

# PREDICTING JOB SATISFACTION AND WORK ENGAGEMENT BEHAVIOR IN THE COVID-19 PANDEMIC: A CONSERVATION OF RESOURCES THEORY APPROACH

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**Abstract:** The rapid spread of the COVID-19 pandemic has forced organizations to impose physical distancing restrictions on employees and to practice teleworking on a large scale. Adapting to the new context has generated an increase in job insecurity, and a decrease in employee productivity concerning task completion, boosting stress and counterproductive work behavior. Although the challenges employees face when carrying out their activities and work-related responsibilities, together with an understanding of the factors generating counterproductive work behaviors and job insecurity have been intensely studied in the literature, their manifestation and impact within organizations in the context of the COVID-19 pandemic is barely covered. This paper aims to fill this research gap by evaluating the way internal vision communication, employee reward systems, knowledge, and skills capitalization, and the maintaining of task performance can diminish counterproductive work behaviors and job insecurity generated by the COVID-19 pandemic, influencing employee satisfaction and behavior in this stress-inducing context. The responses collected from 863 Romanian employees are modelled with the help of structural equations in SmartPLS.

The results show that in the case of counterproductive work behavior, employee satisfaction diminishes, while efficient performance of tasks and responsibilities, knowledge and skills capitalization, internal vision communication, and the existence of an employee reward system for employee input can all generate greater organizational attachment. Job satisfaction mediates the influence of performance, internal marketing, and counterproductive work behavior in employees' attachment towards their respective organizations. The paper contributes to the development of the Conservation of Resources Theory, highlighting, in the context of the COVID-19 pandemic, ways in which employee satisfaction and work engagement behavior can be enhanced, thus contributing to diminishing counterproductive work behaviors, and fostering a pleasant and safe work environment.

**Keywords:** Job satisfaction, job insecurity, work engagement, COVID-19 pandemic, counterproductive work behavior.

**JEL Codes:** J24, J28, J53, L25, M12, M51, M53, M54.

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## Introduction

Since December 2019, the SARS-CoV-2 virus has spread rapidly on a global scale (WHO, 2021), strongly affecting organizations from all sectors of activity. Employees, in particular (ILO, 2020), have been forced to quickly alter their work behaviors and manner of working, being obliged to abandon commuting to the workplace and resort to large-scale remote working (Nemțeanu et al., 2021a). The pandemic has made its strongest imprint on the sector of services (Fernandes, 2020), for whom teleworking has become 'the new normal' (Belzunegui-Eraso & Erro-Garcés, 2020; Nemțeanu & Dabija, 2021). This new context has dramatically altered task performance – employee productivity having been strongly affected due to the time needed to adapt to the new reality and working conditions (Belzunegui-Eraso & Erro-Garcés, 2020). For many employees, the shift in paradigm has meant a change in individual job performance with some positive effects, such as attaining better work-family balance, and increased autonomy in task completion (Nemțeanu et al., 2021a), but also with negative effects, namely job insecurity, counterproductive work behavior, increased uncertainty regarding job security, and diminished performance as a result of the lack of social interaction with peers and/or supervisors (Golden & Gajendran, 2019; Gassparo et al., 2020; Nemțeanu & Dabija, 2021).

Employee job insecurity directly and negatively affects job performance, thus negatively influencing work engagement (Wang et al., 2015; Gassparo et al., 2020; Mandrysz, 2020). To enhance employee job security, an organization has at its disposal several specific levers pertaining to internal marketing and human resource management; namely accurate and complete communication of organizational vision, strategies, and internal values (Foreman & Money, 1995; Swoboda & Batton, 2020) along with proper employee rewards (Mainardes et al., 2019). These two dimensions have proven to be fully effective, with direct implications on employee satisfaction and job security (De Gieter et al., 2010; Mainardes et al., 2019).

The Conservation of Resources Theory (COR) stems from the premise that it is in the interests of individuals to maintain, protect, and develop the resources they dispose of, and when these are threatened, they will experience

negative emotions (Xanthopoulou et al., 2009). At the same time, individuals will adopt behaviors to help them maintain these resources (Wright & Hobfoll, 2004). The Conservation of Resources Theory is often applied to research which targets stress situations among employees, as it allows for quick and easy identification of elements which bring about a positive effect on personal wellbeing, either by countering or eliminating such negative aspects; namely diminishing job insecurity (Striler et al., 2020), reducing counterproductive work behaviors (Xanthopoulou et al., 2009), or by enhancing positive ones – boosting employee job satisfaction (Jin et al., 2016), job performance (Wright & Hobfoll, 2004; McLarty et al., 2021), and increasing employee work engagement (Xanthopoulou et al., 2009), etc.

The aim of the research is to identify the way individual performance, knowledge and skills capitalization, internal vision communication, employee reward, and job insecurity due to the pandemic context influence job satisfaction and work engagement. The originality of the conducted research lies in the highlighting of the influence of knowledge and skill capitalization on employee job satisfaction and work engagement, and the reverse effect of developing counterproductive work behaviors on job satisfaction and work engagement. From a theoretical perspective, the paper contributes by proposing concrete ways of evaluating job insecurity generated by the COVID-19 pandemic, showing the implications of this concept on job satisfaction and work engagement.

The paper is structured as follows: based on the literature review, Section 1 presents the hypotheses and development of the conceptual model of analysis concerning internal marketing orientation within an organization, along with elements of human resource management, namely job satisfaction, work engagement, task performance, knowledge and skills capitalization, internal vision communication, and employee reward system, and job insecurity. Section 2 is dedicated to the research design and context, highlighting the means of data collection and analysis. Section 3 presents the results and research discussion, and the last section contains theoretical and managerial contributions of the paper, along with limitations and research perspectives.

# 1. Hypotheses and Conceptual Model Development

## 1.1 Job Satisfaction and Employee Work Engagement

Job satisfaction is defined as a positive attitude (Spector, 1997; Zaharie et al., 2018) or positive emotion that employees develop regarding their activity (Singh & Das, 2013). This attitude reflects a high level of wellbeing which engenders heightened work engagement (Schaufeli, 2016). Job satisfaction is often considered an important and strong predictor of job performance (Platis et al., 2015; Hou et al., 2020; Nemțeanu & Dabija, 2021), of employee work engagement towards the organization, of burnout alleviation (Zaharie et al., 2018), and of turnover intention (Zhang et al., 2020; Nemțeanu & Dabija, 2020). The problem of reducing the negative effects of intense work performed under stress and crisis situations has been approached through the lens of the Conservation of Resources Theory (COR) (Wright & Hobfoll, 2004; Jin et al., 2016). This allows identification of the factors that contribute to enhancing job satisfaction (Jin et al., 2016), employee work engagement (Xanthopoulou et al., 2009), and job performance (Wright & Hobfoll, 2004; McLarty et al., 2021), and which result in the reduction of job insecurity and/or the elimination of counterproductive work behaviors (Striler et al., 2020).

Work engagement represents a form of heavy work investment and refers to the individual's dedication to organizational activities (Schaufeli et al., 2006, 2016; Bocean et al., 2020). Work engagement is manifested in vigor, absorption, and dedication towards work (Schaufeli et al., 2006; Reis et al., 2017). Previous research shows a strong positive link between work engagement and job satisfaction in the context of heavy work investment (Bocean et al., 2020; Popa et al., 2020; Nemțeanu & Dabija, 2020). Through the lens of COR theory, employees are more invested in subsequent activities when they are content with the resources they dispose of within the organization (Xanthopoulou et al., 2009). Job satisfaction, the way in which an organization communicates with its employees, and also professional growth opportunities engender employee work engagement (Abraham, 2012; Håvold et al., 2021). For this reason, we assert that:

*H<sub>1</sub>: Employee job satisfaction determines employee work engagement.*

## 1.2 Counterproductive Work Behavior

The Conservation of Resources Theory highlights that in conditions that generate stress and job insecurity, employees tend to develop counterproductive work behaviors (Xanthopoulou et al., 2009), such as engaging in negative discussions regarding the organization, criticizing co-workers or superiors, pointing out inexistent work issues, etc. (Koopmans et al., 2014), spending time meant for task completion unproductively on social media (Syrek, 2017), or engaging in potentially counterproductive activities towards the organization (Balducci et al., 2011; Shkoler et al., 2021). Of course, the more content employees are with the work done, the less counterproductive work behaviors they develop (Malhotra & Kathuria, 2017; Nemțeanu & Dabija, 2021). Conversely, employees who are dissatisfied with the work done tend to develop counterproductive work behaviors; for instance, negative conversations against the organization in the presence of co-workers (Shkoler et al., 2021). This diminishes their task performance efficiency (Guernaccia et al., 2018), they may be permanently discontented, and will engage less in carrying out duties and/or tasks (Syrek et al., 2017). Based on these arguments, we propose the following hypothesis:

*H<sub>2a</sub>: Counterproductive work behavior negatively influences employee job satisfaction.*

The more engaged employees are in their assumed tasks and duties, the more counterproductive work behaviors will diminish (Balducci et al., 2011; Syrek et al., 2017). On the other hand, engaging in counterproductive work behaviors, such as spending time on non-work-related social media leads to a decreased level of work engagement (Syrek et al., 2017). Therefore, we conclude that:

*H<sub>2b</sub>: Employee job satisfaction mediates the influence of counterproductive work behavior on employee work engagement.*

## 1.3 Individual Job Performance: Task Performance

Employee job performance can be measured by the extent to which work outcomes contribute to reaching organizational objectives (Viswesvaran & Ones, 2000). Organizational performance is determined by the degree of subsequent digitalization (Nagy et al., 2018), while investments in IT and digitalization directly

influence organizational competitiveness (Oláh et al., 2019). Digital competence is essential for the task performance of employees; lack of skill may generate stress in contexts that imply remote work or the use of technological means (Nemțeanu & Dabija, 2021). In many contexts, job satisfaction is linked to enhancing employee performance in particular tasks (Platis et al., 2015; Nemțeanu & Dabija, 2021), but there are also situations in which it can diminish performance (Brown & Lent, 2005; Yang & Hwang, 2014). Typically, high performing employees will be positively evaluated by co-workers and superiors; they will be rewarded and enjoy peer recognition. They will subsequently be satisfied with their own results and content with their work (Brown & Lent, 2005; Bogler & Nir, 2015). Therefore, we propose the hypothesis:

*H<sub>3a</sub>: Job performance influences employee job satisfaction.*

Obtaining high performance from employees contributes to boosting self-esteem and efficiency in personal work. Performance that is evaluated positively leads to a high level of satisfaction and to employee wellbeing (Yang & Hwang, 2014). Employees who feel that they are achieving high performance will be even more satisfied and engaged in their work (Guarnaccia et al., 2018). Employees with a high level of job satisfaction tend to highlight increased work engagement (Abraham, 2012; Garg et al., 2017). Therefore, we consider that:

*H<sub>3b</sub>: Job satisfaction has a mediating effect between job performance and work engagement.*

### 1.4 Knowledge and Skills Capitalization

The facilitating context for the development of knowledge and skills among employees is closely linked to task performance (Koopmans, 2013). In this manner, employees can contribute to smooth organizational running by finding creative and/or innovative solutions for existing tasks, and by readily assuming high-difficulty tasks (Koopmans et al., 2013). In cases of economic crisis, organizations can no longer offer employees the same opportunities for personal growth, or knowledge and skills capitalization (Vătămănescu et al., 2020; Jayathilake et al., 2021). When employees have the chance to update their knowledge and skills, contributing creatively to the betterment

of organizational performance, their job satisfaction increases (Hanaysha & Tahir, 2016; Popa et al., 2018). Therefore, we propose the hypothesis:

*H<sub>4a</sub>: Knowledge and skills capitalization influence employee job satisfaction.*

The link between work engagement and the context of updating employee knowledge and skills has been researched often, thus highlighting a strong and positive link between these concepts (Breevaart et al., 2015; Meyers et al., 2019). The possibility of being more efficient, of capitalizing knowledge and skills, and of being higher performing in the workplace will boost employee job satisfaction; therefore, they will engage more in their organizational duties and work (Guarnaccia et al., 2018). Based on these arguments, we propose the hypothesis:

*H<sub>4b</sub>: Job satisfaction mediates the link between knowledge and skills capitalization, and employee work engagement.*

### 1.5 Internal Vision Communication and Reward System

Motivating employees and maintaining a high level of job satisfaction constitutes a true challenge for human resources managers (Zaharie et al., 2018). Within the internal marketing orientation, an organization may be preoccupied with its employees, considering them its clients (Foreman & Money, 1995; Ahmed et al., 2003), and taking care of their wellbeing, seeking out solutions to enhance job satisfaction and engagement in task completion, and enhancing the performance of their subsequent work-related duties (Shiu & Yu, 2009; Frye et al., 2019; Nemțeanu & Dabija, 2021). Within internal marketing, the organizational leadership must communicate their vision to employees, so that they can identify with the organization's purpose and/or mission more easily (Foreman & Money, 1995). When employees are cognizant of the overall vision, they are more likely to believe in it, and identify with the organization's values; they tend to be more satisfied with their work (Testa, 1999; Mahmood & Ur Rehman, 2016), and more dedicated towards the organization (Albrecht, 2013). For this reason, we propose the hypothesis:

*H<sub>5a</sub>: Internal vision communication enhances employee job satisfaction.*

A vision with which employees agree and identify will facilitate their desire to support the organization, enhancing feelings of satisfaction towards their work-related responsibilities (Testa, 1999). The clarity of organizational vision, its orientation towards the future, its stability, and correct vision communication are important levers to enhance employee satisfaction (Mahmood & Ur Rehman, 2016). When employees are satisfied with their work, and the organization's vision is motivating and in accord with own aspirations and expectations concerning their development and/or employee career prospects, their work engagement in task completion and achieving objectives will increase (Albrecht, 2013). Therefore, we consider that:

*H<sub>5b</sub>: Job satisfaction mediates the relation between internal vision communication and employee work engagement.*

Those employees who contribute to vision implementation and organizational strategies must, of course, be rewarded (Foreman & Money, 1995; Ahmed et al., 2003). Any reward system must be based on fair and equitable ways of measuring employee performance (Kliestik et al., 2020) and the way they interact with their peers and/or supervisors in achieving organizational objectives and vision (Vătămănescu et al., 2020). The organization must constantly communicate to their employees their important role in vision achievement, to show them they are valued, and to constantly capitalize on their contribution, irrespective of how small that contribution may be (Foreman & Money, 1995; Nemțeanu & Dabija, 2021). Acknowledgement received by employees of work done and assumed responsibilities, along with fair reward for their performance generates satisfaction and boosts employee wellbeing (Chiang & Birtch, 2011; Bhardwaj et al., 2021; Thant & Chang, 2021). Therefore, we consider that:

*H<sub>6a</sub>: An employee reward system influences employee job satisfaction.*

Employee wellbeing depends on the reward, but also on the way in which the reward is granted. When the reward system is not balanced, or when it does not acknowledge employee performance, job satisfaction and work engagement decrease (Ge et al., 2021). A proper reward system based on individual performance contributes decisively to smooth

organizational running (Foreman & Money, 1995; Nemțeanu & Dabija, 2021). Content employees who are satisfied with their work, acknowledged for their merits, and properly rewarded will show enhanced engagement and dedication to their work (Hoole & Hotz, 2016). These arguments allow us to propose the hypothesis:

*H<sub>6b</sub>: Job satisfaction mediates the influence of employee reward systems on work engagement.*

## 1.6 Job Insecurity Generated by COVID-19

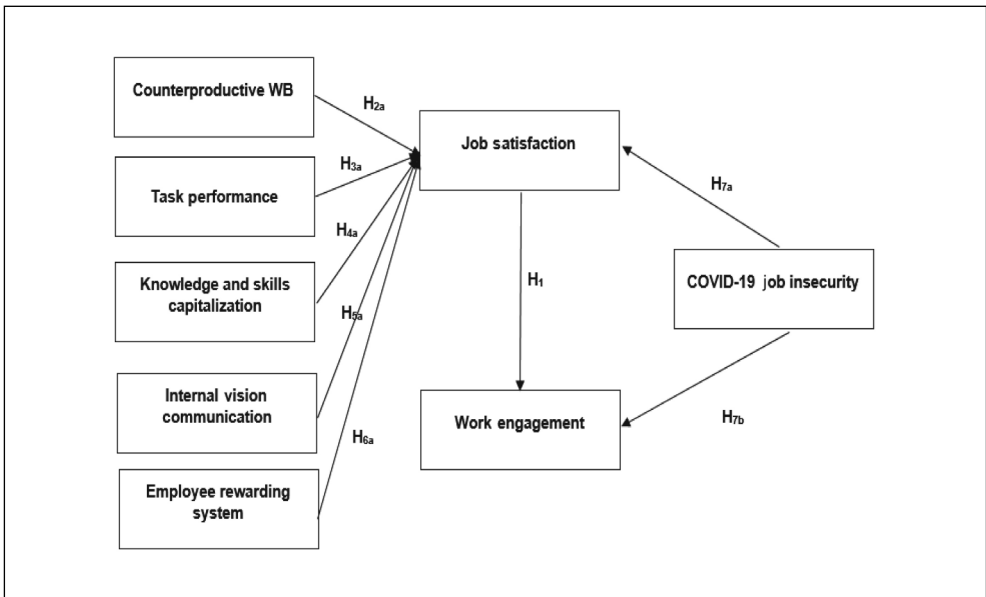
Job insecurity consists of employees' worry regarding the possibility of integral or partial loss of their privileges, role, and position within the organization. Such an experience generates stress, anxiety, fear, and negative emotions (Wilson et al., 2020). In a threshold matter, such as an economic, social, or sanitary crisis, job insecurity increases accordingly among employees (Gasparro et al., 2020). This job insecurity is generated by lack of predictability concerning the safeguarding of one's job, forcing the employee to identify solutions and adapt to the new socio-economic context (Vander Elst et al., 2013). Personal risk may be influenced by changes in the nature and division of work (Oláh et al., 2019). This may lead to a decrease in job security. Job security positively influences job satisfaction (Bhardwaj et al., 2021), while lack of job security generates stress, with direct implications on employee results and behaviors, thus generating job dissatisfaction (Guarnaccia et al., 2018). Therefore, we assert that:

*H<sub>7a</sub>: Job insecurity generated by the COVID-19 pandemic influences job satisfaction.*

A work environment considered safe and secure from a psychological standpoint, and important for employees, depends mostly on the time and energy spent during task completion and assignment by their supervisors (Popa et al., 2020). If employees feel insecure regarding their job, they will engage even less in existing tasks, waiting expectantly, and showing only a moderate degree of self-efficacy in task completion (Guarnaccia et al., 2018), thus also manifesting diminished work engagement (Debus & Unger, 2017; Karatepe et al., 2020). Therefore, we consider that:

*H<sub>7b</sub>: Job insecurity generated by the COVID-19 pandemic influences work engagement.*

Fig. 1: Structural model



Source: own

Based on the literature review (De Gieter et al., 2010; Guarnaccia et al., 2018; Mainardes et al., 2019; Ge et al., 2021; Bhardwaj et al., 2021; Thant & Chang, 2021), and COR theory, we propose the conceptual model from Fig. 1, in which employee job satisfaction along with COVID-19 job insecurity directly influences work engagement, and mediates the influence of counterproductive work behavior, task performance, knowledge and skills capitalization, and dimensions of internal marketing (employee reward system and vision identification) together with employee engagement in their assigned work.

## 2. Research Methodology

This study proposes to examine the impact of job satisfaction on work engagement, and to explore the mediating role of job satisfaction between the antecedents, namely, counterproductive work behavior, task performance, knowledge and skills capitalization, internal marketing employee reward system, internal vision communication, and work engagement. The study outlines the impact of COVID-19 job insecurity on job

satisfaction and work engagement (Stevens, 2020; Lyons et al., 2021). It was conducted on an emerging market, namely, Romania, and justified from multiple perspectives: the literature investigating job satisfaction and work engagement in the emerging market context is scarce (Nemțeanu & Dabija, 2021); Romanian employees have practically the lowest net income in the European Union (Eurostat, 2020a); and Romanian employees' job satisfaction is below the European average (Eurostat, 2020b).

The questionnaire was developed according to existing scales in the literature, using a five-point Likert scale (total disagreement/total agreement). It was operationalized as follows (see Tab. 1): two dimensions for internal marketing scale (Foreman & Money, 1995); task performance, counterproductive work behavior, and knowledge and skills adapted items (Koopmans et al., 2013, 2014), one dimension for the overall scale of job satisfaction (MacDonald & MacIntyre, 1997), one dimension for work engagement (Schaufeli et al., 2006), and a self-made scale for COVID-19 generated insecurity (Lyons & Lăzăroiu, 2020; Morris, 2021; Nemțeanu et al., 2021b).

Tab. 1: Scale reliability

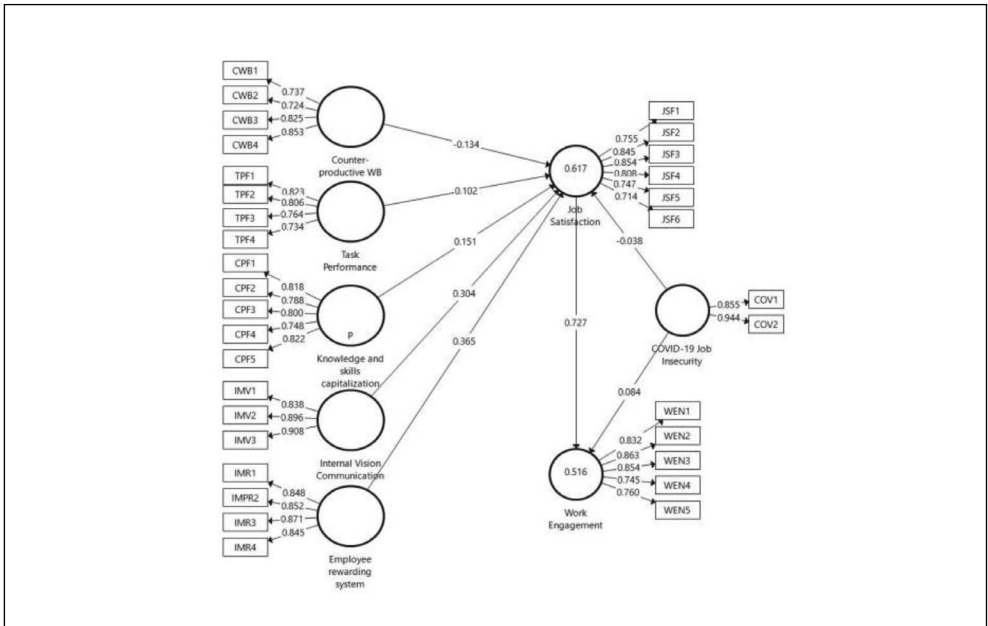
Construct	Item	Measure	Loading	Cronbach's alpha	AVE/CR
Job satisfaction MacDonald & MacIntyre, 1997	JSF1	I receive recognition for a job well done.	0.755	0.878	0.622/0.908
	JSF2	I feel good about my job.	0.845		
	JSF3	I feel good about working in this company.	0.854		
	JSF4	I believe the management is concerned about me.	0.808		
	JSF5	All my talents and skills are used at work.	0.747		
	JSF6	I get along with my supervisors.	0.714		
Work engagement Schaufeli et al., 2006	WEN1	At my work, I feel bursting with energy.	0.832	0.871	0.660/0.906
	WEN2	My job inspires me.	0.863		
	WEN3	When I get up in the morning, I feel like going to work.	0.854		
	WEN4	I feel happy when I am working intensely.	0.745		
	WEN5	I am proud of the work that I do.	0.760		
Counterproductive WB Koopmans et al., 2013	CWB1	I made problems greater than they were at work.	0.737	0.800	0.619/0.866
	CWB2	I focused on the negative aspects of a work situation, instead of on the positive ones.	0.724		
	CWB3	I spoke with colleagues about the negative aspects of my work.	0.825		
	CWB4	I spoke with people from outside the organization about the negative aspects of my work.	0.853		
Task performance Koopmans et al., 2013	TPF1	I managed to plan my work so that it was done on time.	0.823	0.791	0.613/0.863
	TPF2	My planning was optimal.	0.806		
	TPF3	I kept in mind the results that I had to achieve in my work.	0.764		
	TPF4	I was able to separate main issues from side issues at work.	0.734		
Knowledge and skills capitalization Adapted after Koopmans et al., 2013	CPF1	I worked at updating my job skills.	0.818	0.855	0.633/0.896
	CPF2	I came up with creative solutions to new problems.	0.788		
	CPF3	I kept looking for new challenges in my job.	0.800		
	CPF4	I took on challenging work tasks.	0.748		
	CPF5	I worked at updating my job knowledge.	0.822		
Internal marketing: internal vision communication Foreman & Money, 1995	IMV1	Our organization offers employees a vision that they can believe in.	0.838	0.855	0.777/0.912
	IMV2	We communicate our organization's vision well to employees.	0.896		
	IMV3	We place considerable emphasis in this organization on communication with our employees.	0.908		
Internal marketing: employee reward system Foreman & Money, 1995	IMR1	Our performance measurement and reward systems encourage employees to work together.	0.848	0.876	0.729/0.915
	IMR2	Our organization measures and rewards employees' performance, which contributes most to our organization's vision.	0.852		
	IMR3	The organization has the flexibility to cope with differing needs of employees.	0.871		
	IMR4	Our organization communicates to employees the importance of their roles.	0.845		
COVID-19 job insecurity Nemjeanu et al., 2021b	COV1	During the COVID-19 pandemic, I felt I was directly affected by what concerns my job.	0.855	0.776	0.810/0.895
	COV2	During the COVID-19 pandemic, I felt insecurity regarding my job stability.	0.944		

Source: own

The model was estimated with partial least squares-based structural equation modeling in SmartPLS 3.0 (Fig. 2). The data were analyzed using a two-step approach: firstly, the measurement model, to establish the reliability and validity of the operationalized measures, and secondly to validate the relationships among the latent constructs. Confirmatory factor analyses were conducted to assess the validity

and reliability of the outer model. Findings suggest the internal consistency of the model (Tab. 1) because all item loadings exceeded 0.7 (Hair et al., 2010); Cronbach alpha's is higher than 0.7 (Henseler & Sarstedt, 2013); all AVE (average variance extracted) values are below 0.5 (Chin, 1988); and CR (composite reliability) values are greater than 0.7 (Hair et al., 2010).

Fig. 2: Structural model results



Source: own

According to the Fornell-Larcker (1981) procedure, for each latent variable AVE's value is higher than the correlation coefficient between the competent and all distinct variables (Tab. 2). We tested the inter-item collinearity with variance inflation factor (VIF). VIF values were ranged between 1.417–2.844, therefore the threshold of 3.3 is fulfilled (Diamantopoulos & Siguaw, 2006). The VIFs of the inner model were tested, the highest value is 2.728 (IMV→JSF), which indicates that there is no multicollinearity problem.

Based on exploratory research, this study employed a quantitative survey via an online

questionnaire, implemented in the spring of 2020. The population of the study consisted of employees with valid work contracts in Romania. A total of 863 responses were obtained. Tab. 3 illustrates the socio-demographical data of the respondents.

### 3. Results

The bootstrap procedure was applied to assess the relationship between the latent variables. Based on t-statistics, all hypotheses were accepted (Tab. 4). Job satisfaction had a positive significant impact on work engagement ( $\beta = 0.727$ ; T-value = 38.914;  $p < 0.001$ ),



Tab. 2: Discriminant validity analyses

Construct	COV	CWB	IMR	IMV	JSF	CPF	TPF	WEN
COV	<b>0.900</b>							
CWB	0.189	<b>0.787</b>						
IMR	-0.125	-0.239	<b>0.854</b>					
IMV	-0.163	-0.260	0.788	<b>0.881</b>				
JSF	-0.157	-0.346	0.703	0.696	<b>0.789</b>			
CPF	-0.015	-0.131	0.268	0.271	0.400	<b>0.796</b>		
TPF	-0.009	-0.184	0.210	0.219	0.347	0.513	<b>0.783</b>	
WEN	-0.030	-0.338	0.458	0.496	0.713	0.487	0.404	<b>0.812</b>

Source: own

Note: JSF: Job satisfaction; WEN: Work engagement; CWB: Counterproductive work behavior; TPF: Task performance; CPF: Knowledge and skills capitalization; IMV: Internal marketing: internal vision communication; IMR: Internal marketing: employee reward system; COV: COVID-19 job insecurity.

Tab. 3: Demographic characteristics of the respondents

Demographics (N = 863)		Frequency	Relative frequency %
Generation	Generation X	275	31.9%
	Generation Y	239	27.7%
	Generation Z	348	40.3%
Gender	Male	288	33.4%
	Female	575	66.6%
Education level	High school diploma	182	21.1%
	Professional degree	48	5.6%
	Bachelor and master's degree	633	73.3%
Organization type	State company	202	23.4%
	National private company	236	27.3%
	Foreign private company	264	3.6%
	Own private company	98	11.4%
	Other	63	7.3%

Source: own

Note: JSF: Job satisfaction; WEN: Work engagement; CWB: Counterproductive work behavior; TPF: Task performance; CPF: Knowledge and skills capitalization; IMV: Internal marketing: internal vision communication; IMR: Internal marketing: employee reward system; COV: COVID-19 job insecurity.

therefore the more satisfied employees were with their job, the more engaged they were with the organization; thus,  $H_1$  can be accepted.  $H_{2a}$  assumed that counterproductive work behaviors might have a significant influence on job satisfaction. The result ( $\beta = -0.134$ ; T-value = 5.494;  $p < 0.001$ ) indicates a negative significant effect between counterproductive

work behavior and job satisfaction, meaning that when workers focus more on the negative aspects of their job, this leads to weaker satisfaction, so  $H_{2a}$  can be accepted.  $H_{3a}$  presumed that task performance significantly influenced job satisfaction. The results ( $\beta = 0.102$ ; T-value = 3.277;  $p < 0.01$ ) illustrate that task performance has a positive influence

on job satisfaction;  $H_{3a}$  can be supported. The results ( $\beta = 0.151$ ; T-value = 4.791;  $p < 0.001$ ) indicate that knowledge and skills capitalization had a positive significant impact on job satisfaction; therefore,  $H_{4a}$  can be supported. Tab. 4 ( $\beta = 0.304$ ; T-value = 7.294;  $p < 0.001$ ) indicates that internal vision communication had a positive significant impact on job satisfaction; thus,  $H_{5a}$  can be accepted. According to the analyses ( $\beta = 0.365$ ; T-value = 9.231;  $p < 0.001$ ), employee reward systems had a strong positive impact on job satisfaction, meaning that compensation of employees and continuous communication with them led to high job satisfaction;  $H_{6a}$  is supported. The reward system had the strongest influence on employee satisfaction, followed by the internal vision communication. COVID-19 job insecurity negatively influenced job satisfaction ( $\beta = -0.038$ ; T-value = 1.700;  $p < 0.1$ ) and positively influenced work engagement ( $\beta = 0.084$ ; T-value = 3.445;  $p < 0.01$ ); therefore,  $H_{7a}$  and  $H_{7b}$  can be supported.

Job satisfaction had four positive antecedents, task performance, employee reward system, internal vision communication, and knowledge and skills capitalization, and one negative antecedent, namely, counterproductive work behavior. Internal marketing employee reward systems had the strongest influence on job satisfaction. COVID-19 job insecurity positively influenced employee work engagement and negatively influenced employee job satisfaction. The fit

statistics indicate an acceptable model; the squared root mean residual (SRMR) has a value of SRMR = 0.057 which fulfills the recommended criteria  $< 0.08$ . Counterproductive work behavior, task performance, internal marketing reward, internal marketing employee vision identification, knowledge and skills capitalization, and COVID-19 job insecurity explain 61.7% of the variance of job satisfaction ( $R^2 = 0.617$ ), while job satisfaction and COVID-19 job insecurity explain 51.6% of the variance of work engagement ( $R^2 = 0.516$ ), defining a moderate predicting power of the structural model (Fig. 2).

The study also examined the mediating effect of job satisfaction (Tab. 5). The mediation analysis followed the three-step procedure recommended by Nitzl et al. (2016). The first step consists in determining the significance of the indirect effect ( $a*b$ ), followed by determining the type of mediation ( $c'$ ), and thirdly testing with the bootstrap method the significance of  $a*b$ . Tab. 5 indicates the negative and significant indirect effects of counterproductive work behavior on work engagement ( $\beta = -0.102$ ; T-value = 5.875;  $p < 0.05$ ); the indirect effect of task performance on work engagement ( $\beta = 0.074$ ; T-value = 3.153;  $p < 0.05$ ); knowledge and skills capitalization on work engagement ( $\beta = 0.108$ ; T-value = 4.667;  $p < 0.05$ ); internal vision communication on work engagement ( $\beta = 0.225$ ; T-value = 7.236;  $p < 0.05$ ) and employee reward systems on work engagement ( $\beta = 0.265$ ; T-value = 9.443;

Tab. 4: The path coefficients of the structural equation model

Paths	Path coefficients	Standard deviation	T-value	P-value	Hypotheses
JSF→WEN	0.727	0.019	38.914	0.000***	$H_1$ – supported
CWB→JSF	-0.134	0.024	5.494	0.000***	$H_{2a}$ – supported
TPF→JSF	0.102	0.031	3.277	0.001**	$H_{3a}$ – supported
CPF→JSF	0.151	0.032	4.791	0.000***	$H_{4a}$ – supported
IMV→JSF	0.304	0.042	7.294	0.000***	$H_{5a}$ – supported
IMR→JSF	0.365	0.040	9.231	0.000***	$H_{6a}$ – supported
COV→JSF	-0.038	0.022	1.700	0.089*	$H_{7a}$ – supported
COV→WEN	0.084	0.024	3.445	0.001**	$H_{7b}$ – supported

Source: own

Note: \*  $p < 0.1$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; JSF: Job satisfaction; WEN: Work engagement; CWB: Counterproductive work behavior; TPF: Task performance; KSC: Knowledge and skills capitalization; IMV: Internal marketing: internal vision communication; IMR: Internal marketing: employee reward system; COV: COVID-19 job insecurity.

Tab. 5: Test of mediation

Independent /mediator	Model mediation: Direct effects dependent (Path coefficients)				Total effect	Method	Type of mediation	Hypotheses
	WEN							
	a	b	a*b	T-value				
CWB	-0.141	0.727	-0.102	5.875	-0.102	0.5	Partial mediation	$H_{2b}$ – supported
TPF	0.101	0.727	0.074	3.153	0.074	0.5	Partial mediation	$H_{3b}$ – supported
KSC	0.149	0.727	0.108	4.667	0.108	0.5	Partial mediation	$H_{4b}$ – supported
IMV	0.310	0.727	0.225	7.236	0.225	0.5	Partial mediation	$H_{5b}$ – supported
IMR	0.364	0.727	0.265	9.443	0.265	0.5	Partial mediation	$H_{6b}$ – supported

Source: own

Note: JSF: Job satisfaction; WEN: Work engagement; CWB: Counterproductive work behavior; TPF: Task performance; KSC: Knowledge and skills capitalization; IMV: Internal marketing; internal vision communication; IMR: Internal marketing; employee reward system; COV: COVID-19 job insecurity.

$p < 0.05$ ) are positive and significant, so,  $H_{2b}$ ,  $H_{3b}$ ,  $H_{4b}$ ,  $H_{5b}$ , and  $H_{6b}$  are supported. The ratio of the indirect-to-total effect was calculated, indicating that all VAF values were greater than 20% and less than 80%, job satisfaction being considered as a partial mediator between counterproductive work behavior, task performance, employee reward system and internal vision communication, knowledge and skills capitalization, and work engagement.

#### 4. Discussion

The influence of job satisfaction on work engagement is positive and strong ( $\beta = 0.727$ ; T-value = 38.914;  $p < 0.001$ ), which has been observed by Abraham (2012), and Håvold et al. (2021). Abraham (2012) concludes that job satisfaction represents an antecedent to work engagement. Håvold et al. (2021) demonstrate that among 137 workers employed in Norwegian and Finnish public hospitals, the influence of job satisfaction on work engagement is positive and significant ( $\beta = 0.45$ ;  $p < 0.001$ ). Satisfied employees show increased work engagement, will invest more in their activity, will be more energetic, dedicated, and committed, and will strive to complete their assigned tasks. Counterproductive work behavior generates job dissatisfaction ( $\beta = -0.134$ ; T-value = 5.494;  $p < 0.001$ ) and dissatisfaction concerning work engagement with assigned duties ( $\beta = -0.102$ ; T-value = 5.875;  $p < 0.05$ ), as confirmed by Syrek et al. (2017), Guarnaccia et al. (2018), and Shkoler et al. (2020). Counterproductive

work behavior, for instance time spent on personal matters such as social media, reduces job satisfaction and, according to Malhotra and Kathuria (2017), diminishes employee work engagement, leading to decreased interest regarding smooth organizational running (Syrek et al., 2017). Task performance positively influences job satisfaction ( $\beta = 0.102$ ; T-value = 3.277;  $p < 0.01$ ); this result is explained by the fact that employees who feel high-performing and engaged in task completion as compared to their peers, if properly rewarded, will feel more satisfied with the work done (Yang & Hwang, 2014; Bogler & Nir, 2015). Job performance significantly and positively influenced the job satisfaction ( $\beta = 0.26$ ;  $p < 0.01$ ) of 360 employees within the banking, financial, IT, and security and insurance sector in Taiwan (Yang & Hwang, 2014). Job performance has a positive effect on employee work engagement, and a positive mediating effect on job satisfaction ( $\beta = 0.074$ ; T-value = 3.153;  $p < 0.05$ ). Basically, a high level of task performance will increase employee job satisfaction. Employees with high performance during task completion will be more engaged in subsequent work and are likely to feel more satisfaction (Garg et al., 2017; Guarnaccia et al., 2018).

The increase in job satisfaction is enhanced by an increased level of knowledge and skills capitalization ( $\beta = 0.151$ ; T-value = 4.791;  $p < 0.001$ ). This gives employees the possibility to update their knowledge and to

creatively contribute to the identification of the best solutions to problems, and to take on supplementary responsibilities, so that they contribute even more to smooth organizational running (Koopmans et al., 2013). The direct influence of knowledge and skills capitalization on job satisfaction has not been previously tested. The result of this research ( $\beta = 0.151$ ; T-value = 4.791;  $p < 0.001$ ) is conceptually in agreement with studies that highlight a positive impact of employee development opportunities in generating job satisfaction (Yang & Hwang, 2014; Hanaysha & Tahir, 2016; Jayathilake et al., 2021). The mediating role of job satisfaction between knowledge and skills capitalization and work engagement ( $\beta = 0.108$ ; T-value = 4.667;  $p < 0.05$ ) has been verified by Breevaart et al. (2015) and Meyers et al. (2019), who observed that work engagement determines a favorable context for the activation of obtained knowledge and skills.

The existence of an internal system to reward employees ( $\beta = 0.365$ ; T-value = 9.231;  $p < 0.001$ ) has been associated with an increase in job satisfaction. These results agree with similar studies, which demonstrate the importance of acknowledging and rewarding employees, increasing their job satisfaction, and obtaining positive results (Chiang & Birtch, 2011; Hoole & Hotz, 2016; Bhardwaj et al., 2021; Thant & Chang, 2021). The implications of reward systems in enhancing work engagement were the research focus of Hoole and Hotz (2016) among 318 employees from public institutions, revealing a positive link, but reduced in intensity ( $r = 0.25$ ;  $p < 0.05$ ), wherein the work rewards accounted for only 12% of total work engagement (Hoole & Hotz, 2016).

Internal vision communication exerts a strong direct and positive influence on job satisfaction ( $\beta = 0.304$ ; T-value = 7.294;  $p < 0.001$ ) and on work engagement through the means of satisfaction ( $\beta = 0.225$ ; T-value = 7.236;  $p < 0.05$ ). Mahmood and Ur Rehman (2016) demonstrated within a research project among 314 managers from Pakistan, that a vision properly communicated to the personnel is a strong determinant of job satisfaction ( $\beta = 0.656$ ; T-value = 2.196;  $p < 0.000$ ). Our results confirm Testa's (1999) research indicating the positive influence of organizational vision properly communicated to employees on perceived job satisfaction and work engagement (Albrecht, 2013).

Job insecurity generated by COVID-19 is understood as employee negative emotion (Gassparo et al., 2020), which, according to the results, contributes to reduced job satisfaction ( $\beta = -0.038$ ; T-value = 1.700;  $p < 0.1$ ), in accord with previous research results (Guarnaccia et al., 2018; Bhardwaj et al., 2021). Job insecurity in the context of COVID-19 is associated with an increase in work engagement ( $\beta = 0.084$ ; T-value = 3.445;  $p < 0.01$ ). The result is surprising, and original compared to previous research conducted in a pre-pandemic context, since it disagrees with Guarnaccia et al. (2018), who highlight the unfavorable impact of job insecurity on work engagement. The results are also in line with the Conservation of Resources Theory which posits that under stressful conditions such as job insecurity, employees act to retain and protect their resources and put more effort into generating those resources (Wright & Hobfoll, 2004). Employees who feel threatened by the possible or actual loss of these resources are likely to act towards maintaining those (Striler et al., 2020). Work engagement is a variable characterized by a higher dedication to work, the employee being absorbed by work objectives and tasks (Schaufeli et al., 2016). In this case, in the face of threatened job losses, our results reveal that employees are more dedicated to generating resources, a fact that confirms Conservation of Resources Theory assumptions (Striler et al., 2020), even if job insecurity diminishes job satisfaction. This situation may have occurred out of the necessity to keep one's job during the COVID-19 pandemic (Cramarencu & Burcă-Voicu, 2021), employees being willing to invest more in their work, since the prospect of finding another job quickly is not great, as many economic sectors have limited their activities.

## Conclusions

The paper expands on the research based on the Conservation of Resources Theory by identifying positive factors which generate job satisfaction and work engagement within a new stress-generating context, namely the COVID-19 pandemic. Among these vectors with beneficial effects are rewarding employees for their efforts towards task completion, internal vision communication, enhancing job satisfaction, and knowledge and skills capitalization, which together bring about greater positive organizational outcomes. The

paper approaches, in an original manner, the impact of counterproductive work behavior on job satisfaction and employee work engagement with their organization, highlighting the scarcely studied links in the literature concerning the influence of task performance and knowledge and skills capitalization on job satisfaction and work engagement. In addition, the research takes on a new dimension, COVID-19 job insecurity, a new construct developed by the authors based on the possibility of job loss and lack of job security due to the pandemic.

From a managerial perspective, the paper offers organizational decision-makers resorting to teleworking and counterproductive work behaviors during lockdown possible ways to understand the factors which directly determine employee job satisfaction, and which allow an increase in organizational engagement for the smooth running of assumed duties and given tasks.

The obtained results show, concurrently, that internal marketing orientation (internal vision communication, employee rewards) plays an important role in increasing job satisfaction in the context of the COVID-19 pandemic. The existence of a performance-based employee reward system within the organization, along with the acknowledgement of employee merits is carefully and profoundly analyzed by the literature, as it has proven its efficacy, especially in the context of the COVID-19 pandemic. Organizational vision corroborated by clear and exact communication to employees constitute another relevant vector of internal marketing, exerting a positive influence on job satisfaction and work engagement. Basically, in a context marked by crisis, stress, and uncertainty, it is increasingly important for employee emotional wellbeing that they manage to identify with the organization to which they pertain, and even more, relate favorably to it. Assumed tasks will hence be easier to achieve, especially in the context of teleworking, physical distancing, and social isolation.

The COVID-19 pandemic has generated job insecurity in various work sectors because, due to lockdown restrictions, their activity has been halted or has suffered major changes – employees have been laid off or in technical unemployment. Only in some work sectors have there been happier cases in which employees can work remotely, i.e., through teleworking. The results obtained in this study highlight the negative effects of job insecurity on job satisfaction in the context of COVID-19.

The lack of job security often generates not only job dissatisfaction, but also diminished work engagement. However, compared with the literature, the obtained results highlight that job insecurity due to COVID-19 has encouraged employees to be even more engaged in and/or committed to the smooth running of assumed responsibilities. This unexpected situation may be explained by the desire to maintain their job, since changing jobs amid the pandemic is difficult to do, and the prospects of obtaining a job that is better paid or with lighter responsibilities are uncertain.

Among the research limitations, is the fact that the respondents came from a single emerging economy, and there has been no comparative analysis of situations from the various sectors of activity. At the same time, among the limitations, is the fact that in the conceptual model elaborated, only some determining dimensions of job satisfaction and work engagement have been considered in the context of the COVID-19 pandemic. Constructs such as stress, burnout, anxiety, self-regulatory capacity, efficacy, productivity, and adaptation to change have not been considered. Future research might include these gaps and consider the impact of teleworking on counterproductive work behavior and/or on job satisfaction perceived by employees in the context of the COVID-19 pandemic. The new situation engendered by this destructive virus has imposed a reconfiguration of employee activities, and especially a replacement of the classical paradigm which involved shifting from physical movement to the office to teleworking, but also entailed the learning and quick adaptation to digital instruments and innovative methods when completing and performing tasks. Future research will have to take into consideration the evaluation of the impact of digitalization and the use of modern means of communication when conducting work-related activities, corroborating them with job satisfaction and work engagement perceived by employees.

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