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EXPLORING THE ROLE OF WORK MEANINGFULNESS AND AFFECTIVE COMMITMENT IN MITIGATING COUNTERPRODUCTIVE WORK BEHAVIORS

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ABSTRACT. The objective of this article is to examine the extent to which work meaningfulness (WM) and affective commitment (AC) as a component of organizational commitment (OC) influence counterproductive work behaviors (CWB). A supplementary aim is to assess the moderating role of selected demographic variables, including gender, age, tenure, and type of work, in shaping these relationships. The research objectives were addressed through a survey conducted among professionally active individuals in Poland. The empirical data were analyzed using Structural Equation Modeling (SEM). The proposed theoretical framework aimed to investigate the effects of WM and AC on both organizational and interpersonal dimensions of counterproductive work behaviors (CWB-O and CWB-I), as well as on specific subjective manifestations of such behaviors, namely abuse toward others, theft, sabotage, and withdrawal. The findings indicate that both WM and AC exert a statistically significant negative influence on withdrawal behaviors. However, their relationships with other forms of CWB - including CWB-O, CWB-I, sabotage, theft, and abuse - were found to be statistically insignificant. Furthermore, the moderating analysis revealed that gender plays a primary role in shaping the impact of WM and AC on CWB.

JEL Classification: M5, M12, M54, C30

Keywords: work meaningfulness, affective commitment, organizational commitment, counterproductive work behavior

Introduction

Work constitutes a fundamental aspect of human life and plays a pivotal role in shaping psychological well-being (Harpaz & Fu, 2002; Cramarenco et al., 2023; Lazaroiu & Rogalska, 2023). Beyond its economic function, individuals expect work to satisfy a range of psychological, social, and economic needs, including self-esteem, personal fulfillment, identity, social interaction, and status (Steger & Dik, 2009; Rosso et al., 2010). The significance of work is underscored by findings indicating that in many countries most respondents would continue working even if they received sufficient financial resources to live comfortably without employment (Harpaz & Fu, 2002).

For many individuals, work is not merely a means of earning income or occupying time - it is expected to carry personal meaning. Meaningful work (MW) enhances self-esteem and contributes positively to both professional and personal life satisfaction (Steger et al., 2012). Moreover, MW is a central element in perceiving one's occupation as a calling. These considerations have long attracted the attention of scholars across disciplines, including psychology, sociology, economics, organizational studies, philosophy, and theology (Rosso et al., 2010).

MW has been shown to significantly influence work-related behaviors, particularly those beyond formal role requirements. Employees who perceive their work as meaningful are more likely to engage in organizational citizenship behaviors (OCB), such as voluntarily dedicating additional unpaid time to work-related tasks (Wrzesniewski et al., 1997; Berg et al., 2010). Conversely, a lack of perceived meaningfulness is associated with increased engagement in counterproductive work behaviors (CWB), such as absenteeism or withdrawal (Rosso et al., 2010; Steger et al., 2012).

Affective Commitment (AC) also represents a core construct in the study of work attitudes and behaviors, encompassing both positive and negative extra-role activities (Allen & Meyer, 1996). Empirical evidence has demonstrated a negative correlation between AC and turnover intentions, as well as actual turnover (Allen & Meyer, 1996). Additionally, AC has been positively associated with various forms of OCB, including helping behaviors, willingness to undertake additional tasks, and active participation in organizational life.

Research on MW and organizational commitment (OC), particularly AC, continues to suffer from a lack of consensus regarding the conceptual essence of these constructs and their appropriate operationalization (Harpaz & Fu, 2002; Wrzesniewski et al., 2003; Łucjan et al., 2023). Moreover, the empirical evidence remains inconclusive concerning the behavioral outcomes associated with MW and AC, especially in relation to counterproductive work behavior (CWB). Ultimately, the empirical findings in this domain are deeply embedded within the socio-cultural context in which the research is conducted.

It is widely acknowledged that employees who want to belong to an organization - those exhibiting high levels of AC and MW - are more likely to exert discretionary effort on behalf of the organization, such as engaging in OCB, compared to those who merely need to belong (Meyer & Allen, 1991, pp. 73–74; see also Shore & Wayne, 1993). Conversely, employees who lack a desire to belong, or who feel compelled to remain without intrinsic motivation, may be more prone to engage in various forms of CWB.

This suggests the existence of a conceptual "black box" between the inputs (MW and AC) and the behavioral outcomes (e.g., CWB), which warrants further exploration. Notably, also the moderating role of employee demographic characteristics - such as gender, age, tenure, and job type - on the relationship between MW/AC and CWB remains underexplored. According to the stressor-emotion model proposed by Spector & Fox (2005), the absence of MW and AC may act as significant stressors, potentially eliciting negative emotions that

manifest in CWB. Stressors are defined as objective workplace conditions with the potential to induce psychological strain.

Given these considerations, MW and AC merit substantially greater scholarly attention. Existing research has predominantly focused on isolated antecedents and outcomes of MW and AC, rather than adopting a holistic analytical framework. The fragmented nature of literature complicates efforts to synthesize findings and draw comprehensive conclusions (Rosso et al., 2010).

In summary, considering the evident gaps in the current body of knowledge regarding the influence of MW and AC on CWB - and the moderating effects of demographic variables - the following research objectives have been formulated:

1. To determine whether, and to what extent, MW influences the intensity of CWB, including its organizational (CWB-O), interpersonal (CWB-I), and subjective dimensions.
2. To assess whether the relationship between MW and CWB is moderated by employee demographic characteristics (gender, age, tenure, job type).
3. To examine whether, and to what extent, AC affects the intensity of CWB, including its organizational (CWB-O), interpersonal (CWB-I), and subjective dimensions.
4. To evaluate whether the relationship between AC and CWB is moderated by employee demographic characteristics (gender, age, tenure, job type).

The research objectives will be addressed through a survey conducted for Central European socio-cultural context, specifically involving professionally active individuals in Poland.

This study is expected to make a substantive contribution to existing literature in three principal domains. First, it investigates the influence of MW and AC on the intensity of CWB, with a particular focus on its organizational (CWB-O), interpersonal (CWB-I), and subjective dimensions. Second, it examines the moderating role of selected employees' demographic characteristics - namely gender, age, tenure, and type of work - on these relationships. Third, the delineated interrelationships are subjected to empirical scrutiny through the implementation of primary research methodologies tailored to the socio-cultural specificities of Central Europe. To the best of our knowledge, such an approach - both in scope and methodological configuration - has not previously been undertaken within this regional context.

The subsequent sections of this work are structured as follows: the theoretical framework underpinning the study is first outlined, followed by a detailed presentation of the research methodology employed to empirically test the proposed model. Thereafter, the empirical findings are discussed, along with their theoretical and practical implications. Finally, the study concludes with a reflection on its limitations, suggestions for future research, and recommendations for organizational practice.

1. Literature review

1.1. Work Meaningfulness (WM)

Every human experience carries a particular meaning, and individuals are inherently motivated to interpret and assign meaning to their lives and the contexts in which they operate (Wrzesniewski et al., 2003; May et al., 2004). This interpretive process extends to the domain of work and the duties performed therein. The perceived meaning of work may be positive, negative, or neutral, and can vary in intensity - ranging from weak to strong (Rosso et al., 2010). Importantly, the mere presence of meaning in work does not necessarily imply that the work is experienced as meaningful. Work meaningfulness (WM) refers specifically to the degree of significance that an individual attributes to their job (Rosso et al., 2010).

WM constitutes a critical psychological state that mediates the relationship between job characteristics - such as task identity and task significance - and various work-related outcomes (Wrzesniewski et al., 2003; May et al., 2004; Steger et al., 2012). The conceptual structure of meaningful work is outlined in Table 1. According to Wrzesniewski et al. (2003), this structure is dynamic and subject to change over time, reflecting the evolving nature of societal norms, organizational environments, and external conditions. In contrast, Harpaz & Fu (2002) argue that the structure of meaningful work is relatively stable. Nevertheless, it must remain closely aligned with the specific empirical socio-cultural context, which constitutes a critical foundation for ongoing empirical inquiry.

Table 1. The structure of MW

	Job Meaning at Work	**Role Meaning at Work**	**Self Meaning at Work**
Content (what is it?)	Characteristics of tasks and activities	Characteristics of one's role at work	Characteristics one imputes to the self while work
Evaluation (what is the value of it?)	Interpreted value of the job and its tasks/activities	Interpreted value of o+the role at work	Interpreted value of self in the job

Source: Wrzesniewski et al. (2003, p. 100); see also Harpaz & Fu (2002).

The conceptual construct under consideration is frequently misinterpreted or conflated with a range of adjacent phenomena, including but not limited to job engagement, perceived significance of work, occupational pride, generalized beliefs about employment, individual work-related values, spiritual dimensions of labor, and the reputational attributes associated with one's professional role (Rosso et al., 2010; Steger et al., 2012). Notwithstanding the substantial body of empirical and theoretical research devoted to this domain, there remains a notable lack of consensus within the academic community regarding the precise definitional boundaries of MW, as well as its antecedents and consequential outcomes (see Table 2; Rosso et al., 2010; Steger et al., 2012).

Table 2. Selected definition of MW

Author(s)	Definition
Steger et al., 2012, p. 323	„We define MW not as simply whatever work means to people (meaning), but as work that is both significant and positive in valence (meaningfulness). Furthermore, we add that the positive valence of MW has a eudaimonic (growth- and purpose-oriented) rather than hedonic (pleasure-oriented) Focus."
Arnold et al., 2007, p. 195	„Finding a purpose in work that is greater than the extrinsic outcomes of the work."
Rosso et al., 2010, p. 94	„Output of having made sense of something, or what it signifies; as in an individual interpreting what work means, or the role work plays, in the context of life."
Wrzesniewski et al., 2003, p. 99	„Employees' understanding of what they do at work as well as the significance of what they do."
May et al., 2004, p. 14	„The value of a work goal or purpose, judged in relation to an individual's own ideals or standards."
Harpaz & Fu, 2002, p. 641	„The significance, beliefs, definitions and the value which individuals and groups attach to working as a major element of human activity that transpire over much of their lives."

Source: own elaboration

The concept of MW has garnered increasing scholarly attention due to its multifaceted implications for both individual employees and organizational outcomes. Empirical evidence suggests that the presence of MW yields a wide array of psychological and behavioral benefits. Individuals who perceive their work as meaningful tend to exhibit enhanced psychological adjustment, elevated self-esteem, a greater sense of personal fulfillment, and improved overall well-being. Moreover, such individuals are more likely to cultivate traits that are considered advantageous from an organizational perspective, including heightened perceptions of work importance, stronger emotional attachment to the workplace, deeper organizational identification, increased job engagement, and superior individual performance. These employees also report higher levels of job satisfaction, greater trust in managerial leadership, and a more profound sense of existential purpose extending beyond the professional domain (Sparks & Schenk, 2001; Harpaz & Fu, 2002; Wrzesniewski et al., 2003; Arnold et al., 2007; Dik et al., 2008; Steger & Dik, 2009; Rosso et al., 2010; Steger et al., 2012). Additionally, meaningful work has been positively associated with increased engagement in OCB, which contributes to the overall functioning and cohesion of the workplace (Wrzesniewski et al., 1997).

Conversely, the absence of perceived meaning in one's work has been linked to a range of adverse psychological and organizational outcomes, including apathy, symptoms of depression, disengagement, alienation, and emotional detachment from professional responsibilities (May et al., 2004; Steger & Dik, 2009).

The construction of MW may occur through individual cognitive processes, social interactions, or a combination of both. From an individualistic standpoint, MW is rooted in subjective interpretations of work-related experiences and interpersonal dynamics. In contrast, the sociological perspective posits that perceptions of MW are shaped by culturally and socially embedded norms, values, and collective worldviews (Rosso et al., 2010). It is noteworthy that the extant literature predominantly emphasizes the individual dimension of MW, often at the expense of broader social and contextual influences. Nevertheless, economic conditions - such as unemployment rates, inflationary pressures, and macroeconomic downturns - also appear to exert a significant influence on the perceived meaningfulness of work (Harpaz & Fu, 2002).

Rosso et al. (2010) identify four principal sources of MW: the individual, other people, the job context, and spiritual life. These dimensions are also elaborated in the works of Wrzesniewski et al. (2003) and May et al. (2004). The individual domain encompasses values, motivations, and beliefs about work. Values are defined as "the end states people desire and feel they ought to be able to realize through working" (Nord et al., 1990, p. 21), while motivation refers to "the degree to which an individual experiences positive internal feelings when performing effectively on the job" (Oldham, 1976, p. 559). Beliefs about work include constructs such as job involvement, work centrality, work orientation, and the notion of work as a calling. Individuals characterized by general optimism and psychological well-being tend to report more positive experiences across all domains of life, including the professional sphere (Steger & Dik, 2009).

The social dimension of MW encompasses interactions with coworkers, supervisors, subordinates, clients, communities (e.g., work teams, religious groups), and family members (Wrzesniewski et al., 2003; Steger & Dik, 2009; Rosso et al., 2010). These relationships, both within and beyond the workplace, play a critical role in shaping perceptions of MW. However, literature has historically underemphasized the influence of others, favoring an individual-centric approach. This oversight is particularly striking given that individuals frequently frame their work experiences in relational terms: "when people talk about their work, they talk primarily about other people" (Wrzesniewski et al., 2003, p. 98).

The contextual dimension of MW includes factors such as job design (i.e., the specific characteristics and structure of tasks), organizational mission (i.e., the foundational goals, values, and purposes of the organization), financial remuneration, engagement in non-work domains (e.g., hobbies, sports), and the broader national culture in which work is situated (e.g., the influence of Protestant work ethic values) (Rosso et al., 2010). These contextual variables contribute to the substantial variation in MW both across and within occupational roles (Wrzesniewski et al., 2003).

Within the extant literature, the construct of MW is commonly conceptualized as comprising three interrelated dimensions, each reflecting a distinct facet of the individual's experience in the occupational domain (Steger et al., 2012):

1. *Psychological Meaningfulness in Work*: This dimension pertains to the subjective perception that one's professional activities possess personal significance and intrinsic value. It reflects an individual's internal appraisal that their work is not merely instrumental but resonates with their identity, values, and sense of purpose.
2. *Meaning-Making Through Work*: This facet emphasizes the role of work as a central conduit through which individuals derive existential meaning and coherence in life more broadly. In this view, employment is not solely a means of economic sustenance but serves as a foundational element in the construction of one's life narrative and personal fulfillment.
3. *Greater Good Motivations*: This component captures the extent to which individuals perceive their work as contributing positively to the welfare of others or to broader societal objectives. The perceived impact of one's labor on external stakeholders - be the colleagues, clients, communities, or society at large - enhances the meaningfulness of work, particularly when it aligns with prosocial or altruistic aspirations.

Collectively, these dimensions underscore the multifaceted nature of MW, illustrating that its emergence is contingent not only upon personal relevance and existential integration but also upon the perceived social utility and ethical resonance of one's occupational endeavors.

1.2. Affective commitment and the multidimensional nature of organizational commitment

Organizational commitment (OC) constitutes one of the most extensively examined constructs within the domain of organizational sciences. It is broadly conceptualized as a psychological bond between the employee and the employing organization, which reduces the likelihood of voluntary turnover (Allen & Meyer, 1996, p. 252). Despite its prominence in empirical and theoretical discourse, the construct remains subject to definitional ambiguity and conceptual divergence (Meyer & Allen, 1991).

Meyer and Allen's (1991) seminal three-component model delineates OC into the following dimensions:

1. Affective Component (AC) – This component reflects the employee's emotional attachment to, identification with, and involvement in the organization. Individuals exhibiting strong affective commitment remain with the organization primarily because they *want* to, deriving intrinsic satisfaction from organizational membership.
2. Continuance Component (CC) – This dimension is predicated on the perceived costs associated with leaving the organization. Employees with high continuance commitment remain because they *need* to, often due to economic, social, or professional investments that would be forfeited upon departure.
3. Normative Component (NC) – This component captures the sense of moral obligation to remain with the organization. Employees with strong normative commitment stay because they *ought* to, guided by internalized norms and expectations shaped by prior socialization and organizational culture.

Johnson (1991), in his work on commitment within interpersonal relationships, analogously referred to these components as personal, structural, and moral, respectively. Importantly, an individual's relationship with the organization may simultaneously reflect varying degrees of all three components.

Empirical research consistently demonstrates a negative correlation between OC - particularly AC - and both turnover intentions and actual employee attrition (Allen & Meyer, 1996; Maama, 2024). This inverse relationship is most pronounced in the case of affective commitment, whereas continuance commitment does not exhibit a significant association with turnover (Mathieu & Zajac, 1990). Employees characterized by high levels of AC tend to be more productive, exhibit superior performance outcomes, and contribute more meaningfully to organizational objectives (Meyer & Allen, 1991; Allen & Meyer, 1996; Vovk & Vovk, 2024). Normative commitment also yields positive, albeit comparatively weaker, performance effects. In contrast, elevated levels of continuance commitment have been linked to diminished performance, weaker interpersonal relationships within the workplace, and increased incidence of counterproductive work behaviors.

Further, AC and NC have been positively associated with various forms of organizational citizenship behavior (OCB), including discretionary helping behaviors, voluntary assumption of additional responsibilities, conscientiousness, and proactive engagement in organizational life. These forms of extra-role behavior contribute to organizational effectiveness and cohesion. Conversely, continuance commitment either lacks such associations or is negatively correlated with OCB (Meyer & Allen, 1991; Shore & Wayne, 1993; Allen & Meyer, 1996). Moreover, AC and NC are negatively correlated with counterproductive work behaviors (CWB), such as absenteeism and withdrawal, and positively associated with elevated work effort and performance (Meyer & Allen, 1991).

The development of affective commitment is primarily driven by personal satisfaction derived from the fulfillment of individual needs, alignment of expectations, and attainment of personal goals within the organizational context. Organizational practices that foster perceptions of fairness, recognition, and meaningful contribution are instrumental in cultivating AC (Allen & Meyer, 1996). Accordingly, perceived organizational support - defined as employees' belief in the organization's commitment to their well-being - is positively correlated with AC (Shore & Wayne, 1993). Additional antecedents include demographic variables (e.g., age, gender, education), structural and job-related characteristics, and cumulative work experiences (Meyer & Allen, 1991).

Continuance commitment emerges when employees perceive substantial costs associated with leaving the organization, contingent upon their belief that such costs would be personally incurred. Meyer and Allen (1991) describe these costs as "investments," encompassing factors such as geographic relocation, time invested in acquiring specialized qualifications, and other personal sacrifices. The perception of limited employment alternatives - shaped by labor market information, macroeconomic conditions, self-assessed employability, prior job search experiences, and personal circumstances (e.g., dependent children, financial obligations) - further reinforces CC.

Normative commitment, by contrast, is rooted in early socialization experiences, including familial and cultural influences, and is reinforced through organizational socialization processes. Through these mechanisms, individuals internalize societal, familial, and organizational expectations regarding employment continuity. Organizations may strengthen NC by offering benefits perceived as difficult to reciprocate, such as funding educational pursuits. NC may also be shaped by the psychological contract - an unwritten set of mutual expectations between the employee and the organization (Rousseau, 1990).

1.3. Counterproductive work behaviors: Conceptualization and classification

Counterproductive work behaviors (CWBs) constitute a category of extra-role, supra-role, or non-role activities (Shore & Wayne, 1993; Ariani, 2013; Szostek et al., 2020, 2022) that deviate from prescribed organizational norms and expectations. These behaviors are typically volitional in nature - distinguishing them from accidental or mandated actions - and are characterized by their potential or actual harm to organizational entities and stakeholders, including clients, colleagues, supervisors, and the organization itself (Spector et al., 2006, p. 447; Hernik et al., 2025).

Robinson and Bennett (1995) emphasize that CWBs represent a violation of core organizational norms, thereby undermining the social and operational fabric of the workplace. It is crucial to delineate between the concept of counterproductive work behaviors and the broader notion of counterproductivity; the latter refers to the aggregate negative outcomes that may result from the former (Sackett & DeVore, 2001).

The academic literature employs a variety of terminologies to describe CWBs, including but not limited to: deviant workplace behaviors (Robinson & Bennett, 1995), antisocial conduct (Miller et al., 2003), destructive or hazardous actions (Murphy, 1993), unethical or audacious behaviors, workplace unruliness (Hunt, 1996), retaliatory or revenge-driven acts (Skarlicki & Folger, 1997), and even direct organizational attacks (Bagyo, 2016). While these terms capture certain dimensions of CWB, they often lack conceptual precision and fail to encapsulate the full scope of the phenomenon. Consequently, the term "counterproductive work behavior" has emerged as the dominant and most analytically robust descriptor.

For a behavior to be classified as counterproductive, it must satisfy three essential criteria (Spector & Fox, 2010): a) It must constitute a violation of formal or informal organizational rules; b) It must be enacted with intent, rather than by accident or compulsion; c) It must result in, or have the potential to result in, harm to the organization and/or its stakeholders.

CWBs encompass a wide spectrum of actions, ranging from seemingly innocuous behaviors - such as cyberloafing (i.e., using organizational internet resources for personal activities during work hours) - to severe infractions, including criminal acts like theft (Bagyo, 2016). This breadth has led to the development of numerous classification frameworks (e.g. Robinson & Bennett, 1995; Gruys & Sackett, 2003; Vardi & Weitz, 2004), though few offer both exhaustive and mutually exclusive categorizations.

Among the most widely adopted typologies is that proposed by Spector et al. (2006), which builds upon the foundational work of Robinson and Bennett (1995). This framework distinguishes between CWBs directed at individuals (CWB-I) and those targeting the organization (CWB-O), and further categorizes CWBs into five distinct domains: a) Abuse Against Others – behaviors that inflict psychological or physical harm on other individuals (e.g., verbal abuse, physical aggression, defamation); b) Production Deviance – substandard performance of work duties, including violations of safety protocols or quality standards; c) Sabotage – deliberate damage to organizational assets, encompassing both tangible property and intangible resources such as reputation; d) Theft – unauthorized appropriation of property belonging to the organization or its members; e) Withdrawal – reduction of work effort or time below acceptable thresholds, including behaviors such as tardiness, absenteeism, or premature departure from work without authorization.

This conceptualization underscores the multifaceted nature of CWBs and their implications for organizational effectiveness, employee well-being, and the broader socio-economic environment in which firms operate (see Szostek et al., 2023; 2024).

2. The model and hypotheses proposal

In order to empirically examine the interrelationships delineated in the preceding section, a theoretical framework has been constructed, grounded in four distinct research hypotheses. This framework is visually represented in the conceptual model depicted in Figure 1. The model serves as a structural foundation for the subsequent empirical analysis, facilitating the systematic investigation of the hypothesized associations among the variables under consideration.

H1: *Meaningful Work (MW) exerts a statistically significant influence on the intensity of Counterproductive Work Behavior (CWB), including its organizational (CWB-O), interpersonal (CWB-I), and subjective dimensions*.

H2: *The relationship between MW and CWB is moderated by employees' demographic characteristics, specifically*: H2a: *Gender*; H2b: *Age*; H2c: *Length of service*; H2d: *Type of work*

H3: *Affective Commitment (AC) has a statistically significant impact on the intensity of CWB, encompassing organizational (CWB-O), interpersonal (CWB-I), and subjective categories*.

H4: *The relationship between AC and CWB is moderated by employees' demographic characteristics, namely:* H4a: *Gender;* H4b: *Age;* H4c: *Length of service;* H4d: *Type of work*

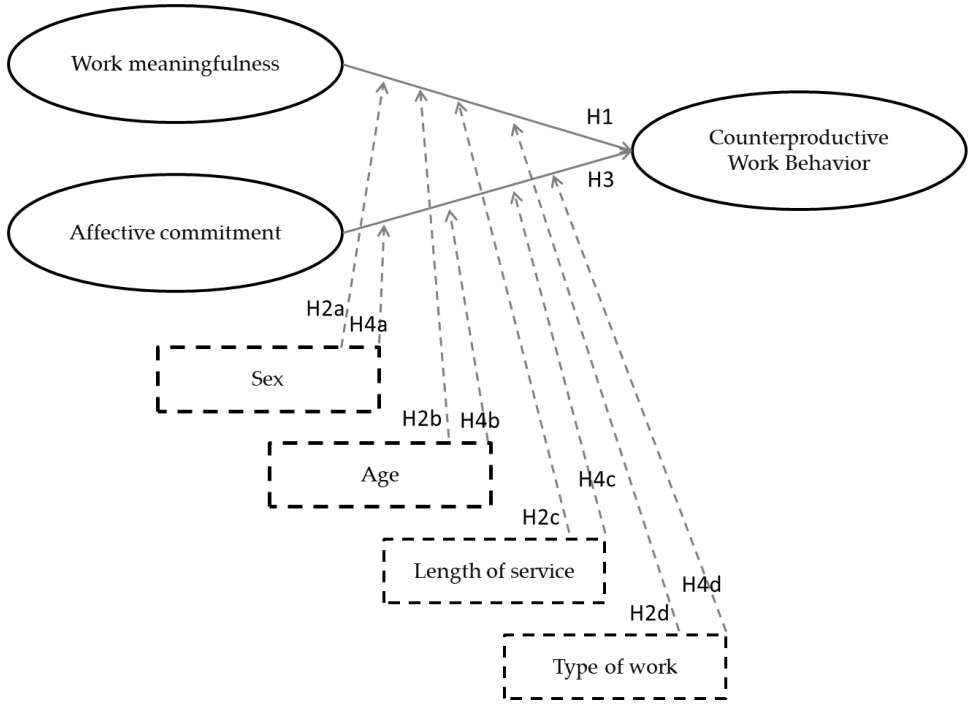

Figure 1. The model and visualisation of the hypotheses
Source: *own work*.

3. Methods applied for model verification

3.1. Data: Sampling and demographic characteristics

This empirical investigation was carried out within multiphase research project devoted to determinants and organizational consequences of CWB within Central European socio-economic context, which was started in the year 2020 (see Szostek et al., 2020, 2023, 2024). The primary data was obtained through the application of a structured online survey instrument. The final research sample comprised 454 individuals who were professionally active across various regions of Poland. It is important to note that the sampling procedure employed was non-probabilistic in nature. Specifically, invitations to participate in the study were disseminated to the following categories of employees: Personnel affiliated with all municipal offices throughout Poland, encompassing approximately 2,500 institutions; Representatives of 100 non-governmental organizations, selected at random from the national registry of public benefit organizations; Employees of 200 largest companies in Poland.
A comprehensive demographic profile of the respondents, including variables such as age, gender, education level, and sector of employment, is presented in Table 3. This profile provides essential contextual information for interpreting the results of the subsequent analyses.

Table 3. The demographic characteristics of respondents

Sex	F	75.1% (341 employees)	Length of service	Mean	12.94 years
	M	24.7% (112 employees)		MIN	1 year
	b/o	0.2% (1 employee)		MAX	52 years
Age	Mean	42.03 years		SD	10.83 years
	MIN	20 years		Missing	11 employees
	MAX	67 years	Type of work	Office/clerical	72.5% (329 employees)
	SD	9.84 years		Managerial	26.9% (122 employees)
	Miassing	14 employees		Blue collar	0,4% (2 employees)
Education	Higher	90.5% (411 employees)		Missing	0.2% (1 employee)
	Secondary	8.6% (39 employees)			
	Vocational	0.4% (2 employees)			
	No education	0.2% (1 employee)			
	Missing	0.2% (1 employee)			

Source: *own study*.

3.2. Measurement scales

The operationalization of key constructs within this study was achieved through the application of validated psychometric instruments, each selected for its theoretical relevance and empirical robustness.

To assess the construct of *Meaningful Work (MW)*, the *Work as Meaning Inventory* (WAMI) developed by Steger et al. (2012) was employed. This instrument comprises ten items, systematically categorized into three dimensions: *Positive Meaning* (PM), *Meaning-Making Through Work* (MMTW), and *Greater Good Motivations* (GGM).

The construct of *Affective Commitment* was measured using the *Affective Commitment Scale* (ACS), consisting of six items, as adapted and validated for the Polish context by Bańka et al. (2002). This scale is derived from the original framework proposed by Meyer and Allen (1991), which conceptualizes organizational commitment as a multidimensional construct, with affective commitment representing the emotional attachment of employees to their organization.

To evaluate *Counterproductive Work Behaviors (CWB)*, the study utilized the *CWB Checklist* developed by Spector et al. (2006), which was subsequently adapted to Polish cultural and organizational conditions by Szostek (2022), resulting in the CWB-C PL version. The scale and its detailed development process is discussed by Szostek (2022). This instrument includes 35 items, distributed across four distinct behavioral categories: *Sabotage*, *Withdrawal*, *Theft*, and *Abuse Against Others*. The scale has been extensively validated and is considered a comprehensive tool for capturing the multifaceted nature of CWBs in organizational settings (see also Szostek et al., 2023; 2024).

4. Results

The confirmatory factor analysis made it possible to select from the variables, that made up WM and AC and the subject categories of counterproductive behaviors, those of them that most significantly shaped a given construct and had the highest factor loadings. It was important from the point of view of the SEM model estimated in the next part of the article. Table 4 summarizes the individual factors (categories / dimensions) with a list of observable variables shaping them.

Table 4. The list of factors with measurable variables and Alpha-Cronbach statistics

Factor	Measurable variable	Alpha-Cronbach statistics
WM	M1, M2, M4, M5	0.912
AC	A2, A4, A5, A6	0.884
Sabotage	C1, C3, C4, C14	0.643
Theft	C9, C19, C21, C26	0.648
Abuse against others	C18, C25, C28, C35	0.756
Withdrawal	C2, C20, C30, C33	0.845

Source: *own study.*

The values of the Cronbach's Alpha statistics in the case of sabotage and theft were below 0.7, but due to their significance, it was decided to use them in further analysis. The statistical values for other factors were much higher than 0.7, which means good reliability of the scales used.

In order to verify the hypotheses, the SEM model was estimated using the maximum likelihood method within the IBM SPSS Amos v.16 aplication. A significance coefficient of 0.05 was applied for modelling. The application of SEM statistical framework is currently commonly accepted as one of the most effective strategies for processing survey primary data, which are used for measurement of latent phenomena (see Adamek & Solarz, 2023; Rollnik-Sadowska et al., 2023; Zada et al., 2024; Chatzoudes et al., 2024; Rudawska & Nickell, 2024).

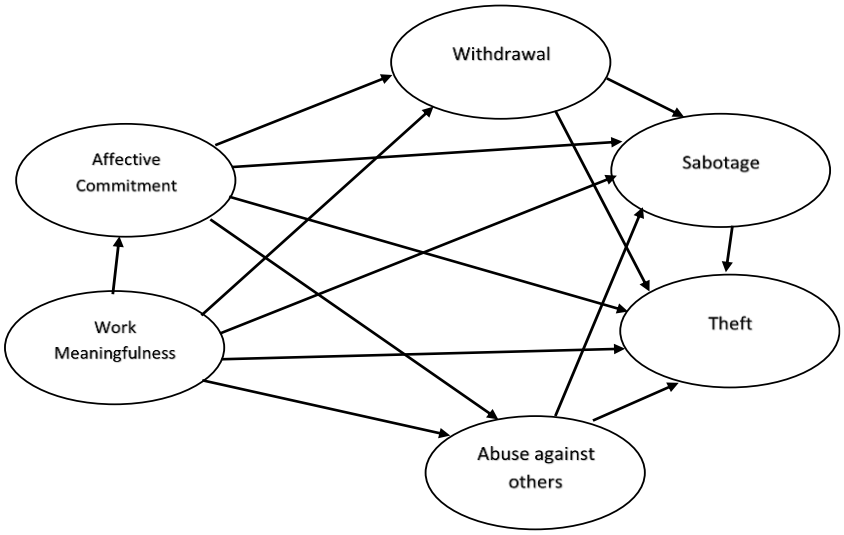

Figure 2. The visualisation of the SEM model (the impact of WM and AC on subjective categories of CWB)
Source: *own work*.

Table 5 contains the results of the maximum likelihood estimation of the external SEM model (factor analysis), and Table 6 – the results of the estimation for the internal model (regression analysis). Table 7 contains measures of the degree of fit between the model and the empirical data.

Table 5. The estimation results of the external SEM model

Relationship	Parameter	Parameter evaluation	P-value
M1 ← WM	α_1	0.868	
M2 ← WM	α_2	0.859	0.000
M4 ← WM	α_3	0.842	0.000
M5 ← WM	α_4	0.846	0.000
A2 ← AC	α_5	0.808	
A4 ← AC	α_6	0.843	0.000
A5 ← AC	α_7	0.826	0.000
A6 ← AC	α_8	0.768	0.000
C1 ← Sabotage	α_9	0.317	0.000
C3 ← Sabotage	α_{10}	0.839	0.000
C4 ← Sabotage	α_{11}	0.749	0.000
C14 ← Sabotage	α_{12}	0.321	
C9 ← Theft	α_{13}	0.544	0.000
C19 ← Theft	α_{14}	0.684	0.000
C21 ← Theft	α_{15}	0.585	0.000
C26 ← Theft	α_{16}	0.509	
C18 ← Abuse against others	α_{17}	0.527	
C25 ← Abuse against others	α_{18}	0.656	0.000
C28 ← Abuse against others	α_{19}	0.693	0.000
C35 ← Abuse against others	α_{20}	0.713	0.000
C2 ← Withdrawal	α_{21}	0.771	
C20 ← Withdrawal	α_{22}	0.727	0.000
C30 ← Withdrawal	α_{23}	0.721	0.000
C33 ← Withdrawal	α_{24}	0.838	0.000

Source: *own study*.

Table 6. The estimation results of the internal SEM model

Relationship	Parameter	Parameter evaluation	Assessment of standardized parameters	P-value
WM → Sabotage	β_1	0.014	0.073	0.283
WM → Theft	β_2	0.000	0.003	0.973
WM → Abuse against others	β_3	0.003	0.009	0.914
WM → Withdrawal	β_4	-0.024	0.026	0.042
AC → Sabotage	β_5	-0.008	-0.072	0.301
AC → Theft	β_6	-0.003	-0.027	0.741
AC → Abuse against others	β_7	0.014	0.069	0.422
AC → Withdrawal	β_8	-0.034	0.061	0.049
Withdrawal → Sabotage	β_9	0.133	0.654	0.000
Withdrawal → Theft	β_{10}	0.087	0.497	0.000
Abuse against others → Sabotage	β_{11}	0.187	0.333	0.000
Abuse against others → Theft	β_{12}	0.357	0.739	0.000
Sabotage → Theft	β_{13}	-0.236	-0.273	0.000
WM → AC	β_{14}	1.150	0.690	0.000

Source: *own study*.

Table 7. Measure of the degree of SEM model fit to the data

Model	IFI	PNFI	RMSEA	CMIN/DF
Estimated	0.901	0.686	0.069	3.130
Saturated	1			
Independent	0		0.193	17.871

Source: *own study*.

The results for the external model (see Table 5) indicate that all factor loadings are statistically significant. For their interpretation (see Table 6), it should be noted that both WM and AC only affect withdrawal (β_4; β_8). In both cases, this relationship was negative. This means that an increase of the WM leads to a decrease in withdrawal. Increasing of the AC also reduces the tendency to withdraw. These relationships seem to be logical and understandable. At the same time, in the case of other CWB categories, the impact of WM and AC was statistically insignificant.

Regarding the relationship between CWB categories, withdrawal and abuse against others were positively correlated with sabotage and theft. The correlation between sabotage and theft was negative (β_{13}), which suggests that these two types of counterproductive behavior are not usually met by the employees at the same time.

When assessing the degree of the model fit to empirical data (see Table 7), it should be noted that the value of the IFI index is 0.901, while the RMSEA is 0.069, which means a satisfactory fit of the model to empirical data (see Szostek et al., 2024).

The results of the model estimation for subgroups of respondents distinguished according to their sex, age, length of service and type of work are presented in the following section. The results of the SEM internal model estimation for two groups distinguished on the basis of the respondents' gender are summarized in Table 8.

Table 8. The results of the estimation of the internal model SEM in subgroups defined by the sex of the respondents

Relationship		Men		Women	
	Parameter	Assessment of standardized parameters	P-value	Assessment of standardized parameters	P-value
WM → Sabotage	β_1	0.091	0.253	0.019	0.902
WM → Theft	β_2	0.026	0.740	-0.262	0.301
WM → Abuse against others	β_3	-0.032	0.731	0.188	0.340
WM → Withdrawal	β_4	-0.003	0.048	-0.082	0.039
AC → Sabotage	β_5	-0.106	0.196	0.059	0.696
AC → Theft	β_6	-0.062	0.448	0.191	0.440
AC → Abuse against others	β_7	0.102	0.286	-0.059	0.760
AC → Withdrawal	β_8	-0.079	0.039	-0.028	0.027
Withdrawal → Sabotage	β_9	0.629	0.000	0.736	0.002
Withdrawal → Theft	β_{10}	0.237	0.008	0.585	0.027
Withdrawal → Sabotage	β_{11}	0.365	0.000	0.155	0.113
Withdrawal → Theft	β_{12}	0.787	0.000	0.998	0.000
Sabotage → Theft	β_{13}	-0.206	0.060	-0.167	0.531
WM → AC	β_{14}	0.678	0.000	0.777	0.000
Measures of the degree of model fit		IFI = 0.876 RMSEA = 0.081		IFI = 0.818 RMSEA = 0.093	

Source: *own study.*

Regardless of the sex of the respondents, WM and AC only had a significant negative impact on withdrawal (β_4; β_8).

The results of the SEM internal model estimation for two subgroups distinguished by the age of respondents are summarized in Table 9. The age of 41 is the median for the analyzed subgroups.

Table 9. The results of the estimation of the internal model SEM in subgroups defined by the age of respondents

Relationship		Under 41 years		41 years and more	
	Parameter	Assessment of standardized parameters	P-value	Assessment of standardized parameters	P-value
WM → Sabotage	β_1	0.097	0.373	0.029	0.737
WM → Theft	β_2	0.060	0.595	-0.007	0.940
WM → Abuse against others	β_3	-0.169	0.202	0.155	0.147
WM → Withdrawal	β_4	0.003	0.982	0.029	0.776
AC → Sabotage	β_5	-0106	0.346	-0.019	0.830
AC → Theft	β_6	-0.114	0.331	0.027	0.767
AC → Abuse against others	β_7	0.212	0.121	-0.050	0.640
AC → Withdrawal	β_8	0.191	0.126	-0.047	0.652
Withdrawal → Sabotage	β_9	0.675	0.000	0.667	0.000
Withdrawal → Theft	β_{10}	0.367	0.002	0.235	0.074
Withdrawal → Sabotage	β_{11}	0.201	0.029	0.425	0.000
Withdrawal → Theft	β_{12}	0.852	0.000	0.626	0.000
Sabotage → Theft	β_{13}	-0.196	0.136	-0.016	0.918
WM → AC	β_{14}	0.732	0.000	0.647	0.000
Measures of the degree of model fit		IFI = 0.859 RMSEA = 0.087		IFI = 0.883 RMSEA = 0.074	

Source: *own study*.

In the case of subgroups divided by age of respondents, none of the analyzed relationships between WM / AC and CWB subjective categories were statistically significant.

The results of the internal SEM model estimation for two subgroups distinguished by the length of service are presented in Table 10. 10 years of experience is the median for the analyzed subgroup.

Table 10. The results of the estimation of the internal model SEM in subgroups defined by the length of work

Relationship		**Under 10 years**		**10 years and more**	
	Parameter	**Assessment of standardized parameters**	**P-value**	**Assessment of standardized parameters**	**P-value**
WM → Sabotage	β_1			0.048	0.595
WM → Theft	β_2			-0.038	0.688
WM → Abuse against others	β_3			0.015	0.889
WM → Withdrawal	β_4			-0.067	0.025
AC → Sabotage	β_5			-0.003	0.975
AC → Theft	β_6			-0.012	0.899
AC → Abuse against others	β_7			0.091	0.411
AC → Withdrawal	β_8			-0.097	0.036
Withdrawal → Sabotage	β_9			0.632	0.000
Withdrawal → Theft	β_{10}			0.397	0.000
Withdrawal → Sabotage	β_{11}			0.406	0.000
Withdrawal → Theft	β_{12}			0.915	0.000
Sabotage → Theft	β_{13}			-0.309	0.033
WM → AC	β_{14}			0.681	0.000
Measures of the degree of model fit		Unidentified		IFI = 0.880 RMSEA = 0.079	

Source: *own study*.

Unfortunately, the estimation of the model in the subgroup of employees with shorter work experience was impossible due to its unidentifiability. This may be due to the fact that a pair of variables in this subgroup are collinear. In the subgroup of more experienced people, the conclusions are the same as for the whole sample, i.e. both WM and AC had a statistically significant (negative) effect only on withdrawal.

The results of the internal SEM model estimation for two subgroups distinguished on the basis of the type of work are summarized in Table 11.

Only in the group of employees in office / clerical position, the relationship between WM / AC and withdrawal ($\beta_4; \beta_8$) was statistically significant and negative. In the case of people in managerial positions, no such relationship was found. However, this result should be interpreted with great caution, because for this model it was impossible to calculate the chi2 statistic, and thus to verify the degree of fit between the model and the data.

Table 11. The results of the estimation of the internal model SEM in subgroups defined by the type of work

Relationship	Parameter	Office/clerical		Managerial	
		Assessment of standardized parameters	P-value	Assessment of standardized parameters	P-value
WM → Sabotage	β_1	0.132	0.097	-0.100	0.547
WM → Theft	β_2	0.047	0.617	-0.074	0.535
WM → Abuse against others	β_3	-0.012	0.900	0.027	0.867
WM → Withdrawal	β_4	-0.078	0.038	-0.116	0.439
AC → Sabotage	β_5	-0.208	0.150	-0.040	0.806
AC → Theft	β_6	-0.062	0.535	0.001	0.996
AC → Abuse against others	β_7	0.104	0.289	-0.008	0.962
AC → Withdrawal	β_8	-0.076	0.041	-0.041	0.785
Withdrawal → Sabotage	β_9	0.667	0.000	0.478	0.000
Withdrawal → Theft	β_{10}	0.404	0.003	0.265	0.013
Withdrawal → Sabotage	β_{11}	0.332	0.000	0.131	0.288
Withdrawal → Theft	β_{12}	0.551	0.000	0.455	0.000
Sabotage → Theft	β_{13}	-0.159	0.232	0.078	0.540
WM → AC	β_{14}	0.676	0.000	0.704	0.000
Measures of the degree of model fit		IFI = 0.889 RMSEA = 0.072		Statystyka chi2 jest niemożliwa do oszacowania	

Source: *own study*.

In the case of the SEM model, regarding the impact of WM and AC on CWB-O (organizational) and CWB-I (individual), the factors related to the above-mentioned types of CWB were reliable (see Table 12), while all factor loadings were statistically significant (see Table 13). However, when interpreting the study results (see Table 14), it should be noted that neither WM nor AC had a direct impact on CWB-O or CWB-I. When assessing the degree of model fit to empirical data (see Table 15), it should be noted that the IFI value was 0.902, while the RMSEA was 0.073, which means a satisfactory fit of the model to empirical data.

Also the SEM model of the impact of WM and AC on CWB-O and CWB-I for the subgroups distinguished by the demographic variables of respondents (sex, age, length of service and type of work) brought similar results, i.e. in any of the subgroups there was no direct impact of WM or AC on the analyzed CWB categories.

Table 12. List of factors with the measurable variables describing them and the calculated Alpha-Cronbach statistics

Factor	Measurable variables	Alpha-Cronbach statistic
WM	M1, M2, M4, M5	0.912
AC	A2, A4, A5, A6	0.884
CWB-I	C10, C18, C24, C25,C28,C31, C35	0.827
CWB-O	C2, C3, C4, C15, C20, C30, C33	0.865

Source: *own study*.

Table 13. The estimation results of the external SEM model

Relationship	Parameter	Parameter evaluation	P-value
P1 ← WM	α_1	0.868	
P2 ← WM	α_2	0.859	0.000
P4 ← WM	α_3	0.842	0.000
P5 ← WM	α_4	0.846	0.000
A2 ← AC	α_5	0.809	
A4 ← AC	α_6	0.843	0.000
A5 ← AC	α_7	0.825	0.000
A6 ← AC	α_8	0.767	0.000
C2 ← CWB-O	α_9	0.782	
C3 ← CWB-O	α_{10}	0.664	0.000
C4 ← CWB-O	α_{11}	0.562	0.000
C15 ← CWB-O	α_{12}	0.567	0.000
C20 ← CWB-O	α_{13}	0.728	0.000
C30 ← CWB-O	α_{13}	0.703	0.000
C33 ← CWB-O	α_{15}	0.823	0.000
C10 ← CWB-I	α_{16}	0.655	0.000
C18 ← CWB-I	α_{17}	0.682	0.000
C24 ← CWB-I	α_{18}	0.634	0.000
C25 ← CWB-I	α_{19}	0.682	0.000
C28 ← CWB-I	α_{20}	0.633	0.000
C31 ← CWB-I	α_{21}	0.576	0.000
C35 ← CWB-I	α_{22}	0.656	

Source: *own study.*

Table 14. The estimation results of internal SEM model

Relationship	Parameter	Parameter evaluation	Assessment of standardized parameters	P-value
WM → CWB-I	β_1	0.014	0.046	0.567
WM → CWB-O	β_2	0.044	0.047	0.551
AC → CWB-I	β_3	0.002	0.011	0.896
AC → CWB-O	β_4	0.026	0.045	0.568
WM → AC	β_5	1.151	0.690	0.000

Source: *own study*.

Table 15. Measures of the degree of fit of the SEM model

Model	IFI	PNFI	RMSEA	CMIN/DF
Estimated	0.902	0.699	0.073	3.436
Saturated	1			
Independent	0		0.209	20.764

Source: *own study*.

5. Discussion

In reference to the research hypotheses formulated for this study, the empirical findings offer only partial support. Specifically, with regard to Hypothesis 1, the results indicate that meaningful work (MW) exerts a statistically significant negative influence solely on the dimension of *withdrawal*. No significant effects were observed in relation to counterproductive work behaviors directed at the organization (CWB-O), those directed at individuals (CWB-I), or other categorical manifestations of CWB.

Concerning Hypothesis 2, the analysis revealed that the relationship between MW and CWB - again, limited to the withdrawal dimension - is significantly moderated by the gender of the respondents. Preliminary indications also suggest that this relationship may be influenced by additional factors such as tenure and job type, although these effects require further empirical substantiation.

In the case of Hypothesis 3, affective commitment (AC) was found to have a significantly negative impact exclusively on withdrawal behaviors. Similar to MW, no statistically significant associations were identified between AC and other forms of CWB, including CWB-O, CWB-I, or their respective subcategories. Furthermore, as posited in Hypothesis 4, gender emerged once again as the sole statistically significant moderator of the relationship between AC and CWB. Tentative evidence also points to the potential moderating roles of work experience and occupational classification, though these findings should be interpreted with caution.

These results are partially consistent with prior empirical studies conducted for other socio-cultural environment. For instance, May et al. (2004) and Steger & Dik (2009) have demonstrated that a lack of meaningfulness in work is associated with psychological disengagement, apathy, depressive symptoms, and alienation, all of which may culminate in withdrawal behaviors. Similarly, Allen & Meyer (1996) found that affective commitment is negatively correlated with certain forms of CWB, particularly absenteeism and withdrawal.

6. Limitations and potential directions for future research

Despite the valuable insights generated by this study, several methodological and conceptual limitations must be acknowledged. First, the sampling strategy employed was non-random, thereby limiting the generalizability of the findings to the broader population. Future research should aim to utilize probabilistic sampling techniques and ensure greater diversity across demographic variables such as gender, sector of employment, and geographic location.

Second, the reliance on self-report instruments introduces potential biases, including social desirability and common method variance (May et al., 2004). Although self-report measures offer practical advantages, future studies should consider incorporating multi-source data collection methods, such as peer or supervisor evaluations (Mount et al., 2006). While third-party observations also have inherent limitations (Skarlicki et al., 1999), they may help mitigate the tendency of respondents to underreport CWBs due to fear of reprisal. Ensuring anonymity in self-report surveys remains essential to enhancing data reliability. Moreover, triangulating data sources can reduce the risk of artificially inflated correlations due to common method bias.

Third, the study did not account for a range of potentially influential moderating variables. MW, AC, and CWB are complex constructs that are shaped not only by demographic factors but also by situational and organizational contexts. Future research should incorporate a broader set of moderators, including organizational climate, leadership style, and job design characteristics.

Fourth, the operationalization of CWB in this study may not fully capture culturally specific manifestations of counterproductive behavior. Expanding the measurement framework to include items tailored to the Polish organizational context would enhance construct validity and cultural relevance.

Finally, the cross-sectional nature of the data collection precludes any analysis of temporal dynamics. Longitudinal research designs would allow for the examination of changes in MW and AC over time and their evolving impact on CWB. Unfortunately, longitudinal data in this domain remain scarce, yet they are particularly valuable for understanding the stability and development of psychological constructs in organizational settings.

Conclusions

This study contributes to the growing body of literature on organizational behavior by empirically examining the influence of Work Meaningfulness (WM) and Affective Commitment (AC) on Counterproductive Work Behaviors (CWB) within the Central European context, and directly Polish socio-cultural organizational environment. Drawing upon a conceptual framework and employing Structural Equation Modeling (SEM), the research provides nuanced insights into the mechanisms through which psychological constructs such as WM and AC interact with behavioral outcomes in the workplace.

The findings reveal that both WM and AC exert a statistically significant negative effect on withdrawal behaviors, suggesting that employees who perceive their work as meaningful and who are emotionally committed to their organization are less likely to disengage or reduce their work effort. However, the hypothesized relationships between WM and AC with other forms of CWB - such as sabotage, theft, abuse toward others, and behaviors directed at individuals or the organization - were not supported by the data. These results underscore the complexity of CWB as a multidimensional construct and suggest that its antecedents may vary depending on the specific behavioral manifestation.

Moreover, the study identifies gender as a key moderating variable in the relationship between WM, AC, and CWB, indicating that the psychological and behavioral dynamics of workplace misconduct may differ across demographic groups. Preliminary evidence also points to the potential moderating roles of tenure and job type, although these findings warrant further investigation.

From a practical standpoint, the results highlight the importance of fostering meaningful work experiences and cultivating affective commitment among employees. Organizational interventions aimed at enhancing job design, aligning employee values with organizational goals, and promoting emotional engagement may serve as effective strategies for mitigating withdrawal and enhancing overall organizational performance.

In sum, while the study confirms the relevance of WM and AC in shaping certain dimensions of CWB, it also calls for a more differentiated and context-sensitive approach to understanding workplace deviance. Future research should expand the scope of inquiry to include longitudinal designs, culturally specific behavioral indicators, and multi-source data collection methods to deepen our understanding of these complex phenomena.

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