



Personality Traits as Indicators of Burnout and Engagement: Insights from the Indian Automotive Industry

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Abstract

Purpose: Our study focuses on the effect of Big Five personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism) on the burnout and engagement of employees in Indian automobile industry. It also focuses on the nature of burnout and engagement as opposite ends of a single continuum or as separate but related constructs. **Design/methodology/approach:** Data collection was carried out from supervisory and non-supervisory employees of automotive firms that are situated in the Delhi-NCR region. Partial Least Squares Structural Equation Modeling (PLS-SEM) method has been used in order to investigate the direct and mediating effects of personality trait variables on employee burnout and engagement. **Findings:** Our results show that extraversion, conscientiousness, agreeableness, and openness are significant predictors of lower levels of burnout and higher levels of engagement, while neuroticism has no direct effect. Burnout emerged as a partial mediator in the relationship between some personality traits and engagement, thereby highlighting its role in mediating the link between personality and work-place outcomes. **Research limitations/implications:** Our research is confined to the Indian automobile sector, so the venerability of the research may not extend to other industries and cultural settings. Future studies may use cross-industry and longitudinal study designs to improve the robustness and applicability of results. **Practical implications:** Our study findings can provide useful insights for managers and HR practitioners interested in developing personality-based interventions (for recruitment, job design and engagement) to mitigate burnout and boost employee well-being. **Originality/value:** Our paper contributes to the literature on the simultaneous role of personality types regarding positive and negative work outcomes. It also offers empirical evidence of the mediating role of burnout in personality and engagement relationship in an emerging market context.

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Introduction

Employee well-being is becoming a strategic imperative for organisations worldwide, especially those working in high-pressure and labour-intensive industries. Burnout and engagement - two key measures of workplace well-being - are coming onto the radar not only because of the link with employee health but also because of their effect on the effectiveness of organisations. Burnout, as defined by emotional exhaustion, cynicism, and decreased personal achievement is related to absenteeism, employee turnover, and safety violations (Maslach & Leiter, 2016).

Employee well-being is now a strategic priority for organizations across the world, especially among high-pressure and labour-intensive industries. Burnout and engagement - two leading indicators of workplace well-being - have received increasing attention for what they mean not only for employee health, but for organizational performance. Burnout, defined as emotional exhaustion, cynicism and a diminished sense of personal accomplishment, has been associated with increased absenteeism, turnover and workplace safety violations (Maslach & Leiter, 2016). Engagement which is characterised by vigour, dedication and absorption, is positively related to productivity, commitment and creativity (Schaufeli, 2017; Papagiannidis & Marikyan, 2020). However, current research debate exists regarding whether burnout and engagement exist on different ends of the same continuum or whether they are separate constructs with overlapping but independent antecedents (Demerouti, Mostert, & Bakker, 2010).

Personality traits offer a relatively stable framework for the understanding of individual differences in coping with the demands of professional work. The Big Five model consisting of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, is by far the most widely validated and applied model (Costa & McCrae, 1992). Earlier research suggests that conscientiousness, extraversion, agreeableness, and openness are protective factors that are associated with lower levels of burnout and greater engagement, whereas neuroticism is associated with higher levels of stress and emotional instability (Angelini et al., 2023). However, how these characteristics influence work outcomes is still under-examined, especially in emerging market settings. Burnout could be a mediating mechanism linking personality traits to engagement by causing a depletion or a conservation of psychological resources (Bakker & Demerouti, 2017).

The Indian context provides an appropriate context for investigating such dynamics. The country's automotive industry, which accounts for almost 7% of the national GDP, with an employment of the workforce of over 19 million people, represents both a source of industrial development and a reason for a significant demand for jobs (Society of Indian Automobile Manufacturers [SIAM], 2023). Long working hours, tight production deadlines, safety issues and repetitive tasks mean that those employed in this sector have relatively high rates of stress and burnout. At the same time, fast technological developments, the shift to electric cars, and global competition require ever higher levels of involvement and flexibility (Ernst & Young, 2024). In addition, the collectivism of Indian culture implies that personality dimension such as agreeableness may have unique effects on employee well-being and can distinguish the Indian work force from the Western workforce (Sahoo & Sia, 2015).

Despite its strategic importance, studies on burnout and engagement in Indian Automotive Industry are very few. Existing studies in India have largely been concentrated in service sectors such as information technology, banking and healthcare (Narayanasami, Joseph, & Parayitam, 2021) while the contexts of manufacturing are relatively understudied. Moreover, though there has been some global scholarship on whether burnout and engagement are two different constructs, or opposite ends of a continuum, there has been scant empirical work in this regard as it relates to the Indian industrial landscape. Overall, there is still lack of empirical evidence on the mediating role of burnout in the relationship between personality and engagement, especially in labour intensive sectors. Our study is aimed at finding the predictive effect of the Big Five personality traits on burnout and engagement in the Indian automobile industry. It investigates the degree to which these traits have an important influence on the outcomes of burnout and engagement, while the mediating effect of burnout on the relationship between personality and engagement is also analyzed. Furthermore, the research discusses whether burnout and engagement should be regarded as the opposite ends of a continuum or separate but related constructs.

Through this multidimensional approach, our study contributes to a better understanding from a theoretical standpoint of the relationships between personality and employee well-being, as well as providing practical implications for human resource practitioners. The findings of our research can help inform evidence-based strategies in the areas of recruitment, job design and well-being programmes that are tailored to the unique needs of India's automotive industry.

Literature Review

Personality and Work Outcomes

Personality psychology has always acknowledged the existence of long-lasting effects of stable individual differences on behaviour, motivation and performance (McCrae & Costa, 2008). Within the organizational context, personality traits are considered as important predictors of positive and negative work-related outcomes as it influences how employees adapt to the demands, how they use resources, and how they manage their emotions (Judge & Zapata, 2015; Delarue, Van Hooft, Procter, & Burridge, 2007). The Big Five personality model consisting of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism has evolved as the most accepted personality taxonomy (John et al., 2021). Each dimension captures a broad area of dispositional tendencies which are of relevance in a variety of cultural and occupational contexts.

A growing number of works in occupational psychology have conceptualized personality as a "personal resource" in the Job Demands-Resources (JD-R) model and that contribute to employee well-being, stress, and motivation (Bakker & Demerouti, 2017). "The personality traits have a specific particular influence on the susceptibility toward burnout, a chronic psychological state that is accompanied by exhaustion and cynicism and on engagement, a positive and rewarding work-related state that is characterized by vigor, commitment, and absorption" (Schaufeli & Bakker, 2004). Scholars have continued to study these dual outcomes to figure out if burnout and engagement are two ends of the same continuum or two separate constructs that function simultaneously (Maslach & Leiter, 2016; Schaufeli, 2021).

In light of the significant challenges that Indian automotive sector faces, including technological disruption, supply chain fluctuations and workforce pressure, psychological well-being of employees has become a major concern. Thus, it would be of important theoretical and practical interest to investigate how personality traits are related to burnout or engagement.

Conceptualization of Burnout

Burnout is usually defined as having three dimensions - emotional weariness, depersonalisation (or cynicism), and decreased personal achievement (Maslach et al., 2001). Emotional exhaustion refers to the depletion of mental resources, the depersonalisation suggests a detachment or bad attitudes towards work, whereas lowered accomplishment suggests feelings of ineffectiveness. Burnout is a condition of too much demand from the job for too long, with too few coping mechanisms available.

Recent studies explore the one-dimension nature of burnout, that is, the exhaustion and cynicism are considered basic elements, while a reduced sense of achievement might indicate a consequence of burnout rather than a permanent trait (Demerouti & Bakker, 2023). This new way of looking at things is compatible with the JD-R model, which states that burnout is a stress response to higher job expectations and insufficient resources.

Empirical research has consistently shown that workload, role ambiguity, role conflict, a lack of autonomy and lack of social support are all significant contributors to burnout (Lee & Ashforth, 1996; Koutsimani et al., 2019). In the automotive industry, there are risk factors such as pressure to meet production deadlines, safety concerns, and working shifts.

Apart from the external factors, personal variations do play a role in susceptibility to burnout. Employees characterised by a high degree of emotional stability, resilience and adaptive coping strategies are less vulnerable to burnout, while persons with a disposition towards neuroticism or negative affectivity are more vulnerable (Bakker & de Vries, 2021).

Burnout has serious consequences at different levels. For employees, it leads to a decline in their health, low productivity, high absenteeism, and tendencies to leave the organisation (Salvagioni et al., 2017). Burnout reduces production levels, increases errors and increases healthcare costs to organisations. Meta-analyses show significant correlations between burnout and cardiovascular problems, feelings of depression, and death (Koutsimani et al., 2019). These findings highlight the need to identify predictors, including personality factors that support in reducing problems of burnout.

Conceptualization of Engagement

Employee engagement is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli & Bakker, 2004). Vigour means energy and perseverance, dedication means enthusiasm and pride, and absorption means deep concentration (Marikyan, Papagiannidis, Rana, & Ranjan, 2024). On the other hand, Engagement focuses on how an individual is openly and actively using his or her physical, mental, and emotional energy.

The JD-R model emphasizes that resources related to the work setting, such as autonomy, social support, and feedback, increase engagement, and personal resources, primarily self-efficacy, optimism, resilience, personality type, etc., are resources that help one mobilize (Bakker, 2022). Personality is a two-edged sword: it has a direct impact on engagement and an indirect one on how workers' perception of demands and resources is affected.

Overall, engagement predicts performance, organisational citizenship behaviours, innovation, and decreased turnover (Chadha, Gupta, Tewari, & Dwivedi, 2025; Anwar & Sarfraz, 2023; Saks, 2021). Engaged workers report being happier and thus are more engaged in their jobs. In manufacturing and automotive, employee engagement increases safety adherence, productivity and flexibility to technological change (Singh & Gupta, 2022).

Burnout and Engagement: Competing Perspectives

A prominent academic argument emphasises on whether burnout and engagement are opposing extremes of a continuum or distinct phenomena. Maslach and Leiter (2016) proposed that burnout and engagement are two opposite extremes of energy and involvement. Fatigue is related to poor energy levels, cynicism is related to low commitment and low absorption is related to low achievement. Some people say that burnout and engagement are related but they are not the same thing. For example, an employee could be really dedicated even when he or she was tired (Schaufeli, 2021). There are empirical evidence that a two-construct model is validated through factor analyses (Demerouti et al., 2010), in which negative but distinct relationships are found.

Our present study applies the second perspective, where burnout is evaluated as a mediator between personality and engagement, rather than just the lack of engagement.

Cultural and Sectoral Context in India

Cultural factors have a large impact on the correlation between personality traits and well-being outcomes. Agreeableness and conscientiousness are of specific importance given India's collectivist and hierarchical culture (Sahoo & Sia, 2015). In collectivistic cultures, agreeableness helps to mitigate burnout by promoting social support, while conscientiousness is associated with cultural norms of responsibility and hard work, and thereby pro-social engagement (Budhwar & Varma, 2021).

The associations become richer with the sectoral context. The Indian automobile industry employs around 19 million people and accounts for about 7% of the GDP of the country; it is characterized by high physical demands, repetitive tasks, and high production pressure (SIAM, 2023). Available research in high-stress industries such as healthcare and manufacturing indicates that the interplay of workplace and individual factors influences burnout and engagement (Koutsimani et al., 2019). However, empirical research focusing on Indian manufacturing, specifically automotive industry, is still lacking.

Research Gaps and Contribution

Three substantial gaps are identified by the literature. The first of these is that the theoretical connection between burnout and engagement has been hypothesized only and no substantial proof has been found, especially in emerging economies. Second, although the Big Five traits have been shown to have a strong predictive power in Western studies, there has been very little research on their relevance in the Indian manufacturing sector. Third, the research on burnout as a mediator in the relationship between personality and engagement is very limited, particularly in industries undergoing technological innovation and having high job expectations.

This research addresses these issues by investigating how personality traits can be used to predict burnout and engagement in the Indian automobile sector and how burnout can be a mediator. It extends the Job Demands Resources (JD-R) model to a culturally different and less researched region. The findings are supposed to deepen the theoretical understanding and provide support for HR strategies dealing with personality-based recruitment, job design, and employee health and well-being initiatives.

Conceptual Framework

This study is based on the Job Demands–Resources (JD-R) framework (Bakker & Demerouti, 2017), which explains that the relationship between job demands and job/personal resources has an impact on the well-being of employees. Increasingly, personal characteristics are viewed as long-term personal resources that affect individuals' perceptions and reactions to work-related commitments (Judge & Zapata, 2015). The Big Five model, consisting of openness, conscientiousness, extraversion, agreeableness, and neuroticism (Costa & McCrae, 1992), provides a comprehensive personality model that is valid across different occupational and cultural settings.

According to this model, positive characteristics like extraversion, conscientiousness, openness, and agreeableness are supposed to protect against stress, help in adaptive coping, and encourage behaviors that lead to gaining resources, thus lowering the risk of burnout and increasing the level of engagement (Angelini et al., 2023). On the other hand, neuroticism is characterized by negative affectivity, increased sensitivity to stress, and reliance on emotion-focused coping, thereby leading to the intensification of burnout and the decrease of engagement (Bakker & de Vries, 2021).

Within this concept, positive traits like as extraversion, conscientiousness, openness, and agreeableness are suggested to mitigate stress, enhance adaptive coping, and encourage resource-acquisition behaviours, hence diminishing burnout and increasing engagement (Angelini et al., 2023). Conversely, neuroticism is linked to negative affectivity, increased stress sensitivity, and emotion-focused coping, which can intensify burnout and diminish engagement (Bakker & de Vries, 2021).

One of the main themes of occupational psychology is the examination of the relationship between burnout and engagement. Some researchers consider these as two opposite ends of a single continuum (Maslach & Leiter, 2016), while others argue that they are related but separate constructs, with burnout being the mediator that leads to the depletion of the resources necessary for engagement (Demerouti, Mostert, & Bakker, 2010; Schaufeli, 2021). The current research takes the latter view, implying that burnout acts as the mediator between personality traits and engagement.

Moreover, the Indian automobile industry is an example of a high-pressure, high-demand environment where these kinds of relationships are crucial. The industry is full of long working hours, safety hazards, and the pressure to increase production, all of which contribute to the likelihood of burnout among workers. Simultaneously, the need for technological change and competition compels employees to remain engaged (SIAM, 2023; Ernst & Young, 2024). In collectivist societies such as India, where interpersonal characteristics like agreeableness could be instrumental in obtaining social support and alleviating stress, (Sahoo & Sia, 2015) agreeableness may become a more significant factor.

Conceptual Framework: Personality Traits, Burnout, and Engagement

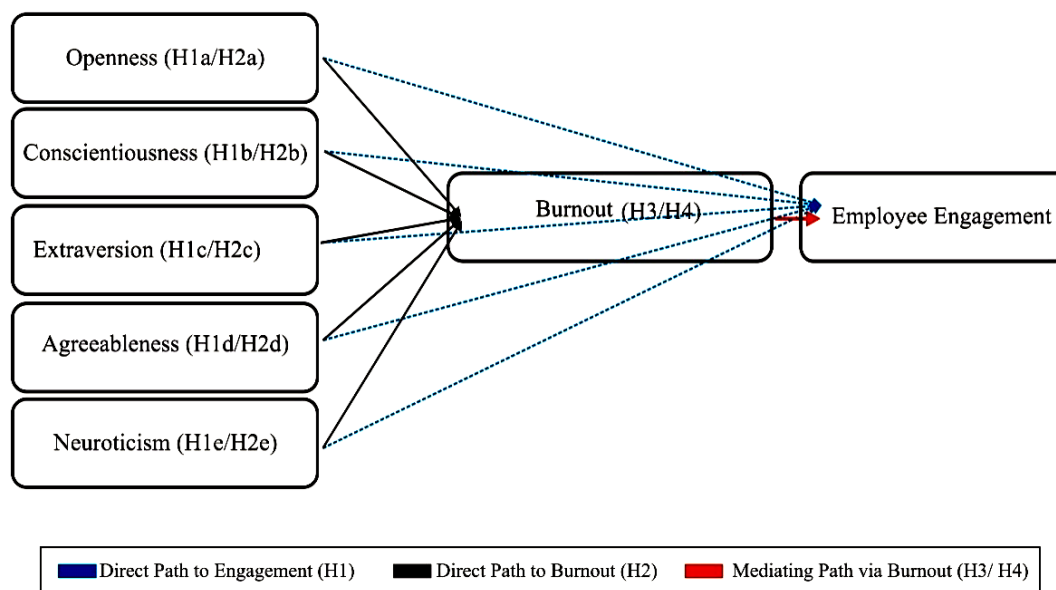


Figure 1 – Conceptual Framework
Source: Author's Research

Hypotheses Development

Personality Traits and Employee Engagement

Personality traits are mostly considered as inherent qualities that influence the emotional side of motivation at work. Those individuals who show more of openness, conscientiousness, extraversion, and agreeableness are expected to reveal more of energy, involvement, and engagement, at the same time, persons with neuroticism are likely to lose their engagement due to the occurrence of negative affectivity (Schaufeli, 2017; Angelini et al., 2023).

H1a. Openness to experience and employee engagement are positively associated.

H1b. Conscientiousness and employee engagement are positively associated.

H1c. Extraversion and employee engagement are positively associated.

H1d. Agreeableness and employee engagement are positively associated.

H1e. Neuroticism and employee engagement are negatively associated.

Personality Traits and Burnout

The character traits also significantly determine the extent to which a person will be under stress and be tired. Usually, openness, conscientiousness, extraversion, and agreeableness are expected to lessen the occurrence of burnout, while neuroticism is believed to heighten the risk of emotionally being drained and becoming cynical (Maslach & Leiter, 2016; Bakker & de Vries, 2021).

H2a. Openness to experience and burnout are negatively associated.

H2b. Conscientiousness and burnout are negatively associated.

H2c. Extraversion and burnout are negatively associated.

H2d. Agreeableness and burnout are negatively associated.

H2e. Neuroticism and burnout are positively associated.

Burnout and Employee Engagement

According to the Job Demands–Resources model, burnout is the main factor that decreases psychological resources, thus leading a person to be less engaged in the work. Therefore, there should be a negative correlation between burnout and engagement (Bakker & Demerouti, 2017).

H3. The level of burnout in employees is inversely related to their level of work engagement.

Mediating Role of Burnout

One of the ways in which personality traits can influence employees' work engagement is through the mediating effect of burnout. Personality-positively-influenced employees hardly experience burnout, thus have enough psychological resources to be engaged in work. Neuroticism, however, may trigger a state of burnout, which in turn leads to a decrease in engagement (Demerouti et al., 2010; Schaufeli, 2021).

H4a. The relationship between openness to experience and employee engagement is mediated by burnout.

H4b. The relationship between employee engagement and conscientiousness is mediated by burnout.

H4c. The relationship between extraversion and employee engagement is mediated by burnout.

H4d. The relationship between employee engagement and agreeableness is mediated by burnout.

H4e. The association between employee engagement and neuroticism is mediated by burnout.

Methodology

The Questionnaire

The data were collected through an online survey via Google Forms. This gave executives and managers in the automotive sector the opportunity to answer the questions at their own time. A survey consists of two parts. The first part is about the respondents' demographic information. The second part of the survey included components related to three constructs: "Big Five Personality Traits, Burnout, and Employee Engagement." In part II, individuals who had completed the questionnaire were instructed to employ a Likert scale ranging from 1 to 7, wherein 1 corresponded to "strongly disagree" and 7 corresponded to "strongly agree."

Big Five personality traits, the independent variable, were measured with an adapted 44-item Big Five Inventory (BFI-44; John, Donahue, & Kentle, 1991). Burnout was the mediating variable as measured by a modified 22-item Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981). Employee engagement, the dependent variable, was measured by an adapted 12-item Gallup Q-12 Employee Engagement Scale (Harter, Schmidt, & Hayes, 2002).

The Sample

After finishing the electronic questionnaire, the writers proceeded with the next step of sample collection.

The sample size of a study depends on the study's goals. The widely accepted rule for deciding on the sample size in research is that there should be five responders per item (Hair, Black, Babin, & Anderson, 2010; Nunnally & Bernstein, 1994; Tabachnick & Fidell, 2007). Since the number of items in the questionnaire is 78, the minimum sample size necessary for the study was estimated to be 390 ($78 \times 5 = 390$). Nevertheless, to lessen the possibility of insufficient data, the researcher has chosen a sample size of 450, which exceeds the required threshold (Roscoe, 1975).

The sample consisted of employees from the automobile industry in the Delhi-NCR region. Sample collection took place from January to October 2024, and 530 responses were collected. After data verification and processing (removal of outliers and incomplete questionnaires), only 450 respondents who had completed the questionnaire were considered.

The demographic data of the sample group are presented in the Table 1 below, which depicts that the sample unit was diverse in terms of demographic factors. The sample unit is divided into a Gender category with 68% males and 32% females. The Age group, 36-40 Years old category, had 22% of the customers. The 31-35 Years old category was the second-highest group with 20%, while 25-30 Years old category people were 18% from the sample unit, 41-45 Years old category people were 14% in the sample Unit, 20-25 Years old category people were

12% in the sample Unit, 46-50 Years old category people were 9% in the sample Unit and 50 years above old category people were 5% in the sample unit. In the Education qualification category, 47% of the respondents were graduated while 40% were Diploma holders and only 13% of the respondents have completed their Post-Graduation.

Table 1. Sample characteristics.

Demographic Factors	Categorization	Percentage	Frequency
Gender	Male	68	306
	Female	32	144
	Others	0	
Age	20-25	12	54
	25-30	18	81
	31-35	20	90
	36-40	22	99
	41-45	14	63
	46-50	9	41
	Above 50	5	22
Highest Education Qualification	Diploma	40	180
	Graduation	47	210
	Post-Graduation	13	60
Marital Status	Unmarried	42	189
	Married	58	261
	Others	0	

Source: Authors

Results Analysis

Measurement Model Assessment

The reliability and validity of the measurement model were confirmed through multiple tests. Convergent validity at the indicator level was also confirmed as all indicator loadings exceeded the recommended threshold of 0.70 (Hair, Hult, Ringle, & Sarstedt, 2019). The internal consistency was excellent as Cronbach's alpha values were ranging from 0.976 to 0.986, composite reliability (CR) values were more than 0.980, and the average variance extracted (AVE) values were from 0.820 to 0.899, all of which were above the criteria set by Hair et al. (2022). Discriminant validity was supported by the Fornell–Larcker criterion (Fornell&Larcker, 1981) and the heterotrait–monotrait ratio (HTMT). The maximum HTMT values were 0.833, which is significantly lower than the 0.85 limit (Henseler, Hubona, & Ray, 2016). All these results, in conjunction, indicate that the measurement model has appropriate reliability, convergent validity, and discriminant validity.

Model Fit and Variance Explained

The behavioural model showed convincing empirical support. The normalised root mean square residual (SRMR = 0.026) was much lower than the advised limit of 0.08, thus indicating a good fit of the model (Henseler et al., 2016). The normed fit index (NFI = 0.816) was available, however, it should be used very cautiously in variance-based SEM (Hair et al., 2019). The model explained 57% of the variance in burnout ($R^2 = 0.571$) and 79% of the variance in engagement ($R^2 = 0.791$), which is considered moderate to strong explanatory power for behavioural research (Hair et al., 2022). These results emphasize the model's effectiveness in capturing the positive as well as the negative side of employee well-being.

Structural Relationships: Direct Effects

The examination of direct relationships revealed that there was major evidence in favour of the theoretically assumed relationships. As a result of the study, four of the Big Five—extraversion, agreeableness, conscientiousness, and openness—were found to have a positively significant association with the engagement. Extraversion emerged as the most powerful predictor of engagement ($\beta = 0.236$, $p < .001$) thus, the finding is consistent with earlier studies which link sociability and assertiveness with energizing states (Sahoo&Sia, 2015). Agreeableness ($\beta = 0.217$, $p < .001$), conscientiousness ($\beta = 0.078$, $p = .032$), and openness ($\beta = 0.121$, $p = .002$) also were able to predict higher engagement, but to a lesser extent. Neuroticism did not significantly influence engagement ($\beta = -0.010$, ns), which is a stark contrast to the Western research where the damage caused by neuroticism is always emphasized (Angelini et al., 2023).

In the case of burnout prediction, only extraversion played the strongest protective role ($\beta = -0.441$, $p < .001$), followed by agreeableness ($\beta = -0.163$, $p = .012$), conscientiousness ($\beta = -0.142$, $p = .018$), and openness ($\beta = -0.102$, $p = .037$). Neuroticism was not a significant factor in burnout prediction ($\beta = -0.026$, ns), which goes opposite to meta-analytic evidence (Koutsimani, Montgomery, &Georganta, 2019). The difference uncovered here may be that in the Indian automotive industry people have their own ways of stress management which, in turn, bring about lessening of the negative effects usually associated with neuroticism.

As evidenced by the negative impact that burnout had on engagement ($\beta = -0.352$, $p < .001$), the magnitude of the effect was in the medium-to-large range ($f^2 = 0.255$). This constitutes a very strong empirical endorsement of the Job Demands–Resources (JD-R) model that suggests that strain is a severe depleter of the motivational resources (Bakker &Demerouti, 2017).

Indirect Effects via Burnout

The mediation analysis revealed the intermediate stages through which personality influences engagement. Burnout was the significant mediator of the effects of extraversion ($\beta = 0.155$, $p < .001$), conscientiousness ($\beta = 0.050$, $p = .035$), and agreeableness ($\beta = 0.058$, $p = .030$) on engagement. It is indicative of complementary partial mediation, in which personality directly promotes engagement and also indirectly increases engagement through lowering the risk of burnout (Zhao, Lynch, & Chen, 2010). On the other hand, openness revealed a direct effect ($\beta = 0.036$, $p = .063$) and neuroticism did not have any significant indirect route, implying that it has a limited explanatory role in this case.

Synthesis of Findings

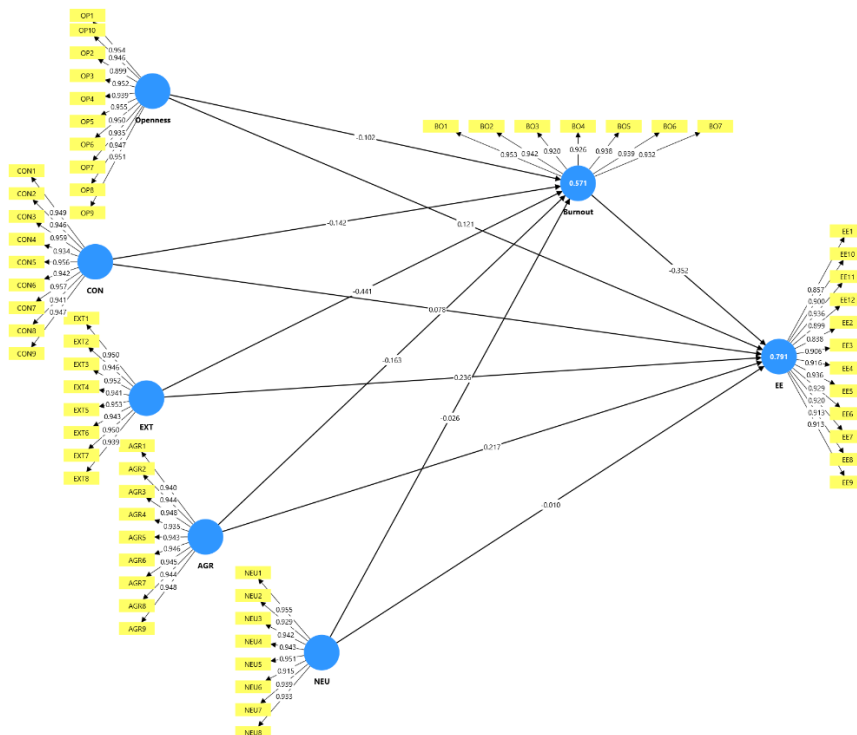
To sum up, the results confirm that personality traits can be considered as long-term personal resources within the JD-R model. Four traits of the Big Five model, namely extraversion, agreeableness, conscientiousness, and openness, turned out to buffer against burnout and enhance engagement, while neuroticism (as a matter of fact, differently from the previous research) was of very limited significance in such a sectoral and cultural context. The results effect a better theoretical understanding of the characteristics of burnout and engagement as two different but interrelated phenomena (Demerouti, Mostert, & Bakker, 2010; Schaufeli, 2021) as well as give practical suggestions to the companies that are willing to implement personality-informed HR interventions in high-demand sectors.

Path coefficients

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values	Hypothesis
AGR -> Burnout	-0.163	-0.166	0.065	2.509	0.012	H2d- Supported
AGR -> EE	0.217	0.218	0.046	4.761	0	H1d- Supported
Burnout -> EE	-0.352	-0.35	0.071	4.951	0	H3- Supported
CON -> Burnout	-0.142	-0.142	0.06	2.362	0.018	H2b- Supported
CON -> EE	0.078	0.077	0.036	2.145	0.032	H1b- Supported
EXT -> Burnout	-0.441	-0.438	0.076	5.8	0	H2c- Supported

EXT -> EE	0.236	0.237	0.061	3.884	0	H1c- Supported
NEU -> Burnout	-0.026	-0.026	0.031	0.835	0.404	H2e- Not Supported
NEU -> EE	-0.01	-0.01	0.02	0.518	0.604	H1e- Not Supported
Openness Burnout ->	-0.102	-0.1	0.049	2.087	0.037	H2a- Supported
Openness -> EE	0.121	0.12	0.039	3.117	0.002	H1a - Supported
AGR -> Burnout -> EE	0.058	0.058	0.027	2.166	0.03	H4d- Supported
CON -> Burnout -> EE	0.05	0.05	0.024	2.109	0.035	H4b- Supported
EXT -> Burnout -> EE	0.155	0.153	0.041	3.804	0	H4c- Supported
NEU -> Burnout -> EE	0.009	0.009	0.011	0.827	0.408	H4e- Not Supported
Openness Burnout -> EE	0.036	0.035	0.019	1.857	0.063	H4a- Not Supported

Graphical Output through Smart PLS:



Theoretical Implications

Our study contributes to the literature on organisational psychology and human resource management on several counts. First, it extends the JD-R framework by providing empirical support for personality traits as enduring personal resources in a high-demand, growing economic context. Previous applications of the JD-R model have focused almost exclusively on job-level factors, such as workload, autonomy, and support (Bakker & Demerouti, 2017). In contrast, our study shows that stable dispositional traits—particularly extraversion, agreeableness, conscientiousness, and openness—significantly impact employee well-being outcomes.

Second, the findings confirm that burnout and engagement are not simply opposing poles of a specific continuum but different constructs with interrelated pathways. Burnout acted as a partial mediator between personality and engagement, which corroborates those theories that describe burnout as a resource-depleting process that drains motivation (Demerouti, Mostert, & Bakker, 2010; Schaufeli, 2021). This is an important differentiation from the theoretical standpoint, as it counters the assumption that the reduction of burnout will automatically result in a rise in engagement.

Third, our study contributes to the escalating research on organisations across cultures by demonstrating how culture and sectoral context can make a difference. The insignificance of neuroticism runs counter to substantial evidence from the West that it predictably leads to increased burnout (Koutsimani, Montgomery, & Georganta, 2019). This suggests that collectivist orientations and industrial coping norms in India mute the effects of neuroticism, raising significant questions about the universality of trait–outcome relationships.

In addition, our research contributes to the sectoral conceptualization of well-being, with a focus on the automotive industry in India. The manufacturing industries are often less well-represented in well-being studies, which have tended to focus on service industries (Narayanasami, Joseph, & Parayitam, 2021; Papagiannidis & Davlembayeva, 2022). This study develops the role of personality-driven mechanisms within contexts characterized by physical demands, routine tasks, and technological change.

Second, the findings indicate that the tasks should be designed and the role distributed. Highly conscientious employees perform well in tasks structured and needing attention to detail, whereas extraverts get fit into the roles that have emphasis on collaboration, communication, and leadership. Similarly, high openness enables employees to be assigned to tasks where innovation and adaptation have key relevance, particularly in the context of rapid changes within the automotive transformation as shown by Ernst & Young in 2024.

Lastly, managers should realize that reducing burnout does not in itself raise engagement. To ensure a strong workforce, there has to be focused initiatives on engagement: encouraging participative leadership; promoting organizational citizenship behaviours; and investing in skill development (Kayaalp et al., 2021). These strategies have, when consistently used, been in a position to boost productivity, reduce turnover and make employees happy in very competitive fields.

Limitations

However, the study also has limitations: the cross-sectional design restricts the researcher from making causal inferences. Though PLS-SEM provides considerable evidence of correlations, the relationships among personality traits, burnout, and engagement can be ascertained to be causal in nature by using longitudinal or experimental designs.

Second, the focus of our study on India's automotive sector limits generalisation of the findings. The specific pressures of manufacturing, together with India's collectivist culture, may yield context-specific effects (i.e. the diminished role of neuroticism) which may not be replicated in other sectors or cultural contexts.

Third, our study relied on the self-reporting of participants, which creates a vulnerability to common method bias and social desirability biases. Even with the methodological steps taken to reduce such risks, the use of multi-source data (e.g., supervisors' assessments or objective performance measures) would add a great deal to the validity.

Ultimately, our research focused on the Big Five traits of personality as indicators of well-being. This framework is widely accepted, but the addition of personal traits like resilience, optimism, or emotional intelligence might give us a better picture of how employees perform.

Future Research Directions

Further researchers can extend this topic in different ways. Longitudinal studies are needed to investigate the development of the relationship between personality, burnout, and work engagement over time, especially in organizations where technology is changing. Following respondents through their career phases may lead to a better understanding of how personality traits develop due to altering job demands and resources. This would also

allow scholars, through comparative studies across industries and cultures, to identify whether the diminished role of neuroticism identified here is an India-specific finding or a finding generalizable to other collectivist societies. This study would add to the global relevance of personality–well-being frameworks. Future studies might move beyond the Big Five by incorporating constructs like resilience, grit, or psychological capital (Luthans et al., 2007). Dynamic resources could interact with personality traits to explain additional variance in burnout and engagement. Finally, combining data from many sources and methods would provide more reliable results. For example, linking measures of personality and well-being with supervisor ratings, absenteeism records, or productivity measures would give more knowledge about how psychological factors affect the outcomes of an organization.

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