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Article Title

Psychosocial Conditions among Housekeeping Workers in South Sulawesi's Hotel Industry: Effort-Reward Imbalance and Job Resources

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ABSTRACT

Housekeeping work in the hotel industry involves job demands, social relationships, rewards, and job resources associated with workers' psychosocial conditions. This study aimed to analyze psychological and social conditions, effort-reward imbalance (ERI), and job demands, control, and support based on the Demand-Control-Support (DCS) model. This descriptive study combined qualitative and quantitative approaches and was conducted among housekeeping workers in Makassar, Maros, and Takalar, South Sulawesi, Indonesia. Data were collected through questionnaires administered to 100 respondents and open-ended accounts of work experiences. The analysis included thematic grouping, frequency distributions, and Pearson's chi-square tests using Monte Carlo p-values. The results showed that 70.0% of respondents had high or very high psychological-condition scores, 61.0% had high or very high social-condition scores, 73.0% had high or very high ERI scores, and 84.0% had high or very high DCS scores. Significant associations were found between psychological and social conditions (χ^2 = 76.416; $p < 0.001$) and between ERI and DCS (χ^2 = 52.917; $p < 0.001$). The associations between social conditions and ERI ($p = 0.208$) and between social conditions and DCS ($p = 0.424$) were not statistically significant. Workers reported pressure related to the number of rooms assigned and the time available to complete tasks, concerns about wage adequacy and overtime pay, and insufficient recognition of their work. These experiences occurred alongside cooperation and assistance among coworkers. The findings indicate that social relationships, rewards, job control, and support serve different functions in workers' psychosocial conditions. Work management should address workload allocation, wage transparency, recognition of employee contributions, and the provision of job resources appropriate to service demands.

Keywords: *Demand-Control-Support; Effort-Reward Imbalance; Hotel Industry; Housekeeping Workers; Psychosocial Conditions.*

INTRODUCTION

Housekeeping plays an important role in hotel service operations because it directly affects cleanliness, room readiness, and the comfort of the hotel environment. Performing housekeeping tasks requires compliance with service standards, timely completion of assigned work, task allocation, and coordination across departments. Research on starred hotel services in South Sulawesi has emphasized the importance of service quality in hotel operations (Syahrial & Anjarsari, 2023). Maintaining hotel cleanliness in Makassar also requires supervision and coordination to ensure compliance with operating procedures (Ahmad et al., 2024). At the departmental level, supervision involves directing work activities, allocating tasks, and monitoring the fulfillment of housekeeping responsibilities (Pranata & Chair, 2021). Work activities are influenced by occupancy levels, guest turnover, the number of rooms requiring service, and staff availability. Changes in service requirements affect work intensity and workers' ability to meet established standards. The conditions under which tasks are performed are therefore relevant to understanding employees' work experiences and the continuity of hotel services.

Housekeeping job demands include repetitive physical tasks, time requirements, attention to detail, and the ability to complete assignments according to service needs. An increase in assigned rooms can intensify work, particularly when completion time is limited. Research among housekeeping workers in Bali has identified associations

between workload, job stress, and employee performance (Jaya et al., 2023). Studies of hotel workers have also examined associations between physical and mental workloads, employee well-being, and safe work behavior (El-Sherbeeny et al., 2024). Working conditions in the hotel industry are also affected by changes in business activity, as demonstrated by research on the effects of the COVID-19 pandemic on hotel operations (Agustina & Yosintha, 2021). In daily operations, workers must adjust their physical effort, concentration, and time allocation to the volume of assigned work. These requirements are linked to psychological experiences and employees' assessments of working conditions. Such assessments also concern the rewards received for their work and the resources available to meet service demands.

Psychosocial conditions encompass workers' psychological conditions and the social relationships established during work activities. Psychological conditions concern mental and emotional experiences associated with job demands. Social conditions encompass communication, cooperation, and interpersonal treatment in the workplace. Research among hotel employees has linked psychological well-being, job satisfaction, and prosocial service behavior (Jung et al., 2023). Studies of Generation Z employees have also examined job characteristics and adaptation to organizational environments as important aspects of younger workers' experiences (Benítez-Márquez et al., 2022; Dudija & Apriliansyah, 2024). In other occupational groups, researchers have examined psychological well-being, job satisfaction, stress, and fatigue as empirically related aspects of work experiences (Rasyidah et al., 2020; Panggabean et al., 2022). In housekeeping, pressure to complete assigned tasks may coexist with cooperative relationships among coworkers. These conditions highlight the importance of examining psychological experiences and social relationships based on their respective characteristics. Interpersonal relationship quality concerns interactions among workers, whereas psychological conditions reflect individual experiences associated with fulfilling work responsibilities.

The relationship between job demands and job resources can be examined through the Demand-Control-Support (DCS) model. Karasek and Theorell (1990) distinguished among psychological job demands, control over task performance, and support from coworkers and supervisors. Job demands refer to the requirements employees must meet. Job control involves using skills and decision-making latitude, whereas workplace support includes assistance available during task performance. Job Demands-Resources (JD-R) theory explains how demands and resources relate to work processes and employee well-being (Bakker & Demerouti, 2017, 2024). Research among hotel employees has also linked social support, role stress, job satisfaction, and service behavior (Jin et al., 2021). In housekeeping, the number of rooms assigned and time pressure constitute job demands. The discretion to determine task sequences represents a form of job control, while coworker assistance and supervisor guidance constitute operational support. These three components serve different functions in helping workers meet service requirements.

Employees' assessments of their employment relationships also involve the balance between the effort they expend and the rewards they receive. Siegrist (1996b) explained this relationship through the ERI model, which includes work effort and rewards such as pay, recognition, job security, and career development opportunities. In housekeeping, effort involves physical exertion, time, skills, and attention to detail in meeting service responsibilities. Rewards include wages, overtime pay, recognition of work performance, and career development opportunities. Research among hotel employees has highlighted the importance of rewards and occupational identity in employment experiences (Brien et al., 2017). Studies of housekeeping workers have also linked ERI to work productivity (Rosemberg & Li, 2018). Assessments of the balance between effort and reward are related to organizational justice, particularly the allocation of outcomes, procedures, and treatment of employees (Colquitt et al., 2001). Workers assess this balance by considering their responsibilities and the rewards their organizations provide. Accordingly, experiences concerning wages, overtime work, and recognition are important aspects of housekeeping workers' psychosocial conditions.

Research on human resource management in South Sulawesi's hotel industry has examined knowledge, competency development, and employee performance (Hasbi, 2020). Other studies have investigated organizational support and employee engagement in hotel workforce management (Islahuddin & Badollahi, 2022). Other studies have also examined human relations and the work environment in relation to work ethic and performance in other occupational sectors (Marasahala, 2021; Risnawati et al., 2021). Meanwhile, research in resort environments in South Sulawesi has emphasized task arrangements, rest periods, and employee benefits in managing work-life balance (Abdi et al., 2025). These studies address different aspects of work management and relationships among organizational members. Social relationships concern the quality of interpersonal interactions. Rewards involve employees' assessments of their contributions, whereas job control and support represent resources available during task performance. These distinctions matter in housekeeping because employees face service demands that require coordination, accuracy, time management, and compliance with operating standards.

Research on housekeeping has identified associations between job demands, social resources, and psychosocial experiences. A study of hotel housekeepers in Spain identified work pace, task pressure, and work-life conflict as important aspects of psychosocial working conditions. It also examined social support and role clarity in the workplace (García-Buades et al., 2025). Research among hotel employees in the United States identified associations between psychosocial stress, including ERI, and burnout risk (Rosemberg et al., 2025). In another service sector, research on restaurant employees' competency development emphasized the importance of professional training in supporting service performance (Saputra et al., 2026). These studies provide a basis for understanding the relationships among job demands, rewards, and

job resources. Psychological experiences, the quality of social relationships, effort-reward balance, job control, and support differ in their measurement characteristics and functions. This study of housekeeping workers in Makassar, Maros, and Takalar combines analyses of four pairs of associations between constructs with workers' experiences to explain differences in the relationships among psychosocial conditions, rewards, and job resources in the local hotel industry.

Based on these issues, the study pursued three objectives. First, it examined housekeeping workers' psychosocial conditions through psychological experiences, the quality of social relationships, and the association between these two aspects. Second, it analyzed assessments of effort and reward through experiences involving job demands, wage adequacy, overtime pay, and recognition of employee contributions. Third, it examined job demands, control, and support, together with the associations between ERI and DCS, social conditions and ERI, and social conditions and DCS. These objectives encompass individual experiences, interpersonal relationships, rewards, and job resources in housekeeping operations. The findings are expected to explain differences in how psychosocial and employment-related factors function within the hotel industry. In practical terms, they may inform workload allocation, reward management, and the provision of job control and support according to operational requirements.

METHOD

This descriptive study combined qualitative and quantitative approaches to examine the psychosocial conditions of housekeeping workers in hotels located in Makassar City, Maros Regency, and Takalar Regency, South Sulawesi, Indonesia (Creswell & Creswell, 2022). The study was conducted from March to June 2025. The qualitative approach was used to identify employees' experiences concerning job demands, interpersonal relationships, rewards, job control, and support. The quantitative approach was used to describe the distribution of measurement categories and test associations between categories. Together, these approaches provided information on working conditions based on employees' reported experiences and questionnaire responses.

The units of analysis were housekeeping workers employed in hotels across the three study areas. The quantitative data consisted of 100 questionnaire responses. Respondents were categorized by age, sex, and employment status. The qualitative data included open-ended interviews with ten informants purposively selected for their work experience, as well as written responses to open-ended questionnaire questions. The questions addressed the number of rooms assigned, time pressure, wage adequacy, overtime pay, recognition of work performance, coworker relationships, supervisor assistance, and discretion in task performance. Respondents' and informants' accounts were analyzed according to the work-related issues they reported.

The closed-ended questionnaire used four response options: strongly disagree, disagree, agree, and strongly agree. The measurement included five indicators of effort and reward and eleven indicators of job demands, control, and support. Psychological conditions were assessed using five indicators, while social conditions were assessed using three indicators. The results were presented in four score groups: psychological conditions, social conditions, ERI, and DCS. Each group was classified into four categories: very low, low, high, and very high. The ERI group encompassed assessments of effort and reward (Siegrist, 1996a), whereas the DCS group covered job demands, control, and support (Johnson & Hall, 1988). Internal consistency was assessed using Cronbach's alpha coefficient. The relationships between questionnaire items and their corresponding group scores were examined using item-total correlations.

Qualitative data were analyzed thematically by identifying reported experiences, grouping accounts by similar meanings, and determining themes related to the research objectives (Braun & Clarke, 2006). Themes concerning psychological conditions included job pressure, fatigue, and concentration. Themes concerning social conditions included communication, cooperation, and interpersonal treatment. ERI themes included the balance between effort and reward, wages, overtime work, and recognition. DCS themes encompassed job demands, job control, and operational support. Thematic grouping was used to identify similarities and differences in workers' experiences of task performance and working conditions.

Quantitative data were analyzed using frequency distributions and percentages. Associations between categories were examined using Pearson's chi-square tests for four pairs of variables: psychological and social conditions, ERI and DCS, social conditions and ERI, and social conditions and DCS. All analyses used 100 responses, with four categories for each variable. Some contingency table cells had expected frequencies below five. Accordingly, statistical significance was determined using Monte Carlo estimates of p-values at a significance level of 0.05 (Agresti, 2002). The test results were used to identify associations between categories within the study sample.

RESULTS AND DISCUSSION

A. Psychological and Social Conditions among Housekeeping Workers and Their Association

Respondent characteristics showed that most housekeeping workers in the study were younger and employed under contractual arrangements. As presented in Table 1, 75 respondents (75.0%) were aged 15–25 years, 21 (21.0%) were aged 26–35 years, and four (4.0%) were aged 36–45 years. The sample comprised 74 men (74.0%) and 26 women (26.0%). In terms of employment status, 88 respondents (88.0%) were contract employees, while 12 (12.0%)

were permanent employees. This distribution indicates that the sample was predominantly composed of workers in the early stages of their working lives and those employed under contractual arrangements. Research on Generation Z has examined younger employees' adaptation to organizational environments, job demands, and interpersonal relationships (Benítez-Márquez et al., 2022; Dudija & Apriliansyah, 2024). These characteristics provide demographic context for understanding the respondents' work experiences. Psychosocial conditions were further examined through the distributions of psychological and social scores and workers' accounts of their duties.

Table 1. Respondent Characteristics and Distribution of Psychosocial Conditions Among Housekeeping Workers

Variable	Category	Frequency	Percentage (%)
Age	15–25 years	75	75.0
	26–35 years	21	21.0
	36–45 years	4	4.0
Sex	Male	74	74.0
	Female	26	26.0
Employment status	Contract employees	88	88.0
	Permanent employees	12	12.0
Psychological conditions	Very low	13	13.0
	Low	17	17.0
	High	55	55.0
	Very high	15	15.0
Social conditions	Very low	15	15.0
	Low	24	24.0
	High	17	17.0
	Very high	44	44.0

Source: Primary data, 2025.

The distribution of psychological-condition scores showed that 55 respondents (55.0%) were classified in the high category and 15 (15.0%) in the very high category. Another 17 respondents (17.0%) were classified as low, while 13 (13.0%) were classified as very low. Thus, 70.0% of respondents fell within the two highest psychological-score categories. The five psychological indicators yielded a Cronbach's alpha coefficient of 0.662, with item-total correlations ranging from 0.459 to 0.867 and $p < 0.001$. This distribution reflects variation in psychological responses among the workers studied. Qualitative accounts described experiences involving job pressure, fatigue, and difficulty maintaining concentration. Associations between physical and mental workloads and hotel employees' well-being have also been examined in previous research (El-Sherbeeny

et al., 2024). In housekeeping operations, psychological pressure is associated with the demands of completing tasks within specified time frames and service standards. These experiences underscore the importance of organizing work according to task intensity and workers' capacity to perform their duties.

Housekeeping workers face increasing demands as the number of rooms requiring service rises. Cleaning guest rooms requires physical effort, attention to detail, concentration, and effective time management. One respondent associated job stress with excessive workloads and difficulty maintaining focus. Another account indicated that higher occupancy levels could increase the amount of work that must be completed within limited periods. Research among housekeeping employees in Bali identified associations between workload, job stress, and employee performance (Jaya et al., 2023). A study of hotel housekeepers in Spain also identified time pressure, work pace, and work-life conflict as psychosocial job demands (García-Buades et al., 2025). These studies demonstrate the relevance of workload and working conditions to employees' psychological experiences. Among the respondents in the present study, pressure associated with completing room assignments was an important aspect of job demands. Managing the number of assigned rooms, completion times, and task allocation is therefore relevant to fulfilling housekeeping service responsibilities.

Social conditions followed a different distribution from psychological conditions. A total of 44 respondents (44.0%) were classified in the very high category, while 17 (17.0%) were classified as high. Another 24 respondents (24.0%) fell within the low category, and 15 (15.0%) within the very low category. Together, the high and very high categories accounted for 61.0% of respondents. Social conditions were measured using three indicators, yielding a Cronbach's alpha of 0.789. Item-total correlations ranged from 0.770 to 0.903. These results indicate that most respondents were classified in the two highest social-condition categories. Social conditions involved communication, cooperation, interpersonal treatment, and relationships among coworkers during task performance. Research on human relations and work environments has also demonstrated the relevance of social interactions to organizational behavior and employee performance (Marasahala, 2021; Risnawati et al., 2021). In housekeeping, social relationships support coordination, information sharing, and cooperation when service requirements change.

Workers' accounts described interpersonal relationships that supported task performance. One worker characterized coworker relationships in terms of cooperation and interpersonal closeness. Another respondent emphasized open communication, mutual respect, and shared responsibility. These accounts indicate that social relationships developed through interactions during service activities. Communication helped workers share information about room conditions, task

allocation, and assistance needs. Cooperation was especially important when completing assignments that involved multiple workers or when service demands increased. Previous research among hotel employees identified associations between psychological well-being, job satisfaction, and prosocial service behavior (Jung et al., 2023). Among the workers studied, communication and mutual respect contributed to positive coworker relationships. These relationships concerned employees' interpersonal experiences, whereas operational assistance involved the support provided to complete assigned tasks.

Social relationships and operational support serve different functions in housekeeping operations. Social relationships reflect the quality of communication and interpersonal interactions among employees. Operational support involves assistance workers receive when they encounter difficulties completing their duties. Karasek and Theorell (1990) identified support from supervisors and coworkers as a resource associated with working conditions. JD-R theory also explains how job resources support task performance and the achievement of work-related goals (Bakker & Demerouti, 2017). In housekeeping, positive relationships can facilitate coordination among departmental staff. Operational assistance includes redistributing assignments, completing additional tasks, and helping coworkers experiencing difficulties. Social conditions therefore concern the quality of workplace relationships, whereas operational support directly contributes to task completion. Both are relevant to cooperation and work management in housekeeping departments.

The association between psychological and social conditions yielded Pearson's $\chi^2 = 76.416$, with nine degrees of freedom and a Monte Carlo $p < 0.001$. Cross-tabulation showed that 29 of the 55 respondents in the high psychological-condition category were also classified in the very high social-condition category. All 15 respondents in the very high psychological-condition category were also classified in the very high social-condition category. This distribution indicates a statistically significant association between the two measurement groups. Workers' accounts also described job pressure alongside interpersonal relationships that supported cooperation. Workers facing high service demands reported experiences involving communication and coworker assistance. These findings demonstrate an association between psychological and social categories within the sample. Qualitative accounts indicated that psychological experiences were associated with task demands, whereas social conditions encompassed interpersonal interactions and workplace cooperation. These aspects represent distinct components of housekeeping workers' psychosocial conditions.

Psychological and social conditions exhibited related patterns among the workers studied. Their score distributions showed substantial proportions of respondents in the high and very high categories, while the chi-square test identified

a statistically significant association between them. Workers' accounts described pressure from work intensity, concentration requirements, communication, and coworker cooperation. Job demands involved physical effort and time requirements, whereas social relationships concerned interactions among workers during service activities. Research on psychological well-being and service behavior has demonstrated the importance of employee conditions in hotel service delivery (Jung et al., 2023). Among the housekeeping workers studied, social relationships formed part of working conditions that coexisted with operational demands. Employees' assessments of their work also involved the rewards received for their time, effort, and responsibilities. These psychosocial experiences were therefore related to workers' assessments of the balance between effort and reward.

B. Assessment of Effort and Reward in Relation to Job Demands and Work Rewards

The balance between effort and reward is an important aspect of employees' assessments of their employment relationships. Siegrist (1996b) explained ERI through the relationship between work effort and rewards, including wages, recognition, job security, and career development opportunities. In housekeeping, effort involves physical exertion, time, concentration, and skills required to meet service standards. Rewards include pay, performance recognition, and career development opportunities. Research among hotel workers has identified rewards and occupational identity as relevant aspects of organizational experiences (Brien et al., 2017). Studies of housekeeping employees have also examined the association between ERI and productivity (Rosemberg & Li, 2018). In hotel service operations, effort-reward balance assessments concern workload, responsibilities, time spent working, and rewards received. These factors provide a basis for understanding employees' experiences regarding wages, overtime work, and recognition of their contributions.

The ERI score distribution showed that 57 respondents (57.0%) were classified in the high category and 16 (16.0%) in the very high category. Another 22 respondents (22.0%) were classified as low, while five (5.0%) were classified as very low. Together, the high and very high categories accounted for 73.0% of respondents. ERI was measured using five indicators concerning effort, reward adequacy, recognition, career development opportunities, and wages. The indicator group yielded a Cronbach's alpha coefficient of 0.634, with item-total correlations ranging from 0.584 to 0.747. The distribution reflects respondents' assessments of effort- and reward-related indicators. Workers' accounts described increasing job demands, additional working time, and concerns about the adequacy of their compensation. These experiences involved the relationship between the number of rooms assigned and the financial and nonfinancial rewards received. Assessments of effort and reward were therefore linked to fulfilling work responsibilities and the organization's treatment of employees' contributions.

Table 2. Distribution of Effort-Reward Imbalance among Housekeeping Workers

ERI Category	Frequency	Percentage (%)
Very low	5	5.0
Low	22	22.0
High	57	57.0
Very high	16	16.0
Total	**100**	**100.0**

Source: Primary data, 2025.

Job demands represent an important component of the effort employees consider when evaluating their work. An increase in the number of rooms requiring cleaning increases the physical effort and time needed to complete assigned tasks. One respondent reported that work became more demanding when hotel occupancy increased. Another worker described having numerous responsibilities to complete within limited time. These accounts demonstrate the relationship between work intensity and labor requirements in housekeeping operations. Previous research found associations between workload, job stress, and housekeeping employee performance (Jaya et al., 2023). Research among hotel housekeepers in Spain also identified work pace and time pressure as relevant psychosocial working conditions (García-Buades et al., 2025). Within the ERI framework, work intensity is associated with the effort employees expend to fulfill service responsibilities. Assessments of reward adequacy then concern the relationship between this effort and the compensation or recognition the organization provides.

Workers' accounts of room assignments provided more detailed information about job demands. One informant reported cleaning more than 20 rooms in a single day. According to the informant, this workload caused fatigue, while the wages and overtime pay received were considered inadequate relative to the effort expended. This account illustrates the relationship between workload volume, physical effort, and assessments of financial rewards. Cleaning guest rooms requires completing multiple tasks to meet service standards. As the number of assigned rooms increases, the time and physical effort required also rise, depending on operational conditions. Employees' assessments of payment for their work shape their experiences of effort-reward balance. Job demands and compensation are therefore related aspects of how workers evaluate their employment relationships. The informant's experience illustrates one form of reward-related concern identified in the study.

Wages constitute a financial reward directly associated with the employment relationship. One respondent stated that the wages received were inadequate for

the work performed. Another respondent raised concerns that additional working hours, in the respondent's view, were not adequately reflected in pay. These accounts indicate two aspects of financial rewards: wage adequacy and overtime pay. Distributive justice concerns how organizations determine and allocate outcomes to employees (Colquitt et al., 2001). In housekeeping operations, overtime pay becomes particularly relevant when meeting service requirements involves additional working hours. Workers assess the relationship between their responsibilities, time spent working, and compensation received. Transparent overtime pay calculations are also relevant to employment practices. Financial rewards therefore encompass both adequate pay and clarity about compensation arrangements.

Recognition of work performance is a nonfinancial reward employees consider. One respondent expressed disappointment because completing assignments in accordance with operating standards had not received adequate recognition. This account indicates that employees assess their work through both financial rewards and organizational recognition. Siegrist (1996b) identified recognition as a component of reward within the effort-reward relationship. Research in resort environments in South Sulawesi has also examined employee benefits and work arrangements in relation to work-life balance (Abdi et al., 2025). In housekeeping operations, recognition may reflect attention to detail, responsibility, and compliance with service standards. Recognition of employees' contributions serves a different function from wages and overtime pay. Reward management therefore encompasses transparent payment arrangements and acknowledgment of work performance. Both components matter in how employees assess the organization's treatment of them.

Employees' assessments of rewards also relate to organizational justice. Workers may maintain positive interpersonal relationships with coworkers while expressing dissatisfaction with wage adequacy, overtime pay, or management recognition. These experiences demonstrate differences between the quality of social relationships and the perceived adequacy of organizational rewards. Organizational justice research distinguishes distributive justice, procedural justice, and interpersonal treatment as components of employees' assessments of organizational practices (Colquitt et al., 2001). Research in other occupational sectors has also examined relationships among work-life balance, workload, and job satisfaction (Erlangga et al., 2023). In housekeeping, social relationships include communication and cooperation among workers, while reward assessments concern pay and recognition of employee contributions. Supportive interpersonal relationships may therefore coexist with concerns about organizational rewards. Managing these aspects requires attention to employees' needs and employers' responsibilities.

Previous research examining ERI among housekeeping workers identified an association between assessments of effort and reward and work productivity. Under certain conditions, employees who reported high effort and low rewards also reported high productivity (Rosemberg & Li, 2018). Research among hotel employees has also identified an association between psychosocial stress and burnout risk, including among housekeeping workers (Rosemberg et al., 2025). These studies show that effort and reward assessments relate to several dimensions of work experience. Among housekeeping workers in Makassar, Maros, and Takalar, accounts of room assignments, time pressure, wage adequacy, overtime pay, and recognition reflected different aspects of reward assessments. Job demands affect the effort required to perform assigned tasks, while rewards represent the compensation and recognition provided for employee contributions. Task performance is also associated with available job control and support. Assessments of effort and reward thus form part of working conditions encompassing job demands, organizational rewards, and the use of job resources in hotel service operations.

C. Job Demands, Job Control, and Support: Associations among Constructs

Job demands, control, and support are three components used to examine working conditions through the DCS model. Karasek and Theorell (1990) described job demands as the psychological requirements work imposes. Job control concerns the use of skills and decision-making latitude, whereas support includes assistance from coworkers and supervisors during task performance. JD-R theory explains how job demands and resources relate to work processes, employee well-being, and organizational goal attainment (Bakker & Demerouti, 2017, 2024). In housekeeping, job demands include the number of assigned rooms, time pressure, and cleanliness standards. Job control involves discretion over task sequences and the use of occupational skills. Support is provided through supervisor guidance and operational assistance. These components relate to task performance but serve different functions. DCS measurement describes employees' responses to indicators of job demands, control, and support.

The DCS score distribution showed that 48 respondents (48.0%) were classified in the high category and 36 (36.0%) in the very high category. Seven respondents (7.0%) were classified as low, while nine (9.0%) were classified as very low. Together, the two highest categories accounted for 84.0% of respondents. DCS was assessed using eleven indicators, yielding a Cronbach's alpha coefficient of 0.907. Item-total correlations ranged from 0.457 to 0.850. These results indicate internal consistency within the indicator group. The score distribution reflected responses concerning job demands, control, and support. Workers' accounts described time pressure, skill use, discretion in organizing tasks, coworker assistance, and supervisor guidance. Each component is relevant to housekeeping

service operations. Job demands establish the tasks that must be completed, whereas control and support represent resources available to meet operational requirements.

Table 3. Distribution of Demand-Control-Support among Housekeeping Workers

DCS Category	Frequency	Percentage (%)
Very low	9	9.0
Low	7	7.0
High	48	48.0
Very high	36	36.0
Total	**100**	**100.0**

Source: Primary data, 2025.

Job control concerns employees' discretion to make decisions while performing tasks within the authority their organizations grant. In housekeeping, control may include determining the sequence of room assignments, applying occupational skills, and adjusting work methods to service requirements. One worker described managing job pressure by identifying stress sources, setting priorities, organizing time, and communicating with supervisors and coworkers. This experience demonstrates the worker's ability to adjust task performance to changing circumstances. Research on human resource development in South Sulawesi's hotel industry has emphasized the importance of knowledge and skills in employee performance (Hasbi, 2020). Research in restaurant services has also examined the role of professional training in developing employee competencies (Saputra et al., 2026). In housekeeping, occupational skills help workers determine appropriate steps for completing their tasks. Using these skills is associated with employees' decision-making authority and the discretion available during work activities.

Coworker support directly contributes to task performance when service demands increase. One worker described receiving assistance when several rooms remained unfinished near the end of the workday. Another account indicated that coworkers assisted when a team member became ill. These experiences illustrate support through redistributing or sharing tasks based on operational circumstances. Such assistance facilitates task completion and coordination during service delivery. Research among hotel employees has identified associations between social support, role stress, and job satisfaction (Jin et al., 2021). Research among hotel housekeepers in Spain has also identified coworker and supervisor support as important aspects of working conditions (García-Buades et al., 2025). Among the workers studied, coworker support took the form of cooperation in meeting service requirements. This assistance demonstrates the operational

function of social relationships, particularly when employees face additional assignments or difficulties completing their work.

Supervisor support involves providing work guidance, communicating information, allocating tasks, and resolving operational difficulties. In housekeeping departments, supervision includes directing work activities and monitoring compliance with service standards (Pranata & Chair, 2021). Organizational support has also been examined in relation to employee engagement and performance in South Sulawesi's hotel industry (Islahuddin & Badollahi, 2022). Workers in the present study emphasized the importance of supervisor attention and recognition of work performance. One worker stated:

> *"The most meaningful support at work is often personal, such as sincere appreciation from a supervisor or coworker, which increases motivation and makes employees feel valued."*

This account indicates that interpersonal support may include attention to employees and recognition of their work. Supervisor guidance serves an operational function, whereas recognition rewards employee contributions. Both forms of support may be provided through communication and appropriate interpersonal treatment, depending on the parties' responsibilities.

The statistical analyses revealed different patterns of association among ERI, DCS, psychological conditions, and social conditions. Table 4 presents four pairs of tests involving the same number of respondents. Statistically significant associations were found between ERI and DCS and between psychological and social conditions. In contrast, the associations between social conditions and ERI and between social conditions and DCS were not statistically significant. These differences indicate that the measurement groups exhibited distinct patterns of association. ERI assesses effort and reward, whereas DCS encompasses job demands, control, and support. Social conditions relate to interpersonal experiences, while psychological conditions encompass workers' mental and emotional experiences. The four pairs of tests provide information about associations between measurement categories within the study sample.

Table 4. Associations among Psychosocial Constructs, ERI, and DCS

Association between Constructs	Pearson χ^2	df	Monte Carlo p-value	Decision
ERI × DCS	52.917	9	< 0.001	Significant
Psychological conditions × social conditions	76.416	9	< 0.001	Significant
Social conditions × ERI	12.059	9	0.208	Not significant
Social conditions × DCS	9.243	9	0.424	Not significant

Note: *Between 50.0% and 56.3% of the contingency table cells had expected frequencies below five. Monte Carlo p-values were used to determine statistical significance. Source: Primary data, 2025.*

The association between ERI and DCS yielded Pearson's $\chi^2 = 52.917$, with nine degrees of freedom and a Monte Carlo $p < 0.001$. Cross-tabulation showed that, among the 57 respondents in the high ERI category, 31 were also classified in the high DCS category and 20 in the very high DCS category. Among respondents in the very high ERI category, 15 of 16 were also classified in the very high DCS category. This distribution indicates a concentration of responses in the high and very high categories across both measurement groups. Siegrist (1996b) explained ERI through the relationship between work effort and reward. Karasek and Theorell (1990) described job demands, control, and support as components of working conditions. The significant association indicates that effort-reward assessments were related to the categories measuring job demands and resources. In housekeeping, this relationship matters because the effort required to meet job demands occurs alongside job control and operational support. These measurement groups describe distinct aspects of employees' experiences in fulfilling service responsibilities.

The association between psychological and social conditions differs substantively from that between ERI and DCS. Psychological and social conditions concern mental and emotional experiences, communication, and interpersonal interactions. The ERI-DCS association, by comparison, concerns assessments of effort and reward in relation to job demands, control, and support. Both pairs showed statistically significant associations, but they involved different measurement groups. Research on hotel employees' psychological well-being has identified associations with job satisfaction and service behavior (Jung et al., 2023). Studies of psychosocial stress and ERI among hotel employees have also emphasized the relevance of job demands and rewards to work experiences (Rosemberg et al., 2025). Among the respondents in this study, psychological and social conditions were statistically associated, while ERI and DCS were associated through measures of effort-reward assessments and working conditions. These differences clarify the respective roles of interpersonal relationships, rewards, and job resources in housekeeping operations.

The association between social conditions and ERI yielded Pearson's $\chi^2 = 12.059$, with a Monte Carlo $p = 0.208$. The association between social conditions and DCS yielded Pearson's $\chi^2 = 9.243$, with a Monte Carlo $p = 0.424$. Neither association was statistically significant at the 0.05 significance level. These findings show that the relationships involving social conditions differed from those observed for psychological-social conditions and ERI-DCS. Workers reported that cooperative interpersonal relationships could coexist with concerns about wages, overtime pay, and recognition. Social conditions concern communication and interpersonal interactions, whereas ERI assesses the balance between effort and reward. DCS encompasses job demands, control, and operational support.

These differences reflect the distinct characteristics of the measurement groups. Positive interpersonal relationships are part of social conditions, while workload allocation, organizational rewards, and operational assistance represent separate aspects of work management.

Overall, the findings indicate relationships among service demands, rewards, social relationships, job control, and support in housekeeping work. Time pressure and the number of assigned rooms represent job demands requiring physical effort, occupational skills, and coordination. Coworker cooperation provides operational assistance when service requirements increase. Wages, overtime pay, and recognition contribute to employees' assessments of the rewards received for their work. The statistical analyses identified significant associations between ERI and DCS and between psychological and social conditions. The associations between social conditions and ERI and between social conditions and DCS were not statistically significant. These different results indicate that housekeeping workers' psychosocial conditions relate to several aspects of employment that serve distinct functions. Managing housekeeping operations therefore requires attention to job demands, reward arrangements, job control, and operational support in accordance with hotel service requirements.

CONCLUSIONS AND SUGGESTIONS

The psychosocial conditions of housekeeping workers in Makassar, Maros, and Takalar showed an association between psychological experiences and social relationships during task performance. A total of 70.0% of respondents were classified in the high and very high psychological-score categories, while 61.0% were classified in the corresponding social-condition categories. Statistical testing identified a significant association between the two measurement groups. Workers' experiences included pressure related to room assignments, limited time to complete tasks, and the need to maintain concentration. They also reported communication, cooperation, and coworker support. These findings indicate that psychological conditions were associated with experiences of job demands, whereas social conditions encompassed the quality of interpersonal relationships during task performance.

Effort-reward assessments showed that 73.0% of respondents were classified in the high and very high ERI categories. Workers' experiences with room assignments, wage adequacy, overtime pay, and recognition highlighted the importance of balancing employee contributions with rewards. In addition, 84.0% of respondents were classified in the high and very high DCS categories based on measurements of job demands, control, and support. The significant association between ERI and DCS indicates a relationship between these measurement groups. In contrast, social conditions were not significantly associated with either ERI or DCS. These differences show that interpersonal relationships, reward assessments, and job resources exhibited distinct

patterns of statistical association. Housekeeping workers' psychosocial conditions therefore encompass experiences related to service demands, organizational rewards, and support during task performance.

Hotel management should allocate workloads according to occupancy levels, the number of rooms requiring service, staffing adequacy, and the time available for task completion. Staffing requirements should be reviewed, particularly during guest turnover periods that increase service intensity. Work management should also ensure transparent wage payments and overtime pay calculations in accordance with applicable regulations. Recognition of work performance may be based on attention to detail, responsibility, and compliance with service standards. Job control can be strengthened by involving employees in technical task arrangements within their assigned authority. Operational support should include supervisor guidance, two-way communication, and coworker assistance when workloads increase. Regular evaluations of task allocation, rewards, and support are necessary to maintain working conditions and continuity of hotel services.

Future research should expand the range of hotels and worker characteristics examined and assess effort, reward, job demands, control, and support as separate dimensions. Measuring these dimensions individually may provide more detailed information about relationships among work-related factors. Research involving housekeeping workers under different occupancy conditions and operational periods could further explain variations in job demands and resource requirements. Studies involving more diverse respondent groups may also extend understanding of psychosocial conditions in the hotel industry. Such research could provide more detailed explanations of the relationships among job demands, rewards, control, and support in housekeeping workforce management.

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