

Research

Interactive roles of resource availability, role clarity and employee motivation in enhancing organisational effectiveness through employee performance and job satisfaction

Lebbaeus Asamani¹ · Richmond Acquah-Coleman² · William Kwesi Senayah³ · Seth Oppong^{4,5}

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Abstract

The current study explores the interplay between resource availability, role clarity, and employee motivation in predicting organisational effectiveness through employee performance and job satisfaction within the garment industry. We collected data from 306 employees in a cross-sectional survey and analyzed it using partial least squares structural equation modelling. Resource availability significantly predicted job satisfaction, while role clarity and employee motivation, together with job satisfaction, positively predicted employee job performance. Finally, resource availability, employee motivation, and job satisfaction positively predicted organisational effectiveness. Given the unique labour-intensive nature of the garment industry, this study extends the existing literature and provides practical implications for enhancing organisational effectiveness within this unique context. Essentially, the findings offer valuable insights for industry stakeholders on optimising resource utilisation, enhancing job satisfaction, and fostering employee motivation to achieve better organisational outcomes.

Keywords Job satisfaction · Organisational outcomes · Organisational success · Garment industry · Operational effectiveness

1 Introduction

Organizational effectiveness represents a fundamental concern in management research and practice, as it directly impacts organizational survival, competitiveness, and sustainable growth [1]. Despite its critical importance, there remains no clear consensus on its conceptualization, reflecting both the complex nature of organizational outcomes and the diverse theoretical perspectives through which effectiveness can be examined [2].

Over the years, four main models of organisational effectiveness have emerged in literature [3]. Each of the models considers certain elements of organisational outcomes as core to the conceptualisation of effectiveness. While the goal model considers outputs and the attainment of organisational goals as critical organisational outcomes [3–5], the system resource model deems an organisation's ability to obtain needed resources for its operations [6] as the important consideration in conceptualising organisational effectiveness. Meanwhile, the process model focuses on the degree of efficiency in the transformation process of an organisation's internal operational processes and procedures [7–9]. The fourth model, participant satisfaction or multiple constituency model considers the extent of satisfying key stakeholders

✉ Lebbaeus Asamani, lebbaeus.asamani@ucc.edu.gh | ¹Department of Education and Psychology, University of Cape Coast, Cape Coast, Ghana. ²Department of Psychology, University of Ghana, Legon, Accra, Ghana. ³Department of Fashion Design and Textiles, Accra Technical University, Accra, Ghana. ⁴University of Botswana, Gaborone, Botswana. ⁵University of the Witwatersrand, Johannesburg, South Africa.



(such as customers, employees, community or society and regulatory bodies) as the determinant of organisational effectiveness [10–12].

Recent theoretical developments suggest these models should not be viewed as competing frameworks but rather as complementary perspectives that together provide a more comprehensive understanding of organizational effectiveness [13]. This integrative view acknowledges that effectiveness in contemporary organizations requires attention to multiple dimensions: goal achievement, resource optimization, process efficiency, and stakeholder satisfaction [14]. Accordingly, we conceptualised organizational effectiveness in this study in line with the integrative perspective. Organisational effectiveness in this study is therefore defined as the extent to which employees and management of an organisation perceive that the goals of the organisation are being achieved and resources are efficiently and optimally utilised to satisfy the expectations of both internal and external stakeholders. In addition to this definition being consistent with the integrative perspective, it is also consistent with Langford's [15] conception and operationalisation of organisational effectiveness. Langford viewed organisational effectiveness as the extent to which members of an organisation perceive that the goals and objectives of the organisation are being achieved and view the overall outlook of the organisation in a positive light.

1.1 Research context: Ghana's garment industry

The garment manufacturing sector provides a unique and compelling context for examining organizational effectiveness, particularly in developing economies where labor-intensive industries play a crucial role in economic development [16]. The garment and textile industry of Ghana experienced its 'golden age' during the 1960s and 1970s, with the textile sub-sector boasting 16 major manufacturers and employing over 25,000 individuals. This era was marked by local innovations and the emergence of small- and medium-scale enterprises, driving the sector's dominance in Ghana's manufacturing landscape [17]. However, the industry faced severe disruptions, including economic downturns in the early 1980s, the impact of IMF-World Bank supervised Structural Reforms, and the influx of low-cost imports, particularly from China. These challenges led to a dramatic contraction of the industry, with a 90% decline in employment contribution over 50 years [17]. This decline provides important lessons about the critical role of organizational effectiveness in sustaining competitive advantage, particularly in contexts of economic liberalization and global competition [18].

The garment industry's current features make it suitable for studying organizational effectiveness. The garment industry is characterized by labor-intensive operations that require efficient human resource management, complex production processes that demand precise coordination, and quality control imperatives in a competitive global market [19–21]. Additionally, the industry combines traditional craftsmanship with modern manufacturing practices and is characterized by a predominantly female workforce [22], which brings unique management considerations.

These characteristics create distinct challenges for achieving organizational effectiveness. The shift from large-scale manufacturing to a more fragmented landscape of small-scale entrepreneurs has resulted in a highly competitive environment marked by rapidly evolving consumer preferences [23]. Financial limitations, including restricted access to capital and high operational costs, further exacerbate these challenges [23–25]. Moreover, the industry contends with substantial barriers stemming from inadequate governmental support, particularly in providing essential resources and infrastructure [25, 26]. This lack of support, coupled with a dearth of skilled labour, impairs the industry's capacity for innovation and competitiveness on a global scale [26]. These challenges make the pursuit of organizational effectiveness through strategic resource management and innovation critical for the industry's resilience and sustainable growth.

1.2 Theoretical framework

To understand organizational effectiveness in this unique context, we integrate three complementary theoretical perspectives that together provide a comprehensive framework for examining both organizational and individual-level factors. First, the Resource-Based View [27], provides a foundation for understanding how organizations achieve competitive advantage through their resources. The Resource-Based View posits that the resources a firm possesses play a critical role in achieving and sustaining a competitive advantage. This perspective is particularly relevant in the context of the garment industry, where access to and efficient utilization of resources directly impacts organizational effectiveness.

Second, the Job Demands-Resources (JD-R) model [28] offers insights into how organizational resources and job demands interact to influence work outcomes. JD-R theory is flexible and integrated job design theory that incorporates various job stress and motivational perspectives in explaining how job demands and resources influence job performance

[28]. The theory posits that certain physical, social, or psychological organisational and job elements have implications for employee wellbeing, behavior, and performance. Demerouti et al. [28] cited in Bakker et al. [29] explained job demands as those “physical, psychological, social, or organizational aspects of the job that require sustained physical, cognitive, and/or emotional effort and are therefore associated with certain physiological and/or psychological costs” (p. 32).

Job resources, on the other hand are those aspects of the job and organisation that have functional motivating potential that stimulate learning and personal growth and facilitate the achievement of work goals [28]. Examples of job demands could be extent of workload, while resources include organisational and colleagues support. Given the motivational nature of JD-R theory, it is theoretically appropriate to utilise it in this study to explain the roles of availability of productive resources and clarity of work roles in influence job satisfaction and motivation, leading to effective job performance of employees and organisational effectiveness in labor-intensive manufacturing settings [30].

Third, Self-Determination Theory (SDT) [31, 32] provides a framework for understanding employee motivation, particularly relevant in contexts requiring both standardized production work and creative elements, highlighting the importance of intrinsic and extrinsic motivational factors. Intrinsic motivation, driven by personal satisfaction and interest in the work itself, is particularly crucial in creative sectors like fashion design. In contrast, extrinsic motivation, encompassing factors such as rewards and recognition, plays a significant role in more structured operational roles within the industry. This theoretical perspective helps explain how different types of motivation influence employee outcomes in manufacturing environments.

1.3 Empirical review and development of hypotheses

Building on our integrated theoretical framework and the unique characteristics of the Ghanaian garment industry context, we identify and examine three key variables that are particularly relevant for organizational effectiveness in this setting. These variables, resource availability, role clarity, and employee motivation, represent critical factors that bridge organizational capabilities and individual performance [28]. The selection of these variables reflects both theoretical considerations from our integrated framework (RBV, JD-R, and SDT) and practical considerations emerging from the context of the garment manufacturing industry. By examining these variables together, we brought to the fore how organizational environment and resource and individual factors interact to influence job performance and organizational effectiveness in labor-intensive manufacturing settings. The literature development for the hypotheses tested in this study are presented individually below.

Hypothesis 1 Resource availability, role clarity, and employee motivation will significantly predict employees’ job satisfaction.

Resource availability, encompassing availability financial, human, and material resources, emerges as a critical factor in organizational effectiveness [33, 34]. The relationship between organizational resources, role clarity, and motivation with job satisfaction is theoretically grounded in both Job Demands–Resources (JD-R) theory and Self-Determination Theory (SDT). In their recent update of JD-R theory, Demerouti and Bakker [28] emphasize that organizational resources and clear role definitions create a motivational process that enhances job satisfaction, particularly during periods of organizational change. This theoretical perspective suggests that when employees have access to necessary resources and understand their roles clearly, they are well-motivated to engage and discharge their job roles, and also experience greater job satisfaction.

This dynamic interplay between organizational resources, role clarity, and motivation with job satisfaction are consistently supported by empirical evidence. For instance, Hegazy et al. [35] demonstrated that availability of organizational resources and role clarity significantly predict job satisfaction. Their study found that adequate resources and clear role definitions reduce work stress and enhance satisfaction. Within manufacturing contexts, Tan and Olaore [1] found that organizational resources, clear role expectations, and employee motivation collectively predicted satisfaction levels among production workers. Similarly, Fischer et al. [30] found that intrinsic motivation, combined with appropriate extrinsic motivators, creates a synergistic effect on job satisfaction. Weerasinghe et al. [16] also showed that these factors were crucial for employee satisfaction, particularly during challenging economic periods.

Hypothesis 2 (a) Resource availability, (b) role clarity, (c) employee motivation, and (d) job satisfaction will significantly predict employees’ job performance.

The JD-R theory and SDT both support the prediction of employee performance through organizational resources, role clarity, motivation, and job satisfaction. Recent research has demonstrated the collective impact of these factors on performance outcomes. In manufacturing settings, Pancasila et al. [24] found that these factors collectively predicted performance metrics, with motivation and job satisfaction playing particularly crucial roles. Similarly, Hegazy et al. [35] provided evidence that resource availability and role clarity significantly influence job performance by reducing role ambiguity and enhancing task focus. The meta-analytic evidence from Cerasoli et al. [36] further demonstrated how intrinsic motivation combines with extrinsic factors, such as resource availability and role clarity, to predict performance. Most recently, within the garment industry specifically, Buchori et al. [22] found that these factors were critical performance determinants in both factory and home-based work settings, while Weerasinghe et al. [16] demonstrated their collective importance during challenging economic conditions.

Building on Rich et al.'s [37] work on work engagement and performance, the relationships between our predictors and performance are particularly salient in the garment industry context. The industry's labor-intensive nature requires effective management of multiple resource demands, clear role definitions, and sustained motivation for optimal performance. The manufacturing process involves intricate workflows requiring precise coordination among different units and workers, making role clarity essential for maintaining quality standards while meeting production targets.

Empirical studies have consistently demonstrated a positive influence of role clarity on employee job performance [35, 38, 39]. These studies highlight the importance of role clarity in enhancing job performance and employee satisfaction. The garment industry's complex production environment makes role clarity particularly significant. The manufacturing process involves intricate workflows requiring precise coordination among different units and workers. Clear role definitions are essential for maintaining quality standards while meeting production targets. Moreover, role clarity becomes crucial at the interface between traditional craftsmanship and modern manufacturing processes, where workers must effectively integrate both skill sets [17]. The need for efficient resource utilization further emphasizes the importance of well-defined roles and responsibilities, as unclear role boundaries can lead to resource wastage and reduced operational efficiency. This is consistent with the propositions of the JD-R theory. *To this end, we expect role clarity to positively influence employee job satisfaction, motivation and performance.*

Consistent with the Self-Determination Theory, we further explored the influence of employee motivation on job performance and organisational effectiveness. Employee performance and ultimate organisational effectiveness is influenced by both intrinsic (such as personal satisfaction and achievement) and extrinsic factors (like rewards and recognition) [30]. Self-Determination Theory provides a comprehensive framework for understanding employee motivation, highlighting the importance of intrinsic and extrinsic motivational factors [31]. Intrinsic motivation, driven by personal satisfaction and interest in the work itself, is particularly crucial in creative sectors like fashion design. In contrast, extrinsic motivation, encompassing factors such as rewards and recognition, plays a significant role in more structured operational roles within the industry.

Empirical evidence by [36, 37] have demonstrated the direct impact of motivation on creativity and innovation, which are essential for performance and effectiveness in the dynamic garment industry. Similarly, Kundu et al. [38] also explored the effects of work motivation on job satisfaction and employee performance and found that work motivation significantly boosts job satisfaction and performance. These studies demonstrated that work motivation directly influences employee job satisfaction and performance. *This suggests that enhancing employee motivation can lead to improved performance and effectiveness of organisations.*

Hypothesis 3 Resource availability, role clarity, employee motivation, job satisfaction, and job performance will significantly predict organizational effectiveness.

Extant literature further indicates that employee work attitudes, such as commitment and involvement [25], job satisfaction [26, 40], and motivation have positive influence on organisational effectiveness. The pathways through which these factors influence organizational effectiveness can be understood through the Resource-Based View and Job Demands-Resources theories. First, resource availability enables optimal utilization of organizational capabilities. Second, role clarity facilitates efficient process execution. Third, employee motivation drives sustained effort toward organizational goals. Fourth, job satisfaction promotes retention and discretionary effort. Finally, performance directly contributes to organizational productivity. In manufacturing contexts, Tan and Olaore [1] demonstrated that organizational effectiveness is significantly influenced by resource management and employee outcomes. Similarly, Pancasila et al. [24] found that the combination of adequate resources, clear roles, and positive employee attitudes significantly predicted organizational effectiveness in resource-constrained environments. Supporting these relationships, Weerasinghe et al. [16] provided

evidence showing how resource availability and employee attitudes predicted organizational effectiveness, particularly during challenging economic conditions. In Ghana's garment industry, Sarpong et al. [17] revealed that organizational effectiveness is intrinsically linked to employee attitudes and outcomes, a finding particularly that has significant implications for the garment industry, given the industry's current regeneration phase.

Indeed, the role of job satisfaction in organisational effectiveness has been extensively studied due to its vast implications for productivity and employee retention. For instance, [33] observed that each of the dimensions of job satisfaction measured in their study (salary, promotion opportunities and procedures, operating procedures, relationship with work colleagues, characteristics of the job, nature of supervision, job benefits, contingent rewards, and communication) significantly predicted the job satisfaction levels of the employees. Similarly, [34] found the nature of supervision, remuneration, career advancement, job security, considerate company regulations, and policies are essential elements that enhance employee job satisfaction. Generally, *there is evidence that satisfied employees are more productive [41] and they enhance organisational effectiveness [3]*.

Essentially, we argue that the multi-dimensional nature of organisational effectiveness suggests that several personal, organisational and contextual elements of an organisation have implications effectiveness in the garment industry. Indeed, [17] indicated that perceptions of attitudes and behaviours, variations in international and cross-cultural elements and various elements of organisational and sectoral situations can influence organisational effectiveness.

Hypothesis 4 Resource availability, role clarity, and employee motivation will significantly predict organizational effectiveness through employee job satisfaction.

The mediating role of job satisfaction in linking organizational factors to effectiveness is well-established in organizational behavior literature. The theoretical foundation for this mediation pathway draws from both the Job Demands-Resources theory and Social Exchange Theory. In their meta-analytic investigation, Jiang et al. [42] demonstrated that organizational practices influence organizational outcomes through employee attitudes, with job satisfaction serving as a crucial mediating mechanism. This mediation relationship has received continued empirical support in recent years.

Hegazy et al. [35] provided fresh evidence showing how job satisfaction mediates the relationship between organizational resources, role clarity, and organizational outcomes. Their study demonstrated that when employees have access to necessary resources and clear role expectations, their enhanced job satisfaction leads to improved organizational effectiveness. Similarly, Tan and Olaore [1] found that organizational resources and practices influence organizational effectiveness through their impact on employee satisfaction, particularly in manufacturing settings. Within the garment industry context specifically, Weerasinghe et al. [16] demonstrated that job satisfaction significantly mediated the relationship between organizational practices and effectiveness during challenging economic conditions.

Hypothesis 5 Resource availability, role clarity, and employee motivation will significantly predict organizational effectiveness through employee job performance.

The mediation path through employee performance represents a distinct mechanism through which organizational factors influence effectiveness. This relationship is theoretically grounded in the Resource-Based View of organizations, suggesting that organizational resources and practices translate into effectiveness through enhanced employee performance. The foundational work by Sun et al. [43] established that organizational practices influence organizational performance through employee behavioral outcomes.

Recent empirical evidence continues to support this mediation pathway. Pancasila et al. [24] found that employee performance significantly mediated the relationship between organizational factors and effectiveness in manufacturing contexts. Their study showed that when employees have adequate resources, clear roles, and strong motivation, their enhanced performance leads to improved organizational outcomes. This finding is particularly relevant in production-oriented settings. Most recently, Buchori et al. [22] demonstrated this mediation effect in the garment industry context, showing how organizational factors influence effectiveness through their impact on worker performance in both factory and home-based settings. Supporting this, Sarpong et al. [17] found similar mediation effects in their study of Ghana's garment industry, highlighting how employee performance serves as a crucial link between organizational practices and effectiveness during industry regeneration.

1.4 Research gaps and contributions

Despite extensive research on organizational effectiveness, significant gaps remain in our understanding, particularly in the context of labor-intensive manufacturing in developing economies. Current literature reveals three critical gaps: (1) limited integration of organizational-level and individual-level theoretical perspectives in understanding effectiveness, as most studies have focused on either resource-based views [27], or motivational theories [30] in isolation, (2) insufficient research on effectiveness in labor-intensive manufacturing settings in developing economies, with previous studies predominantly focusing on sectors such as hospitality [44], banking [45], tourism [46], information technology [47, 48], and (3) limited examination of the mediating mechanisms through which organizational factors influence effectiveness in manufacturing contexts.

The garment industry is different both in context and sector from previous research. King [49] intimated those different perceptions of what is considered socially responsible attitudes and behaviors, cross-cultural variations, and various organizational and sectoral level situations can influence conceptualization and operationalization of organizational effectiveness. Khurana and Misra [50] further noted that the nature of work, work attitudes, personnel requirement, work environment, and others organizational element could influence organizational effectiveness differ from one industry to the other. There is, however, limited research efforts to help in the understanding of the key drivers of organizational effectiveness within this sector. We consider these factors to be very essential for organizational effectiveness in the garment industry, because organizational effectiveness can be a complex phenomenon.

The present study addresses these gaps by integrating multiple theoretical perspectives (RBV, JD-R, and SDT) to examine organizational effectiveness in Ghana's garment industry. This integration allows us to understand how organizational resources and individual factors jointly contribute to effectiveness in a labor-intensive manufacturing context. Our investigation of both direct and mediated relationships provides insights into the complex pathways through which various factors influence organizational effectiveness in resource-constrained environments.

This study makes several important contributions. Theoretically, it extends understanding of organizational effectiveness by demonstrating how different theoretical perspectives can be integrated and applied in manufacturing contexts. Empirically, it provides evidence from an understudied but important sector in a developing economy, offering insights that may be applicable to similar contexts. Practically, the findings offer valuable guidance for managing effectiveness in resource-constrained, labor-intensive manufacturing environments, particularly in developing economies where such insights are critically needed.

1.5 Research question and hypothesized model

Based on the identified gaps and our integrative theoretical framework, the overarching purpose of this study was to investigate the dynamic interplay between resource availability, role clarity and employee motivation through employee performance and job satisfaction in influencing organizational effectiveness in Ghana's garment industry. *The primary question this study addressed therefore is "how do resource availability, role clarity and employee motivation interact through employee performance and job satisfaction in influencing organizational effectiveness in Ghana's garment industry?"*

The hypothesized research model that represents that hypotheses is presented in Fig. 1. We proposed that resource availability, role clarity, and employee motivation would directly influence job satisfaction, job performance, and organizational effectiveness. In addition, we postulated that job satisfaction and performance would mediate the influence of resource availability, role clarity and employee motivation on organizational effectiveness.

2 Methods

2.1 Study design and setting

This study utilised a cross-sectional survey design to examine the extent to which resource availability, role clarity, and employee motivation serve as predictors of organisational effectiveness while exploring the mediating role of employee performance and job satisfaction. The quantitative approach was used to enable the research to collect numerical data on the constructs of the study, analyse questions regarding the sample population, and also provide

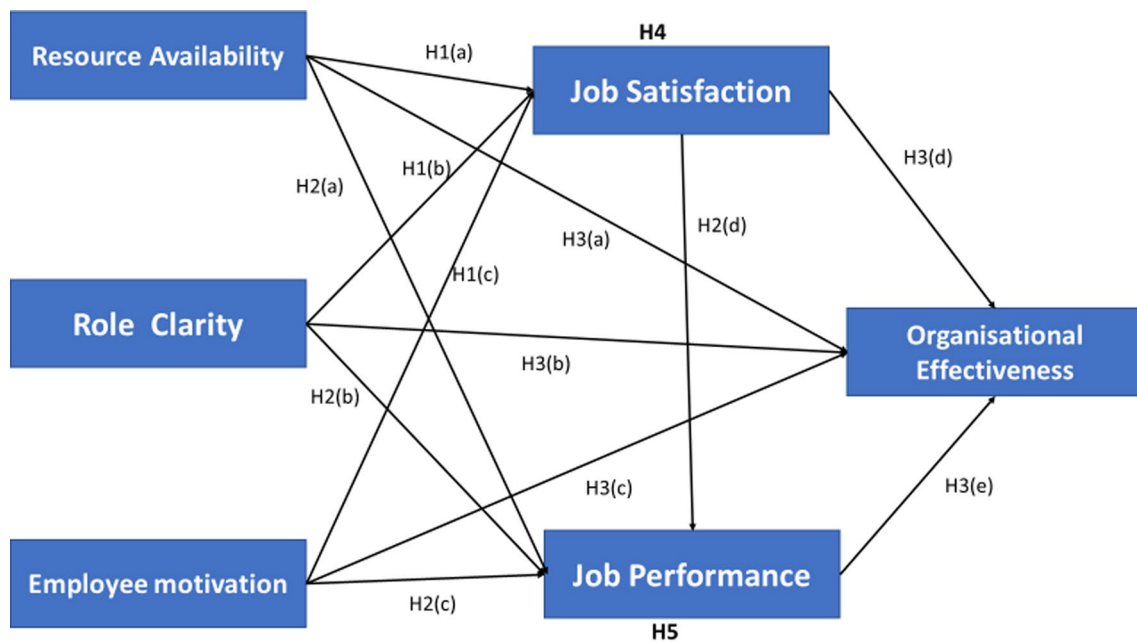


Fig. 1 Hypothesized research model

the opportunity to demonstrate the direct and indirect relationships among the study variables. The study was conducted at three garment factories located in Accra and Tema designated as Tier-1 garment manufacturing firms by the Ministry of Trade and Industry of Ghana. Registered as free zone companies, the factories selected for this study export to large institutional buyers in Ghana, the US, and EU.

2.2 Sample and sampling approach

Given that the population for this study was finite, the sample size determination guideline recommended by Krejcie and Morgan [42] was used to determine the sample size. Krejcie and Morgan provide statistical table to help researchers estimate sample size for easy reference. The statistical table guided the determination of the sample size. According to [43] the use of [42] table has inherent higher accuracy which provides researchers high confidence to make decisions about populations and sample size with high confidence. Three garment factories were selected from a population of 8 tier-1 factories. In line with that, an initial sample size of 357 employees was decided upon, from an accessible population of approximately 5000. Based on attendance records obtained from the factories, a simple random sampling was used to select the participants proportionately from the three factories. This technique was used to give an equal chance to each garment worker employed at the three selected factories, providing the opportunity for each worker to participate in the study and enhancing the generalisability of the findings. The responses from 306 respondents were included in the final data analysis, representing 85.71% response rate. The participants were aged between 18 and 55 years with work experience ranging between 7 months and 20 years. Two hundred and twenty-five representing nearly 73.53% of the participants were females with most of the participants being machinists.

2.3 Instruments

2.3.1 Demographic data

In order to provide information on respondents' characteristics, four items on demographics focused on age, gender, ethnic group, years of experience and type of work.

2.3.2 Job performance

The eight-item short version of the performance self-assessment scale [51] that measures context-oriented performance and task-oriented performance of the workers was used to measure employee job performance. Responses to the items were on a five-point Likert-type scale, from 1 (never) to 5 (always). Higher scores denote higher employee performance. Previous studies by [44] showed a reliability co-efficient of 0.91. However, the reliability for the current study was 0.83.

2.3.3 Job satisfaction, employee motivation, role clarity, resource availability, and achievement of organisational objectives

The Voice Climate Survey [15] subscales for Job Satisfaction, Employee Motivation, Role Clarity, Resource Availability, and achievement of Organisational Objectives were used to measure these variables in this study. The Voice Climate Survey measures work practices and outcomes of 31 “lower order” constructs, that could be used individually (49). All responses are rated on a 5-point Likert-type scale, ranging from 1 = strongly disagree, 2 = tend to disagree, 3 = mixed feelings/neutral, 4 = tend to agree, and 5 = strongly agree. All the five subscales used in the present study consist of three items, and scores are obtained by summing responses for items on each scale. Expected scores range from 3–15, with higher scores denoting better score of the attribute respective constructs. Chandra Das [45], reported the following reliability coefficients for the five subscales used in the present study: Job satisfaction 0.86, Employee Motivation 0.81, Role Clarity 0.77, Resource Availability 0.82, Organizational Objectives 0.72. In the present study, we obtained composite reliability coefficients of 0.90, 0.89, 0.80, 0.78, and 0.84 respectively. The average variance extracted (AVE) was used to assess the

Table 1 Construct reliability and validity of the measures in the study

Indicator	Indicator loadings	Alpha	CR	AVE			
Job performance							
JP2	0.705	0.832	0.877	0.544			
JP3	0.710						
JP4	0.755						
JP5	0.765						
JP7	0.742						
JP8	0.744						
Job satisfaction							
JS1	0.790				0.824	0.896	0.742
JS2	0.901						
JS3	0.889						
Employee motivation							
MT1	0.829	0.823	0.893	0.738			
MT2	0.862						
MT3	0.885						
Organisational objectives achievement							
OB1	0.757	0.720	0.842	0.642			
OB2	0.842						
OB3	0.804						
Role clarity							
RC1	0.826	0.635	0.804	0.582			
RC2	0.780						
RC3	0.673						
Resource availability							
RS1	0.816	0.583	0.783	0.548			
RS2	0.711						
RS3	0.687						

RS Resource availability, RC Role clarity, MT Employee motivation, JS Job satisfaction, JP Job performance, OB Organisational objectives achievement

convergent validity of the constructs, and we obtained 0.74, 0.74, 0.58, 0.55, and 0.65 respectively for the five subscales. Table 1 presents the construct reliability and convergent validity coefficients.

2.4 Data collection procedure

Ethical approval was obtained from the Directorate of Research, Innovation and Technology Transfer (DRIPPT) at Accra Technical University (ID: RE #79-2023-DRIPPT). The study was therefore conducted in accordance with the guidelines of Accra Technical University Directorate of Research, Innovation and Technology Transfer. Following ethical clearance, a pilot test of the research protocol was conducted with 60 employees from three factories designated by the Ministry of Trade and Industry as Tier-2 factories. Workers in tiers 1 and 2 factories often have the same characteristics regarding their job-related expectations and experiences. Therefore, tier-two workers were suitable for the conduct of pilot testing of the protocol. The result of the pilot testing was used to adapt the research instrument for use in the Ghanaian context. The adapted instrument was then administered and collected within 2 weeks. Informed consent was obtained from all participants, and their identities were kept anonymous. Data obtained were kept safely and confidentially on the personal computers of the authors and google drive with personal passwords.

3 Results

We employed Partial Least Squares Structural Equation Modelling (PLS-SEM) using SmartPLS 4.0, a robust tool for analysing complex models involving multiple predictors and outcomes [52, 53] to test the hypotheses. This analytical procedure is particularly suited to the exploratory nature of the study and allowed for a nuanced analysis of the relationships between the variables in the study. The significance of the paths was tested using 10,000 bootstrap samples, with bias corrected and accelerated. The analysis involved evaluation of measurement and the structural models. The measurement model assesses the measurement quality of the measures, while the structural model assesses the nature and strength of the coefficients of the paths to test the hypotheses.

3.1 Evaluation of measurement model

The measurement model evaluates the quality of the measures. This involves assessment of construct validity and reliability, and indicator loadings. Figure 2 presents the indicator (outer) of the constructs, and Table 1 presents the indicator loadings, and coefficients of construct validity and reliability. Assessment of the outer or indicator loadings indicated that they were all within acceptable level. Generally, the indicator loadings show the degree to which the items represent their underlying construct, and loadings greater than 0.70 are recommended [54]. Most of the indicator loading in the study were higher than 0.70 on all the constructs, and the reliability and validity coefficient were also within acceptable ranges. Meanwhile, there were 10 initial indicators measuring employee job performance. However, four of the indicators loaded below 0.70 and the reliability coefficients and the average variance extracted (AVE) were below the acceptable criteria. Yadav and Singh [48] observed that social science researchers often obtain weaker indicator loadings less than 0.70 and cautioned against the deletion of an item simply because the loading is less than .70. However, such items could be deleted if the deletion would significantly improve the composite reliability and the AVE. In this study, the deletion of the four employee job performance indicators improved the reliability and the AVE significantly to acceptable ranges as indicated in Table 1.

Construct validity was established through the assessment of convergent validity and discriminant validity [52, 53], using the AVE for convergent validity and Fornell-Larker criterion, and heterotrait-monotrait (HTMT) for discriminant validity. The criterion for acceptable evidence of convergent validity is an AVE of 0.50 or higher [55]. When using the Fornell-Larker criterion, discriminant validity is established if the *square root* of the AVE of a given construct is greater than how that construct correlates with other constructs. The criterion for the HTMT is 0.90 or 0.85 for conceptually similar and conceptually distinct constructs respectively [56]. Table 1 presents the construct validity and reliability coefficients. We used Cronbach's alpha and composite reliability to demonstrate evidence of construct reliability, and coefficients of 0.70 and higher are generally considered acceptable.

The results presented in Table 1 indicate that there were no major issues with construct reliability and convergent validity of the constructs. Even though the Cronbach's alpha coefficients for role clarity and resource availability

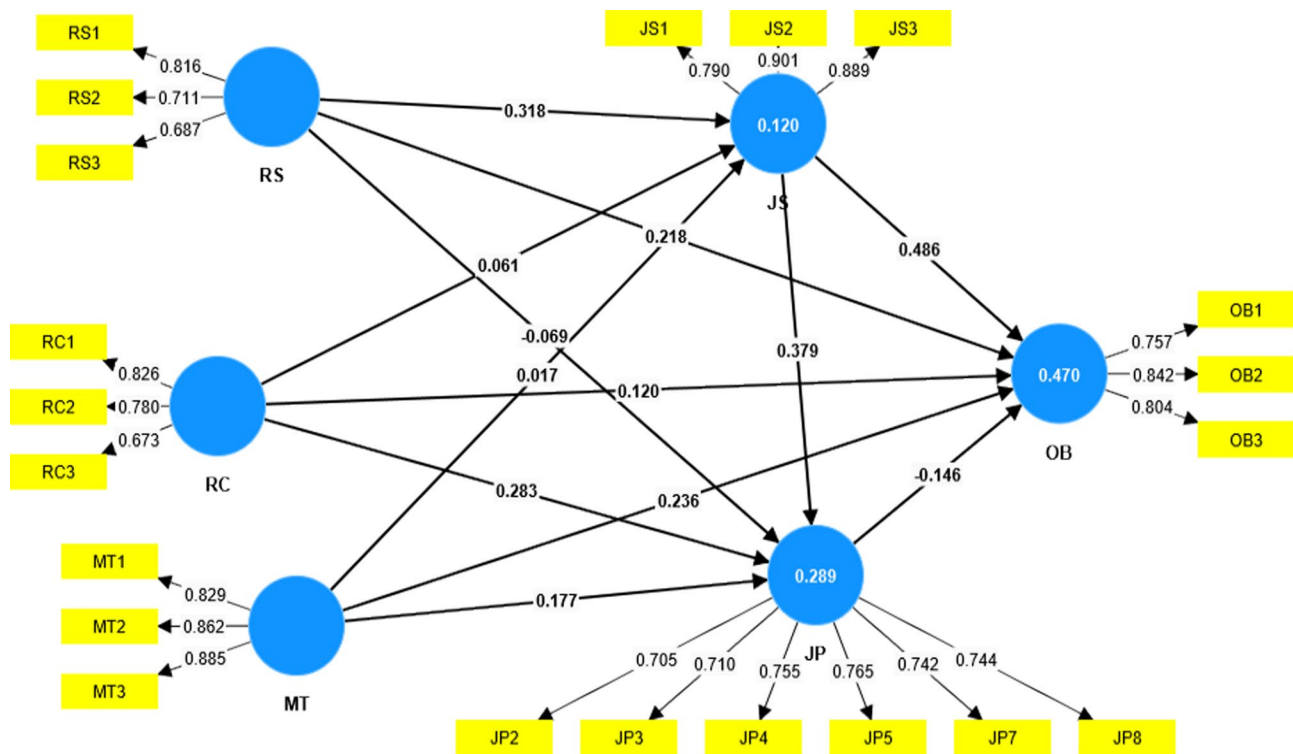


Fig. 2 Analytical model of the study. *RS* resource availability, *RC* role clarity, *MT* employee motivation, *JS* job satisfaction, *JP* job performance, *OB* organisational objectives achievement

Table 2 Heterotrait–monotrait matrix for discriminant validity

Variables	JP	JS	MT	OB	RC
Job satisfaction (JS)	0.509				
Employee motivation (MT)	0.300	0.215			
Organisational objectives achievement (OB)	0.271	0.729	0.515		
Role clarity (RC)	0.464	0.198	0.205	0.334	
Resource availability (RS)	0.302	0.484	0.685	0.758	0.398

Table 3 Fornell–Larcker discriminant validity criterion

Variables	JP	JS	MT	OB	RC	RS
Job performance (JP)	(0.737)					
Job satisfaction (JS)	0.427	(0.861)				
Employee motivation (MT)	0.251	0.176	(0.859)			
Organisational Objectives (OB)	0.208	0.556	0.405	(0.802)		
Role clarity (RC)	0.345	0.143	0.143	0.227	(0.763)	
Resource availability (RS)	0.214	0.342	0.473	0.494	0.250	(0.740)

were below 0.70, the composite reliability coefficients greater. Regarding discriminant validity, both the HTMT ratios (Table 2) and Fornell–Larcker criterion (Table 3) provided evidence for discriminant validity of the construct in the study.

The Fornell–Larcker criterion (Table 3) demonstrated adequate discriminant validity among the variables. The square roots of the AVEs (in parentheses and bold prints) for all the variables were greater than the correlation coefficients between a particular construct and all other constructs in the model.

3.2 Common method bias

We tested the potential presence and threat of common method bias, given that the data were obtained in a cross-sectional survey, and data for both predictors and criterion were collected together at the same time, with the same survey method [57, 58]. This was checked using the collinearity diagnostics tool of as recommended by Kock and Lynn [59]. A VIF value beyond 3.3 is considered to be an indication of the presence of common method bias [55, 59, 60]. The results showed that all the VIFs were below the 3.3 criterion, indicating that there was no issue with common method bias.

3.3 Evaluation of the structural model

The structural model presents the coefficients of the inter-relationship between the variables of the various direct and indirect paths in the model. The study sought to investigate the extent to which resource (a) availability, (b) role clarity and (c) employee motivation would predict organisational effectiveness through employee job performance and job satisfaction. Figure 3 presents the structural model of the study.

In hypothesis 1, we sought to test whether resource availability, role clarity, and employee motivation would individually predict employee job satisfaction. The results presented in Table 1 indicated that the three predictors accounted for 12.0% of the variance in job satisfaction. Resource availability had a significant positive direct relationship with employee job satisfaction ($\beta = 0.318$, $p < 0.001$, $f^2 = 0.085$). However, role clarity ($\beta = 0.061$, $p > 0.05$) and employee motivation ($\beta = 0.017$, $p > 0.05$) did not have significant relationships with employee job satisfaction. Therefore, only hypothesis 1(a) was supported. Thus, availability of resources was a significant predictor of how satisfied the employees were, but role clarity and level of motivation were not.

Hypothesis 2 sought to test the extent to which resource availability, role clarity, employee motivation and job satisfaction would predict their job performance in the garment work setting. The four predictors jointly accounted for 28.9% of the variance in employee job performance. The results (see Table 4) also indicated that, with the exception of resource availability ($\beta = -0.069$, $p > 0.05$), the other three predictors, namely, role clarity ($\beta = 0.283$, $p < 0.001$, $f^2 = 0.105$), employee motivation ($\beta = 0.177$, $p = 0.009$, $f^2 = 0.034$) and job satisfaction ($\beta = 0.379$, $p < 0.001$, $f^2 = 0.178$) positively predicted employee job performance. Thus, hypothesis 2(a) was not supported, but 2(b), 2(c) and 2(d) were supported. Employee job satisfaction was the strongest predictor of their job performance.

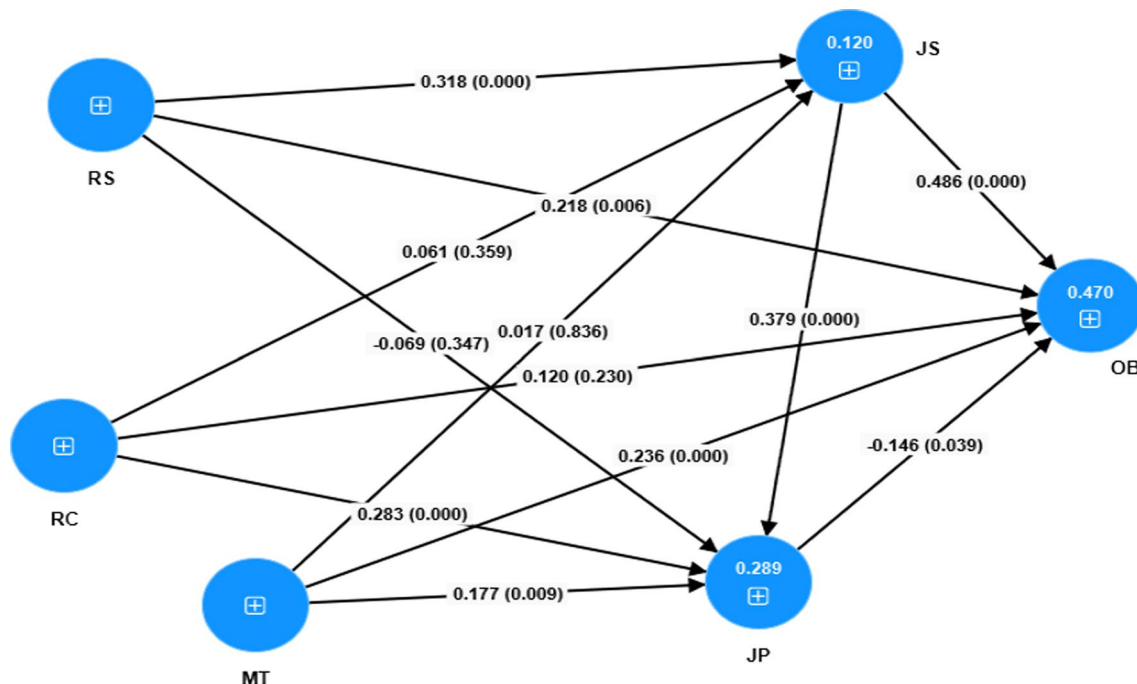


Fig. 3 Structural Model of the study. *RS* resource availability, *RC* role clarity, *MT* employee motivation, *JS* job satisfaction, *JP* job performance, *OB* organisational objectives achievement

Table 4 Results of direct effects

	Direct Effects	T statistics	P values	f ²	R ²
H1(a): RS → JS	0.318	3.980	0.000	0.085	0.120
H1(b): RC → JS	0.061	0.917	0.359	0.004	
H1(c): MT → JS	0.017	0.207	0.836	0.000	
H2(a): RS → JP	-0.069	0.941	0.347	0.005	0.289
H2(b): RC → JP	0.283	3.950	0.000	0.105	
H2(c): MT → JP	0.177	2.613	0.009	0.034	
H2(d): JS → JP	0.379	4.761	0.000	0.178	
H3(a): RS → OB	0.218	2.776	0.006	0.061	0.470
H3(b): RC → OB	0.120	1.200	0.230	0.023	
H3(c): MT → OB	0.236	3.947	0.000	0.079	
H3(d): JS → OB	0.486	5.535	0.000	0.332	
H3(e): JP → OB	-0.146	2.062	0.039	0.029	

RS Resource availability, RC role clarity, MT employee motivation, JS job satisfaction, JP job performance, OB organisational objectives achievement

The results on hypotheses 1 and 2 suggest that, while resource availability was a significant predictor of job satisfaction, it failed to significantly predict job performance. Job performance was predicted by role clarity, level of motivation and job satisfaction. Job satisfaction emerged as the most significant element for employee performance.

Hypothesis 3 postulates that resource availability, role clarity, employee motivation, job satisfaction and job performance would individually and directly predict organisational effectiveness. The four predictors explained 47.0% of the variance in organisational effectiveness. The results presented in Table 5 showed that resource availability ($\beta = 0.218$, $p < 0.001$, $f^2 = 0.061$), motivation ($\beta = 0.236$, $p < 0.001$, $f^2 = 0.079$) and job satisfaction ($\beta = 0.486$, $p < 0.001$, $f^2 = 0.332$) positively predicted organisational effectiveness, while employee job performance ($\beta = -0.146$, $p < 0.05$) negatively predicted, with role clarity not significantly predicting organisational effectiveness. Thus, with the exception of hypothesis 3(b), all the other sub-hypotheses have been supported.

3.4 Mediation analysis

The mediation analyses were conducted to assess the mediating roles of job satisfaction and job performance in the relationships between (a) Resource availability, (b) role clarity, and (c) employee motivation and organisational effectiveness. The analyses (Table 5) showed that only the relationship between resource availability and organisational effected was partially mediated by job satisfaction ($\beta = 0.155$, $p < 0.001$). In effect, the total indirect effect of job resources on

Table 5 Total, direct and indirect effects

Paths	Total effect (β)	Direct effect (β)	Indirect effect (β)	Specific indirect effects	
				(β)	P
RS → OB	0.365**	0.218**	0.147**	H4(a): RS → JS → OB	0.155** 0.000
				H5(a): RS → JP → OB	0.010 0.430
RC → OB	0.105 ^{ns}	0.120 ^{ns}	-0.015 ^{ns}	H4(b): RC → JS → OB	0.030 0.383
				H5(b): RC → JP → OB	-0.041 0.084
MT → OB	0.218**	0.236**	-0.019 ^{ns}	H4(c): MT → JS → OB	0.008 0.841
				H5(c): MT → JP → OB	-0.026 0.123
JS → OB	0.430**	0.486**	-0.056 ^{ns}	H6: JS → JP → OB	-0.056 0.082

RS Resource availability, RC role clarity, MT employee motivation, JS job satisfaction, JP job performance, OB organisational objectives achievement

**Significant at 0.01, ^{ns} not significant at 0.05

organisational effectiveness through both job performance and satisfaction was significant and complemented the direct effect, increasing from 0.218 to 0.365.

4 Discussion of findings

Organisational effectiveness is essential for the success and survival of any business entity. The present study focused on internal individual and organisational factors that influence the effectiveness within the Ghanaian Garment industry. We investigated internal organisational factors (resource availability and role clarity) and affective subjective evaluations of employees of their work experiences (motivation and job satisfaction) that have implications for their job performance and ultimately, effectiveness of organisations.

Our findings underscore the complex interplay between internal organisational factors and outcomes such as job satisfaction, performance, and overall organisational effectiveness within Ghana's garment industry. Resource availability emerged as a significant predictor of job satisfaction, aligning with the Job Demands-Resources theory [28], highlighting the role of resources in enhancing employee satisfaction. This relationship was consistent with observations in other sectors, such as findings by Weerasinghe et al. [16] in the apparel industry and Tan and Olaore's [1] research on production workers. Providing adequate resources directly influences satisfaction and signals management's commitment to employee welfare, further boosting morale and aligning individual goals with organisational objectives. These results emphasise the importance of strategic investments in resource allocation to foster satisfaction, enhance productivity, and improve organisational outcomes.

Despite the clear link between resource availability and job satisfaction, role clarity did not significantly correlate. This finding diverges from prior evidence, such as Hegazy et al.'s [35] study, which linked role clarity with reduced ambiguity and increased satisfaction. The lack of a relationship in this context suggests that Ghana's garment industry might prioritise external rewards, cultural dynamics, or workplace environment over role understanding when it comes to satisfaction. The garment industry's fast-paced and highly competitive nature may lead workers to value practical benefits over abstract factors such as clarity of roles. Similarly, employee motivation, often considered a strong predictor of job satisfaction, did not significantly affect this study. This finding contrasts with studies like Pancasila et al. [24] and highlights the need to explore moderating factors, such as workplace relationships, financial incentives, or organisational culture, that may influence the motivation-satisfaction link in this industry. The absence of this link could also reflect the presence of intrinsic or external constraints that dampen the motivational effects.

In examining predictors of job performance, we found that while resource availability was critical for job satisfaction, it did not directly influence job performance. This result challenges Buchori et al.'s [22] findings. The effectiveness of resources in driving performance may depend on other factors, such as training, effective resource utilisation, or the alignment of resources with organisational goals. Resource availability may serve as a necessary but insufficient condition for performance improvement, requiring the complementary presence of managerial guidance and employee initiative. Role clarity and motivation, however, significantly predicted job performance, supporting Cerasoli et al.'s [36] meta-analytic evidence on the combined effects of intrinsic and extrinsic factors. Clear role definitions ensure that employees understand expectations, while sustained motivation drives effort and engagement, leading to enhanced performance outcomes in this sector. These findings emphasise the necessity of a dual focus on defining job roles and fostering a motivational work environment to ensure optimal employee contributions.

The findings also revealed that resource availability, motivation, and job satisfaction positively predicted organisational effectiveness, with satisfaction emerging as the strongest predictor. This finding supports Tan and Olaore's [1] conclusions about the critical role of these factors in organisational success. When satisfied, employees are more likely to align their personal goals with organisational objectives, contributing to improved performance and collective outcomes. Strategies aimed at enhancing satisfaction through adequate resources, motivational support, and recognition of employee contributions are likely to yield significant benefits for organisational effectiveness. Surprisingly, however, job performance negatively correlated with organisational effectiveness, contradicting conventional understanding and findings from Weerasinghe et al. [16]. This anomaly might reflect misalignments between individual performance metrics and organisational goals, where high individual performance does not necessarily translate into collective success. Alternatively, excessive focus on individual performance may lead to unhealthy competition or neglect of collaborative efforts, which are critical for overall effectiveness. Further research is needed to explore this disconnect and identify potential contributing factors, including cultural or operational dynamics within the industry.

Our mediation analysis revealed that job satisfaction is complementary in linking resource availability to organisational effectiveness. This aligns with Jiang et al.'s [42] meta-analysis and recent findings by Hegazy et al. [35], demonstrating that satisfied employees bridge organisational resources and effectiveness. Employees who perceive their needs as adequately addressed are more likely to experience a sense of loyalty and purpose, which translates into enhanced organisational outcomes. These results highlight the importance of fostering a supportive work environment where satisfaction is prioritised, as this can significantly enhance the achievement of organisational objectives. Organisations can strengthen their internal mechanisms and improve their external competitiveness by ensuring resource adequacy and addressing factors contributing to employee contentment.

Generally, our findings suggest that while some established relationships hold in the Ghanaian garment industry, others require further exploration to account for unique contextual dynamics and challenges. The complex interactions between resources, motivation, role clarity, and satisfaction underline the need for tailored strategies, taking the specific industry's needs into consideration. In view of this, future research needs to incorporate broader frameworks, such as the Job Characteristics Model and diverse variables like workplace relationships and social support to capture the nuances of organisational dynamics in this evolving sector.

4.1 Implications for practice

The present study presents some practical implications for the garment industry. The findings emphasised the critical role of job satisfaction in employee performance and organisational effectiveness, with resource availability being an imperative element in job satisfaction in the industry. Management of organisations, especially in the production sector, needs to take provision of essential resources for their employees, as lack of resources can be very frustrating and demotivating. There is the need for supervisors to constantly monitor job resources and bridge and identified gap between available resources and needed resources to facilitate job performance and efficiency. Consistent with the job-demand resource model [61], availability of requisite resources, including appropriate tools and equipment, technology and support system, engenders smooth, efficient and effective performance of work duties, and reduces frustration, and consequently, job satisfaction is enhanced. Again, provision of necessary resources demonstrates management's commitment and concern for the wellbeing of employees and success of the organisation. This, invariably boost the morale and job satisfaction of employees.

The findings also demonstrate the importance of role clarity and employee motivation for job performance. Accordingly, we recommend that management and supervisors must ensure that employees are clear about what their job duties are. Employees could be involved in the setting of short to medium-term performance goals. This can enhance the understanding of employees regarding what the job entails and performance criteria, which would lead to efficient job performance, and also boosting the morale of employees. Participation in goals setting could send the signal that views of the employee are valued, and this can positively affect various aspects of the employee's work experiences.

Our mediation analysis indicated that job satisfaction complementarily mediated the relationship between resource availability and organisational effectiveness. This means that employees who feel they have adequate requisite job resources to discharge their job duties would be more satisfied, and this in turn would enhance the achievement of organisational objectives. This again highlights the need for management to ensure that necessary job resources are provided on time, as this has a ripple effect on the subjective evaluations of the work experiences of the employees and also for the attainment of organisational objectives.

4.2 Implications for research

We found in the current study that employee performance negatively predicted organisational effectiveness, which was not consistent with expectations and extant literature. Given that organisational effectiveness is a multidimensional construct influenced by varied internal and external factors of an organisation, including cross-cultural activities [49], we recommend further research in this sector, using other models of organisational effectiveness. The current landscape of the garment industry in Ghana is evolving rapidly toward small-scale entrepreneurs, characterised by marked competitive environment [62]. In this vein, customer preferences and satisfaction has become paramount [62] for survival in the industry. Future research, therefore, would have to consider utilising the participant satisfaction or ecological model conceptualisation of organisational effectiveness. Again, given that employee motivation did not significantly predict job satisfaction suggests that motivation is just one of the elements that could influence job satisfaction, and that there could be other intervening variables that could be explored in the garment industry. The job characteristics model

could be considered in future research to examine other factors such as autonomy, social support etc. Finally, given that job satisfaction holds promise for both job performance and organisational effectiveness in the garment industry, it is important that future research should be directed toward exploring more factors that could boost the job satisfaction of employees in the sector.

4.3 Limitations and directions for future research

Even though the study made significant contribution to literature and practice, there are some limitations worth noting. First, we understand that structural equation modelling improves the quality of evidence about causation in the absence of experimental designs. However, to further improve the robustness of the design and the evidence therefrom, future studies could be designed as longitudinal studies based on the temporal order. This will enable researchers to test the temporal order principle of causation embedded in the structural model. Second, we conducted the study in three garment factories in Southern Ghana. Given that contextual factors influence the conceptualisation and operationalisation of organisational effectiveness, this may affect the generalisability of the findings to factories and employees in other parts of Ghana and globally. Meanwhile, the findings lay a foundation for future research in similar and other cultural and industrial contexts, with implications for policy-making and strategic planning. However, it is also important to note that majority of the garment factories are also located in the southern part of Ghana.

5 Conclusions

We can conclude from the present study that the antecedents and conceptualisation of organisational effectiveness is context driven, and different models could be relevant in different context. While employee job performance might be a significant contributing factor in determining the effectiveness of an organisation in some context, it might not have the same influence in other context. Different models of organisational effectiveness may be relevant in different context. Given the current landscape of the garment industry in Ghana, it seems the ecological model, taking into consideration, satisfaction of various stakeholders, including customer satisfaction, could be more appropriate for assessing organisational effectiveness than the goal model utilised in the current study.

Also, we can conclude that the provision of essential production resources is critical for employees' positive evaluation of their work experiences (job satisfaction), but not for their performance. Role clarity and employee motivation are critical drivers of employee task performance in the garment industry. While role clarity is directly connected with employee performance of specific job duties, it is not a directly related to a more distal and dynamic organisational outcome, such as organisational effectiveness.

Finally, we conclude that employee job satisfaction happened to be the most critical personal variable for the promotion of both employee performance and organisational effectiveness in the garment industry in Ghana. Provision of critical resource is essential for engendering job satisfaction of employees, and this in turn has implications for organisational effectiveness.

Author contributions W.K.S. and L.A. led the conceptualisation of the paper, and W.K.S. and S.O. led the data collection. L.A. run the analysis and wrote the results and methods section, R.A.C., S.O., and W.K.S wrote the other section of the paper. All authors reviewed and finalised the paper.

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Data availability The datasets supporting the findings of this paper are available upon request from the corresponding author.

Declarations

Ethics approval and consent to participate The protocol was approved by the Directorate of Research, Innovation and Technology Transfer (DRIPPT) at Accra Technical University, Accra-Ghana, in line with the ethical guidelines of DRIPPT, with ethical approval number, ID: RE #79–2023-DRIPPT. The study was therefore conducted in accordance with the guidelines of Accra Technical University Directorate of Research, Innovation and Technology Transfer. Informed consent was obtained from all individual participants included in the study.

Competing interests The authors declare no competing interests.

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