

ELECTRONIC SURVEILLANCE AND COUNTERPRODUCTIVE BEHAVIOURS: THE PERCEPTION OF SUPERVISOR SUPPORT IN A REMOTE WORK CONTEXT

https://doi.org/10.56002/ceos.pp33-001_rcej

João Pedro Santos¹ [0009-0000-6523-4594], Teresa Esteves² [0000-0003-1057-0835]

¹ Instituto Universitário de Lisboa (ISCTE); jo.pepe.cunha@gmail.com

² Instituto Superior de Contabilidade e Administração de Lisboa (ISCAL – IPL); COMEGI – Universidades Lusíada; mtesteves@iscal.ipl.pt

ABSTRACT

This study aims to understand whether there is a positive relationship between Electronic Surveillance and Counterproductive Behaviours; to analyse whether attitudes towards Electronic Surveillance mediate the relationship; and to discover whether the Perception of Supervisor Support acts as a moderator. A theoretical review was carried out on all the variables under study and an online questionnaire was used. We obtained a sample of 248 employees from companies in the Information Technology (IT) sector. The results reveal a positive relationship between Perception of Electronic Surveillance and Counterproductive Behaviours, and we concluded that negative attitudes towards surveillance play an important role in mediating this relationship. We also found that the Perception of Supervisor Support acted as a moderator.

Keywords: Electronic Monitoring; Counterproductive Behaviours; Negative Attitudes; Perception of Supervisor Support.

1. INTRODUCTION

The pandemic spawned by Covid-19 has led many companies to change their modus operandi and rethink the way they organise work (Eurofound & Cedefop, 2020).

In the Portuguese context, considering the information from Instituto Nacional de Estatística (INE) and Banco de Portugal (BdP), 58% of companies have resorted to telework and 14% of these companies declared that they have more than 75% of their employees in this employment regime (INE & BdP, 2021). Telework, in the first stage, presented several benefits and seemed to be rather positive until some critical aspects emerged (Eurofound, 2020), namely the electronic monitoring of employees (IOL, 2020).

The Portuguese law (Decreto-Lei No 7/2009) stipulates that the employer can only use monitoring mechanisms to protect its employees (Moreira, 2016). However, in an employment scenario, where the boundaries of professional and personal life do become blurred, ever-present, and routine monitoring can cause a threat to employees' privacy (Holland, Cooper, & Hecker, 2015).

According to D'urso (2006) Electronic Surveillance results in a perception of control by employers. Consequently, employees may express their discontentment and engage in counterproductive behaviours, such as acts of resistance (Courpasson, Dany, & Clegg, 2011), and challenge the normative distribution of power within organisations (Vorvoreanu & Botan, 2001).

The reaction to the perception of Electronic Surveillance is a recent and not much explored topic in the literature, mainly when focusing on telework (Holland & Bardoel, 2016). As such, it is necessary to develop a deeper understanding of the consequences of the perception of electronic surveillance in a remote work context. A second aspect that should be analysed is the type of counterproductive behaviours that emerge in telework, which may differ from those of face-to-face work (McParland & Connolly, 2020). Furthermore, it is also important to understand how these deviant behaviours can be minimized.

In this sense, the article aims to analyse the impact that attitudes toward electronic surveillance have on the relationship between the perception of electronic surveillance and counterproductive behaviours. It also seeks to investigate whether the perceived supervisor support affects this relationship.

2. LITERATURE REVIEW

2.1 Electronic Monitoring

Work monitoring is not a recent phenomenon (Eurofound, 2020b); however, it is taking increasingly larger and more invasive proportions (Moreira, 2016).

Electronic surveillance refers to the computerised collection, storage, analysis, and communication about various activities performed by employees in a work context (Alge,

2001; Kalischko & Riedl, 2021) in real time (Aiello, 1993; Abraham, et al., 2019) and enabled by information and communication technologies (Clary, 2021). According to Ball (2010) surveillance has always existed and helps preserve the hierarchical structure of organisations.

Weber (1947) states that any form of organisational control arises out of the need to maintain the subordination of employees to the company. This argument is in line with the view of Foucault (1977), who argues that the act of watching employees consists in a way to institute work discipline (Vorvoreanu & Botan, 2001; Holland, Cooper, & Hecker, 2015).

Electronic surveillance allows the obtainment of varied information and, according to some authors, presents several positive aspects (McParland & Connolly, 2019) as a support for possible decision-making; such as dismissals, hiring or disciplinary proceedings (Stanton, 2000; Abraham, et al., 2019; Kalischko & Riedl, 2021). However, McParland & Connolly (2019) present a dystopian advantage of this type of control, in the sense that its implementation only benefits the organisation, resulting in an asymmetry of power and conflict of interest between the parties involved.

An exacerbated organisational control makes employees more likely to develop feelings of resistance to manipulate or subvert the perceived control (Ball, 2010). This idea is in accordance with Brehm (1966) theory of psychological reaction, which postulates that when an employee loses the ability to control a situation, or perceives that their freedom is being compromised, they engage in counterproductive behaviours.

2.2 Counterproductive Behaviours

Hollinger (1986) defines Counterproductive Working Behaviours (CWB) as an unwanted conduct that goes against the interests of the organisation, whose consequences, according to Freire, Ribeiro, Gomes, & Rego (2011), are nefarious to the organisation itself. Robinson & Bennett (1995) add that these behaviours are voluntary, intentional, destructive and violate organisational norms and can be directed at the organisation, its members, or both.

Furthermore, Kaplan (1975) and Nemţeanu, Dabija, & Stanca (2011) argue that CWB arise from the noncompliance of employees with certain organisational norms or their motivation to violate the normative expectations of the organisational context in which they are inserted.

Research on CWB originated in the 1980s, and its roots may be found in the study of aggression in organisations (Spector, et al., 2006). Nonetheless, the lack of a theory that interconnects various CWB has spurred the emergence of more complex conceptual models (Sackett & C.DeVore, 2001). According to MacLane & Walmsley (2010) and Marcus, et al. (2016), the existence of various conceptual models reveals a lack of consensus in measuring, categorising, and relating the various CWB.

Below, we can find a table that gathers the various studies on CWB.

Table 1. Counterproductive Work Behaviours Conceptual Models

Authors	Model	Scale items	Sample	Methodology
Hollinger & Clark (1982)	2 categories of CWB	15 items	9,175 from 3 large industries	Self-report questionnaires
Robinson & Bennett (1995)	Two dimensional model	23 items	250 part-time students	Self-report questionnaires
Gruys & Sacket (2003)	11 CWB categories	66 items	343 former university students	Self-report questionnaire and judgements from coworkers and supervisors
Spector et al. (2006)	CWB-C	45 items	169 workers	Self-report questionnaires
Martin et al. (2016)	T- CWB	34 items	146 teleworkers	Self-report questionnaires

2.2.1 Counterproductive use of technology

According to Weatherbee (2010) the use of modern and sophisticated technologies in the workplace represents a double-edged sword, in the sense that they increase work productivity and efficiency, but can also be subject to misuse.

Weatherbee (2010) defines cyberdeviancy as a deliberate behaviour that threatens or results in harm to an organisation, its members, or its stakeholders. This definition goes back to Robinson & Bennett's (1995) definition of CWB. One form of cyber embezzlement can be referred to as cyberloafing. Lim (2002) defines this concept as a set of behaviours that entail access to the Internet for personal use during working hours. As stated by Caplan (2007), this concept is related to internet addiction.

Lim (2002) presents a concept that arises along with cyberloafing, the neutralisation techniques. According to this concept, employees rationalise an a priori deviant act in order to convince themselves that their counterproductive behaviour is justifiable. Neutralisation techniques allow an employee to go along with a CWB without concerns.

2.3 Attitudes Towards Surveillance

Ball (2010) claims that it is necessary to consider the social processes inherent to electronic surveillance since its implementation is subject to the creation of meaning by the employee. Stanton (2000) states that electronic monitoring possesses characteristics that are perceived by employees and that influence their behaviour. As such, the successful implementation of surveillance technologies critically depends on employee attitudes (Stanton 2000; McNall & Roch, 2009; Martin, Wellen, & Grimmer, 2016; Abraham, et al., 2019).

Attitudes towards Electronic Surveillance can be either positive or negative. Positive if

employees perceive some kind of benefit provided by the surveillance, they will be more receptive to it and, therefore, feel safer and more protected. If the attitudes are negative though, these can take the form of resistance which can be seen as an act of anti-discipline that aims to subvert the power relations of organisational structures (Vorvoreanu & Botan, 2001).

McNall & Roch (2009) considered that the problem with electronic surveillance is not the systems themselves, but rather the way these systems are used and implemented. As stated by Stanton & Weiss (2000), attitudes are directly influenced by the volume and frequency of data collection. The purpose of the information collected is also a factor that weighs on employees' perceptions of electronic surveillance, especially when this information can be used against them (Stanton & Weiss, 2000; Stanton, 2000; McParland & Connolly, 2019; Furnham & Swami, 2019; Ravid, et al. 2020; McParland & Connolly, 2020). Stanton (2000), Abraham, et al. (2019), Ravid, et al. (2020) and Kalischko & Riedl (2021) suggest that implementation of electronic surveillance in the workplace needs to be accompanied by a plausible justification.

McParland & Connolly (2019) and Spitzmuller & Stanton (2006) argue that the implementation of electronic surveillance in the workplace is not always a democratic process, in that it can be implemented without employee consent. In turn, Marx & Sherizen (1991) indicated that employees should be informed in advance about workplace monitoring.

2.4 Perceived Supervisor Support

McParland & Connolly (2020) highlighted the crucial role of organisational support in increasing employees' trust and decreasing their resistance, which can be ensured by Perceived Supervisor Support (PSS). Therefore, supervisor support can be key to employees' intentions of resistance or cooperation toward electronic surveillance (Spitzmuller & Stanton, 2006).

PSS finds its origin in Eisenberger et al. (1986) study of Perception of Organisational Support (POS) concept, which refers to the employee's perception that the organisation values their contribution and cares about their well-being.

Employees associate supervisors' behaviours with the organisation (Rhoades & Eisenberger, 2002; Eisenberger, et al., 2010). Eisenberger, et. al (2002) found that employees' belief that supervisors care about them gives rise to higher levels of POS. High levels of PSS positively impact certain employee behaviours (Ceribeli & Severgnini, 2020) which is in line with Malatesta's (1995) analysis suggesting that low PSS would result in unfavourable implications for the future of employees. Hence, low levels of PSS may mean that employees engage in CWB (Ceribeli & Severgnini, 2020).

Morrison & Robinson (1997) and McParland & Connolly (2020) state that electronic surveillance can call into question the social exchange of working relationships that are seen as a two-way exchange of respect and trust. The favourable treatment inherent to the theory of social exchange and working relationships based on mutual trust are essential in electronically monitored environments (McNall & Roch, 2009; Boxall & Purcell, 2011; Holland, et al., 2015).

The introduction of electronic surveillance in the workplace can result in a rigid work environment (Oz, Glass, & Behling, 1999), in which negative attitudes can unbind the employee

from the organisation. However, there is the possibility that these negative attitudes are mitigated by employees' perceptions that supervisors value their work and care about their well-being (Eisenberger, et al., 1986). Surveillance can have negative implications for employee conduct, but if the employee experiences fair and favourable treatment by the supervisor it can increase feelings of trust and organisational commitment (McNall & Roch, 2009). Thus, PSS can assume a cushioning role from the negative effects of electronic surveillance (Palmer, Komarraju, Carter, & Karau, 2010) since increased trust in the supervisor increases the relationship of social exchange, which helps to positively shape employees' attitudes (Ahmed, Ismail, Amin, & Ramzan, 2012).

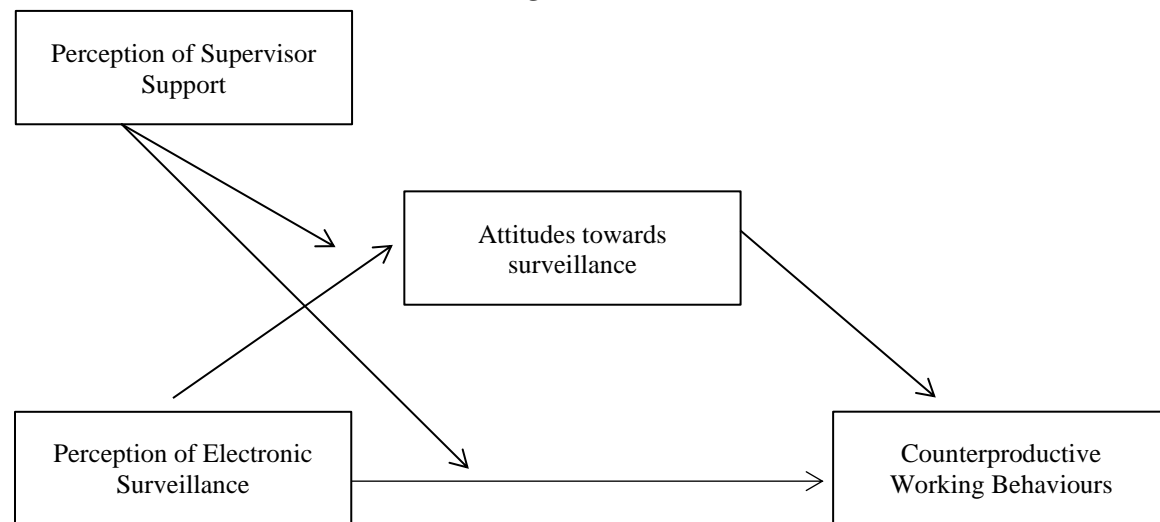
Based on the literature review, the following hypotheses were formulated:

Hypothesis 1: Perceived Electronic Surveillance has a positive and significant effect on Counterproductive Behaviours.

Hypothesis 2: Attitudes towards surveillance mediate the relationship between perceptions of surveillance and Counterproductive Behaviours.

Hypothesis 3: The mediation effect of attitudes towards surveillance is moderated by the level of Perceived Supervisor Support.

Fig. 1: Research Model



3. METHODOLOGICAL PROCEDURES

3.1 Sample and Data Collection

A quantitative correlational study was carried out to analyse the hypotheses under study. In this sense, a questionnaire was conducted with a sample of 248 employees from companies in the Information Technology (IT) sector. We used the non-probability convenience sampling technique. Data collection was carried out through the "snowball" procedure, in order to reach as many employees as possible. It was adopted as a criterion for participation: the respondents who were working in a full telework regime or a hybrid work regime in a company of the IT sector.

A predominantly male sample was obtained (69%), with age groups ranging from 18 to 60 years old; from 18 to 30 years old (63%), with high qualifications, mainly at degree level (49%), where large companies predominated (57%). Concerning the length of service within the company, the respondents who had worked in the same company for more than two years accounted 55%. With regard to the remote working system, 51% of the respondents were teleworking full-time and 49% were working in a hybrid system. The adoption of teleworking was predominantly a company choice (80%).

3.2 Measurement Instruments

An online questionnaire was used for data collection which contained an introduction explaining the context and objectives of the research, and whether it ensured the voluntary and anonymous nature of participation, followed by the request for informed consent. The perception of electronic control (independent variable) was assessed using 10 items based on the scales of Abraham, et al. (2019), Stanton and Weiss (2000), Papini (2007), and Gabriel (1999) and includes items such as "Much of the work I do is controlled directly by automated systems (computers, centralized systems, surveillance systems)." A five-position Likert scale (1: Strongly Disagree, 5: Strongly Agree) was used.

For CWB (dependent variable), 16 items based on the scales of Martin et al. (2016) and Lim (2002) were used, items such as "Visiting non-work-related websites during work hours (e.g., sports websites; entertainment websites; news websites). A 7-position Likert scale (1: Never, 7: Daily) was used. For negative attitudes towards surveillance (mediated variable), 11 items from Furnham & Swami (2015) which includes indicators such as "The use of electronic surveillance means that employers do not trust employees." Regarding the perception of supervisor support, we applied the shortened version of the scale proposed by Eisenberger, Cummings, Armeli, & Lynch (1997) with 8 items containing indicators such as "My supervisor really cares about my well-being". For both of these variables a Likert scale with 5 positions was used (1: Strongly Disagree, 5: Strongly Agree). The last part of the questionnaire contained sociodemographic questions.

In order to avoid common method variance (CMV), a pre-test of the questionnaire was conducted and the scales were entered into the questionnaire in the following order: first items related to the dependent variable, then those of the mediating variable, followed by the items of the independent variable and at the end those of the moderator.

3.4 Presentation and Analysis of Results

Data analysis was performed using IBM SPSS Statistics version 28 software and (Hayes, 2013) Process macro model 4 (simple mediation) and model 8 (moderate mediation).

The questionnaire items were submitted to exploratory factor analyses and after varimax rotation, the following indicators were obtained: Perception of Electronic Control (PCE) (predictor variable) consisting of 5 items with a Cronbach's alpha of .83; CWB (dependent variable) with 16 items and Cronbach's alpha of .87; Negative Attitudes towards Surveillance (mediating variable) consists of 6 items and had an alpha of .91, which is in line with the value found by Furnham & Swami (2015); PSS scale showed a Cronbach's alpha of .94, which is in

line with the results of Eisenberger, et al. (1997).

Table 2. Discriptive results, correlation and Cronbach's alpha

	1	2	3	4	5	6	7	8
1. PEC	(.89)							
2. CWB	.332**	(.87)						
3. Negative attitudes towards surveillance	.217**	.416**	(.91)					
4. PSS	-.394**	-.384**	-.163*	(.94)				
5. Age	.045	-.139*	-.044	-.088				
6. Seniority in the company	-.040	-.031	-.133*	.013	.383**	.047		
Mean	3.29	2.10	3.98	3.63	1.53	2.95	1.86	1.80
Standard Deviation	.941	.733	.883	.947	.772	1.495	1.140	.398

Correlations were performed using Spearman's Rho; **p<.01; *p<.05; Internal consistency values measured using Cronbach's alpha are on the diagonal in parentheses; Variables result from the construction of an index that translates the average of the corresponding items.

We intended to analyse the correlations between the variables. The analysis of correlations, through Spearman's correlation index, reveals that the variables in the model are positively associated with each other, namely PEC, CWB and the negative attitudes towards surveillance. As it was already expected, only PSS is negatively associated with the remaining variables: therefore, higher PEC levels are associated with higher CWB levels and negative attitudes towards surveillance; higher PEC levels are associated with lower PSS levels; higher levels of negative attitudes towards surveillance are associated with higher levels of CWB; high levels of negative attitudes towards surveillance are associated with lower levels of PSS.

Through the descriptive analysis, it is possible to establish that the variables of perceived electronic control (PEC), negative attitudes towards surveillance and PSS presented slightly higher values than the midpoint of the response scale that has been used (scale from 1 to 5). This may lead us to conclude that employees' PEC and PSS are not high, or that they mostly assumed a noncommittal position (neither agreeing, nor disagreeing). With respect to attitudes towards Electronic Surveillance (highest average), the respondents showed a proclivity to agree that the introduction of electronic monitoring results in negative attitudes. Only the CWB variable has an average lower than the midpoint of the response scale that was used (scale 1 to 7), indicating a value of 2.10, thus meaning that, on average, employees engage in CWB once a year.

To further analyse the relationship between the variables of the model being studied, regressions were performed between the predictor variable PEC and the criterion variable

(CWB) and between PEC and the mediator variable (negative attitudes).

With respect to the CWB, after testing the assumptions that allow proceeding with the analysis, a linear regression was applied. We obtained, see Table 3, a statistically significant regression model [F (1,242) = 27.127; p < .01] that explains 10% of the variance in the levels of counterproductive behaviour (R2 aj. = .097). Upon analysing the regression coefficient, it is possible to verify that the PEC contributes significantly to CWB ($\beta = .25$; $t = 5.208$; $p < .01$).

With regard to negative attitudes towards surveillance, which is of great importance in this study, a linear regression was also carried out, whose assumptions were verified a priori. We also obtained a statistically significant regression model [F(1,242) = 18.635; p < .01] which explains 7% of the variance in the levels of negative attitudes towards surveillance (R2 aj. = .068). While analysing the regression coefficient it is found that PEC contributes significantly to negative attitudes towards surveillance ($\beta = .25$; $t = 4.317$; $p < .01$).

Table 3. Regression models for predicting Counterproductive behaviors and Negative attitudes towards surveillance

Predictors	Beta	R2 adjusted	R2	F
Perception of Electronic Control	Counterproductive work behaviours			
	.247*	.097	.101	27.127
	Negative attitudes towards surveillance			
	.251*	.068	.071	18.635

*p < .01

Now focusing on mediation, according to the table 4, we found that the impact of PEC on negative attitudes towards surveillance was significant: F (1,242) = 18.635; $\beta = .25$, $t = 4.32$, $p < .01$, 95% CI [.14, .37], $R^2 = .07$ (7%). Regarding the total effect of the PEC on CWB, this was also significant: F (1,242) = 27.127; $\beta = .25$, $t = 5.21$, $p < .01$, 95% CI [.15, .34], $R^2 = .10$ (10%) and the direct effect of PEC on CWB, when controlled by negative attitudes towards surveillance, was also significant: F (1,242) = 33.794, $\beta = .17$, $t = 3.76$, $p < .01$, 95% CI [.08, .26], $R^2 = .22$ (22%).

Since the total effect of the PEC on CWB decreases in the presence of the mediating variable (direct effect), we have a partial mediation, the indirect effect is significant. Thus, hypotheses H1 and H2 find support.

Table 4. Regression for the mediation model of negative attitudes toward surveillance in the relationship between PEC and CWB

Predictor variables	Negative attitudes towards surveillance			Counterproductive Work Behaviours		
	β	CI 95%	R ²	β	CI 95%	R ²
Total effect						
Perception of Electronic Control				.247*	[.15, .34]	.10 (10%)
Direct effect						
Perception of Electronic Control	.251*	[.14, .37]	.07 (7%)	.173*	[.08, .26]	.219 (22%)
Negative attitudes towards surveillance				.296*	[.20, .39]	
Indirect effect				.074*	[.03, .12]	

note: * $p < .01$. Non-standardized regression coefficients (β); For the calculation of conditional indirect effects, 95% confidence intervals were assumed

The results obtained also reveal that there is a moderating effect of PSS on the mediation relationship (moderate mediation index = -.80 Bootstrap 95% CI [-.12, -.04]). We tested the moderating PSS effect on both the direct effect of the PEC on the CWB, as well as the indirect effect through negative attitudes towards surveillance. The results show that the PSS moderates the direct effect of the PEC on CWB, significantly but negatively (see Table 5). PEC relate to CWB when the PSS presents lower levels, but not when the PSS is high. Thus, the PSS amortises the effect of the PEC, in the sense that when the latter increases and the PSS is at moderate or low levels, the CWB increase, but not when the PSS is high.

The results also reveal that PSS moderates the indirect effect of the PEC through negative attitudes towards surveillance (see Table 5). According to the results, PEC is only related to negative attitudes towards surveillance when the PSS has low or moderate levels. Thus, hypothesis H3 was supported.

Table 5. Moderate mediation results (direct and indirect effect)

Antecedent				
Perception of Electronic Control	Negative attitudes towards surveillance	Counterproductive Work Behaviours		
		R ² = .21 (21%)		R ² = .36 (36%)
		F(1,242) = 20.871, $p < .01$		F(1,242) = 32.844, $p < .01$
Indirect effect (ECP -> AN -> CWB)				
PSS	Effect	t	P value	95% CI
-1SD	.13	7.268	*	[.07, .19]
Mean	.06	4.255	*	[.02, .09]
+1SD	-.02	-9.81	ns	[-.06, .02]
Direct effect (ECP -> CWB)				
PSS	Effect	t	P value	95% CI
-1SD	.21	3.234	*	[.08, .34]
Mean	.09	2.051	*	[.004, .18]
+1SD	-.02	-4.26	ns	[-.14, .09]

* $p < .05$; ns = non-significant

4. DISCUSSION

The results obtained supported the hypotheses formulated. This project followed recent research on the consequences of Electronic Surveillance on CWB through the negative attitudes towards surveillance, but used the PSS as a moderator variable, which is not recurrent in the literature.

The respondents were shown to have moderate average levels of PEC. This may be related to employees who may not be aware that their organisation is monitoring them electronically. There is also the possibility that being workers in the IT sector, they are used to highly automated working environments and hence may develop an indifference to electronic control methods and may even bypass electronic monitoring software.

The PSS perception was also moderate, as most respondents began to experience remote work during the pandemic, which may have affected the working relationship with their supervisors. The professional isolation, during the Covid-19 pandemic, resulted in reduced contact between the parties involved (Mann & Holdsworth, 2003; Golden, Veiga, & Dino, 2008), which may influence how employees act towards electronic monitoring in the workplace. In this scenario, the relationship between employee and supervisor may suffer some consequences, namely loss of trust in the supervisor. Additionally, employees showed average levels of negative attitudes towards Electronic Surveillance, which may negatively influence employees' organisational behaviour.

The respondents did not report getting involved in CWB in a way that was too significant. This may be explained by the fact that the scale includes forms of behavioural deviance considered more serious and, therefore, employees do not engage in them or do not want to admit to it.

Ball (2010) states that there are ways to mitigate the negative consequences of electronic control, such as with PSS. This idea is in line with Martin, et al. (2016), who postulate that in work environments where electronic control is ubiquitous, it is necessary to create a positive psychosocial work environment. Supervisors could create this environment and mitigate the potentially negative effects of high PEC levels. Examples of this are supervisors who provide constructive and timely feedback, based on electronic surveillance, to develop employees (McNall & Roch, 2009; DeConinck, 2010) This procedure increases the levels of perception of interpersonal justice and strengthens work ties based on a reciprocal relationship (Ahmed & Ismail, 2012).

5. CONCLUSION

The implementation of the home office has led to the emergence of a new market for Electronic Surveillance software to reinforce employee monitoring, however, in some cases, they have been used without any ethical considerations (Moreira, 2006; Kalischko & Riedl, 2021). During the pandemic, the use of monitoring technologies surpassed its original purpose and presented major threats to the violation of employee rights and privacy (Eurofound, 2020). Nonetheless, surveillance software does not cease to play an important role in the organisational world (Stanton, 2000; Alder, Ambrose, & Noel, 2006) which increases the paradoxical debate on the use of technologies in the workplace.

The results concerning the moderation relationship reveal that the PSS has a cushioning effect on the relationship between the PEC and CWB. This result emerges as important, especially in contexts of remote work, where the direct relationship with supervisors will tend to be more reduced. Thus, the moderating effect of PSS helps to increase the perception of organisational support as argued by Ceribeli & Severgnini (2020), as well as to prevent CWB and mitigate negative attitudes towards PEC.

The level of employee involvement in CWB will be attenuated by the level of PSS they forge in a remote working scenario. As Ceribeli & Severgnini (2020) postulate, the idea that supervisors care about employees' well-being and value their work mitigates possible negative attitudes and behaviours. This scenario reflects the importance of the active role of supervisors, as organisational representatives, in remote work contexts. A personalised follow-up by supervisors during and after the installation of electronic surveillance technologies will be the basis for a better acceptance by employees.

The paper presents guidelines for implementing monitoring technologies in a remote work context, highlighting supervisors' role in preventing counterproductive behaviour and developing an organizational culture of transparency recognition and fairness. Moreover, it should be emphasized that organizations will need to comply with the legal framework on electronic surveillance and be transparent to their employees, informing them when electronic surveillance mechanisms are implemented and their purpose.

5.1 Limitations and Future Developments

As limitations, we report the fact that a convenience sample was used. The results focused on

companies in the IT sector, and on a sample of 248 teleworkers in a full or hybrid regime. In the future, it would be interesting to carry out comparative studies with the same target group in other sectors.

The results were based on self-reported questionnaires, so as in many other studies, social desirability may have interfered with the veracity of the responses. It is also important to mention that this is a cross-sectional and self-report study so as a way to mitigate the common method variance, attention was paid to the following aspects: clarification of the purpose of the research and reinforcement of the instructions given to the respondents, the use of a clear scale, keeping the questions concise and simple, in order to avoid items with a double meaning, and in addition the Harman's single factor test was performed which revealed a solution that explained 24% of the total variance. This suggests that the results many have not been influenced by common method bias.

Another limitation relates to the fact that if an employee does not know they are being monitored, they may not express negative attitudes towards surveillance, so in future studies it would be necessary to understand if the respondents know whether they are being monitored or not.

The present study focused only on the negative side of the PEC. However, it would be equally timely to conduct a study focusing on the other side of PEC or the advantages of electronic monitoring, and how it can provide employees with a sense of well-being and safety.

6. REFERENCES

- Abraham, M., Niessen, C., Schnabel, C., Lorek, K., Grimm, V., Möslin, K., & Wrede, M. (2019). Electronic monitoring at work: The role of attitudes, functions, and perceived control for the acceptance of tracking technologies. *Human Resource Management Journal*, 29(4), 657–675.
- Ahmed, I., Ismail, W. K., Amin, S. M., & Ramzan, M. (2012). A Look at Social Exchange at Work: a Literature Survey Approach. *World Applied Sciences Journal*, 19 (7), 951-956.
- Aiello, J. R. (1993). Computer-Based Work Monitoring: Electronic Surveillance and Its Effects. *Journal of Applied Social Psychology* 23, 7, 499-507.
- Alder, G. S., Ambrose, M. L., & Noel, T. W. (2006). The effect of formal advance notice and justification on Internet monitoring fairness: Much about nothing? *Journal of Leadership & Organizational Studies*, 13, 93-108.
- Alge, B. J. (2001). Effects of Computer Surveillance on Perceptions of Privacy and Procedural Justice. *Journal of Applied Psychology*, Vol. 86, No. 4, 797-804.
- Ball, K. (2010). Workplace surveillance: an overview. *Labor History*, 51:1, 87-106.
- Boxall, P., & Purcell, J. (2011). *Strategy and Human Resource Management*. 3rd ed, Palgrave Macmillan, Basingstoke.
- Brehm, J. W. (1966). *A theory of psychological reactance*. New York: Academic Press
- Caplan, S. (2007). Relations Among Loneliness, Social Anxiety, and Problematic Internet Use. *Cyberpsychology & Behavior*, 10(2), 234–242.
- Ceribeli, H. B., & Severgnini, F. R. (2020). The influence of perceived organizational and supervisors

- supports on the counterproductive behaviours at work. *ACEF – Revista de Administração Contabilidade e Economia da Fundace. v. 11, n. 2*, 86-105.
- Clary, W. G. (2021). The Impact of Electronic Surveillance on Teleworkers' Well-being. *SIGMIS-CPR 2021 - Proceedings of the 2021 Computers and People Research Conference*, 39-40.
- Courpasson, D., Dany, F., & Clegg, S. (2011). Resisters at Work: Generating Productive Resistance in the Workplace. *Organization Science, Articles in Advance*, 1-19.
- DeConinck, J. B. (2010). The effect of organizational justice perceived organizational support, and perceived supervisor support on marketing employees' level of trust. *Journal of Business Research* 63, 1349–1355.
- D'urso, S. C. (2006). Who's Watching Us at Work? Toward a Structural-Perceptual Model of Electronic Monitoring and Surveillance in Organizations. *Communication Theory, Vol. 16, No. 3*, 281-303.
- Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived Organizational Support, Discretionary Treatment, and Job Satisfaction. *Journal of Applied Psychology, Vol. 82, No. 5*, 812-820.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived Organizational Support. *Journal of Applied Psychology*, 500-507
- Eisenberger, R., Karagonlar, G., Stinglhamber, F., Neves, P., Becker, T. E., Gonzalez-Morales, M. G., & Steiger-Mueller, M. (2010). Leader–Member Exchange and Affective Organizational Commitment: The Contribution of Supervisor's Organizational Embodiment. *Journal of Applied Psychology, Vol. 95, No. 6*, 1085-1103.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived Supervisor Support: Contributions to Perceived Organizational Support and Employee Retention. *Journal of Applied Psychology*, 565-573.
- Eurofound. (2020). Teletrabalho e trabalho móvel baseado nas TIC: trabalho flexível na era digital. 16 de janeiro de 2020, <http://eurofound.link/ef19032>.
- Eurofound. (2020b). *Employee monitoring and surveillance: The challenges of digitalisation*. Luxembourg: Publications Office of the European Union.
- Eurofound, & Cedefop. (2020). *European Company Survey 2019: Workplace practices unlocking employee potential, European Company Survey 2019 series*. Luxembourg: Publications Office of the European Union.
- Foucault, M. (1977). *Discipline and punish: The birth of prison*. New York: Pantheon Books.
- Freire, M., Ribeiro, N., Gomes, D. R., & Rego, A. (2011). Os comportamentos contra produtivos (CCP) como resposta às perceções de justiça organizacional e ao stress. *Investigação e Intervenção em Recursos Humanos 2011 –gestão para a cidadania*, 1-15.
- Furnham, A., & Swami, V. (2015). An Investigation of Attitudes toward Surveillance at Work and Its Correlates. *Psychology, 6*, 1668-1675.
- Furnham, A., & Swami, V. (2019). Attitudes toward Surveillance: Personality, Belief and Value Correlates. *Psychology, 10*, 609-623.
- Gabriel, Y. (1999). Beyond Happy Families: a critical reevaluation of the control - resistance - identity triangle. *Human Relations, Vol.52, No.2*, 179 – 203.
- Golden, T. D., Veiga, J. F., & Dino, R. N. (2008). The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter. *Journal of Applied Psychology, 93(6)*, 1412–1421.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New York: The Guilford Press.
- Holland, P. J., Cooper, B., & Hecker, R. (2015). Electronic monitoring and surveillance in the workplace. The effects on trust in management, and the moderating role of occupational type. *Personnel Review Vol. 44 No. 1*, 161-175.
- Holland, P., & Bardoel, A. (2016). The impact of technology on work in the twenty-first century: exploring the smart and dark side. *The International Journal of Human Resource Management, Vol. 27, No. 21*, 2579–2581.
- Hollinger, R. C. (1986). Acts against the workplace: Social bonding and employee deviance. *Deviant Behavior, 7*, 53-75.
- INE. (2021). *Inquérito à utilização de tecnologias da informação e da comunicação nas empresas. 22 de novembro de 2021*.
- INE, & Portugal, B. d. (2021). Como se refletiu a situação de confinamento na atividade das empresas? *Inquérito Rápido e Excepcional às Empresas – COVID-19*, 1a quinzena de fevereiro de 2021.
- IOL. (2020). *Teleworking during the COVID-19 pandemic and beyond: A Practical Guide*. Suíça: Organização Internacional do Trabalho.
- Kalischko, T., & Riedl, R. (2021). Electronic Performance Monitoring in the Digital Workplace: Conceptualization, Review of Effects and Moderators, and Future Research Opportunities. *Research Opportunities. Front. Psychol. 12:633031*, 1-15.
- Kaplan, H. B. (1975). *Self-attitudes and deviant behavior*. Pacific Palisades, CA: Goodyear.
- Lim, V. (2002). The IT Way of Loafing on the Job: Cyberloafing, Neutralizing and Organizational Justice. *Journal of Organizational Behavior, 23(5)*, 675-694.
- MacLane, C. N., & Walmsley, P. T. (2010). Reducing counterproductive work behavior through employee selection. *Human Resource Management Review* 20, 62-72.
- Malatesta, R. M. (1995). Understanding the dynamics of organizational and supervisory commitment using a social exchange framework. Un-published doctoral dissertation. Wayne State University, Detroit, MI.
- Mann, S., & Holdsworth, L. (2003). The psychological impact of teleworking: stress, emotions and health. *New Technology, Work and Employment, 18:3*, 196-211.
- Marcus, B., Taylor, O. A., Hastings, S. E., Sturm, A., & Weigelt, O. (2016). The Structure of Counterproductive Work Behavior: A Review, a Structural Meta-Analysis, and a Primary Study. *Journal of Management Vol. 42 No. 1*, 203 –233.
- Martin, A. J., Wellen, J. M., & Grimmer, M. R. (2016). An eye on your work: How empowerment affects the relationship between electronic surveillance and counterproductive work behaviours. *The International Journal of Human Resource Management, 27:21*, 2635-2651.
- Marx, G. T., & Sherizen, S. (1991). Monitoring on the job: How to protect privacy as well as property. in Forester, T. (Ed.). *Computers in the human context: Information technology, productivity, and people*, MIT Press, Cambridge, MA, 397-406.
- McNall, L. A., & Roch, S. G. (2009). A Social Exchange Model of Employee Reactions to Electronic Performance Monitoring. *Human Performance, 22*, 204-224.
- McParland, C., & Connolly, R. (2019). Employee Monitoring in the Digital Era: Managing the

- Impact of Innovation. In *Proceedings of the ENTRENOVA-enterprise research Innovation Conference (Online) Vol. 5, No. 1*, 474-483.
- McParland, C., & Connolly, R. (2020). Dataveillance in the Workplace: Managing the Impact of Innovation. *Business Systems Research, Vol. 11, No. 1*, 106-124.
- Moreira, T. C. (2016). The Electronic Control of the Employer in Portugal. *Labour & Law Issues vol. 2, no. 1*, 1-27.
- Morrison, E., & Robinson, S. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *The Academy of Management Review, Vol. 22 No.1*, 226-256.
- Nemțeanu, M. S., Dabija, D. C., & Stanca, L. (2011). The influence of teleworking on performance and employees' counterproductive behaviour. *Amfiteatru Economic, 23(58)*, 601-619.
- Oz, E., Glass, R., & Behling, R. (1999). Electronic Workplace Monitoring: What Employees Think. *International Journal of Management Science, 27*, 167-177.
- Palmer, J. C., Komarraju, M., Carter, M. Z., & Karau, S. J. (2010). Angel on one shoulder: Can perceived organizational support moderate the relationship between the Dark Triad traits and counterproductive work behavior? *Personality and Individual Differences 110*, 31-37. and counterproductive work behavior? *Personality and Individual Differences 110*, 31-37.
- Papini, J. D. (2007). Big brother: The effect of electronic employee monitoring on electronic misbehaviour, job satisfaction, and organizational commitment (Doctorial Dissertation, Alliant
- Ravid, D. M., Tomczak, D. L., White, J. C., & Behrend, T. S. (2020). EPM 20/20: A Review, Framework,
- Robinson, S. L., & Bennett, R. J. (1995). A Typology of Deviant Workplace Behaviors: A Multidimensional Scaling Study. *The Academy of Management Journal, Vol. 38, No. 2*, 555- 572
- Sackett, P. R., & C. DeVore. (2001). Counterproductive behaviors at work. In N. Anderson, D. S. Ones, H.K. Sinangiland V. Viswesvaran (eds). *International Handbook of Work Psychology, Vol.1*, 145-164.
- Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created equal? *Journal of Vocational Behavior, 68*, 446-460.
- Stanton, J. M. (2000). Reactions to Employee Performance Monitoring: Framework, Review, and Research Directions. *Human Performance, 13:1*, 85-113.
- Stanton, J. M., & Weiss, E. M. (2000). Electronic monitoring in their own words: an exploratory study of employees' experiences with new types of surveillance. *Computers in Human Behavior, 423- 440*.
- Spitzmuller, C., & Stanton, J. M. (2006). Examining employee compliance with organizational surveillance and monitoring. *Journal of Occupational and Organizational Psychology, 79 (2)*, 245–272.
- Vorvoreanu, M., & Botan, C. H. (2001). Examining Electronic Surveillance In The Workplace: A Review Of Theoretical Perspectives And Research Findings. *CERLAS Tech Report, 1-28*.
- Vorvoreanu, M., & Botan, C. H. (2001). Examining Electronic Surveillance In The Workplace: A Review Of Theoretical Perspectives And Research Findings. *CERLAS Tech Report, 1-28*.
- Weatherbee, T. G. (2010). Counterproductive use of technology at work: Information &communications technologies and cyber deviancy. *Human Resource Management Review 20*,

35-44.

- Weber, M. (1947). The theory of social and economic organizations (T. Parsons, Trans.). *New York: Free Press*.