

Research Article

HRM's Role in ISO 9001 Implementation: Food & Beverages Case Study

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Abstract: This study investigates the role of human resource management (HRM) practices in implementing ISO 9001 quality management systems within food and beverage companies. Using a qualitative case study methodology with triangulation techniques, the research examined PT Pringsewu Cemerlang's ISO 9001 implementation through in-depth interviews, direct observations, and document analysis involving 32 informants across management, supervisory, and operational levels. The findings reveal that strategic HRM practices significantly enhance ISO 9001 implementation effectiveness, with overall service quality improving by 24.2%. Employee competency development emerged as the primary mediating mechanism, demonstrating 96.4% training completion rates and 76.8% job performance transfer effectiveness. Training and development (4.2/5.0) and communication systems (4.1/5.0) proved most impactful in facilitating quality improvements across reliability (35.5% improvement), responsiveness (21.2%), and comfort/assurance (17.1%) dimensions. The study identifies three critical integration mechanisms: (1) standardization of work procedures and customer service protocols, (2) systematic competency development aligned with ISO 9001 requirements, and (3) enhanced communication systems supporting organizational change. However, persistent challenges include employee resistance (32.4%) and cross-branch consistency issues (22.1%), highlighting the importance of cultural transformation in quality management success. Theoretical contributions extend the resource-based view of strategic HRM by demonstrating how human capital resources generate competitive advantage through quality management integration. Practical implications provide actionable frameworks for food and beverage companies seeking to leverage HRM practices for sustainable quality improvements. The research challenges previous skepticism regarding ISO 9001's tangible benefits by showing how effective human resource management unlocks operational improvement potential in industry contexts.

Keywords: Employee Competency Development; Food and Beverage Industry; ISO 9001; Quality Management Systems; Strategic Human Resource Management

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1. Introduction

The contemporary business environment places unprecedented emphasis on quality management and customer satisfaction, particularly within the highly competitive food and beverage (F&B) industry. Quality management systems (QMS) based on ISO 9001:2015 have emerged as fundamental frameworks for organizations seeking to enhance operational efficiency, ensure consistent product quality, and maintain competitive advantage. The food and beverage sector, characterized by stringent regulatory requirements and evolving consumer expectations, faces unique challenges in implementing systematic quality management approaches that integrate human resource management (HRM) practices with operational excellence.

ISO 9001 empowers manufacturers to document work instructions, policies and procedures, as well as create training resources and inspection checklists that ensure everyone from floor to management understands their roles and responsibilities. However, the successful implementation of ISO 9001 fundamentally depends on human capital effectiveness, as HR practices are the central drivers for maintaining service quality in an organization, with teamwork, empowerment, recruitment, selection, training and reward being key for improving service quality (Kaushal et al., 2025).

Contemporary research reveals that in the strategic human resource management literature, over the past three decades, a shared consensus has developed that the focus should be on HR systems rather than individual HR practices because the effects of HR practices are likely to depend on the other practices within the system (Boon et al., 2019). This systemic perspective is particularly crucial in quality management contexts where HRM has become more strategic than transactional in its research, with researchers concentrating on analyzing and improving human resource methods that have an interdisciplinary impact (Pandey & Mahesh, 2025).

Despite the critical importance of human resource management in quality system implementation, significant research gaps persist in understanding the specific mechanisms through which HRM practices facilitate successful ISO 9001 adoption in food and beverage companies. The findings of Kakouris and Sfakianaki (Kakouris & Sfakianaki, 2018) regarding the financial benefits of ISO 9001 certification are not convincing, as they found that the financial benefits from the adoption of ISO 9001 are intangible for food and beverages companies (Hayat et al., 2025). This suggests that traditional approaches to measuring ISO 9001 implementation success may not adequately capture the human resource dimensions that drive sustainable quality improvements.

Despite the recognized relevance of HRM, the available studies on its role in developing organizational performance measurement and management models remain embryonic and at an exploratory stage (Garengo et al., 2022). The urgency of addressing this research gap is amplified by emerging challenges in the post-pandemic business environment, where HR professionals in the food and beverage industry must navigate complexities of various benefit programs, manage payroll effectively, and ensure competitive compensation packages while addressing skill gaps through comprehensive training programs (Cloud, 2025).

Furthermore, nearly 85% of organizations with ISO certification report advantages such as enhanced brand reputation, greater demand for their products and services, and a larger market share, yet the specific human resource management practices that contribute to these outcomes remain insufficiently documented, particularly within the food and beverage sector.

The literature review reveals several critical research gaps that this study addresses. First, while extensive research exists on ISO 9001 implementation and HRM practices separately, existing research has shown a link between e-HRM and HR service quality; nonetheless, these studies highlight e-HRM's potential impact on perceived performance, at both the job and organizational performance levels (Saeed et al., 2025). However, limited empirical evidence exists regarding the integration of traditional HRM practices with quality management systems in food and beverage contexts.

Second, according to Bajaj et al. (2018), quality management research has tripled from 1995 to 2015 and they concluded that the majority of researchers define critical success factors in different ways, with researchers suggesting conducting future research focusing on quality management classification (Mehner et al., 2025). This indicates a need for more systematic approaches to understanding how HRM functions as a critical success factor in ISO 9001 implementation.

Third, paying greater attention to how human resource management systems are conceptualized in empirical studies could provide more actionable insights and increase the impact of HRM systems research (Hauff et al., 2025). The absence of comprehensive frameworks linking HRM practices to specific ISO 9001 requirements represents a significant theoretical and practical void.

Based on the identified gaps, this research addresses the fundamental question: How do human resource management practices contribute to successful ISO 9001 quality management system implementation in food and beverage companies? Specifically, the study examines: (1) the integration mechanisms between HRM functions and ISO 9001 requirements; (2) the role of employee competence development in sustaining quality management practices; and (3) the organizational conditions that facilitate or hinder HRM-driven quality improvement initiatives.

PT Pringsewu Cemerlang, a nationally-operating food and beverage company that has implemented ISO 9001:2015, provides an exemplary case study context for investigating these phenomena. The company's experience with quality management system implementation, combined with its scale of operations and industry positioning, offers valuable insights into the practical challenges and opportunities associated with HRM-quality management integration.

This research aims to develop a comprehensive understanding of the role human resource management plays in implementing and sustaining ISO 9001 quality management systems within food and beverage organizations. The study contributes to both theoretical knowledge and practical applications by providing empirical evidence of HRM-quality management relationships and offering actionable insights for industry practitioners and quality management professionals.

The significance of this research extends beyond academic contributions to address pressing industry needs. As the ISO 9001:2025 is expected to be launched by late 2025, aligning with the ever-evolving business landscape, with rapid digital transformation and growing sustainability demands driving the need for a more agile and adaptable ISO 9001 framework, organizations require evidence-based guidance on how to leverage human resource capabilities to navigate evolving quality management requirements.

The findings from PT Pringsewu Cemerlang will inform best practices for food and beverage companies seeking to optimize their human resource management approaches in support of quality excellence, ultimately contributing to enhanced customer satisfaction, operational efficiency, and sustainable competitive advantage in an increasingly demanding marketplace.

2. Preliminaries or Related Work or Literature Review

Theoretical Foundations of Strategic Human Resource Management

Strategic Human Resource Management (SHRM) has evolved significantly over the past three decades, with growing consensus that the focus should be on HR systems rather than individual HR practices because the effects of HR practices are likely to depend on other practices within the system. The field can be defined as "the pattern of planned HR deployments and activities intended to enable an organization to achieve its goals" (Wright & McMahan, 1992). Contemporary SHRM scholarship embraces a multidisciplinary framework that captures systems thinking and addresses concerns of multiple stakeholders while striving for greater practical usefulness in managing innovation and organizational excellence (Jackson, 2014).

The theoretical foundation of SHRM rests on several key perspectives. The resource-based view emphasizes that human capital resources are positively associated with firm performance, with the impact being more robust when isolating mechanisms such as firm specificity are present (Crook et al., 2011). Additionally, strategic HRM focuses on integrating strategic human capital with strategic human resource management, where human capital resources can generate greater net economic benefits than competitors through proper alignment and deployment (Chadwick, 2017).

Recent research demonstrates that strategic HRM serves as a strategic organizational resource representing an organic combination of talent resource elements, emphasizing flexible adjustment of staffing policies, training programs, performance standards, and rewards in response to external changes (Zhang et al., 2022). This approach provides strategic tools to promote resource integration, crisis prevention, and learning innovation in organizations.

Quality Management Systems and ISO 9001 Implementation

ISO 9001:2015 represents the world's most recognized quality management standard, providing a framework for implementing Quality Management Systems (QMS) that emphasize customer focus, leadership commitment, process-oriented approaches, and continuous improvement. The standard outlines seven fundamental quality management principles that guide implementation: customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making, and relationship management.

Recent studies indicate that ISO 9001 implementation in food and beverage manufacturing enables organizations to create consistent, high-quality products through documented work instructions, policies, and procedures that ensure understanding of roles and responsibilities from floor to management levels. The standard emphasizes control and traceability at each production step through standardized documentation, record maintenance, and internal audits, facilitating seamless integration with food safety standards such as HACCP and FSSC 22000.

However, research reveals mixed findings regarding ISO 9001's tangible benefits. While 85% of organizations with ISO certification report advantages including enhanced brand reputation and increased market share, studies by Kakouris and Sfakianaki (2018) found that financial benefits from ISO 9001 adoption are often intangible for food and beverage

companies, suggesting that traditional measurement approaches may not adequately capture the human resource dimensions driving quality improvements.

Employee Competence Development and Training Effectiveness

Training effectiveness has become increasingly critical for organizational success, with 72% of companies rating their learning and development outcomes as 'excellent' when incorporating microlearning approaches (LinkedIn Learning, 2024). Research demonstrates that training is crucial for developing employee competencies and improving organizational performance, with companies earning over double the income per employee when offering comprehensive training programs (Devlin, 2025).

Contemporary research emphasizes the importance of training transfer and knowledge sharing mechanisms. Studies show that training transfer motivation serves as an essential mediator for knowledge sharing, as individuals are more likely to share knowledge when they perceive organizational benefits (Burmeister & Deller, 2016). The effectiveness of workplace training depends significantly on social support systems, with supervisor and peer support being critical factors in maximizing training impact and knowledge application (Mehner et al., 2025).

Competence development requires systematic approaches that align with organizational strategic objectives. Recent findings indicate that competency management frameworks should be living documents, regularly reviewed and updated to reflect changing organizational needs and industry trends (DevSkiller, 2025). Effective competence development encompasses not only technical skills acquisition but also the cultivation of digital leadership competencies, emphasizing traits like curiosity, lifelong learning, and adaptability to technological advancement (Ahmed et al., 2024).

Integration of HRM Practices with Quality Management

The integration of HRM practices with quality management systems presents both opportunities and challenges. Research indicates that HR practices are central drivers for maintaining service quality, with teamwork, empowerment, recruitment, selection, training, and reward systems being key for improving service quality (Kaushal et al., 2025). However, the available studies on HRM's role in developing organizational performance measurement and management models remain embryonic and exploratory (Garengo et al., 2022).

Strategic alignment becomes critical when implementing quality management systems. Organizations must execute business strategies through human resource management practices by crafting unique blends of HR practices that align human and social capital with strategic priorities (Slocum et al., 2014). This requires designing and implementing comprehensive HRM practices that form a "people process" reinforcing the organization's core strategic discipline.

Recent studies emphasize the importance of organizational resilience in quality management contexts. Strategic HRM, as a strategic organizational resource, provides flexible adjustment capabilities that enable crisis prevention and control while promoting learning and innovation. This is particularly relevant in food and beverage industries where quality standards must be maintained despite operational challenges and market fluctuations.

Research Gaps and Future Directions

Despite extensive research on both SHRM and quality management systems, significant gaps remain in understanding their integration. Current literature lacks comprehensive frameworks linking specific HRM practices to ISO 9001 requirements, particularly in food and beverage contexts. The terminology used to label HR systems has become increasingly unclear, with definitions and differences between systems not clearly outlined.

Additionally, paying greater attention to how human resource management systems are conceptualized in empirical studies could provide more actionable insights and increase the impact of HRM systems research. The absence of systematic approaches to understanding how HRM functions as a critical success factor in ISO 9001 implementation represents a significant theoretical and practical void that this research addresses.

Future research should focus on developing empirical evidence of HRM-quality management relationships while providing actionable insights for industry practitioners, particularly as organizations prepare for the anticipated ISO 9001:2025 updates that will address digital transformation, sustainability, and evolving business needs.

3. Proposed Method

This research employs a qualitative case study methodology to provide an in-depth exploration of the intricate phenomena within the specific context of PT Pringsewu Cemerlang's ISO 9001 implementation (Rahid et al., 2019). Qualitative case study methodology enables researchers to conduct comprehensive investigations of complex phenomena within their natural contexts, utilizing various data sources and multiple analytical lenses to reveal different facets of the phenomenon (Baxter & Jack, 2015).

The study adopts a single-case study design, focusing on PT Pringsewu Cemerlang as a representative case of food and beverage companies implementing ISO 9001 quality management systems. Case study methodology is particularly appropriate when investigating "a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident" (Yin, 2017). This approach allows for detailed examination of how HRM practices facilitate ISO 9001 implementation within the specific organizational culture and operational context of the company.

The research framework follows a systematic four-phase approach: (1) foundation phase involving literature review and theoretical framework development, (2) pre-field phase encompassing research design and instrument preparation, (3) field phase covering data collection and preliminary analysis, and (4) reporting phase including comprehensive data analysis and interpretation (Rahid et al., 2019).

The study employs multiple forms of triangulation to enhance credibility, validity, and reliability of findings (Carter et al., 2014). Four types of triangulation are implemented:

- a. **Data Source Triangulation:** Multiple data sources are utilized including management personnel, supervisors, frontline employees, and customers to develop comprehensive understanding of phenomena (Patton, 1999). This approach captures diverse perspectives on HRM-ISO 9001 integration across different organizational levels.
- b. **Methodological Triangulation:** Three complementary data collection methods are employed: (1) in-depth semi-structured interviews, (2) direct observations, and (3) document analysis. This combination provides both depth and breadth to the investigation.
- c. **Investigator Triangulation:** Multiple researchers independently analyze collected data to minimize individual biases and ensure more objective interpretation (Denzin, 1978).
- d. **Theory Triangulation:** Data analysis incorporates multiple theoretical frameworks including strategic HRM theory, quality management principles, and organizational development theory.

Semi-structured Interviews: Primary data collection through in-depth interviews with purposively selected informants including quality managers, operational supervisors, HR personnel, and frontline employees. Interview protocols focus on experiences with ISO 9001 implementation, HRM practice changes, training effectiveness, and perceived service quality improvements.

Direct Observation: Systematic observation of work processes, training sessions, quality meetings, and employee interactions to capture actual practices versus reported procedures. Observation protocols document consistency of standard operating procedure implementation and employee competency demonstration.

Document Analysis: Comprehensive review of organizational documents including ISO 9001 certification materials, training records, performance evaluation systems, standard operating procedures, internal audit reports, and quality policy documentation.

The study utilizes purposive sampling to select key informants who possess in-depth knowledge of ISO 9001 implementation and HRM practices (Tomaszewski et al, 2020). Selection criteria include: (1) direct involvement in quality management system implementation, (2) minimum two years' experience with current quality practices, and (3) diverse representation across organizational hierarchies and functional areas.

Data analysis follows Creswell's systematic approach (Creswell & Poth, 2018): (1) raw data organization and preparation, (2) comprehensive reading of all collected data, (3) systematic coding of data segments, (4) theme development and categorization, (5) theme interrelation and pattern identification, and (6) interpretation of meaning and theoretical implications. **Coding Process:** Initial coding identifies key concepts and patterns, followed by focused coding to develop thematic categories. Analysis software assists in managing and organizing coded data while maintaining analytical transparency. **Thematic Analysis:** Themes are developed inductively from data patterns, with constant comparison across data sources to ensure consistency and comprehensiveness (Lim, 2025).

4. Results and Discussion

Research Results

Participant Characteristics

The study involved key informants from various organizational levels at PT Pringsewu Cemerlang, including quality managers, operational supervisors, HR personnel, frontline employees, and customers. The purposive sampling approach ensured comprehensive representation of stakeholders directly involved in ISO 9001 implementation and service delivery processes.

Table 1. Informant Demographics and Characteristics

Category	Position	Experience (Years)	ISO 9001 Involvement	Sample Size
Management	Quality Manager	8-12	Direct Implementation	3
Supervisory	Operational Supervisors	5-10	Process Oversight	5
HR Personnel	Training Coordinators	6-15	Competency Development	4
Frontline	Service Staff	2-8	Daily Application	12
External	Customers	N/A	Service Recipients	8
Total				32

Key Findings on HRM Practices and ISO 9001 Integration

The analysis revealed three primary dimensions through which HRM practices facilitate ISO 9001 implementation effectiveness:

Table 2. HRM Practice Integration with ISO 9001 Requirements

HRM Practice	ISO 9001 Clause	Implementation Level	Effectiveness Rating*
Training & Development	7.2 Competence	High	4.2/5.0
Performance Management	9.1 Monitoring	Medium	3.8/5.0
Recruitment & Selection	7.1.2 People	Medium	3.6/5.0
Communication Systems	7.4 Communication	High	4.1/5.0
Employee Engagement	5.1 Leadership	Low	3.2/5.0

*Based on triangulated assessment from management interviews, employee feedback, and observation data

Service Quality Improvements

The implementation of integrated HRM-ISO 9001 practices demonstrated significant improvements across three key service quality dimensions:

Table 3. Service Quality Performance Indicators

Quality Dimension	Pre-Implementation	Post-Implementation	Improvement (%)	Statistical Significance**
Reliability	3.1/5.0	4.2/5.0	35.5%	$p < 0.01$
Responsiveness	3.3/5.0	4.0/5.0	21.2%	$p < 0.05$
Comfort/Assurance	3.5/5.0	4.1/5.0	17.1%	$p < 0.05$
Overall Service Quality	3.3/5.0	4.1/5.0	24.2%	$p < 0.01$

**Based on customer feedback surveys (n=156) and internal quality assessments

Employee Competency Development Outcomes

Training effectiveness and competency development showed marked improvements following the integrated approach

Table 4. Training and Competency Development Results

Training Component	Participants	Completion Rate	Competency Improvement	Transfer to Job Performance
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ISO 9001 Fundamentals	87	98.9%	42.3%	78.2%
SOP Implementation	65	95.4%	38.7%	82.1%
Customer Service Excellence	72	97.2%	45.1%	75.6%
Quality Audit Procedures	34	94.1%	39.8%	71.4%
Average	64.5	96.4%	41.5%	76.8%

Implementation Challenges and Barriers

The research identified several persistent challenges despite overall positive outcomes:

Table 5. Implementation Challenges and Mitigation Strategies

Challenge Category	Frequency (%)	Impact Level	Primary Causes	Mitigation Strategies Employed
Employee Resistance	32.4%	High	Change anxiety, unclear benefits	Enhanced communication, peer mentoring
Resource Constraints	28.7%	Medium	Limited training budget, time allocation	Phased implementation, online training
Cross-branch Consistency	22.1%	High	Geographic dispersion, local variations	Standardized protocols, virtual monitoring
Technology Integration	16.8%	Medium	Digital literacy gaps, system compatibility	Targeted IT training, gradual rollout

Discussion

Theoretical Implications and Alignment with Prior Research

The findings strongly support the theoretical foundation that strategic HRM practices serve as critical enablers for quality management system implementation effectiveness. This aligns with contemporary research demonstrating that HR practices are central drivers for maintaining service quality, with training, empowerment, and communication being key improvement factors. The observed 24.2% improvement in overall service quality corroborates ISO 9001's potential to deliver measurable organizational benefits when properly integrated with human resource capabilities.

The results validate the resource-based view of strategic HRM, where human capital resources generate competitive advantage through proper alignment and deployment. PT Pringsewu Cemerlang's 96.4% training completion rate and 76.8% job performance transfer demonstrate the effectiveness of systematic competency development approaches, supporting findings that formal training remains crucial for developing complex competencies in dynamic work environments (Kauffeld & Paulsen, 2018).

HRM-ISO 9001 Integration Model

The study reveals a mediated relationship model where employee competency development serves as the primary mechanism linking HRM practices to service quality outcomes. This finding extends current understanding by providing empirical evidence that competence development (ISO 9001 Clause 7.2) functions as both a compliance requirement and a strategic lever for organizational performance improvement (Midhat et al., 2021).

The observed integration challenges, particularly the 32.4% incidence of employee resistance, reflect broader patterns documented in quality management implementation literature. Research indicates that training effectiveness is crucial for developing employee competencies and organizational performance, but requires systematic attention to social support systems and knowledge transfer mechanisms.

Service Quality Enhancement Mechanisms

The 35.5% improvement in reliability and 21.2% improvement in responsiveness demonstrate that ISO 9001 implementation, when properly supported by HRM practices, can

deliver substantial service quality gains. This finding challenges earlier skepticism regarding ISO 9001's tangible benefits in food and beverage companies by demonstrating that effective human resource management can unlock the standard's potential for operational improvement.

The results support the assertion that ISO 9001 emphasizes control and traceability through standardized documentation and record maintenance, facilitating quality improvements when coupled with adequate staff training and competency development. The standardization of work procedures and customer service protocols emerged as particularly effective interventions, consistent with ISO 9001's process approach principles.

Competency Development as Strategic Capability

The research demonstrates that competency development transcends traditional training activities to become a strategic organizational capability. The 41.5% average competency improvement across all training components indicates that systematic skills development, aligned with quality management requirements, creates sustainable performance advantages. This finding supports recent HRM research emphasizing that formal training has regained importance for developing complex competencies that exceed informal learning capacity (Richter et al., 2020).

The 76.8% average transfer rate from training to job performance validates the effectiveness of structured competency development programs when integrated with organizational quality systems. This aligns with contemporary perspectives on T-shaped HR competency models that emphasize both core capabilities and specialized domain expertise (AIHR, 2025).

Organizational Culture and Change Management

The persistence of implementation challenges, particularly employee resistance (32.4%) and cross-branch consistency issues (22.1%), highlights the critical importance of organizational culture in quality management system success. The findings suggest that while technical HRM interventions (training, performance management) can drive measurable improvements, cultural transformation remains a complex, long-term undertaking requiring sustained leadership commitment and systematic change management approaches.

This observation resonates with research indicating that organizational culture significantly influences quality management system implementation effectiveness, requiring leaders to establish clear vision, engage employees at all levels, and promote continuous improvement mindsets (Wu et al, 2023). The study's identification of communication systems as highly effective (4.1/5.0) while employee engagement remained challenging (3.2/5.0) suggests that formal communication mechanisms may precede cultural transformation in ISO 9001 implementation processes.

Practical Implications for Food and Beverage Industry

The research provides actionable insights for food and beverage companies seeking to leverage HRM practices for quality management enhancement. The demonstrated effectiveness of integrated training programs (96.4% completion rate) offers a replicable model for systematic competency development. The identification of specific implementation challenges and corresponding mitigation strategies provides practical guidance for managing organizational change in quality management contexts.

The findings support the assertion that ISO 9001 certification can enhance food businesses' reputation and market access when properly implemented through comprehensive human resource management approaches (Medium, 2023). The study's documentation of specific service quality improvements offers benchmarks for similar organizations undertaking ISO 9001 implementation initiatives.

Limitations and Future Research Directions

While the single-case study design provides deep contextual insights, the findings' generalizability requires validation across diverse organizational settings. Future research should explore comparative studies across multiple food and beverage companies to identify industry-specific patterns and best practices. Additionally, longitudinal studies tracking long-term sustainability of observed improvements would enhance understanding of HRM-quality management integration dynamics.

The study's focus on service quality outcomes, while important, represents only one dimension of ISO 9001's potential organizational impacts. Future investigations should examine financial performance indicators, employee satisfaction metrics, and customer retention rates to provide a more comprehensive assessment of integrated HRM-ISO 9001 implementation effectiveness.

5. Conclusions

This research provides compelling evidence that strategic human resource management practices serve as critical enablers for successful ISO 9001 implementation in food and beverage companies. The study at PT Pringsewu Cemerlang revealed significant improvements across all measured dimensions, with overall service quality increasing by 24.2%, demonstrating the tangible benefits of integrating HRM practices with quality management systems.

Key findings demonstrate that employee competency development functions as the primary mediating mechanism linking HRM practices to service quality outcomes. The 96.4% training completion rate and 76.8% job performance transfer validate the effectiveness of systematic competency development approaches. Training and development emerged as the most impactful HRM practice (4.2/5.0 effectiveness rating), followed by communication systems (4.1/5.0), highlighting their critical role in ISO 9001 implementation success.

Synthesis of findings confirms that the resource-based view of strategic HRM applies effectively in quality management contexts, where human capital resources generate competitive advantage through proper alignment and deployment. The observed improvements in reliability (35.5%), responsiveness (21.2%), and comfort/assurance (17.1%) directly support the research objectives, demonstrating how HRM practices facilitate sustainable quality improvements beyond mere compliance requirements.

Theoretical contributions extend current understanding by providing empirical evidence that competence development (ISO 9001 Clause 7.2) functions simultaneously as a compliance requirement and strategic performance lever. The study challenges previous skepticism regarding ISO 9001's tangible benefits in food and beverage companies by demonstrating that effective human resource management unlocks the standard's operational improvement potential.

Practical implications offer actionable insights for industry practitioners, including specific training program structures, communication system designs, and change management approaches. The identification of persistent challenges—employee resistance (32.4%) and cross-branch consistency issues (22.1%)—provides realistic expectations and mitigation strategies for similar implementations.

Limitations include the single-case study design, which constrains generalizability across diverse organizational contexts. Future research should explore comparative studies across multiple food and beverage companies and longitudinal investigations tracking long-term sustainability of observed improvements. Additionally, examining financial performance indicators, employee satisfaction metrics, and customer retention rates would provide more comprehensive assessment of integrated HRM-ISO 9001 implementation effectiveness.

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