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THE MODERATING ROLES OF OPENNESS TO EXPERIENCE TOWARDS THE RELATIONSHIP BETWEEN JOB CHARACTERISTICS AND JOB ENGAGEMENT AMONG ENFORCEMENT OFFICERS AT THE MINISTRY OF HOME AFFAIRS, MALAYSIA

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Abstract:

Job characteristics refer to the specific aspects or features of a job that shape how employees perceive, experience, and respond to their work environment. These characteristics play a crucial role in determining employees' levels of motivation, job satisfaction, performance, engagement and their overall intention to remain within an organization. The main objective of this study was to investigate the moderating role of the personality trait "openness to experience" on the relationship between job characteristics and job engagement among enforcement officers working under the Ministry of Home Affairs in Putrajaya, Malaysia. The study adopted a correlational quantitative design to examine the relationships among the key variables. Data were collected using a snowball sampling technique and gathered through an online questionnaire consisting of four structured sections measuring job characteristics, openness to experience, job engagement and demographic information. The hierarchical regression analysis was employed to determine both the direct and interaction effects between job characteristics and openness to experience on job engagement. The findings revealed that openness to experience significantly moderated the relationship between job characteristics and job engagement. This indicates that employees who score high in openness to experience are more likely to engage deeply with their work when their job characteristics are enriched and stimulating. The implications of this study are both theoretical and practical. By fostering a supportive and empowering work environment where employees feel valued, trusted and challenged, organizations can strengthen engagement levels, promote higher motivation, and enhance overall job performance.

Ultimately, the study emphasizes that aligning job characteristics with individual personality traits, particularly openness to experience, can create a more dynamic, committed, and productive workforce.

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Keyword:

Enforcement Officers, Job Characteristics, Job Engagement, Personality Traits



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Introduction

Job engagement is a wide issue that focuses on the symbiotic relationship that exists between employees and organizations. Organizations must recognize that employees have unique needs and desires that must be met because of engagement with the business also can be a factor for successful and profitable companies. This is especially true for service industry. Zuniga (2023) stated that service industry is facing obstacles as customer expectations shift, resulting in high demands on employees, high turnover and low engagement. According to Scarlet Survey (n.d) as cited in Abdul Wahab (2015) job engagement indicates the degree to which an individual psychologically brings as a member of an organization. Drawing on empirical data from diverse industries, the findings reveal that job engagement contributes to greater job satisfaction, lower turnover intention and improved work performance.

Literature Review

Job Engagement

Job engagement is linked to people's psychological experiences, which influence their work processes and behaviors. In recent years, organizations have increasingly recognized the importance of maintaining strong levels of employee engagement. However, doing so has become more challenging due to changing work environments, rising job demands, and the growing adoption of flexible work arrangements. These developments have created new pressures for employees and organizations alike, making engagement an important issue in contemporary workplaces (Saks & Gruman, 2021). A number of previous studies consistently show that job engagement is associated with a wide range of positive individual and organizational outcomes. Employees who are highly engaged in their work tend to perform better, show greater initiative

and contribute more actively to organizational goals. In addition, they often experience higher levels of motivation and psychological well-being compared to employees who are less engaged (Bailey-Hicks, 2023). In contrast, low levels of engagement may lead to unfavorable outcomes such as burnout, lower job satisfaction and increased turnover intentions. Conversely, maintaining employee engagement has become a key concern for organizations that aim to achieve long-term sustainability and effectiveness (Breevaart & van Woerko, 2024). According to Knight, Patterson & Dawson (2019), job engagement is a critical driver of individual and organizational performance, linked to greater productivity, innovation and well-being. Thus, job engagement can be understood as a psychological state where employees invest their physical, cognitive and emotional energies into their roles that result in enhanced performance and well-being (Saks, 2022). While job characteristics play an important role in shaping engagement, individual differences may also influence how employees respond to their work environments. Personality traits, particularly Openness to Experience, may affect the extent to which employees feel engaged when performing their job roles (McCrae & Costa, 1997). Drawing on trait activation theory, this study therefore examines the moderating role of Openness to Experience in the relationship between core job characteristics and job engagement.

Job Characteristics

Job characteristics are a critical determinant of employee motivation, satisfaction, and engagement. Hackman and Oldham's (1976) Job Characteristics Model (JCM) posits that skill variety, task identity, task significance, autonomy, and feedback influence employees' psychological states, which in turn affect performance. Enriched job designs foster intrinsic motivation and greater satisfaction (Humphrey et. al., 2007). Autonomy is particularly significant, allowing employees to feel ownership over their tasks, which enhances engagement (Saks & Gruman, 2021). Feedback also plays a vital role in enabling employees to monitor and improve performance. Skill variety and task significance contribute to meaningful work, while task identity helps employees perceive their contributions as complete and valuable. Job characteristics are essential in shaping employee engagement, motivation and well-being, particularly in dynamic contexts like remote and hybrid work (Johnson et. al., 2021). Thus, job characteristics can be defined as the structural and contextual features of work that influence how employees experience their roles, affect their motivation and determine both individual and organizational outcomes.

Personality Traits

Personality traits are defined as enduring patterns of thoughts, emotions and behaviors that remain relatively stable across time and in situations, distinguishing one individual from another (Psychology Today, 2024). Unlike temporary states that fluctuate depending on circumstances, traits are seen as long-term tendencies that shape how people perceive, interpret and respond to their environment. According to the trait theory, these individual differences represent fundamental aspects of human personality that can be systematically studied and measured (McCrae & Costa, 2023). The most widely recognized framework for understanding personality traits is the Five-Factor Model (commonly known as the Big Five), which categorizes personality into five broad dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (McCrae & Costa, 2023). Empirical studies have consistently demonstrated that these traits are normally distributed in the population, relatively stable across the lifespan, and moderately heritable, with genetic influences estimated to

account for approximately 40–60% of trait variance (Verywell Health, 2024). Furthermore, the Big Five model has shown cross-cultural validity, making it a robust tool for understanding human personality in diverse contexts (Psychology Today, 2024).

Openness To Experience

Openness reflects imagination, curiosity, and receptiveness to novelty. Its include active imagination, emotional awareness, actions (willingness to try new activities), ideas and openness to re-examining beliefs. Together, these facets describe individuals who are innovative, emotionally perceptive and intellectually flexible. Employees high in openness are more innovative and receptive to change, which fosters higher engagement (Li et al., 2014). Recent work shows that openness is strongly related to creativity and adaptability, making it particularly relevant in dynamic environments (Soto & John, 2017). Individuals high in openness demonstrate greater divergent thinking and are more likely to generate original solutions, making this trait particularly relevant to innovation and problem solving in both academic and organizational contexts (Abu Raya et. al., 2023). Moreover, openness supports adaptability and cognitive flexibility that's enabling individuals to navigate uncertainty and complex social environments more effectively (Jach & Smillie, 2019). Lin et al. (2025) cited as individuals high in openness are less prone to prejudice, exhibit higher tolerance toward outgroups and display stronger intercultural competence partly because they are more willing to revise stereotypes and embrace multiple perspectives. In modern workplaces, openness is especially relevant as employees must adapt to digitalization and rapid organizational change.

Conscientiousness

Conscientiousness captures traits linked to organization, responsibility and persistence. Highly conscientious individuals tend to be reliable, goal-oriented and disciplined, and contemporary studies confirm that conscientiousness is one of the strongest predictors of academic and workplace performance (Allik et. al., 2017; Soto & John, 2017). Individuals high in conscientiousness are typically described as organized, dependable and hardworking, with strong tendencies toward goal persistence and self-regulation. This makes conscientiousness one of the strongest predictors of academic and occupational success, as such individuals consistently demonstrate higher performance, reliability and effectiveness in structured environments (Roberts et. al., 2022). According to Wilmot & Ones (2019), conscientiousness is a robust predictor of job performance across industries, particularly in tasks requiring persistence, careful planning and adherence to procedures. Consequently, conscientiousness has been identified as a protective factor for longevity and life satisfaction, with higher scores linked to reduced mortality risk and greater well-being across the lifespan (Turiano et al., 2023). Overall, conscientiousness represents a critical dimension of personality that influences achievement, health and social functioning, making it a cornerstone in personality psychology and applied behavioral sciences.

Extraversion

Extraversion represents sociability, assertiveness and enthusiasm. It is expressed through friendliness and enjoyment of social interaction. Extraverted individuals are often outgoing, energetic and socially confident. More recent studies affirm that extraversion is positively linked to social engagement, subjective well-being, and leadership effectiveness across cultures (McCrae & Costa, 2008; Soto & John, 2017). Extraversion are characterized by high levels of

sociability and interpersonal engagement tend to experience more frequent positive affect and maintain wider social networks, which provide emotional and instrumental support (Steel et al., 2020). Extraversion is strongly related to leadership emergence and effectiveness. Individuals high in extraversion often take on visible roles in group contexts, show higher verbal expressiveness, and are more comfortable with public speaking and persuasion. According to cross-cultural research demonstrated by Ching et al., (2023), extraversion is a robust predictor of happiness across culture, but its expression varies depending on cultural norms for sociability and emotional expressiveness. This highlights that extraversion is not only a personal trait but also a socially contextualized construct shaped by cultural expectations and socialization practices.

Agreeableness

Agreeableness reflects compassion, cooperativeness, and concern for others. Individuals high in agreeableness are typically kind, cooperative, and prosocial. Recent research highlights agreeableness as a central trait influencing interpersonal relationships, conflict resolution and prosocial behavior (Allik et al., 2017). Agreeableness is a core dimension of the Big Five personality traits that reflects the degree to which individuals are cooperative, compassionate and oriented toward maintaining positive social relationships (McCrae & Costa, 2010). Graziano & Tobin (2017) stated individuals high in agreeableness tend to have better quality relationships, greater social support and more cooperative behaviors in both personal and professional settings. From a workplace perspective, agreeableness is positively associated with teamwork, organizational citizenship behavior, and leadership effectiveness in roles that require empathy and collaboration (Chiaburu et al., 2011). However, extremely high levels of agreeableness may sometimes be disadvantageous in competitive or high-pressure contexts, where assertiveness and critical decision-making are necessary (Judge et al., 2013). This dual effect suggests that agreeableness must be interpreted within the demands of the social and organizational environment.

Neuroticism

Neuroticism refers to the tendency to experience negative emotions, emotional instability, and heightened stress reactivity (McCrae & Costa, 2010). Neuroticism represents emotional instability and vulnerability to stress. Its sub-dimensions include anxiety, irritability, depression and self-consciousness. High neuroticism has been consistently associated with lower well-being, higher stress reactivity and greater risk of mental health difficulties (McCrae & Costa, 2010; Soto & John, 2017). Empirical evidence consistently shows that individuals high in neuroticism are more prone to mental health problems, including depression, anxiety disorders, and psychosomatic complaints (Lahey, 2009). They also report lower levels of life satisfaction and subjective well-being (Soto & John, 2017). Conversely, individuals lower in neuroticism, who exhibit greater emotional stability, are generally more resilient, adaptive under pressure, and effective in coping with challenges. Recent longitudinal research also indicates that while neuroticism tends to remain relatively stable, interventions such as cognitive-behavioral therapy and mindfulness-based practices can reduce its negative impact on stress and well-being (Roberts et al., 2017).

Definition of Terms

Job Characteristics

Job characteristics influence three critical psychological states, which then impact personal and work outcomes such as work effectiveness, absenteeism, work motivation, growth satisfaction and overall satisfaction (Hackman & Oldham, 1976).

Job Engagement

The benefits of job engagement are numerous, ranging from favorable job-related attitudes, perspective and employee health to extra-role conduct and overall performance (Schaufeli & Salanova, 2007).

Personality Traits

Personality traits have been defined as stable individual differences in affect, behavior, cognition and motivations (Revelle, Wilt & Condon, 2011).

Openness

McCrae and Costa described openness to experience as a significant personality trait that helps explain creativity or artistic temperament, social attitudes and behavior, the capacity to be hypnotized, job choices and ethical reasoning in 1997.

Conscientiousness

Conscientiousness is regarded as one of the most consistent personality indicators of job success across a wide range of employment and professional situations (Barrick & Mount, 1991).

Extraversion

According to Wilson (1981), are more susceptible to social influences, implying that they may benefit from social effects such as supervisor assistance.

Agreeableness

People who are pleasant are regarded as kind, cooperative, selfless, helpful and giving (McCrae & Costa, 1992).

Neuroticism

People with high neuroticism are self-pitying, apprehensive, distrustful, sad, nervous, deficient in good psychological adjustment and feeling helpless and defenceless (McCrae & Costa, 1997).

Problem Statement

Business owners have become increasingly skeptical in recent years about the global recession and the reduction in employee engagement, which has been linked to the growing influx of younger workers into the labor market (Juergensen, Guimon, & Narula, 2020; Park, 2019). As a consequence, organizations are now dealing with challenges that have not been previously encountered. From the 1990s to the present, the notion of job engagement has been widely debated across various disciplines, reflecting its critical importance for both organizational performance and employee well-being (Bakker & Albrecht, 2018). Indeed, workplace success and employee flourishing heavily depend on engagement, with disengaged employees posing risks to productivity and morale (Forbes, 2023). Recent statistics reveal concerning trends: in 2023, approximately 33% of workers reported disinterest in their jobs, a rate similar to that of 2020. Engagement levels, however, fell significantly—from 80% in 2022 to 67% in 2023—indicating a downward trajectory (Hossan et al., 2024). In Malaysia specifically, the economic impact of disengagement has been substantial, with reports estimating a loss of RM 26.097 billion in 2020 due to disengaged employees (Laotian Times, 2021).

Research Question

What are the moderating effects of personality traits (openness to experience) on the relationship between job characteristics and job engagement among enforcement officers under Ministry of Home Affairs, Putrajaya?

Conceptual Framework

The conceptual framework for this study is depicted in Figure 1 below.

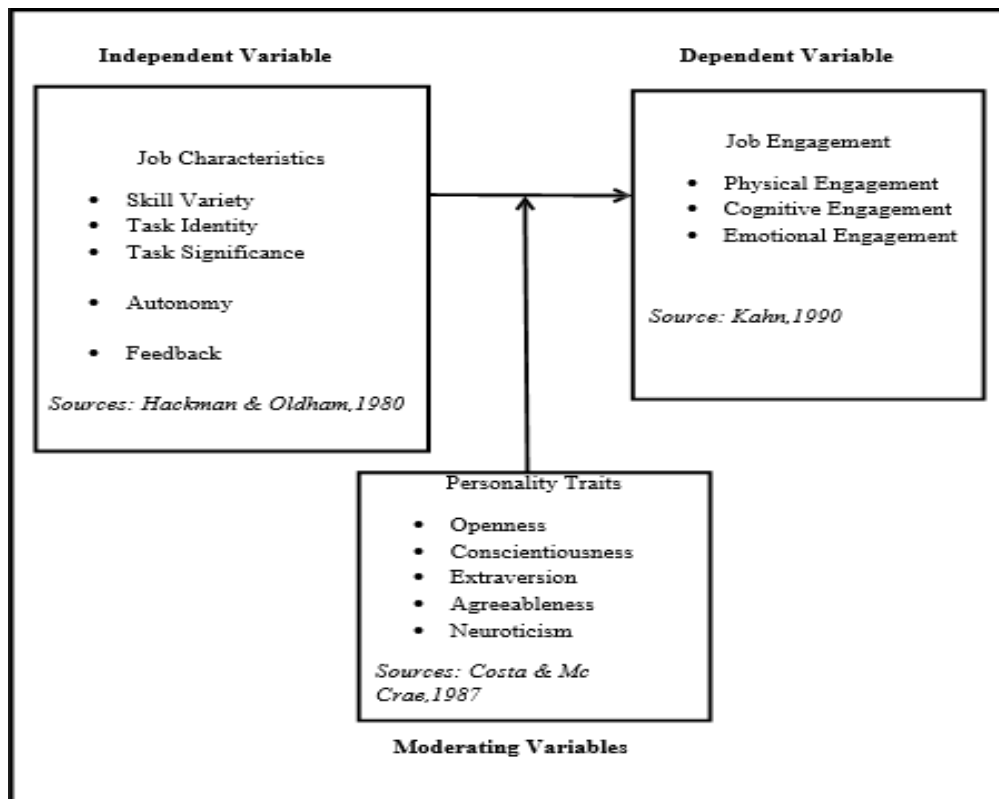


Figure 1: Conceptual Framework

Methodology

Data were collected from four selected departments under the Ministry of Home Affairs in Malaysia: The Immigration Department of Malaysia (Jabatan Imigresen Malaysia), the Prison Department of Malaysia (Jabatan Penjara Malaysia), Malaysian Volunteer Corps Department (Jabatan Sukarelawan Malaysia) and the National Registration Department (Jabatan Pendaftaran Negara). The data for this study were collected in collaboration with practitioners from selected organizations, ensuring practical relevance. The questionnaires were distributed using Google Forms, with the survey link sent to designated representatives from each department via email and WhatsApp. A cover letter accompanied the distribution, outlining the purpose of the study and including a confidentiality statement to assure respondents of the anonymity and security of their responses.

The sample was obtained using a multistage sampling approach comprising two stages: convenience sampling and snowball sampling. Initially, convenience sampling was employed to identify key representatives within the selected departments. Subsequently, snowball sampling was utilized as the survey link was disseminated by these representatives to other eligible respondents within their respective departments. A total of 342 complete questionnaires were submitted through the online platform, as presented in Table 1.

Table 1: Response Rate

Departments	Questionnaires Received	Return Rate (%)
Immigration Department of Malaysia	86	25.1
Prison Department of Malaysia	127	37.1
Malaysian Volunteer Corps Department	61	17.8
National Registration Department	68	19.9
TOTAL	342	100

Results and Discussion

Reliability Analysis

The Job Characteristics scale (23 items) showed excellent internal consistency ($\alpha = .906$). Among its sub dimensions, feedback had the highest reliability ($\alpha = .921$), followed by task Identity ($\alpha = .810$), autonomy ($\alpha = .772$), and task significance ($\alpha = .730$), all indicating acceptable to good reliability. Skill variety showed lower reliability ($\alpha = .562$) but remains conceptually relevant and acceptable for exploratory research. The Personality Traits construct (21 items) reported acceptable overall reliability ($\alpha = .797$). Subscales such as conscientiousness ($\alpha = .860$), extraversion ($\alpha = .878$) and neuroticism ($\alpha = .897$) showed good to excellent reliability, while agreeableness ($\alpha = .751$) was acceptable. Openness ($\alpha = .613$) fell within the marginally acceptable range, indicating a need for cautious interpretation.

The Job Engagement scale demonstrated excellent reliability ($\alpha = .958$), with its sub dimensions of physical ($\alpha = .885$), cognitive ($\alpha = .972$) and emotional engagement ($\alpha = .949$) also showing excellent consistency. Although high alphas may suggest redundancy, the multidimensional nature of the scale justifies item retention. Overall, the instruments used in this study are reliable, with a few subscales needing further refinement in future research.

Hierarchical Regression

Findings on hierarchical regression is summarized in Table 2, which demonstrates the moderating effects of personality traits (openness to experience) towards the relationships between job characteristics and job engagement. Model 1 explained 28.6 percent of the variance while Model 2 explained 32.6 percent of the variance with 4 percent incremental value and Model 3 explained 34.6 percent of the variance with 6 percent increment in the total variance explained compared to Model 1. The hierarchical regression analysis revealed that among the five dimensions of job characteristics, skill variety and autonomy consistently exhibited positive standardized coefficients across all three models. Although not all were statistically significant, Autonomy ($\beta = .343$ in Model 3) emerged as the most influential dimension when the moderating variable was included. In the final model, two interaction terms demonstrated significant moderating effects. Specifically, the interaction between autonomy and openness to experience ($\beta = .897$, $p < .05$) indicated that individuals with higher levels of openness experience a strengthened positive relationship between autonomy and the outcome variable. Likewise, the interaction between task significance and openness to

experience ($\beta = .390, p < .05$) suggested that openness to experience also enhances the influence of task significance. The interaction effects involving skill variety, task identity and feedback towards the openness to experience were not statistically significant in the final regression model. This suggests that the moderating role of openness to experience does not meaningfully alter the relationships between these specific job characteristics and the dependent variable. Therefore, the findings confirm that openness to experience moderates the relationship between autonomy and task significance, and the outcome variable supporting the presence of significant interaction effects in these two dimensions.

Table 2. Hierarchical Regression Analysis

Variables	Model 1	Model 2	Model 3
Independent variable			
Job Characteristics	-.016	-.032	-.034
Skill Variety	.256	.232	.298
Task Identity	.178	.159	-.069
Task Significance	-.064	-.099	-.697
Autonomy	.261	.234	.343
Feedback	-.016	-.032	-.034
Moderator			
Personality Traits_ Openness to experience		.219	-.360
Interaction Terms Job Characteristics & Openness to experience			
Skill Variety* Openness to experience			-.026
Task Identity* Openness to experience			-.081
Task Significance* Openness to experience			.390
Autonomy* Openness to experience			.897
Feedback* Openness to experience			-.179
R²	.286	.325	.346
R² Change	.275	.313	.324
F Change	26.929	19.551	2.064
Sig. of F Change	.001	.001	.070
F	26.929	26.939	15.865
Sig.	.001	.001	.001
Durbin Watson			1.946

Notes: *significant with the p-value<.05

Discussion

The findings of this study indicate that job engagement is significantly influenced by the interaction between core job characteristics and individual personality traits, particularly Openness to Experience. This trait reflects curiosity, flexibility in thinking and openness to new experiences which are especially important in today's fast-changing work environments (McCrae & Costa, 1997; Dehkordi et al., 2022). Based on trait activation theory, the findings suggest that personality traits are triggered by specific job features, influencing how employees engage with their work. In this study, autonomy and task significance were positively affected by openness, meaning that employees who are more open tend to invest more effort and energy when they have freedom and meaningful responsibilities. This aligns with previous research showing that autonomy strengthens creativity and performance among individuals with higher

openness (Zheng et al., 2023). On the other hand, skill variety, task identity, and feedback did not show significant effects, indicating that openness does not enhance every aspect of job design equally. This may be due to the fact that certain traits respond only to specific job demands (Vieregge et al., 2023). Overall, these results highlight the importance of designing roles that match employee personality, suggesting that giving open individuals autonomy and meaningful tasks can boost engagement and encourage proactive behavior. These findings add to our understanding of how personality interacts with job characteristics and offer practical guidance for creating work environments that support sustained engagement.

Conclusion

This study investigated the moderating effects of Openness to Experience on the relationship between job characteristics and job engagement among employees in selected organizations. Previous research highlights that while job characteristics such as autonomy, task significance, and skill variety are important for motivating employees and enhancing performance (Hackman & Oldham, 1976; Humphrey et. al., 2007), individual differences in personality traits can influence how employees perceive and respond to these job features (Tett & Burnett, 2003). Specifically, individuals high in openness tend to be more receptive to challenging and meaningful work, enabling them to maximize the benefits of enriched job characteristics (Dehkordi et al., 2022; Zheng et al., 2023). These findings are particularly relevant in contemporary organizations where sustaining employee engagement has become increasingly challenging due to evolving work structures and heightened job demands. Despite the recognized importance of job design, many organizations may overlook the variability in employee personality, which can limit the effectiveness of job enrichment efforts (Vieregge et al., 2023). This study's findings suggest that openness to experience plays a crucial role in strengthening the positive effects of autonomy and task significance on job engagement, indicating that tailoring job design to individual differences could enhance motivation and performance. Organizations that recognize and support these personality-job fit dynamics are better positioned to foster employee engagement, creativity and long-term commitment. Failure to do so may result in suboptimal utilization of employee potential and missed opportunities for organizational success. In other words, regardless of an individual's level of openness, the influence of skill variety, task identity and feedback on the outcome remains relatively stable and unaffected by personality disposition. These findings imply that the interaction effects for these dimensions may be context-specific or influenced by other unmeasured factors, warranting further investigation in future research.

Recommendations

This study offers several avenues for future research and practical application. Although the moderating role of openness to experience in the relationship between job characteristics and job engagement was evident, the literature remains limited in capturing how this interaction operates across different organizational and cultural contexts. A deeper understanding of how personality traits influence employees' perceptions of job design is essential for advancing both theoretical models and human resource practices. Given that this study focused on employees in selected organizational settings, future research should extend to a broader range of professional groups across various industries such as healthcare, finance, education and law. Comparative studies involving both public and private sectors would help determine whether similar moderating effects exist across different work environments and organizational structures. Further research should also explore additional personality dimensions beyond

openness such as conscientiousness, extraversion and emotional stability, to examine their influence on job design effectiveness and behavioral outcomes. These insights can contribute to more individualized and targeted approaches in job structuring, recruitment and employee development strategies.

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References

- Abu Raya, M., Segev, A., & Mendel, L. (2023). The reciprocal relationship between openness and neurological outcomes. *Frontiers in Neurology, 14*, 1235348. <https://doi.org/10.3389/fneur.2023.1235348>
- Allik, J., Church, A. T., Ortiz, F. A., Rossier, J., Hřebíčková, M., de Fruyt, F., Realo, A., & McCrae, R. R. (2017). Mean profiles of the NEO Personality Inventory. *Journal of Cross-Cultural Psychology, 48*(3), 402–420. <https://doi.org/10.1177/0022022116687859>
- Bakker, A. B., & Albrecht, S. L. (2018). Work engagement: Current trends. *Career Development International, 23*(1), 4–11. <https://doi.org/10.1108/CDI-11-2017-0207>
- Bailey-Hicks, B. A. (2023). The Impact of the Employee-Organization Relationship on Engagement and Burnout: A Mixed Methods Study Within the Tech Industry. Northwood University.
- Breevaart, K., & van Woerkom, M. (2024). Building Employee Engagement and Resilience Through Strengths-Based Leadership. *The Spanish Journal of Psychology, 27*, e25. doi:10.1017/SJP.2024.28
- Chiaburu, D. S., Oh, I. S., Berry, C. M., Li, N., & Gardner, R. G. (2011). The five-factor model of personality traits and organizational citizenship behaviors: A meta-analysis. *Journal of Applied Psychology, 96*(6), 1140–1166. <https://doi.org/10.1037/a0024004>
- Ching, C. M., Church, A. T., & Katigbak, M. S. (2023). Culture and extraversion: Cross-cultural differences in the relation between extraversion and well-being. *Journal of Personality, 91*(5), 1089–1105. <https://doi.org/10.1111/jopy.12814>
- Forbes. (2023). Workplace wellbeing depends on employee engagement. <https://www.forbes.com>
- Graziano, W. G., & Tobin, R. M. (2017). Agreeableness. In T. A. Widiger (Ed.), *The Oxford handbook of the five-factor model* (pp. 105–132). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199352487.013.5>
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*(2), 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
- Hossan, D., Mansor, Z. D., Jaharuddin, N. S., & Rahman, M. M. (2024). Antecedents of employee work engagement in Malaysia in light of job demands–resources theory. *Journal of Entrepreneurship, Business and Economics, 12*(1), 36–65.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic review. *Journal of Applied Psychology, 92*(5), 1332–1356. <https://doi.org/10.1037/0021-9010.92.5.1332>
- Jach, H. K., & Smillie, L. D. (2019). To fear or fly to the unknown: Tolerance for uncertainty and Big Five personality traits. *Journal of Research in Personality, 79*, 67–78. <https://doi.org/10.1016/j.jrp.2019.02.003>
- Johnson, et al. (2021). The relationship between remote work and job satisfaction: The mediating role of perceived autonomy. *Information Management & Business Review, 15*(3), 10–22.
- Judge, T. A., Rodell, J. B., Klinger, R. L., Simon, L. S., & Crawford, E. R. (2013). Hierarchical representations of the five-factor model of personality in predicting job performance. *Journal of Applied Psychology, 98*(6), 875–925. <https://doi.org/10.1037/a0033901>
- Juergensen, J., Guimon, J., & Narula, R. (2020). European SMEs amidst the COVID-19 crisis: Assessing impact and policy responses. *Journal of Industrial and Business Economics, 47*(3), 499–510. <https://doi.org/10.1007/s40812-020-00169-4>

- Knight, C., Patterson, M., & Dawson, J. (2019). Work engagement interventions can be effective: A systematic review. *European Journal of Work and Organizational Psychology*, 28(3), 348372. <https://doi.org/10.1080/1359432X.2019.1588887>
- Lahey, B. B. (2009). Public health significance of neuroticism. *American Psychologist*, 64(4), 241256. <https://doi.org/10.1037/a0015309>
- Laotian Times. (2021). Study finds Malaysia's disengaged employees cost economy billions. <https://laotiantimes.com/2021/07/20/study-finds-malaysias-disengaged-employees-cost-economy-billions/>
- Li, N., Liang, J., & Crant, J. M. (2014). The role of proactive personality in job satisfaction and organizational citizenship behavior. *Journal of Applied Psychology*, 95(2), 395–404. <https://doi.org/10.1037/a0018079>
- Lin, P. K. F., et al. (2025). Associations between openness and intergroup attitudes. *Personality and Individual Differences*. <https://doi.org/10.1016/j.paid.2024.112679>
- McCrae, R. R., & Costa, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, 52(5), 509–516. <https://doi.org/10.1037/0003-066X.52.5.509>
- McCrae, R. R., & Costa, P. T., Jr. (2008). The five-factor theory of personality. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 159–181). Guilford Press.
- McCrae, R. R., & Costa, P. T., Jr. (2010). *NEO Inventories professional manual* (NEO-PI-3). Psychological Assessment Resources.
- McCrae, R. R., & Costa, P. T., Jr. (2023). The five-factor theory of personality. *Annual Review of Psychology*, 74, 1–25. <https://doi.org/10.1146/annurev-psych-120920-043849>
- Psychology Today. (2024). Personality traits. <https://www.psychologytoday.com/us/basics/personality/personality-traits>
- Park, Y. (2019). The effects of generational differences on workplace engagement: A review. *International Journal of Human Resource Studies*, 9(2), 115. <https://doi.org/10.5296/ijhrs.v9i2.14575>
- Roberts, B. W., et al. (2017). A systematic review of personality trait changes through intervention. *Psychological Bulletin*, 143(2), 117–141. <https://doi.org/10.1037/bul0000088>
- Roberts, B. W., et al. (2022). A systematic review of personality trait changes through intervention. *Psychological Bulletin*, 148(5–6), 353–379. <https://doi.org/10.1037/bul0000368>
- Saks, A. M. (2022). Antecedents and consequences of employee engagement revisited. *Journal of Organizational Effectiveness: People and Performance*, 9(1), 130–149. <https://doi.org/10.1108/JOEPP-06-2021-0158>
- Saks, A. M., & Gruman, J. A. (2021). What do we really know about employee engagement? *Human Resource Development Quarterly*, 25(2), 155–182. <https://doi.org/10.1002/hrdq.21187>
- Samimi Dehkordi, A., Ghasemi, S., & Pourtalebi, M. (2022). The three-way interaction effect of autonomy, openness to experience, and techno-invasion on employee creativity. *The Journal of Creative Behavior*. <https://doi.org/10.1002/jocb.679>
- Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets. *Journal of Personality and Social Psychology*, 113(1), 117143. <https://doi.org/10.1037/pspp0000096>
- Steel, P., Schmidt, J., & Shultz, J. (2020). Refining the relationship between personality and performance. *Psychological Bulletin*, 146(2), 197–229. <https://doi.org/10.1037/bul0000227>

- Turiano, N. A., Chapman, B. P., & Luchetti, M. (2023). Conscientiousness and health across the lifespan. *Current Opinion in Psychology*, 48, 101485. <https://doi.org/10.1016/j.copsyc.2022.10148>
- Vierregge, M., Reiter, K., & Kleinmann, M. (2023). Sensory processing sensitivity as a moderator between job characteristics and organizational citizenship behavior. *Zeitschrift für Arbeits- und Organisationspsychologie*, 67(2), 95–107.
- Verywell Health. (2024, January 15). Nature vs. nurture: How much influence do genes have on traits? <https://www.verywellhealth.com/nature-vs-nurture-5323408>
- Wilmot, M. P., & Ones, D. S. (2019). A century of research on conscientiousness at work. *Proceedings of the National Academy of Sciences*, 116(46), 23004–23010. <https://doi.org/10.1073/pnas.1908430116>
- Zheng, X., Yang, L., & Liu, C. (2023). Longitudinal associations between job characteristics and the Big Five personality traits: A 12-year study. *Journal of Personality*. <https://pubmed.ncbi.nlm.nih.gov/37072929>
- Zuniga, L. (2023). Employee engagement in the service industry: Challenges and future trends. *Journal of Service Management Research*, 7(1), 45–57. <https://doi.org/10.1007/s41184-022-00068-4>