a starting point and develop it into a theoretically driven framework to understand global climate (Kuenzi, 2008).

Competing Values Framework. CVF was first developed by Quinn & Rohrbaugh (1981, 1983) and it focuses on how different organizational values interact and how they affect organizational outcomes. It identifies two major underlying conceptions; organizational focus (external vs. internal) and organizational structure (control vs. flexibility). Organizational focus dimension reflects if the organization has a focus inwards towards its internal dynamics or outwards towards its external environment. The structural dimension is the degree to which an organization emphasizes flexibility and decentralization versus control and centralization. Crossing these two dimensions results in four quadrants that represent four competing values: human relations values (internal/flexibility), internal process values (internal/control), open-system values (external/flexibility), and rational goal values (external/control) (Kuenzi, 2008).

As mentioned the original CVF is meant to measure culture, however as argued by Schneider et al (2013) climate might be a better theoretical construct to study within psychology considering it originated in psychology and not in anthropology. Schneider et al (2013) also argues that the climate focused version of CVF by Kuenzi (2008) have some promising results.

All the dimensions of global climate have in common that they provide the workers with job resources. A human relation climate stresses the importance of human resources development, morale, and cohesion. Internal process climate focuses on information management, stability, communication and control. Open-systems climate focuses on maintaining congruencies with the changing environment, and therefore strong emphasize on monitoring and coordinating with other social systems. Rational goal climate focuses on planning, productivity and to be future oriented (Kuenzi, 2008).

1.3. Training Climate

In this section, we will investigate a specific type of climate, training climate. Earlier, we argued that global climate has the potential to strengthen work engagement. But what about a specific type of climate? This type of climate involves a social system that encourages and support training. This is a job resource in itself, but it obviously has the potential to stimulate growth of other resources in the work environment that could help to deal with job demands. Therefore, even if this climate is specific, its impact could be quite comprehensive.

Tracey and Tews (2005) developed an instrument for measuring supervisory and organizational support for learning. They defined training climate as “the perceived support from management, work and the organization for formal and informal training and development activities” (p. 358). They identified three dimensions of training climate, perceived support from management, perceived job support and perceived support from the organization. The first dimension is perceived support from management Tracey and Tews (2005) defines this as “the extent to which supervisors and managers encourage on-the-job learning, innovation, and skill acquisition and provide recognition to employees in support of these activates” (p. 358). The second dimension of training climate is job support, Tracey and Tews (2005) define this as “the degree to which jobs are designed to promote continues learning and provide flexibility for acquiring new knowledge and skills” (p.358). The third

dimension of training climate is organizational support, Tracey and Tews (2005) defines this as “the policies, procedures, and practices that demonstrate the importance of training and development efforts, such as reward systems and resources to acquire and apply learned skills” (p. 358).

There is to our knowledge no previous research that investigates the role training climate play on work engagement, especially not with the current instrument. However there is some that have investigated how similar constructs relates to work engagement; Hakanen, Bakker, & Schaufeli (2006) found in their study that supervisor support was one of many job resources that predicted work engagement. And Caesens & Stinglhamber (2014) found that perceived organizational support predicted work engagement, and that self-efficacy partially mediated this relationship. Again building on the theoretical framework of the JD-R model it is reason to believe these types of climate would be strengthening rather than undermining on work engagement, because they are measuring something that would be considered job resources.

2. Aim of study

The aim of the present study is to investigate how global climate and training climate can relate to work engagement.

2.1. Global climate

Considering organizational climate has been shown to be positively related to work engagement (Bakker et al., 2007; Chaudhary et al., 2012) and that they are considered job resources, we are hypothesizing that these relationships would be strengthening rather than undermining. Considering the multidimensional nature of CVF, it is however quite possible that some would better predictors than others. Regardless, we are expecting positive relations with all of the dimensions of global climate. Therefore, we hypothesized the following:

H1a: Human relations climate strengthen work engagement.

H1b: Internal process climate strengthen work engagement.

H1c: Open-system climate strengthen work engagement.

H1d: Rational goal climate strengthen work engagement.

2.2. Training climate

Similar construct to training climate has been shown to relate to work engagement (Caesens & Stinglhamber, 2014; Hakanen et al., 2006), and in addition training climate would be considered a job resource. Consequentially, we are expecting a positive relationship with all of the dimensions of training climate. Therefore, the following is hypothesized;

H2a: Support from management strengthens work engagement.

H2b: Job support strengthens work engagement.

H2c: Organizational support strengthens work engagement.

3. Methods

3.1. Participants and Procedure

The sample of this study was taken from a larger study that is still in progress; the original study had approximately 900 participants, but in the current study only 100 respondents was selected because there would not be time to digitalize the other respondents in time for this paper. This subsample was all from the same Police district (Follo, now known as East). The original study also involved more measurements, but this current study only focuses on the measurements relevant to the research. The questionnaires was paper-based and had to be manually converted to a digital format. Every instrument was translated to Norwegian except the instrument that measures work engagement, for this instrument an already existing and validated Norwegian translation was used.

Ethics. Norwegian Social Science Data Services (“Norsk Samfunnsvitenskapelig Datatjeneste; NSD) approved the current project. The participants gave their informed consent and their anonymity was ensured throughout the whole process. No personal information was collected in this survey or later in the study, and the data was stored in accordance with the safety routines for sensitive data at the Department of Psychology. No negative effects of the study on the participants were expected.

3.2. Measures

Demographic variables. The survey consisted of the following demographic variables; gender, age group, and job tenure.

Molar climate. The molar/global climate was measured with a modified version of the Competing Values Framework (Kuenzi, 2008). The following dimensions were used in this study; human relations climate (7-items, sample item: “There is high morale among organization members.”), internal process climate (7-items, sample item “Work activities in the organization are well coordinated.”), open-system climate (7-items, sample item” There is an emphasis on setting goals for the organization.”) and rational goal climate (7-items, sample item ”We are given the necessary resources to make changes when needed”). The instrument was measured with a 5-point Likert scale from (1) strongly disagree to (5) strongly agree.

Training climate. The training climate was assessed with The General Training Climate Scale (GTCS; Tracey & Tews, 2005). The scale consists of the following subscales; managerial Support (5-items, sample item: “Top management expects high levels of performance at all times.”), job support (5-items, sample item: “Job assignments are designed to promote personal development.”) and organizational support (5-items, sample item: “This organization offers excellent training programs.”). The measurement was rated on a 5-point Likert-type scale response scale where the respondents reported how much they agreed with the statements, ranging from (1) completely disagree to (5) completely agree.

Work engagement. The assessment of work engagement (WE) was done with the shorten version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2002). This scale have tree underlying dimensions; vigor (3-items, sample item: “At my work, I feel bursting with energy”), dedication (3-items, sample item: “My job inspires me”) and absorption (3-items, sample item: “Times flies when I am working”) (Schaufeli et al., 2002). The scale will range from (1) always to (7) never. This scale is commonly used in the J-DR model research literature as a measure of work engagement (Garrosa et al., 2011; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007).

3.3. Statistical Analysis

The data was analyzed using IBM SPSS (version 22). First, we did descriptive analysis such as correlations and checking the distribution of the sample (skewness and kurtosis). Second, the Cronbacks alpha for the factors involved was checked; this would yield a value of how confident one can be of the internal consistency (reliability). According to Field (2013) the internal consistency should be above .70, all of our measurements meet this criteria. Our sample is too small to perform a factor analysis, however the measurement used in our study is not modified from the original, and hence they have been previously validated. Third, in order to avoid potential collinearity problems (two or more predictor variables is highly correlated) a preliminary regression analysis was performed. Regression analysis was used on the demographic variables (age group, gender and tenure) to check if those does not account for a significant amount of variance. The analysis revealed that the demographic variables did not have a significant relationship with work engagement.

The hypothesis was tested isolated from each other with regression analysis, this means that the hypothesized relationship between CVF and WE was tested without controlling for training climate, and vice versa. The regression analysis would yield us results about the overall fit of the model as well as the individual sub dimensions.

4. Results

4.1. Participants

The study contained 100 respondents from one police district in Norway. Two questionnaires had more than 29 items missing, and another two had ten missing values, those four questionnaires were therefore eliminated from the sample due to the missing values. This left a total sample of 96 participants. Of these, 39 was men (40%), 56 was women (58%) and one participant did not report their gender. 27 was in the age range of 24-31 (28%), 22 in 32-39 (23%), 26 in 40-47 (27%), 12 in 48-55 (13%), and 8 respondents was above 56 years old. In addition, one respondent did not answer their age.

The rest of the missing values within the sample were recoded to “series mean” (demographic data) and “median of nearby points” (Likert scale items). There was only one participant with 3 values missing the other 11 participants had only one value missing.

4.2. Mean differences and correlations

Means, standard deviations, Cronbach alpha, skewness and kurtosis of measured variables are reported in Table 1, and bivariate correlations of measured variables are reported in Table 2. As the Table 2 shows, all measurements correlated significantly with each other.

Table 1

Means, standard deviations, internal consistencies, skewness and kurtosis.

	Mean	SD	α	Skew	Skew SE	Kurt	Kurt SE
1. Work engagement	5,71	0,96	0,91	-0,76	0,25	0,33	0,49
2. CVF: Human relations climate	4,19	0,57	0,87	-0,82	0,25	0,59	0,49
3. CVF: Internal process climate	3,96	0,53	0,83	0,00	0,25	0,10	0,49
4. CVF: Open-system climate	3,98	0,47	0,81	-0,15	0,25	-0,12	0,49
5. CVF: Rational goal climate	3,64	0,57	0,82	0,05	0,25	-0,32	0,49
6. TC: Managerial support	4,04	0,57	0,79	-0,51	0,25	0,67	0,49
7. TC: Job support	3,62	0,65	0,86	-0,58	0,25	0,86	0,49
8. TC: Organizational support	2,66	0,70	0,836	0,24	0,25	-0,22	0,49

Work engagement (response scale 1-7). CVF and TC (response scale 1-5).

Table 2
Correlations among variables

	1	2	3	4	5	6	7
1. Work engagement	-						
2. CVF: Human relations climate	,44**	-					
3. CVF: Internal process climate	,46**	,63**	-				
4. CVF: Open-system climate	,49**	,66**	,64**	-			
5. CVF: Rational goal climate	,45**	,52**	,64**	,71**	-		
6. TC: Managerial support	,37**	,38**	,47**	,47**	,51**	-	
7. TC: Job support	,46**	,53**	,52**	,56**	,63**	,64**	-
8. TC: Organizational support	,34**	,47**	,43**	,37**	,51**	,39**	,62**

** $p < .001$, two-tailed.

4.3. Global climate and work engagement

A simultaneous regression analysis performed to test if CVF significantly predicted participants work engagement. The results of the regression indicated that the predictors explained 25.7% of the variance ($R^2=.289$), $F(4, 91)=9.23$, $p < .000$). However, the dimensions of CVF did not significantly predict work engagement (Table 3). Thus, no linear effect of the dimensions of CVF were observed. The mean of the VIF value of the dimensions are 2.2, this value is within the suggested range suggested by Field (2013; Below 10 and above 0.2) to be able to conclude there is no collinearity within our data.

Table 3
Coefficients resulting from the regression analysis with CVF and Work Engagement

	Unstandardized Coefficients		Standardized Coefficients		
	<i>B</i>	Std. Error	Beta	<i>t</i>	<i>p</i>
(Constant)	1,207	0,791		1,586	0,116
CVF: Human relations climate	0,224	0,212	0,133	1,052	0,295
CVF: Internal process climate	0,296	0,234	0,166	1,267	0,208
CVF: Open-system climate	0,411	0,291	0,205	1,415	0,160
CVF: Rational goal climate	0,209	0,226	0,124	0,923	0,368

Dependent variable: Work Engagement

4.4. Training climate and work engagement

A simultaneous regression analysis was performed to test if training climate significantly predicted participants work engagement. The results of the regression indicated that the predictors explained 20.3% of the variance ($R^2=.228$), $F(3, 92)=9.07$, $p < .000$). The job support dimension of training climate significantly ($p < .05$) predict work engagement, but all other dimensions was insignificant (Table 4). The Mean value of VIF was 1.89, which again is well within the proposed range to conclude there is no collinearity within the data (Field, 2013).

Table 4

Coefficients resulting from the regression analysis with Training Climate and Work Engagement

	Unstandardized Coefficients		Standardized Coefficients		
	<i>B</i>	Std. Error	Beta	<i>t</i>	<i>p</i>
(Constant)	2,785	0,637		4,370	0,000
TC: Managerial support	0,216	0,199	0,129	1,086	0,280
TC: Job support	0,488	0,206	0,332	2,364	0,020
TC: Organizational support	0,107	0,160	0,079	0,672	0,503

Dependent variable: Work Engagement.

5. Discussions

The aim of the present study was to investigate how global climate and training climate could relate to work engagement. This paper is the first to investigate the relationship between Kuenzi's (2008) CVF measurement and work engagement. It is also the first to investigate how the General Training Climate Scale relates to work engagement. However, the research that have touched upon this subject shows promising support for the climates involvement in work engagement. This illustrates the importance of the current research.

The results of the regression analysis supported hypothesis 2b, thus job support was significantly able to strengthen work engagement, however all other hypothesis was shown to be insignificant. More specifically, every global climate hypothesis was rejected; human

relations climate did not show a significant relationship with work engagement, and was therefore rejected (H1a). Internal process climate did not show a significant relationship with work engagement, and was therefore rejected (H1b). Open-system climate did not show a significant relationship with work engagement, and was therefore rejected (H1c). Rational goal climate did not show a significant relationship with work engagement, and was therefore rejected (H1d). In term of training climate two of three was rejected; Support from management did not show a significant relationship with work engagement, and was therefore rejected (H2a). Job support did show a significant relationship with work engagement, and was therefore confirmed (H2b). Organizational support did not show a significant relationship with work engagement, and was therefore rejected (H2c).

Even though only one of the hypotheses was supported, this study provide some interesting information to the relationship between organizational climate and work engagement. That is, this study contribute to an investigation of constructs that previously have not been discussed or empirically explored.

As mentioned job support was shows to strengthen work engagement, this is how well jobs are designed to promote continues learning and allow for flexibility for acquiring new knowledge and skills. This is in line with our hypothesis that this type of climate would provide the workers with job resources to be able to deal with challenges at hand, and become engaged. This stresses the importance of well designed jobs, but it also gives us an insight in how the job should be designed. High scores on the job support would indicate that the organization is perceived to support development of their employee, in other words that the organization is investing in their workers. It should however been noted that the scope of this study is limited and that we did not control for other types of job resources or job demands. Nevertheless, this study provide us with a strong argument for investigating this topic in more detail, thus opens the path for future research.

5.1. Limitations and Future Research

The result of our study was not able to significantly confirm a relationship between most of the climate dimensions that we investigated and work engagement. However, considering the theoretical background and relatively strong correlations, it is likely that there is some kind of relationship between those, and one explanation for us not being able to support it could be that our hypothesized relationships are inaccurate. It could be quite likely that these constructs relate to each other in a more complex manner. It may for instance be that organizational climate is mediated through another construct, or that there is missing a moderator in our current model.

This study could benefit from a larger sample, 96 participants are not bad considering what analyses we performed, however with a bigger sample one could involve more variables in the regression analysis without worrying that the free parameters would be too large for the sample size. A larger sample would also open up for more complex analysis with the advantage of SEM analysis. Normally SEM analyses would build upon a confirmatory factor analysis and combining this with path analysis. This type of SEM would require latent variables and therefore a minimum of 200 respondents and a minimum ratio of 1 to 5 for free parameters and sample size would be recommended (Kenny, 2015). SEM analysis would become particularly useful if one were to introduce mediating or moderating relationships, which might be necessary to explain the relationship between organizational climate and work engagement better. It should also be noted that our sample only consisted of participants that work within the police; therefore, it is always a question whether these would be representative for people working in other sectors.

There is reason to believe that including job demands into the investigation of these constructs could provide some meaningful insight. As mentioned before, challenging job demands could have an important role to play in how much job resources could influence

work engagement. Our current study did not investigate job demands at all, however if this was the case we might have gotten a different picture. Consequentially, this paper would recommend future studies to account for job demands, especially the challenging job demands.

5.2. Conclusion

The present study involved 96 participants from one police district in Norway, and sought out to investigate if organizational climate could strengthen work engagement. This study is the first to investigate if the climate version of CVF and training climate could relate to work engagement. We conducted regression analysis to investigate the hypothesized relationships, and the results provided support for one of the seven hypothesis. More specifically, the analysis reveal that job support could strengthen work engagement. However all other relationships in this study was show to be insignificant, in other words not supported. Nevertheless, this study did provide us with some very interesting findings about job support and it argues for conducting more research within this field.

6. References

- Bakker, A. B. (2011). An Evidence-Based Model of Work Engagement. *Current Directions in Psychological Science*, 20(4), 265–269. <http://doi.org/10.1177/0963721411414534>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <http://doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Demerouti, E. (2014). Job Demands–Resources Theory. In *Wellbeing*. John Wiley & Sons, Ltd. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/9781118539415.wbwell019/abstract>
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2), 274–284. <http://doi.org/10.1037/0022-0663.99.2.274>
- Bakker, A. B., & Sanz-Vergel, A. I. (2013). Weekly work engagement and flourishing: The role of hindrance and challenge job demands. *Journal of Vocational Behavior*, 83(3), 397–409. <http://doi.org/10.1016/j.jvb.2013.06.008>
- Caesens, G., & Stinglhamber, F. (2014). The relationship between perceived organizational support and work engagement: The role of self-efficacy and its outcomes. *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, 64(5), 259–267. <http://doi.org/10.1016/j.erap.2014.08.002>
- Chaudhary, R., Rangnekar, S., & Barua, M. K. (2012). HRD Climate, Occupational Self-Efficacy and Work Engagement: A Study from India. *The Psychologist-Manager Journal*, 15(2), 86–105. <http://doi.org/10.1080/10887156.2012.676938>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <http://doi.org/10.1037/0021-9010.86.3.499>

- Field, A. P. (2013). *Discovering statistics using IBM SPSS statistics: and sex and drugs and rock "n" roll* (4th edition). Los Angeles: Sage.
- Garrosa, E., Moreno-Jiménez, B., Rodríguez-Muñoz, A., & Rodríguez-Carvajal, R. (2011). Role stress and personal resources in nursing: A cross-sectional study of burnout and engagement. *International Journal of Nursing Studies*, *48*(4), 479–489.
<http://doi.org/10.1016/j.ijnurstu.2010.08.004>
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, *43*(6), 495–513.
- Karasek, R. A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly*, *24*(2), 285–308.
- Kenny, D. A. (2015, November). Measuring Model Fit. Retrieved April 23, 2016, from <http://davidakenny.net/cm/fit.htm>
- Kuenzi, M. (2008). *An integrated model of work climate*. University of Central Florida, Orlando, Florida. Retrieved from http://etd.fcla.edu/CF/CFE0002032/Kuenzi_Maribeth_L_200805_PhD.pdf
- Quinn, R. E., & Rohrbaugh, J. (1981). A Competing Values Approach to Organizational Effectiveness. *Public Productivity Review*, *5*(2), 122. <http://doi.org/10.2307/3380029>
- Quinn, R. E., & Rohrbaugh, J. (1983). A Spatial Model of Effectiveness Criteria: Towards a Competing Values Approach to Organizational Analysis. *Management Science*, *29*(3), 363–377. <http://doi.org/10.1287/mnsc.29.3.363>
- Salanova, M., Del Líbano, M., Llorens, S., & Schaufeli, W. B. (2013). Engaged, Workaholic, Burned-Out or Just 9-to-5? Toward a Typology of Employee Well-being. *Stress and Health*, n/a–n/a. <http://doi.org/10.1002/smi.2499>
- Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor

Analytic Approach. *Journal of Happiness Studies*, 3(1), 71–92.

<http://doi.org/10.1023/A:1015630930326>

Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational Climate and Culture.

Annual Review of Psychology, 64(1), 361–388. <http://doi.org/10.1146/annurev-psych-113011-143809>

Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of*

Occupational Health Psychology, 1(1), 27–41. <http://doi.org/10.1037/1076-8998.1.1.27>

Tracey, J. B., & Tews, M. J. (2005). Construct Validity of a General Training Climate Scale.

Organizational Research Methods, 8(4), 353–374.

<http://doi.org/10.1177/1094428105280055>

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of*

Stress Management, 14(2), 121–141. <http://doi.org/10.1037/1072-5245.14.2.121>