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Address for correspondence:
Dr. Sameer Pawar
Assistant Professor, SVPM's Institute of Management, Malegaon Bk

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Human Collaboration at Work: Exploring Employee Adaptability, Job Redesign and Organizational Performance

Dr. Sameer Pawar
Assistant Professor, SVPM's Institute of Management, Malegaon Bk

Abstract

Human collaboration plays an important role in helping employees respond to changing work demands and in supporting modifications to existing work arrangements. This study examines the relationships among human collaboration at work, employee adaptability, job redesign, and perceived organizational performance. Four hypotheses were formulated to examine these relationships, distinguishing employee adaptability as a behavioral response and job redesign as a structural response to changing work demands. The study was grounded in contemporary research on work design, learning, psychological safety, and job demands–resources theory. The empirical analysis was based on data from 400 employees. The results showed that human collaboration was positively associated with employee adaptability (β = .340) and job redesign (β = .450). In the combined performance model, employee adaptability (β = .277) and job redesign (β = .458) were positively associated with perceived organizational performance. The model explained 41.6% of the variance in perceived organizational performance (R^2 = .416). Overall, the findings highlight the importance of both employee adaptability and work redesign in understanding how collaborative work environments relate to organizational performance.

Keywords*: human collaboration; employee adaptability; job redesign; perceived organizational performance; work design*

Introduction

Organizations often ask employees to collaborate when work becomes difficult to coordinate. A service problem may require information from several departments. A new digital system may change who makes a decision and how quickly that decision must be made. In these circumstances, collaboration matters because knowledge is distributed across people. Yet the presence of a team, a communication platform or a regular meeting does not establish that useful collaboration occurs. The relevant question concerns whether employees exchange task-relevant knowledge and convert it into workable responses.

Research on lateral collaboration connects boundary-spanning activity with the development of people and subsidiary outcomes (Chen, 2022). Research on team goal orientation also shows that collaboration depends on the type of conflict employees experience; disagreement over a task can operate differently from interpersonal friction (Downes et al., 2021). These studies make a simple assumption questionable: more interaction does not necessarily produce better performance. Interaction must help employees understand a problem, coordinate action and use one another's expertise.

Changes in work location sharpen this issue. Yang et al. (2022) found that firm-wide remote work changed collaboration networks and communication patterns among information workers. Wang et al. (2021) identified ineffective communication, loneliness and work–home interference among the challenges of remote work. However, a randomized hybrid-work study found improved retention without a deterioration in measured performance in its particular organizational setting (Bloom et al., 2024). Müller et al. (2022) similarly link telework suitability with collaboration and performance. Together, these findings support examining how work is designed and coordinated rather than assuming that location alone determines effectiveness.

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Employee adaptability offers one explanation for why collaboration may matter. A colleague can demonstrate an unfamiliar procedure, clarify a changing priority or help someone judge when a familiar response has become inappropriate. Such exchanges can support learning under uncertainty. Budhiraja and Rathi (2023) connected a learning culture with adaptive performance through change efficacy and meaningful work. Pelgrim et al. (2022), however, showed that adaptive expertise and adaptive performance require careful conceptual differentiation. The present paper therefore defines adaptability through adjustment behaviors and avoids treating a willingness to change as equivalent to successful performance.

Job redesign provides a second explanation. Employees can recognize a recurring coordination problem and still be unable to resolve it if decision authority, task allocation or approval procedures remain fixed. Redesign changes these arrangements. A review of work-redesign interventions identified motivation, learning and responsiveness as mechanisms relevant to performance, while also emphasizing implementation and context (Knight & Parker, 2021). This suggests that an account based only on employees' flexibility is incomplete. Work systems must provide opportunities to use what employees learn.

Accordingly, the present study examines the relationship of human collaboration at work with employee adaptability and job redesign and further assesses how these two factors are associated with perceived organizational performance. The study contributes by integrating these relationships within a single empirical model while maintaining clear distinctions among the constructs and their levels of measurement. On the basis of the theoretical arguments and previous research, four hypotheses were formulated and empirically examined. Rather than treating these relationships in isolation, the study examines them within an integrated framework. Given its cross-sectional design, the findings are interpreted as statistical associations and not as evidence of causal relationships.

Theoretical Foundations and Research Gap

1 Collaboration as a Source of Usable Knowledge

Human collaboration refers to coordinated interaction among employees who share information, provide support, and jointly solve problems related to interdependent work. Its distinguishing feature is the joint contribution of employees toward completing a task or resolving a work-related issue. Communication alone does not necessarily constitute meaningful collaboration. Employees may receive frequent messages or attend regular meetings yet still remain uncertain about responsibility, decision authority, or revised work procedures. Collaboration therefore concerns the quality, relevance, and usefulness of interaction in supporting work-related action.

A knowledge-based perspective helps explain how collaboration may support employee adaptation. Employees possess different forms of experience, local knowledge, and procedural understanding. Through joint problem solving, these different knowledge resources can be shared and combined. Access to relevant knowledge is therefore expected to help employees interpret unfamiliar work demands and identify appropriate responses more effectively. Chen (2022) provides related evidence on lateral collaboration at the subsidiary level; however, the present study examines these relationships at the employee level.

The value of collaboration also depends on the quality of the knowledge exchanged. Sharing outdated routines or inaccurate information may reinforce ineffective responses. Similarly, employees who rely only on familiar colleagues may overlook useful information available outside their immediate network. The effectiveness of collaboration therefore depends on the relevance of the information shared, its accessibility across role boundaries, and the quality of feedback generated during interaction. Accordingly, the proposed relationship concerns the quality and usefulness of collaborative practices rather than the mere frequency of interaction.

2 Work Design and the Organization of Change

A sociotechnical perspective directs attention to the fit between human activity and the systems through which work is performed. Parker and Grote (2022) argue that digital technologies can influence autonomy, skill use, feedback, and work demands in different ways depending on how work is designed. This perspective suggests that employee behavior and job structure should be examined together when assessing responses to changing work conditions. Training employees to adapt may have limited value when existing work processes prevent them from applying an appropriate response.

Parker and Knight's (2024) SMART model groups important work characteristics around stimulation, mastery, autonomy, relationships, and tolerable demands. In the present study, the SMART model is used as a theoretical reference rather than as a directly measured construct. It helps clarify important features of meaningful work redesign, including clearer feedback, appropriate autonomy, supportive relationships, and manageable demands. Changing a task sequence without considering these conditions may shift a problem rather than resolve it.

Job crafting and job redesign are related but distinct concepts. Job crafting generally refers to employee-initiated changes in tasks, relationships, or perceptions of work, whereas job redesign can also include formal changes authorized by

management or implemented across a work unit. Tims et al. (2022) review individual, team, and social developments in job-crafting research, while Demerouti (2026) highlights both the beneficial and potentially adverse consequences of crafting activities. The job-crafting literature is therefore used to inform the conceptualization of job redesign, while the present study measures employees' perceptions of changes in work arrangements rather than job crafting as a separate construct.

3 Resources, Motivation and Interpersonal Conditions

Job demands–resources theory helps explain why access to a work resource may be beneficial without being sufficient on its own. Support, information, and assistance from colleagues can help employees manage changing work demands, while excessive workload may reduce the time and energy available for learning and adjustment (Bakker et al., 2023). From a job demands–resources perspective, collaboration can therefore function as an important social resource for employees. At the same time, collaboration can consume time and attention when it involves unnecessary meetings, repeated communication, or additional coordination demands. Its value consequently depends on whether collaborative activity helps resolve work-related problems or creates further burdens.

Self-determination theory provides a complementary explanation of how employees respond to changes in their work. Autonomy, competence, and relatedness influence the way individuals experience their roles and engage with changing work requirements (Gagné et al., 2022). Van den Broeck et al. (2021) further demonstrate that work motivation involves several distinct forms rather than a simple intrinsic–extrinsic distinction. Employees are therefore more likely to respond constructively to collaborative work changes when the purpose of those changes is clear and when they retain sufficient scope for informed judgment. These motivational conditions provide theoretical context for the proposed relationships, although they were not included as measured variables in the present empirical model.

Psychological safety and employee voice are also relevant because access to information does not necessarily mean that employees will use or share it. Employees may need to acknowledge uncertainty, question established procedures, or identify coordination failures before meaningful adjustment can occur. Edmondson and Bransby (2023) emphasize the role of reduced interpersonal risk in learning and performance, while Morrison (2023) examines the conditions under which employees choose to speak up or remain silent. Together, these studies suggest that having an opportunity to communicate is different from feeling able and willing to raise concerns that may affect work outcomes.

4 The Specific Gap Addressed by the Framework

The framework addresses an integration problem rather than an absence of research. Previous studies have examined collaboration, employee responses to change, and work-design arrangements, but these streams are often considered separately. The present study brings a behavioral response and a structural response together within the same parsimonious empirical model. This integration allows the study to examine whether employee adaptability and job redesign are each associated with perceived organizational performance after accounting for the other.

Three distinctions define the contribution of the study. Human collaboration is distinguished from the mere frequency of communication. Employee adaptability is distinguished from the existence of redesigned work arrangements. Perceived organizational performance is also distinguished from independently measured organizational outcomes. These distinctions are important because poorly differentiated measures may produce apparent relationships simply because respondents evaluate several aspects of the workplace in similarly positive terms. Accordingly, maintaining clear conceptual and empirical distinctions among the constructs is important for interpreting the observed relationships meaningfully.

Literature Review and Hypothesis Development

1 Human Collaboration and Employee Adaptability

Employee adaptability refers to an employee's capacity to modify work behavior when task requirements change. It includes learning new work methods, adjusting priorities, responding effectively to uncertainty, and changing an approach that no longer fits the situation. Adaptability is context dependent. An employee who adjusts successfully to a new digital system, for example, may not respond equally well to a role transition or an unfamiliar interpersonal demand.

Collaborative exchanges may support employee adaptability by improving access to explanations, feedback, and alternative ways of responding to changing work demands. Employees can ask why a procedure has changed, compare different responses, and learn from the experiences of colleagues. The expected relationship between collaboration and adaptability therefore depends on whether collaborative interaction creates useful opportunities for learning and feedback. Membership in a collaborative team alone does not necessarily make an employee adaptable.

Tang et al. (2024) review positive psychological factors associated with adaptive performance, while Bonini et al. (2024) synthesize evidence on the relationship between leadership and adaptive performance. These studies suggest that adaptation is influenced by both motivational and relational

conditions. They also indicate that other factors may shape the relationship between collaboration and adaptability. Leadership, prior experience, and personal resources may influence both constructs; therefore, the observed relationship should be interpreted with appropriate caution.

A positive relationship is expected when collaboration provides timely support, relevant information, and alternative ways of understanding changing work demands. The relationship may be weaker when interaction becomes repetitive, interpersonal conflict interferes with task-focused exchange, or employees are unable to apply the information they receive. Accordingly, the study examines the average association between human collaboration and employee adaptability within the defined sample.

H1: Human collaboration at work is positively associated with employee adaptability.

2 Human Collaboration and Job Redesign

Job redesign involves changes to task allocation, work methods, role boundaries, decision authority, or coordination procedures. Collaborative interaction can help employees identify inefficiencies in these existing work arrangements. For example, a shared review of a recurring service problem may reveal an approval step that increases waiting time without improving quality. In such cases, collaboration helps identify the source of the problem, while job redesign changes the underlying work arrangement or procedure.

Evidence from a job-crafting intervention suggests that employee participation can support adjustment during organizational change (Demerouti et al., 2021). Doden et al. (2024) also examine how relational crafting interacts with task interdependence in shaping employee energy and performance. Their findings indicate that the effects of relational changes may vary across different work settings. The design context therefore influences whether changes in work relationships and coordination help employees use their resources more effectively.

The relationship between collaboration and job redesign also depends on the degree of authority available to employees. Employees may identify a work-related problem without having permission to change the underlying process. Similarly, supervisors may encourage suggestions while leaving existing role arrangements unchanged. The expected relationship is therefore stronger when collaborative knowledge can influence decisions about how work is organized. Accordingly, the relationship between collaboration and job redesign is interpreted with attention to whether changes in work arrangements are employee initiated, managerially directed, or jointly implemented.

H2: Human collaboration at work is positively associated with job redesign.

3. Employee Adaptability and Perceived Organizational Performance

Perceived organizational performance refers to an employee's assessment of the organization's productivity, service or product quality, responsiveness, and achievement of operational goals. Such perceptions can provide useful information, although employees may differ in their access to organization-wide performance information. Accordingly, perceived organizational performance is interpreted in this study as an employee-level assessment of organizational outcomes rather than as an objective measure of organizational performance.

Employee adaptability may contribute to favorable perceptions of organizational performance because employees who learn and adjust effectively are better able to maintain continuity when work requirements change. A revised procedure, for example, may create less disruption when employees understand the change and can modify their behavior accordingly. The expected relationship is likely to be stronger when employee adjustments are directly connected to activities that contribute to organizational goals. However, adaptability may not produce positive outcomes when behavioral flexibility results in inconsistent procedures or bypasses necessary organizational controls.

A reverse relationship is also theoretically possible. Organizations that perform well may invest more heavily in employee training and provide greater access to resources that support adaptation. Similarly, employees who hold favorable views of their organization may also assess their own adaptability more positively. These alternative explanations do not negate the hypothesized relationship, but they limit the extent to which a cross-sectional survey can establish the direction of influence.

H3: Employee adaptability is positively associated with perceived organizational performance.

4 Job Redesign and Perceived Organizational Performance

Job redesign can make effective work behavior easier to sustain by improving how tasks, responsibilities, and decision processes are organized. Clear task ownership may reduce duplicated effort, appropriate decision authority may shorten response time, and improved handover procedures may prevent important information from being lost. These examples illustrate the work arrangements through which redesign may contribute to performance, rather than assuming that every form of change is beneficial.

Holman et al. (2024) identify job characteristics as an important mechanism linking job crafting with employee outcomes. Harju et al. (2021), however, demonstrate that changes in job demands may improve some outcomes while creating disadvantages in others. For example, a redesign that increases opportunities for learning may also increase workload or responsibility. The performance implications of redesign therefore depend on what has changed, who carries the additional demands, and whether the revised arrangement can be sustained over time.

The present study therefore expects job redesign to be positively associated with perceived organizational performance. This expectation does not imply that every redesign effort will be successful. A stronger test of causal effects would require longitudinal or intervention-based data that record specific work changes and compare subsequent outcomes with appropriate baseline measures. The present cross-sectional design does not establish temporal or causal effects.

H4: Job redesign is positively associated with perceived organizational performance.

4 Conceptual Framework

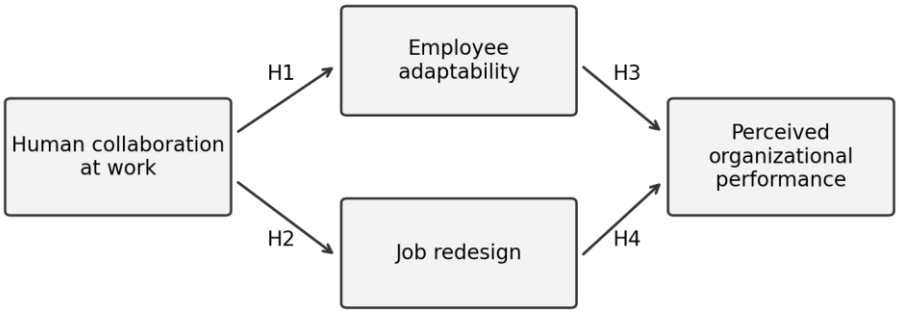

Figure 1. Four hypothesized associations among the study constructs.

Figure 1 presents the four hypothesized relationships among the study constructs. Human collaboration at work is examined separately in relation to employee adaptability and job redesign. Employee adaptability and job redesign are subsequently examined together as predictors of perceived organizational performance. The directional arrows represent the theoretical relationships proposed among the constructs. However, they do not establish temporal precedence or mediation, and no indirect effects were estimated in the present analysis. A direct path from human collaboration to perceived organizational performance is not included among the four hypotheses, although the bivariate association between these variables is reported in the correlation analysis.

Research Methodology

1 Research Design

The study adopted a quantitative, cross-sectional survey design to examine the relationships among human collaboration at work, employee adaptability, job redesign, and perceived organizational performance. The study included employees from five service and knowledge-intensive sectors: information technology, banking and finance, education, healthcare, and professional services. These sectors were included because they represent work settings with different coordination, communication, and task-related demands. The empirical analysis was conducted using 400 valid employee responses obtained from the selected sectors.

2 Sample Size and Respondent Profile

The final sample consisted of 400 respondents. The respondents represented different demographic and occupational groups, allowing the study to capture variation in age, gender, work experience, and sectoral background. Because the analysis is based on individual employee responses, the findings are interpreted at the respondent level rather than as organization-level estimates.

Table 1 presents the demographic and occupational profile of the respondents. Of the total sample, 208 respondents (52.0%) were male, 188 (47.0%) were female, and 4 (1.0%) preferred not to disclose their gender. In terms of age, 168 respondents (42.0%) were between 21 and 30 years, 136 (34.0%) were between 31 and 40 years, 68 (17.0%) were between 41 and 50 years, and 28 (7.0%) were above 50 years.

Regarding work experience, 136 respondents (34.0%) had less than five years of experience, 156 (39.0%) had between five and ten years, 72 (18.0%) had between eleven and fifteen years, and 36 (9.0%) had more than fifteen years of experience. Sector-wise, 100 respondents (25.0%) were from information technology, 88 (22.0%) from banking and finance, 80 (20.0%) from education, 72 (18.0%) from healthcare, and 60 (15.0%) from professional services

Table 1. Profile of Respondents (n = 400).

Characteristic	Category	Frequency	Percent
Gender	Male	208	52.0
	Female	188	47.0
	Prefer not to say	4	1.0
Age	21-30 years	168	42.0
	31-40 years	136	34.0
	41-50 years	68	17.0
	Above 50 years	28	7.0
Work experience	Below 5 years	136	34.0
	5-10 years	156	39.0
	11-15 years	72	18.0
	Above 15 years	36	9.0
Sector	Information technology	100	25.0
	Banking and finance	88	22.0
	Education	80	20.0
	Healthcare	72	18.0
	Professional services	60	15.0

3 Sampling Procedure and Data Collection

A simple random sampling technique was employed to select respondents from different regions of India. The target population consisted of full-time employees working in information technology, banking and finance, education, healthcare, and professional services.

4 Construct Operationalization

The proposed questionnaire contains 20 substantive items, with five for each construct. Responses use a five-point agreement scale from 1 = strongly disagree to 5 = strongly agree. The items are reproduced in Appendix A. They are illustrative operationalizations informed by the literature.

Human collaboration covers useful information sharing, support, coordination, joint problem solving and responsibility for interdependent work. Employee adaptability concerns learning and behavioral adjustment. Job redesign concerns perceived changes in work arrangements. Performance items ask about organizational outcomes as perceived by the respondent. Scores could be calculated as item means after the measurement structure, missing-response rules and any exclusions have been established. Adaptability items concern the individual, collaboration items concern the work setting, and performance items concern the organization. Redesign items also combine the existence of change with opportunities to change work.

5 Reliability and Factor Structure

The reliability of the four constructs was assessed using Cronbach's alpha. The coefficients ranged from .827 to .857, indicating satisfactory internal consistency across the study measures. The suitability of the data for factor analysis was further examined using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity. The KMO value was .934, while Bartlett's test was statistically significant, $\chi^2(190) = 3374.63$, $p < .001$, indicating that the correlation matrix was appropriate for factor analysis. The extracted four-factor solution explained 61.48% of the total variance. Factor loadings ranged from .716 to .757 for human collaboration at work, .684 to .760 for employee adaptability, .693 to .743 for job redesign, and .676 to .775 for perceived organizational performance. Overall, the results indicated satisfactory internal consistency and an interpretable four-factor structure for the measures used in the study.

6 Common Method Bias and Analysis Strategy

Because the study variables were measured through self-reported responses obtained from the same respondents, the possibility of common method bias was considered. The questionnaire used construct-specific wording to maintain conceptual

distinctions among human collaboration, employee adaptability, job redesign, and perceived organizational performance. Nevertheless, the use of a single-source, cross-sectional survey means that common method bias cannot be completely ruled out. As noted by Podsakoff et al. (2024), common method bias may arise from several sources and cannot be ruled out solely through a single statistical test.

Descriptive statistics were used to summarize the study variables, including their means and standard deviations. Pearson correlation analysis was conducted to examine the bivariate relationships among the four study constructs. The hypotheses were then tested using regression analysis. Separate regression models examined the association of human collaboration with employee adaptability and job redesign, followed by a joint regression model in which employee adaptability and job redesign were entered simultaneously as predictors of perceived organizational performance.

The regression models were specified as follows: $EA = a_1 + b_1HCW + \varepsilon_1$; $JR = a_2 + b_2HCW + \varepsilon_2$; and $POP = a_3 + b_3EA + b_4JR + \varepsilon_3$, where HCW represents human collaboration at work, EA represents employee adaptability, JR represents job redesign, and POP represents perceived organizational performance. The regression results were interpreted using standardized beta coefficients, t-values, significance levels, and coefficients of determination (R^2). Because the analysis was conducted at the individual employee level, the findings are interpreted as employee-level associations rather than organization-level effects.

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Results

1 Descriptive Statistics, Reliability and Factor Loadings

The descriptive statistics for the four study constructs are presented in Table 2. Mean scores ranged from 3.56 to 3.74 on the five-point response scale, while the standard deviations ranged from .50 to .56. Human collaboration at work recorded the highest mean score (M = 3.74, SD = .50), followed by perceived organizational performance (M = 3.70, SD = .55), employee adaptability (M = 3.63, SD = .51), and job redesign (M = 3.56, SD = .56).

The internal consistency of the constructs was assessed using Cronbach's alpha. The coefficients ranged from .827 to .857, indicating satisfactory internal consistency across the four measures. Human collaboration at work and employee adaptability both recorded an alpha value of .827, while job redesign and perceived organizational performance recorded values of .849 and .857, respectively.

The suitability of the data for factor analysis was also examined. The Kaiser–Meyer–Olkin (KMO) measure was .934, and Bartlett's test of sphericity was statistically significant, $\chi^2(190) = 3374.63$, $p < .001$. The four-factor solution explained 61.48% of the total variance. Factor loadings ranged from .716 to .757 for human collaboration at work, .684 to .760 for employee adaptability, .693 to .743 for job redesign, and .676 to .775 for perceived organizational performance. Overall, these results indicate satisfactory internal consistency and adequate factorability of the measurement data

Table 2. Supplied illustrative descriptive and measurement statistics.

Construct	Mean	SD	Cronbach's α	Loading range
Human collaboration at work	3.74	0.50	.827	.716-.757
Employee adaptability	3.63	0.51	.827	.684-.760
Job redesign	3.56	0.56	.849	.693-.743
Organizational performance	3.70	0.55	.857	.676-.775

Note. SD = standard deviation. KMO = .934; Bartlett's $\chi^2(190) = 3374.63$, $p < .001$; reported four-factor variance explained = 61.48%.

6.2 Correlation Analysis

Table 3 presents the Pearson correlation coefficients among the four study constructs. Human collaboration at work was positively correlated with employee adaptability (r = .340) and job redesign (r = .450). Employee adaptability was also positively correlated with job redesign (r = .509). Perceived organizational performance showed positive correlations with human collaboration at work (r = .443), employee adaptability (r = .510), and job redesign (r = .599). Overall, the correlation pattern indicates that higher levels of collaboration, adaptability, and job redesign were associated with more favorable perceptions of organizational performance. The constructs were positively related while remaining conceptually distinct in the study model.

Table 3. Pearson correlations.

Variable	1	2	3	4
1. Human collaboration at work	1.000			
2. Employee adaptability	.340***	1.000		
3. Job redesign	.450***	.509***	1.000	
4. Organizational performance	.443***	.510***	.599***	1.000

3 Regression Analysis and Hypothesis Testing

Regression analysis was conducted to test the four hypotheses. Human collaboration at work was positively associated with employee adaptability (β = .340, t = 7.21, p < .001). The model explained 11.6% of the variance in employee adaptability (R^2 = .116), providing support for H1.

Human collaboration at work was also positively associated with job redesign (β = .450, t = 10.06, p < .001). This model explained 20.3% of the variance in job redesign (R^2 = .203), providing support for H2.

A joint regression model was then used to examine the associations of employee adaptability and job redesign with perceived organizational performance. Employee adaptability was positively associated with perceived organizational performance (β = .277, t = 6.21, p < .001), while job redesign also showed a positive association with perceived organizational performance (β = .458, t = 10.28, p < .001). The combined model explained 41.6% of the variance in perceived organizational performance (R^2 = .416), providing support for H3 and H4. The R^2 value represents the proportion of variance explained by the statistical model and should not be interpreted as a 41.6% improvement in organizational performance.

Table 4. Regression Results for Hypotheses Testing

Hypothesis	Association	β	t	p	R^2	Interpretation
H1	HCW → EA	.340	7.21	< .001	.116	Supported
H2	HCW → JR	.450	10.06	< .001	.203	Supported
H3	EA → POP	.277	6.21	< .001	.416†	Supported
H4	JR → POP	.458	10.28	< .001	.416†	Supported

Note. HCW = human collaboration at work; EA = employee adaptability; JR = job redesign; POP = perceived organizational performance.

Discussion

1 How Collaborative Knowledge Could Support Adjustment

The findings highlight useful knowledge exchange as an important element of workplace collaboration. Employees are better able to adjust when they understand revised work requirements, receive timely explanations, and obtain feedback on how to respond. The regression results showed that human collaboration was positively associated with employee adaptability, supporting the proposed relationship. However, the cross-sectional design does not allow the study to establish that collaboration directly caused improvements in adaptive behavior.

The practical distinction lies between access to information and the ability to act on that information. A team may circulate a revised procedure, but this does not necessarily mean that employees understand how to apply it in practice. Collaborative learning therefore requires opportunities for questions, clarification, examples, and feedback. This interpretation is consistent with Budhiraja and Rathi (2023), who emphasize the role of learning in adaptive performance. At the same time, other factors, including leadership and prior employee capability, may also influence the observed relationship.

Psychological safety may further explain why similar collaborative arrangements produce different outcomes across teams. Employees who fear embarrassment, criticism, or negative consequences may hesitate to express uncertainty or ask for clarification. In such situations, silence can be misinterpreted as understanding, even when

employees remain unsure about how to respond to changing work demands.

2 Why Work Arrangements Deserve Separate Attention

Employee adaptability concerns how individuals adjust their behavior when work conditions change, whereas job redesign concerns changes in the arrangements through which work is performed. An employee may compensate for an inefficient process by working harder or adjusting personal routines, but such responses may be difficult to sustain over time. When task ownership, decision authority, or coordination procedures are improved, effective responses may become easier to maintain. The present study therefore treats employee adaptability and job redesign as related but distinct responses to changing work conditions.

The observed regression coefficients are consistent with this distinction, although their relative magnitude should not be interpreted as a universal ranking of the two factors. Adaptability and job redesign may operate differently across occupations and organizational settings. A regulated financial process, for example, may allow limited discretion, whereas a professional-service environment may provide greater flexibility in how tasks and coordination procedures are modified. Although job redesign showed the larger standardized coefficient in the present analysis, this result does not imply that redesign should always be prioritized over employee adaptability.

The job-crafting literature also suggests the need for a balanced interpretation of work changes. Employees may improve one aspect of a task while creating additional demands elsewhere. The findings therefore need to be interpreted in relation to the quality of redesign and the context in which changes are implemented. Future longitudinal or intervention-based research should document specific changes in work arrangements and examine their effects on both workload and performance, rather than assuming that every alteration produces improvement.

3 Digital Systems as a Context for Human Collaboration

The present study focuses specifically on collaboration among employees. Human–AI collaboration provides an important contextual consideration because digital systems can influence access to knowledge and the organization of work; however, it is distinct from the human collaboration construct measured in this study. Chowdhury et al. (2022) link knowledge-based and sociotechnical considerations to AI–employee collaboration, while Cheng et al. (2023) examine how AI adoption relates to job crafting through employee appraisals. Together, these studies suggest that technological change can increase the importance of human coordination and work redesign.

Brynjolfsson et al. (2025) provide workplace evidence that the benefits of AI assistance may vary across workers and can be related to learning. Tinguely et al. (2023) also emphasize task characteristics, social acceptance, and fairness in the design of HR–AI systems. These findings reinforce the view that adopting a digital tool does not remove the need to clarify responsibilities, share local knowledge, or redesign surrounding work processes. The four hypotheses in the present study do not test the effects of AI adoption directly; therefore, the findings should not be generalized to AI implementation outcomes.

Theoretical Contribution

The study integrates human collaboration with two distinct responses to changing work conditions: employee adaptability and job redesign. Employee adaptability represents behavioral adjustment at the individual level, whereas job redesign reflects changes in the structure and organization of work. Examining both constructs within the same empirical model helps distinguish the contribution of individual adjustment from changes in work arrangements and avoids treating either factor as the sole explanation for perceived organizational performance.

The study further contributes by empirically examining these relationships within a single model and showing that employee adaptability and job redesign represent distinct pathways associated with perceived organizational performance. This distinction adds conceptual clarity by separating behavioral adaptation from structural change while retaining their simultaneous relevance to workplace outcomes.

The study also clarifies the level at which its findings should be interpreted. Perceived organizational performance reflects employees' assessments of organizational outcomes rather than independently verified organization-level performance. Accordingly, the present findings are interpreted at the employee level and should not be treated as direct evidence of firm-level productivity or financial performance.

Finally, the analysis clarifies the limits of what the four direct regression models can demonstrate. The observed pattern may provide a basis for future mediation or longitudinal analysis, but the present regressions do not establish indirect effects or temporal ordering. Alternative pathways and omitted influences therefore remain possible and should be examined in future research.

Managerial Implications

The findings offer practical guidance for managers seeking to understand why collaboration does not always translate into effective action. When employees exchange information but remain uncertain about how to respond, the underlying issue may involve limited learning opportunities, unclear feedback, or insufficient guidance. In

contrast, when employees understand what needs to be done but are unable to act, the problem may lie in task ownership, decision authority, or conflicting work procedures. The findings can therefore support managerial diagnosis, although the cross-sectional design does not establish the causal effect of any specific managerial intervention.

Collaboration should be organized around work problems that involve identifiable decisions and responsibilities. For example, a review of a recurring handover problem can help determine what information is missing, who needs access to it, and when it should be transferred. Managers should evaluate whether collaborative changes reduce delays, duplication, or rework rather than relying on the number of meetings or messages as an indicator of effectiveness.

Employee adaptability can be supported through guided practice, peer explanation, and timely feedback during periods of change. Employees need to understand the purpose of revised procedures and the boundaries within which they are expected to exercise judgment. At the same time, adaptability should not be used as a substitute for addressing poorly designed processes or as a reason to transfer excessive responsibility to employees.

Job redesign should involve employees who perform the work as well as those who depend on its outputs. Before changing task arrangements, approval processes, or decision authority, managers should consider the likely effects on workload, accountability, and coordination. Follow-up assessment should examine both operational outcomes and employee experience, since a faster process may not be sustainable if it depends on continued work overload.

In hybrid and digitally supported work environments, managers should ensure that employees have clear and reliable access to relevant expertise. Shared documentation defined escalation routes, and clear decision responsibilities can help employees locate and use knowledge across different locations. However, work arrangements should be evaluated within the organization's own context, because evidence from one occupational group or organizational setting may not transfer directly to another.

Limitations and Future Research

The cross-sectional design of the present study introduces several limitations. The observed associations may also be influenced by reverse relationships or omitted variables. Factors such as leadership, task interdependence, organizational resources, and prior employee capability may affect the relationships examined in the model. Future research should therefore use longitudinal designs and collect data at multiple time points to assess temporal relationships more clearly. Intervention-based studies may also provide stronger evidence on whether changes in work arrangements lead to subsequent changes in employee and organizational outcomes.

Although the measures demonstrated satisfactory internal consistency, further validation across different samples and sectors would strengthen their measurement properties. Some items operate at different referent levels, while the job redesign measure captures both perceived changes in work arrangements and opportunities to modify work. The meaning of some items may also vary across sectors with different work structures and coordination demands. Future studies can use cognitive testing and measurement invariance analysis to examine whether the measures operate consistently across employee groups and sectors.

Future research should also obtain performance information from more than one source where feasible. In addition to employee perceptions, operational indicators such as error rates, completion times, service quality, or goal attainment could provide a broader assessment of performance. Organization-level conclusions would require identifiable organizational units, an appropriate sampling structure, and a sufficient number of independent organizations or work units. Further research may also examine collaboration overload, psychological safety, and the authority to redesign work as possible boundary conditions. Diary studies could capture day-to-day adjustments, longitudinal designs could assess whether changes persist over time, and qualitative interviews could help distinguish between employees coping with ineffective processes and actually changing those processes. Such extensions should be guided by clearly defined research questions rather than by simply adding further variables to the model.

Conclusion

The findings suggest that human collaboration at work is positively associated with employees' ability to adapt to changing work demands and with changes in work arrangements. The study examined four hypothesized relationships while maintaining a clear distinction between employee adaptability and job redesign, as well as between perceived and objectively measured organizational performance.

The results showed that human collaboration was positively associated with both employee adaptability and job redesign. Employee adaptability and job redesign were also positively associated with perceived organizational performance, indicating that both behavioral adjustment and changes in work arrangements are relevant to understanding employee perceptions of organizational effectiveness. These distinctions provide a clearer interpretation of the observed relationships and help define the appropriate limits of the findings.

Overall, the study highlights the value of examining collaboration, adaptability, and job redesign together rather than treating them as isolated workplace processes. However, because the study used a cross-sectional design and employee-reported measures, the findings should be interpreted as associations rather than evidence of causal relationships.

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