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AI customer service and hidden triggers of burnout: Evidence from Malaysia's e-commerce sector

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ABSTRACT

This study examines employee burnout in AI-integrated customer service roles within the Malaysian e-commerce sector, focusing on the influence of task shifting, organizational support, and perceived AI monitoring, grounded in the Job Demands-Resources model. A quantitative cross-sectional design was adopted, drawing on survey data collected from 172 employees working in customer service and related functions in medium-to-large e-commerce organizations located in the Klang Valley. The data were analyzed using descriptive statistics, reliability analysis, Pearson correlation, and multiple regression to assess the relationships between AI-related job demands, organizational resources, and burnout outcomes. The findings show that task shifting and perceived AI monitoring are significantly and positively associated with employee burnout, indicating higher levels of emotional exhaustion, disengagement, and reduced personal accomplishment when AI implementation is poorly managed. In contrast, organizational support exhibits a significant negative relationship with burnout, demonstrating its protective role in mitigating the adverse effects of increased job demands. Employees who reported access to adequate training, clearer communication, and responsive managerial support experienced lower levels of burnout despite exposure to AI-driven changes. The study offers practical implications for e-commerce organizations implementing AI in customer service functions, highlighting the need for structured task redistribution, transparent and non-intrusive monitoring practices, and sustained organizational support mechanisms. By adopting a human-centered approach to AI integration, organizations can balance operational efficiency with employee well-being, reduce burnout risks, and promote sustainable service performance in technology-intensive environments.

Contribution/ Originality: This study contributes to the existing literature by extending the Job Demands-Resources model to AI-integrated customer service. It documents the relationships between task shifting, organizational support, perceived AI monitoring, and employee burnout within Malaysian e-commerce organizations.

1. INTRODUCTION

1.1. Background of the Study

The extensive implementation of artificial intelligence (AI) into customer service roles has transformed the e-commerce industry because it has simplified business operations, sped up responses, and improved customer experience. The use of AI-powered tools (especially chatbots, automated query management, and predictive analytics)

is now a regular part of the service offerings of medium-to-large e-commerce enterprises. However, technological changes have placed unwanted burdens on the human workforce, especially front-line service employees, who face increased task complexity and changing workplace relationships (Mahusin, Sallehudin, & Satar, 2024).

The problem of employee burnout, which is characterized by emotional exhaustion, depersonalization, and lack of personal achievement, has become one of the most prominent concerns in AI-incorporated workplaces (Shern et al., 2024). Burnout is not only detrimental to employees' health but also leads to deterioration in service provision, efficiency, and future organizational sustainability. The Job Demands-Resources (JD-R) framework offers a conceptual model to examine how high work demands, such as task shifting and perceived AI monitoring, and a lack of resources, such as insufficient training, poor communication, and limited well-being interventions, contribute to burnout (Bakker & Demerouti, 2017).

In e-commerce, task shifting refers to the process of handing over routine tasks to AI and leaving human workers with more challenging and emotionally engaging tasks. Despite the fact that AI has the potential to extend operational efficiency (Hamedani, Lumat, Xian, & Teng, 2024), less-than-ideal task redistribution strategies threaten to increase stress levels and generate role ambiguity. Moreover, the monitoring of employee performance by AI, which is ongoing and can be called perceived AI monitoring, can destroy autonomy, increase stress, and promote mistrust between employees (Xu, Teo, & Tan, 2023). All these difficulties are exacerbated by the lack of proper organizational support, such as thorough training, open communication, and well-developed well-being initiatives.

1.2. Problem Statement

The increased deployment of artificial intelligence in customer service processes has led to significant worker burnout observed across the e-commerce industry. Recent statistics indicate that voluntary turnover and sick leave rates have risen by 35% and 42%, respectively, following the integration of AI into customer service roles (Chen, Liu, Liu, & Wang, 2025; Kumar, Tan, & Lee, 2024). Workers frequently experience fatigue, mental burnout, and emotional dissociation, with most considering quitting within less than a year after AI implementation.

Organizationally, the direct financial expenses are high. High turnover implies higher costs of recruitment and training, loss of institutional knowledge, and the resulting deterioration of service quality. Such consequences have the potential to create a cycle where the number of employees remaining is expected to have bigger workloads, which further leads to burnout (Kumar et al., 2024). Despite these tendencies, the available academic literature has yet to focus much on the operational advantages of AI without questioning the effects it may have on the well-being of employees. The lack of empirical data on the role played by AI-driven change with regard to burnout, especially in the e-commerce sector, is quite a serious gap in knowledge.

1.3. Research Objectives and Questions

This study aims to address this gap by investigating the relationships between task shifting, organizational support, perceived AI monitoring, and employee burnout in AI-integrated customer service roles within the Malaysian e-commerce sector. The objectives are:

1. To examine the relationship between task shifting and employee burnout.
2. To examine the relationship between organizational support and employee burnout.
3. To examine the relationship between perceived AI monitoring and employee burnout.

Correspondingly, the research seeks to answer:

- Is there a significant relationship between task shifting and employee burnout?
- Is there a significant relationship between organizational support and employee burnout?
- Is there a significant relationship between perceived AI monitoring and employee burnout?

1.4. Theoretical Framework

The current research employs the Job Demands-Resources (JD-R) framework to explore the bi-directional connection between job demands mediated by artificial intelligence (AI) and the availability (or absence) of job resources. Two key variables are identified as AI-driven job demands: task shifting (employees usurp the roles that AI systems had been handling) and perceived AI monitoring (the feeling that AI systems monitor the labor). These demands are assumed to increase workload, mental pressure, and emotional stress. Organizational support, on the other hand, is a core job resource that can reduce such negative outcomes. When total job demands exceed job resources, there is a significant rise in the likelihood of burnout, as also supported by empirical studies in the past (Bakker & Demerouti, 2017).

1.5. Scope of Study

The current research examines customer service workers and related staff at medium-to-large e-commerce businesses in the Klang Valley of Malaysia, which is a country with a strong growth in the application of artificial intelligence (AI) technologies and an area that has significant customer interaction demands in its sector. In order to get a more comprehensive picture of the organizational implications of AI, the study included not only direct end-users of AI but also indirect users.

1.6. Significance of The Study

The topic of the study is of critical importance both in terms of theoretical advancement and practical application since it concerns the impacts of the introduction of AI on the well-being of employees. Based on the Job Demands-Resources (JD-R) model, the authors propose an extension to the model by introducing AI-related stressors, such as task shifting and perceived AI monitoring, and thus the possibility to analyze burnout in technologically focused working environments. Practically, the findings present managers and policymakers in the e-commerce industry with important information on factors that contribute to burnout among customer service workers. Intensive training, open communication, and caring leadership are distinguished as essential approaches to balancing the efficiencies of technology and workforce well-being. The results are therefore not limited to e-commerce since issues associated with AI adoption are becoming more universal across all spheres. The study can contribute to the evolution of sustainable, human-focused digital change by suggesting a framework to manage the human effects of AI.

2. LITERATURE REVIEW

2.1. Employee Burnout

Employee burnout is a psychological syndrome resulting from prolonged exposure to occupational pressures. It is typically characterized by emotional exhaustion, depersonalization, and a reduced sense of personal achievement, as initially described by Maslach and Jackson (1981). Emotional exhaustion refers to the depletion of emotional energy, impairing an employee's ability to interact empathetically with customers or colleagues (Leiter & Maslach, 2016). Low personal achievement will occur when workers feel that their efforts are underestimated or insignificant, which may damage motivation and professional self-esteem (Huang & Min, 2025). In an AI-integrated environment, role changes, job insecurity, and perceived technological displacement increase burnout (Mabele, Kinyua, & Bengat, 2025). Stress is also increased by the fear of the obsolescence of skills and the loss of job control (Brady, Tully, & Byrne, 2020). Customer service burnout has personal and organizational costs, including loss of productivity and high turnover, as well as personal costs, including mental health deterioration (Khodadoost, Farazmand, & Ghaffari, 2023).

2.2. Task Shifting

Task shifting refers to the redistribution of functions, which follows the implementation of technology, whereby repetitive or consistent tasks are mechanized, and human workers are thus assigned more skilled and emotionally

challenging tasks (Zheng, Hu, & Wang, 2020). Despite the fact that automation has the potential to free employees to better pursue higher-value tasks, it also increases the complexity and pressure of work (Wen, Li, & Zhang, 2024).

The linkage between task shifting and burnout is moderated by how organizational change is orchestrated. Proper training and communication to accompany a transition can lead to skill variety and job satisfaction (Abrardi, Cambini, & Rondi, 2021). Conversely, poorly planned task rotations may cause role ambiguity, erosion of skills, and workload imbalance, increasing burnout risk (Orkin, Zink, & Wood, 2021). Under the Job Demands-Resources model, task shifting acts more as a job demand that heightens stress levels unless regulated by adequate resources.

2.3. Organizational Support

Organizational support is the supply of resources, training, and emotional support that employees can receive during workplace transitions (Hamedani, Abdullah, Subramaniam, Muzammil, & Kat, 2025). In customer service settings where AI is incorporated, this support will include technical training, open communication regarding the role of AI, mental health services, and clear job security guarantees (Soomro, Nasir, & Shah, 2024).

Strong organizational support increases the resilience of employees, improves confidence, and reduces the negative impacts of increased job demands (Olan, Ng, & D'Arcy, 2022). Leadership that is considered supportive (empathetic, attentive, and clear) greatly reduces the occurrence of burnout (Benbya, Nan, Tanriverdi, & Yoo, 2020). On the other hand, poor assistance in the process of integrating AI can make employees feel neglected, which will lead to a higher level of stress, a decrease in job satisfaction, and increased turnover (Chuang, Wang, & Hsu, 2025).

The JD-R model lists organizational support as one of the major job resources that help in protecting employees against the negative effects of job demands, which can include task shifting and intense job monitoring.

2.4. Perceived AI Monitoring

Perceived AI monitoring is the fear of employees that they are being systematically observed by AI systems with the intention of gathering measures of performance, productivity, and compliance (Hamedani et al., 2024). Such constant monitoring is usually justified by the need to increase efficiency and identify performance anomalies, but it can also contribute to the emergence of negative psychological effects, such as increased stress levels, a loss of independence, and mistrust (Barnabas & Marvelous, 2025). According to the empirical evidence, an extreme level of monitoring may give rise to the so-called panopticon effect, which is a perception of constant surveillance by personnel, thus increasing anxiety and emotional fatigue (Jangid, 2020). Also, vague messages about the purpose and means of surveillance worsen the situation of insecurity and trigger opposition (Yu & Cheng, 2024). According to JD-R, AI monitoring in the perceived form will be considered a job demand, which can undermine intrinsic motivation and cause burnout.

2.5. Theoretical Foundation – The Job Demands–Resources Model

The Job Demands-Resources (JD-R) model, which was described by Demerouti, Bakker, Nachreiner, and Schaufeli (2001), provides a theoretical framework for explaining how workplace factors influence workers' well-being.

According to the model, burnout occurs when job demands exceed job resources, due to factors such as high workload, complex tasks, or high supervision, among others.

In the scenario of AI-included customer service, the task shifting and the perceived AI monitoring act as the powerful job requirements that may increase the stress of the employees, but organizational support acts as the critical resource that could reduce the pressures. This research examines how the demand-resource balance can be used to establish the extent of employee burnout in a technology-driven workplace using the JD-R framework.

2.6. Hypothesized Relationships

2.6.1. Task Shifting and Burnout

Insufficiently performed task shifting exposes employees to the threat of acquiring high stages of burnout, which can be confirmed by the empirical data of Gu, Tang, and Jiang (2023). Poor implementation of task shifting can lead to employees being overwhelmed with complex tasks, role overlaps, and a lack of a sense of control. Such factors aggravate the risk of burnout. In contrast, effective task shifting can increase engagement by establishing skill development and diversification of tasks.

2.6.2. Organizational Support and Burnout

When individuals feel that they are not alone and ineffective, their level of burnout is reduced by the presence of adequate organizational support. This support should be genuine, specific, and sensitive to the real demands of the employees (Zeng, Shi, & Li, 2020).

2.6.3. Perceived AI Monitoring and Burnout

According to empirical research, high levels of monitoring based on AI are harmful to employee well-being as they increase stress levels, damage occupational trust, and reduce job satisfaction, thereby increasing burnout (Özkan, 2024). Such consequences are mitigated by organizations that maintain transparent communication patterns and use monitoring solely as a supportive tool rather than as a disciplinary measure.

2.7. Summary of Literature Gaps

Previous academic studies have given much focus to the effectiveness of the artificial intelligence used in operations, but not much has been done in examining its impact on the human workforce, especially in e-commerce customer services. As of today, few studies have combined the analysis of task shifting, organizational support, and AI monitoring as combined factors that determine the occurrence of burnout. Additionally, the extrapolation of the JD-R model to the stressors in the context of AI is still at an early stage, thus stressing the necessity of serious and systematic research in the area.

3. RESEARCH METHODOLOGY

3.1. Research Design

Quantitative and cross-sectional research design was employed to study the correlation between the research variables at one point in time (Al-hassan, 2025). This method is especially suitable for determining patterns, correlations, and possible causal pathways among a large number of respondents. The study will utilize statistical instruments to test the hypotheses based on the Job Demands-Resources (JD-R) model by analyzing numerical data obtained through structured questionnaires (Bakker & Demerouti, 2017).

3.2. Population and Sampling

The employees who were sampled in this research were selected from three medium to large e-commerce companies based in Klang Valley, Malaysia, all of which had integrated AI into their customer-service operations. The overall cumulative size of the population of the firms was about 300, including both direct users, customer service representatives, and managers, and indirect users such as IT support and marketing members.

Following the suggestions given by Krejcie and Morgan (1970), the target number of respondents to be used was 169. To account for possible non-response, 186 questionnaires were sent through Google Forms, out of which 172 responses were obtained, thus exceeding the intended sample size.

The logistical factors primarily contributed to the administration of the convenient sampling methodology due to easy accessibility to participants. Such a strategy, although it lowers external validity, can enable the collection of data in a timely manner in settings that might have limited recruitment opportunities.

3.3. Unit of Analysis

The current study takes the individual worker as a unit of analysis. All participants provided self-report data regarding perceptions of task shifting, perceived organizational support, perceptions of artificial intelligence (AI) monitoring, and personal experiences of burnout.

The result section reports standard deviations, floor and ceiling effects, and the correlation of the measures.

3.4. Survey Instrument

The current research used a questionnaire that targeted the local e-commerce industry in Malaysia because of the established measurement scales in the literature that were designed to quantify the specific area under investigation. This tool consisted of several parts, such as demographic information, independent variables (task shifting, organizational support, and perceived AI monitoring), and the dependent variable (employee burnout). Questions measuring each construct were adapted and, where necessary, borrowed, as used in past and validated studies so as to be relevant in the context of AI-integrated customer service in the current context. A five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5) was used to capture respondents' perceptions. As a study instrument, the tool took a questionnaire form which was specifically designed to be as short and straightforward as possible and yet easy to use. Its linguistic accuracy and internal reliability were pre-tested, so some wording and structural organizational adjustments were necessary.

3.5. Pilot Study and Reliability Testing

A pilot study with 34 respondents was conducted to assess instrument clarity, completion time, and reliability. Cronbach's alpha values for the constructs Table 1 present Cronbach's alpha values for the constructs.

Table 1. Reliability testing results.

Variables	Cronbach's alpha
Task shifting	0.87
Organizational support	0.89
Employee burnout	0.78

All values exceeded the 0.70 threshold, indicating good internal consistency (Ahmad, Alias, Hamat, & Mohamed, 2024).

3.6. Data Collection Procedure

The final copy of the questionnaire was distributed through the internet via WhatsApp, accompanied by a cover letter clearly stating the confidential nature of the study and estimating that completion would take between 10 and 15 minutes. Constant reminders were issued to encourage participation. Data collection occurred over a period of two weeks.

3.7. Data Analysis Techniques

Statistical Package for the Social Sciences (SPSS) version 30 was used to analyze the data obtained after conducting a survey. Respondents were characterized using descriptive statistics in the form of frequencies, percentages, means, and standard deviations, which provided a preliminary picture of the variables of the study. The test of reliability was conducted using Cronbach's Alpha to assess the consistency of the measurement scales. The

assumptions of normality were tested using the Shapiro-Wilk test, as well as skewness and kurtosis tests, to determine their suitability for parametric tests. Pearson correlation analysis was employed to establish the nature and magnitude of relationships between independent variables, including task shifting, organizational support, and perceived AI monitoring, and the dependent variable, employee burnout. Finally, simple linear regression models were used to investigate predictive effects and to test the hypotheses of the study. These methods provided a comprehensive understanding of the relationships between variables and aligned to evaluate the relevance of the Job Demands-Resources (JD-R) model in an AI-integrated workplace environment.

3.8. Ethical Considerations

Strict observance of ethical procedures was used to achieve informed consent, voluntary participation, and anonymity. The participants were fully informed of the objectives of the study and had the right to withdraw whenever they felt like it. The data were stored according to the policies of the institution and used for legitimate academic purposes only.

4. RESULTS

4.1. Response Rate

Out of 186 distributed questionnaires, 172 valid responses were received, representing a response rate of approximately 92%. This exceeded the minimum sample size recommended by Krejcie and Morgan (1970) and provided a robust dataset for statistical analysis.

4.2. Demographic Profile of Respondents

The demographic analysis revealed that 57% of respondents were male and 43% were female. The majority were between 30–39 years old (48.3%), followed by 20–29 years old (42.4%). Most respondents held a Bachelor's degree (76.7%), with smaller proportions having Master's degrees (11%), diplomas (8.7%), or certificates (3.5%).

In terms of experience, 40.1% had been with their current company for 1–3 years, while 36% had 4–6 years of tenure. In customer service roles specifically, 42.4% had 1–3 years of experience, and 30.8% had 4–6 years. This distribution suggests a workforce with substantial but varied exposure to AI-driven changes.

4.3. Descriptive Analysis of Key Variables

4.3.1. Task Shifting

Quantitative responses to task-shifting showed a non-homogeneous trend. A significant percentage of workers attested that AI-powered technologies decreased the time used on standard processes. On the other hand, a significant group reported that an increase in non-automated duties was caused by these technologies, an indication that redistribution of tasks might add overall complexity and amount of work. The mean scores were high on the questions regarding the themes of work increase and reduction of time devoted to problem-solving, which, in combination, mean that task-shifting is not universally regarded as beneficial.

4.3.2. Organizational Support

Organizational support was assessed, and levels were very low. The respondents pointed out a lack of training in the use of AI systems, a lack of resources to integrate new workflows, and unclear communication about the role of AI within the organization. Such leadership support was also seen as less substantial, with most employees stating that management had not addressed issues regarding AI integration.

4.3.3. Perceived AI Monitoring

Most participants also felt that the AI systems were watching everything they were doing, hence increasing stress levels and anxiety. In turn, the issues of trustworthiness of the AI-based assessments of their performance, the increase in pressure to produce faster, and enduring surveillance became causes of concern. The employment of such monitoring is seen to adversely affect job satisfaction.

4.3.4. Employee Burnout

The burnout was rated as moderate and high. Mental fatigue at the end of the day, reduced personal achievement, and emotional detachment from their jobs were common responses by the respondents. Some also said they felt less motivated to develop new competencies, particularly AI-related skills, because they were doubtful about the promised rewards.

Table 2. Reliability analysis.

Construct	Number of items	Cronbach's Alpha	Reliability level
Task shifting	7	0.87	Very good
Organizational support	7	0.89	Very good
Perceived AI monitoring	7	0.88	Very good
Employee burnout	7	0.78	Good

4.4. Reliability Analysis

As shown in Table 2, all four constructs demonstrated strong reliability. Task Shifting ($\alpha = 0.87$), Organizational Support ($\alpha = 0.89$), and Perceived AI Monitoring ($\alpha = 0.88$) fall within the "good" range, while Employee Burnout ($\alpha = 0.78$) also indicates acceptable internal consistency. These results suggest that the items within each construct are consistent and reliable for measuring the intended variables in this study.

4.5. Correlation Analysis

Results of the correlation analysis produced some significant associations between the independent variables and employee burnout. First, task shifting demonstrated a moderate positive correlation with burnout, which implies that the higher the management of task shifts, the higher the stress levels. Second, organizational support showed a strong negative correlation; thus, the higher the organizational support, the lower the burnout. Third, perceived AI monitoring was moderately and highly positively correlated, indicating that the stronger employees perceive themselves to be monitored by AI systems, the more they experience exhaustion and disengagement. The results justify the hypotheses of the study and are in line with the Job Demands-Resources (JD-R) model, which predicts that the number of demands enhances strain and the resources lessen it.

Table 3. Regression analysis.

Independent variables (IV)	Beta (β)	t-value	Sig. (p)	Result
Task shifting	0.421	6.845	0.000	Supported
Organizational support	-0.389	-6.272	0.000	Supported
Perceived AI monitoring	0.447	7.116	0.000	Supported

4.6. Regression Analysis

Table 3 shows that task shifting, perceived AI monitoring, and organizational support were all independently significant predictors of employee burnout ($p < 0.05$). In particular, task shifting (beta = 0.421) and perceived AI monitoring (beta = 0.447) showed positive results, indicating that high levels of uncertainty and remote control by AI increase burnout. Conversely, organizational support (beta = -0.389) demonstrated a negative relationship with burnout, reaffirming its protective role. These findings provide strong evidence supporting the hypotheses of the

research and align with the Job Demands-Resources (JD-R) model, which posits that high demands create strain while sufficient resources mitigate burnout.

4.6.1. Multicollinearity and Model Robustness

To confirm the validity of the regression model, multicollinearity diagnostics were conducted using SPSS. Variance Inflation Factor (VIF) and tolerance statistics were examined for each independent variable. Following Hair, Hult, Ringle, and Sarstedt (2022), tolerance values greater than 0.20 and VIF values below 5 indicate that multicollinearity is not a concern. The results confirmed that all variables met these thresholds, supporting the reliability of the regression estimates.

The Durbin–Watson statistic was also reviewed to assess residual independence. A value near 2.0 indicated no autocorrelation, and inspection of standardized residual plots showed no violations of normality or homoscedasticity. These diagnostics confirm that the regression model is statistically robust and appropriate for interpretation.

4.7. Hypotheses Testing Results

The analysis supported all three hypotheses:

H_1: There is a significant relationship between task shifting and employee burnout – Supported.

H_2: There is a significant relationship between organizational support and employee burnout – Supported.

H_3: There is a significant relationship between perceived AI monitoring and employee burnout – Supported.

4.8. Findings

The empirical evidence shows that the introduction of AI in the workplace of customer service creates new job requirements, specifically those of task shifting and AI monitoring, which significantly raise the rates of burnout. These consequences are aggravated by a lack of organizational support. These findings support the Job Demands-Resources (JD-R) model that states that burnout results when job demands surpass job resources. All in all, the evidence highlights the need to employ balanced approaches toward AI adoption that would redistribute the workload wisely, reduce the scale of intrusive surveillance, and strengthen support mechanisms to maintain the health of employees.

5. DISCUSSION

5.1. Task Shifting and Burnout

The results described in this paper support H1: there is a positive relationship between the level of task shifting and burnout. In line with previous studies (Abrardi et al., 2021; Orkin et al., 2021), the findings show that although AI automation reduced some routine aspects of the job, respondents still felt an increased complexity and workload in the remaining tasks. This transition is typical of a work intensification process, whereby the overall amount of work is redistributed not only from routine but also from mundane tasks into cognitively and emotionally taxing tasks. These outcomes are considered conceptually within the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2017). The absence of proportional increases in resources created a disparity between rising demands and non-renewable resources, leading to increased pressure and fatigue. Although such mismatches can be mitigated through properly designed change management, the current analysis indicates that the lack of such measures has exacerbated employees' feelings of stress.

5.2. Organizational Support and Burnout

The current study evaluated the extent to which organizational support counteracts burnout in a technologically changing work environment. As hypothesized, a positive relationship between enhanced support and high levels of burnout was found, thus confirming H2 and the buffering role of job resources in the JD-R model.

These findings support the results of previous studies that training programs, open communication, and compassionate leadership reduce the risk of burnout during organizational change (Chuang et al., 2025; Olan et al., 2022). Nonetheless, perceived support was low across all aspects of AI training, resource availability, and managerial responsiveness, indicating that employers did not utilize AI-driven change as a means for workplace improvement. Instead, workers felt ill-equipped and underappreciated, a situation that exacerbated burnout.

5.3. Perceived AI Monitoring and Burnout

It is found that the perceived AI monitoring is strongly correlated with burnout, thus confirming the hypothesized relationship H3. The current evidence aligns with past studies that prove constant monitoring causes stress, limits freedom of action, and undermines trust (Jangid, 2020; Yu & Cheng, 2024).

In the framework of Job Demands-Resources, AI monitoring is a continuous job requirement. Insofar as it boosts performance monitoring, its intervening character drains emotional resources, hence contributing to emotional burnout and apathy. These negative effects seem to be aggravated by the lack of open communication about the monitoring regime.

5.4. Interplay of Job Demands and Resources

Taken together, the current results support the fundamental hypothesis of the JD-R model that burnout arises when job requirements (e.g., task shifting, AI monitoring) are high in comparison to job resources (organizational support). In the sampled organizations, the lack of balance between these factors created a favorable environment in which burnout emerged among the surveyed workforce.

5.5. Practical Implications

The current research provides a set of essential reflections for organizations integrating artificial intelligence (AI) into customer service environments. To begin with, the evidence presented by empirical studies demonstrates that unstructured redistribution of tasks, when human workers are assigned relatively challenging or emotionally involving duties without adequate preparation, significantly contributes to burnout. Therefore, change management requires well-coordinated allocation systems that consider workload complexity and emotional labor demands. Second, psychological resilience and stress reduction during technological transitions are fostered through firm organizational support, including ongoing training, accessible resources, transparent communication regarding AI implementation, and leadership styles that emphasize empathy and responsiveness. Third, the research indicates that excessively strict AI surveillance, especially when perceived as punishment or intrusion, can undermine trust and increase emotional fatigue.

Consequently, organizations should adopt transparent monitoring standards and reframe AI monitoring as a supportive rather than punitive measure. Overall, these findings suggest that sustainable AI deployment necessitates balancing technological productivity with worker well-being. Organizations adopting human-centered approaches are better positioned to maintain high service levels, reduce turnover, and develop sustainable flexibility within the evolving digital market.

5.6. Theoretical Contributions

This study contributes to the Job Demands-Resources (JD-R) model and introduces an AI-specific set of stress factors into the job demands factor. The results indicate that although AI is commonly promoted as an operational efficiency tool, its implementation can produce significant, unforeseen effects on staff welfare in contexts where human-related aspects are overlooked.

5.7. Limitations and Future Research

A methodological limitation of the study is convenience sampling, which encroaches on the external validity of empirical observations and limits the generalizability of research findings. Moreover, the cross-sectional design captures the phenomena within a temporal slice, thus hindering the study of longer-term trajectories. The latter should thus use longitudinal designs to examine the development of burnout in the context of increased integration of AI and simultaneously incorporate qualitative approaches to explore the experience of employees in more detail.

6. CONCLUSIONS

This study explored the degree to which task shifting, organizational support, and perceived artificial intelligence (AI) monitoring influence employee burnout in AI-integrated customer service positions in the Malaysian e-commerce industry. The research was based on the Job Demands-Resources (JD-R) model and has determined that burnout is likely to develop when job demands are high and job resources are low. Empirical results indicated that less successful task shifting management is associated with very high strain levels, whereas less adequate organizational support puts workers at risk of experiencing elevated stress and disengagement. At the same time, perceived AI monitoring was high, which exacerbated emotional exhaustion and decreased job satisfaction, proving that excessive surveillance may cause more harm than good in a service environment.

The findings contribute to the literature by generalizing the JD-R model to include AI-related stressors, along with the ability to show how technological-related shifts in work processes affect the balance between demands and resources. Practically, the research informs companies on how to take a human-centered approach in the process of AI adoption. Formalized task reallocation, clear monitoring behaviors, and long-term organizational facilitation are critical to the extent that technological efficiency does not sacrifice employee health. In this regard, the paper highlights the importance of having strong systems in combination with well-considered managerial practices that protect psychological well-being in order to achieve effective adoption of AI.

These contributions notwithstanding, there are a number of caveats. The cross-sectional design and convenience sampling limit the generalisability and cannot be used to examine the long-term effects. In future studies, these limitations can be addressed by conducting longitudinal studies or qualitative research to obtain more detailed employee opinions. Altogether, the study highlights that organizations are required to reconcile the achievement of operational benefits of AI with the retention of a positive, trust-focused workplace. Sustainable success in the fast-digitalizing marketplace can be achieved through investing in employee-centered strategies that will help firms to avoid burnout, improve retention and service quality, and reduce churn.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
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