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HUMAN FACTORS AND OPERATIONS COST REDUCTION IN HOTELS IN UYO, AKWA IBOM STATE: A CONCEPTUAL REVIEW

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Abstract

This conceptual paper examines the influence of human factors (specifically pilfering and wastage) on operations cost reduction in hotels in Uyo, Akwa Ibom State. Situated within Nigeria's growing hospitality sector, the study draws attention to the persistent but understudied problem of internal resource attrition caused by employee pilfering and food and material wastage, both of which silently erode hotel profitability while complicating cost management efforts. Anchored on James Reason's Swiss Cheese Model (1990) and the Dirty Dozen framework, the paper argues that pilfering and wastage are not isolated behavioural aberrations but systemic manifestations of latent organisational weaknesses, including inadequate supervision, poor inventory control, weak ethical culture, and insufficient staff training, that collectively impede operations cost reduction. A conceptual framework linking pilfering and wastage to hotel operations cost reduction is proposed, and propositions are developed to guide future empirical inquiry. The paper concludes that hotel operators in Uyo must adopt integrated, systems-oriented human factors management strategies to curtail these cost drivers effectively. Recommendations are offered for hotel management, policymakers, and future researchers.

Keywords: Human Factors, Hotel Operations, Operations Cost Reduction, Pilfering, Wastage.

Introduction

The hotel industry is widely recognised as one of the most resource-intensive segments of the broader hospitality and tourism sector, with operating costs encompassing labour, food and beverage procurement, energy, maintenance, and supplies constituting a substantial proportion of total revenue (Cloudbeds, 2025; HVS, 2025). In Nigeria, hotel operators face a particularly challenging cost environment characterised by macroeconomic instability, persistent inflation, and infrastructural deficiencies such as unreliable power supply and supply chain disruptions (Aninver Development Partners, 2025). These structural pressures have intensified the need for effective internal cost management strategies, making operations cost reduction a strategic priority across the Nigerian hotel industry.

Within this context, human factors—the constellation of individual, interpersonal, and organisational variables that shape employee behaviour in the workplace—have emerged as a critical but frequently underestimated determinant of operations cost outcomes. While scholarly and managerial attention has often focused on labour productivity, energy efficiency, and procurement optimisation as levers for cost reduction, two pervasive and interrelated human factors (pilfering and wastage) continue to drain hotel resources with relatively little systematic examination in the Nigerian context. Pilfering, defined as the petty theft of hotel property, supplies, food and beverages, or cash by employees, represents a form of organisational deviance that directly inflates replacement and shrinkage costs (Jidda, 2024; Lee & Lee, 2021). Wastage, encompassing the spoilage, overproduction, mishandling, and disposal of food and operational materials beyond what is necessary for service delivery, similarly imposes avoidable cost burdens on hotel operations (Amicarelli, Aluculesei, Lagioia, Pamfilie, & Bux, 2022; Tomaszewska, Bilska, Kolozyn-Krajewska, & Krajewski, 2021).

Uyo, the capital city of Akwa Ibom State, presents a compelling case study for this inquiry. The city has experienced rapid urbanisation driven by the oil and gas industry, expanding its commercial hotel market and elevating guest expectations (Ibok, 2014). Yet hotel operators in Uyo, as in much of Nigeria, continue to grapple with thin operating margins and limited institutional capacity for systematic internal controls. The simultaneous expansion of the hotel sector and the entrenchment of cost-escalating human behaviours such as pilfering and wastage create an urgent need for conceptual clarity on how these factors interact with operations cost outcomes.

This paper contributes to the literature by developing a conceptual framework that maps the mechanisms through which pilfering and wastage, as dimensions of human factors, influence operations cost reduction in hotels. It draws on the Swiss Cheese Model (Reason, 1990) and the Dirty Dozen framework to argue that these behaviours are best understood as systemic rather than individual phenomena, requiring organisational-level interventions rather than punitive responses alone. The paper is structured as follows: Section 2 presents the theoretical framework; Section 3 reviews concepts and related literature on human factors, pilfering, wastage, and operations cost reduction; Section 4 develops the conceptual framework and propositions; Section 5 discusses implications and directions for future research; and Section 6 concludes.

THEORETICAL FRAMEWORK

This paper is anchored on two complementary theoretical frameworks: the Swiss Cheese Model and the Dirty Dozen framework. Together, these theoretical lenses provide a systems-oriented account of how human factors such as pilfering and wastage become embedded in hotel operations and resist easy elimination, thereby sustaining cost pressures over time.

The Swiss Cheese Model (Reason, 1990)

James Reason's Swiss Cheese Model, originally developed in the context of accident causation in high-risk industries such as aviation, medicine, and nuclear energy, conceptualises safety failures as the product of multiple aligned weaknesses across successive defensive layers within an organisation (Reason, 1990). Each layer of defence—representing organisational controls such as policies, supervision, training, audits, and technology—contains holes analogous to those in slices of Swiss cheese; these holes represent latent weaknesses or gaps in the defensive system. An adverse outcome occurs not through a single catastrophic failure but when the holes in multiple defensive layers momentarily align, creating an unobstructed pathway for hazards to manifest as incidents.

Critically, Reason (1990) distinguishes between active failures—the immediate, observable actions of front-line employees that directly produce harm—and latent conditions, which are systemic organisational weaknesses embedded in management decisions, institutional culture, training deficiencies, and resource allocation practices. Latent conditions may remain dormant and undetected for extended periods until they combine with active failures to produce a costly outcome. Applied to the hotel context in Uyo, this model illuminates how pilfering and wastage are rarely the product of individual moral failure alone but rather emerge from latent organisational conditions—such as inadequate inventory controls, poor supervision, insufficient training on resource stewardship, and a weak ethical climate—that create enabling environments for these behaviours to persist and accumulate into significant cost burdens (Jidda, 2024).

The Swiss Cheese Model has been applied across diverse organisational settings beyond its aviation origins, including healthcare (Perneger, 2019), cybersecurity (Reason, 1990), and food safety management (Amicarelli et al., 2022), consistently demonstrating its utility as a diagnostic framework for identifying the systemic roots of operational failures. Its application to hotel human factors management is thus theoretically sound and practically relevant.

The Dirty Dozen Framework (Dupont, 1997)

Gordon Dupont's Dirty Dozen framework, developed in the context of aviation maintenance, enumerates twelve preconditions for human error and unsafe acts: lack of communication, complacency, lack of knowledge, distraction, lack of teamwork, fatigue, lack of resources, pressure, lack of assertiveness, stress, lack of awareness, and the influence of informal norms (Dupont, 1997). These preconditions do not directly cause accidents or losses but create conditions of heightened vulnerability in which errors and unsafe behaviours are more likely to occur and less likely to be detected and corrected.

In adapting this framework to the hotel management context, several Dirty Dozen preconditions are of particular relevance to pilfering and wastage. Complacency, where familiarity with routine tasks breeds overconfidence and reduced vigilance, enables pilfering to persist undetected over time, particularly in food and beverage handling and housekeeping (Lee & Lee, 2021). Lack of awareness of organisational norms and consequences may lower employees' inhibitions against pilfering. Distraction and fatigue reduce employees' attentiveness to wastage prevention, leading to overproduction, improper storage, and spoilage (Jidda, 2024). Informal norms that encourages deviant behaviours such as taking small quantities of food or supplies for personal use has become tacitly accepted within the work group. This has normalized what is technically pilfering making the system resistant to formal controls (Amicarelli, Aluculesei, Lagioia, Pamfilie, & Bux, 2022). Pressure from operational demands can accelerate wastage by encouraging overpreparation of food or cutting corners in storage practices. Taken together, the Dirty Dozen framework highlights the psychosocial and organisational preconditions that sustain pilfering and wastage in hotel settings, framing them as manageable through systemic organisational interventions rather than individual discipline alone.

CONCEPTUAL REVIEW

Human Factors in Hotel Operations

Human factors in the hospitality industry refer to the range of individual, interpersonal, and organisational influences that shape employee behaviour, performance, and decision-making within hotel operations (Karatepe, 2013; Jin, Cheng, Li, & Wang, 2021). Unlike the technical dimensions of hotel management—equipment reliability, systems architecture, and physical plant condition—human factors are often invisible, difficult to quantify, and resistant to straightforward managerial solutions. They encompass cognitive, attitudinal, motivational, and social dimensions of employee conduct, each of which can either support or undermine operational efficiency and cost outcomes.

Research has consistently demonstrated that human factors are among the most significant determinants of hotel operational performance. Dorta-Afonso, de Saá-Pérez, and González-Mora (2023) found that high-performance human resource practices, such as mechanisms for shaping employee behaviour through selection, training, and incentives, substantially improved hotel performance. Jin et al. (2021) demonstrated that role stress, a human factors variable, impairs hotel employees' prosocial service behaviour, with downstream consequences for service quality and operational efficiency. Cheng, Yang, and Wan (2022) identified ethical contexts and perceived organisational support as moderators of hotel employees' behavioural responses, highlighting the role of organisational culture as a human factors variable.

In the Nigerian context, human factors in the hotel industry are compounded by infrastructural stressors, including erratic power supply, supply chain unpredictability, and high staff turnover, that elevate cognitive load, fatigue, and resourcefulness demands on employees (Jidda, 2024). These contextual factors heighten the probability of both pilfering and wastage by creating environments in which oversight is difficult, norms are fluid, and employees may rationalise resource misappropriation as compensation for perceived organisational injustice or inadequate remuneration.

Pilfering in Hotel Operations

Pilfering in the hotel industry is defined as the petty, surreptitious theft of organisational assets—including food and beverages, guest amenities, linens, operating supplies, and cash—by employees (Jidda, 2024; Lee & Lee, 2021). It is a subset of the broader phenomenon of employee theft or workplace deviance, distinguished from grand larceny by its incremental, small-scale nature and its tendency to be perpetrated by front-line, operational employees rather than management. Precisely because individual acts of pilfering are small in value, they often evade detection through standard audit procedures, accumulating over time into significant aggregate losses.

Global evidence establishes pilfering as a pervasive and costly challenge in the hospitality industry. Lee and Lee (2021) examined hotel managers' perspectives on employee theft cases in the United States, finding that opportunity, rationalisation, and organisational culture were the primary enabling factors. The study emphasised that the hospitality industry's structural features, including extensive cash transactions, decentralised operations, and high turnover, create conditions particularly conducive to employee pilfering. In the Nigerian context, Jidda (2024) explored strategies for controlling pilfering in selected hotels, documenting the prevalence of pilfering across housekeeping, food and beverage, and front office departments, and identifying inadequate supervision, weak inventory controls, and poor staff screening as principal enabling conditions. Adebayo, Ojo, Jimoh, and Chinansa (2022), examining insecurity's effects on Nigerian hospitality operations, noted that the normalisation of minor theft within organisational cultures significantly eroded profitability over time.

The mechanisms through which pilfering inflates operations costs are multiple. Direct costs include the replacement value of stolen assets, ranging from food and beverage stocks to guest room amenities and housekeeping supplies. Indirect costs include the administrative burden of investigating pilfering incidents, the reputational damage of guest complaints arising from missing or inadequate amenities, and the deterioration of service quality when pilfered supplies are not replaced in a timely fashion. In aggregate, studies indicate that employee theft, of which pilfering is the most common form in hospitality, accounts for a substantial proportion of shrinkage costs in hotel operations, and that reducing its incidence directly translates into measurable improvements in operating margins (Jidda, 2024; Lee & Lee, 2021).

Wastage in Hotel Operations

Wastage in hotel operations encompasses the unnecessary loss, spoilage, overproduction, and improper disposal of food, beverages, energy, water, and operating materials during the course of service delivery (Amicarelli et al., 2022; Tomaszewska et al., 2021). It is a multidimensional problem that manifests across the entire operational value chain, from procurement and storage through preparation and service to post-consumption disposal, and is influenced by both human behaviours and organisational systems.

Food waste represents the most extensively studied and economically significant dimension of hospitality wastage. Tomaszewska et al. (2021) found that in hotel food service settings, the majority of food waste occurs at the serving stage, particularly in buffet operations, driven by guest behaviour, overpreparation by kitchen staff, and inadequate portion control. Amicarelli et al. (2022) compared food waste management in Italian and Romanian hotels, identifying kitchen practices, staff training deficiencies, and absence of systematic monitoring as primary drivers. Their findings indicate that employee knowledge of food waste consequences, both financial and environmental, was a significant moderator of waste behaviour, suggesting that targeted training and awareness programmes can materially reduce wastage costs. Al-Ayrot, Al-Juhaishi, and Al-Balushi (2023) found that developing moral and injunctive norms among food and beverage employees reduced food waste intention, with implications for managerial interventions aimed at building a culture of resource stewardship.

Beyond food, non-food wastage, including linen damage, overuse of cleaning supplies, energy inefficiency arising from human behaviours such as leaving air conditioning and lighting on in unoccupied rooms, and breakage of crockery and equipment, imposes additional cost burdens. These forms of wastage are predominantly driven by employee inattentiveness, insufficient training in resource conservation, and absence of accountability mechanisms. In the Nigerian hotel context, where energy costs are particularly high due to dependence on diesel generators arising from unreliable grid power, behavioural wastage of energy resources can represent a disproportionately large component of operational expenditure (HVS, 2025). The aggregate cost implications of wastage across all operational domains are therefore substantial, and their reduction is a meaningful lever for improving hotel profitability in Uyo.

Hotel Operations Cost Reduction

Operations cost reduction in hotels refers to the systematic management and minimisation of operational expenditures—including labour, food and beverage, energy, supplies, and maintenance costs—without compromising service quality or guest satisfaction (Cloudbeds, 2025; HVS, 2025). It is a core strategic objective for hotel operators globally, particularly in environments where revenue growth is constrained and cost pressures are intensifying. CBRE Hotels Research (2025) reports that hotel gross operating profit margins declined in both 2023 and 2024, driven by rising labour, utilities, and supply costs that outpaced revenue growth, underscoring the urgency of effective cost management.

Operations cost reduction encompasses a range of strategies including labour scheduling optimisation, menu engineering, energy management, preventive maintenance, renegotiation of supplier contracts, and technology adoption for inventory and cost control (Hospitalitynet, 2026). However, scholars have increasingly emphasised that technical cost management strategies are insufficient in the absence of human factors management—that is, systematic attention to the behavioural dimensions of employee conduct that generate avoidable costs (Somlai, 2022). In hotel contexts, where human labour is the largest single cost component—typically representing 35–45% of total revenue—and where food and beverage costs are the second largest, the behaviours of frontline employees in relation to resource use, protection, and stewardship are among the most consequential determinants of cost outcomes (Cloudbeds, 2025).

In the specific context of Uyo hotels, operations cost reduction is further complicated by the macro-environmental pressures of the Nigerian economy. Inflation, which reached 24.5% in 2023, has significantly elevated the replacement cost of supplies and food stocks, amplifying the financial impact of every unit of pilfered or wasted resource (Aninver Development Partners, 2025). High operating costs for self-generated power, a near-universal necessity for Nigerian hotels, similarly elevate the cost of energy wastage. These contextual factors make human factors management—specifically the mitigation of pilfering and wastage—a particularly high-value operational priority for hotel operators in Uyo.

Relationship Between Pilfering, Wastage, and Operations Cost Reduction

The theoretical and empirical literature supports a direct negative relationship between the incidence of pilfering and wastage and the attainment of operations cost reduction objectives. Both pilfering and wastage increase the quantity and frequency of resource replacement purchases, inflate shrinkage rates, and reduce the productive yield of procurement expenditure. When left unmanaged, they create a persistent cost floor that prevents hotel operators from achieving meaningful reductions in operating expenditure ratios.

Beyond their direct cost effects, pilfering and wastage interact with each other and with broader human factors in ways that compound their cost implications. A culture in which pilfering is normalised—where informal norms tacitly condone the taking of small quantities of food, amenities, or supplies—tends also to generate higher wastage, as employees who have weak internalised norms of resource stewardship are less likely to exercise care in preventing spoilage, overproduction, or mishandling (Dupont, 1997; Lee & Lee, 2021). Conversely, organisations that invest in training, supervision, and ethical climate development to reduce wastage often simultaneously reduce the enabling conditions for pilfering, generating compounded cost savings (Jidda, 2024; Amicarelli et al., 2022).

The Swiss Cheese Model provides the conceptual architecture for understanding how these human factor-driven cost outcomes are produced and sustained. Pilfering and wastage are active failures produced by front-line employee actions; but they are enabled by latent organisational conditions including inadequate inventory controls (gaps in the first defensive layer), insufficient supervision (gaps in the second layer), weak ethical culture and training (gaps in the third and fourth layers), and poor accountability mechanisms (gaps in the fifth layer). When these latent conditions align, they create an unobstructed pathway for pilfering and wastage to accumulate into significant and persistent cost burdens. Operations cost reduction is therefore best conceptualised not as a purely financial objective but as a safety and systems management challenge requiring the identification and remediation of latent organisational weaknesses.

CONCEPTUAL FRAMEWORK AND PROPOSITIONS

Conceptual Framework

The conceptual framework proposed in this paper posits that human factors, operationalised through the dimensions of pilfering and wastage, exert a significant and negative influence on operations cost reduction in hotels in Uyo, Akwa Ibom State. This relationship is moderated by organisational-level variables including the strength of internal controls, the quality of staff training and development, the prevailing ethical climate, and the robustness of supervision systems. These moderating variables represent the defensive layers in the Swiss Cheese Model; their strength or weakness determines the extent to which pilfering and wastage translate into elevated operational costs.

Table 1: Summary of Conceptual Framework Variables

Variable	Category	Dimensions/Indicators
Pilfering	Independent Variable (Human Factors)	Theft of food/beverages; theft of amenities/supplies; cash misappropriation; normalised deviant norms
Wastage	Independent Variable (Human Factors)	Food overproduction/spoilage; material misuse; energy behavioural waste; linen/crockery damage
Operations Cost Reduction	Dependent Variable	Reduction in F&B costs; reduction in supply shrinkage; reduction in energy costs; improvement in GOP margins
Internal Controls	Moderating Variable	Inventory systems; access controls; audit frequency; CCTV and surveillance
Staff Training	Moderating Variable	Resource stewardship training; ethics training; waste reduction programmes
Ethical Climate	Moderating Variable	Organisational norms; management tone; whistleblowing culture
Supervision Quality	Moderating Variable	Supervisory density; monitoring practices; accountability mechanisms

Source: *Authors' Conceptualisation, 2026.*

Propositions

Drawing on the conceptual framework, the theoretical foundations, and the reviewed literature, the following propositions are advanced to guide future empirical research:

- **Proposition 1:** Pilfering by hotel employees is negatively associated with operations cost reduction in hotels in Uyo, Akwa Ibom State. Hotels with higher levels of employee pilfering incur greater replacement and shrinkage costs, reducing their ability to achieve targeted reductions in operating expenditure ratios.
- **Proposition 2:** Wastage in hotel food, beverage, and material operations is negatively associated with operations cost reduction in hotels in Uyo, Akwa Ibom State. Hotels characterised by higher levels of food and material wastage experience elevated procurement and disposal costs that constrain gross operating profit margins.

- **Proposition 3:** The strength of internal controls moderates the relationship between pilfering and operations cost reduction, such that hotels with robust inventory management, access controls, and audit systems are better positioned to detect and suppress pilfering, thereby achieving greater cost reduction outcomes.
- **Proposition 4:** Staff training in resource stewardship and ethical conduct moderates the relationship between both pilfering and wastage and operations cost reduction, such that hotels that invest in systematic training programmes achieve greater mitigation of these cost-escalating behaviours.
- **Proposition 5:** Pilfering and wastage interact synergistically in their impact on operations costs, such that hotels in which both behaviours are prevalent experience disproportionately higher cost burdens than those predicted by their individual effects, reflecting the shared organisational conditions that enable both.

DISCUSSION AND IMPLICATIONS

Theoretical Implications

This paper makes several contributions to the theoretical literature on hotel management and human factors. First, it applies the Swiss Cheese Model to the hotel operations context, demonstrating its utility as an explanatory lens for understanding how seemingly minor, routine employee behaviours such as petty pilfering and food wastage accumulate through aligned systemic weaknesses into significant operational cost burdens. This application broadens the model's reach into the hospitality management literature and invites further theoretical development in this direction.

Second, the paper advances a conceptual integration of the Dirty Dozen framework with hotel operations management theory. By identifying the specific Dirty Dozen preconditions—complacency, lack of awareness, informal norms, fatigue, and pressure—that are most salient in enabling pilfering and wastage in hotel settings, the paper provides a more granular psychosocial account of these behaviours than existing management literature typically offers. This integration suggests that interventions targeting preconditions rather than behaviours themselves may be more effective and durable in reducing human-factor-driven operational costs.

Third, by developing a moderated conceptual framework that positions internal controls, staff training, ethical climate, and supervision quality as moderators of the pilfering-cost and wastage-cost relationships, the paper advances a systems-oriented perspective that resists both individual blame and purely technological solutions, instead emphasising the need for multi-layered organisational responses.

Practical Implications

For hotel managers in Uyo and the broader Nigerian hospitality sector, the framework developed in this paper offers several actionable insights. First, the emphasis on latent organisational conditions as the primary enablers of pilfering and wastage suggests that investment in systemic improvements—including the adoption of digital inventory management systems, the implementation of formal access controls for food stores and guest supply rooms, and the institutionalisation of regular stock audits—is likely to yield greater cost reduction returns than reactive disciplinary measures alone (Jidda, 2024). Investment in technology for monitoring resource use and detecting shrinkage, including point-of-sale integration, CCTV surveillance in operational areas, and electronic key access systems, addresses the internal control moderator highlighted in the framework.

Second, the central role of staff training and ethical climate in moderating the human factors-cost relationship underscores the importance of investing in comprehensive and recurrent training programmes that address not only technical hospitality skills but also resource stewardship, waste reduction, and professional ethics. Training programmes informed by the Dirty Dozen framework—specifically targeting complacency, lack of awareness, and the normalisation of deviant informal norms—are likely to be particularly effective (Dupont, 1997; Amicarelli et al., 2022). Hotel operators in Uyo can draw on the experiential learning models used in higher-performing sectors—such as aviation and healthcare—where human factors training has demonstrably reduced costly behavioural failures.

Third, senior management has a critical role to play in establishing and sustaining an ethical organisational climate that signals zero tolerance for pilfering while simultaneously creating the conditions—including fair remuneration, job security, and valued employment relationships—that reduce employees' motivation to engage in petty theft. Research consistently shows that pilfering is partially rationalised by employees who perceive their organisation as unfair or exploitative; addressing these perceptions through improved human resource management practices is therefore an important component of a comprehensive human factors cost management strategy (Lee & Lee, 2021; Jin et al., 2021).

Policy Implications

At the policy level, the Akwa Ibom State government and the Ministry of Tourism and Culture should consider institutionalising baseline standards for internal controls and staff training in commercially licensed hotels. A sector-specific regulatory framework that mandates minimum training hours on resource stewardship, inventory management, and professional ethics—analogous to the training mandates applied in aviation and healthcare—would help address the latent organisational weaknesses that currently enable pilfering and wastage to persist as structural cost drivers in the industry. The Nigerian Hotel and Personal Travel Agents Association (NHOTAP) and related industry bodies can play a facilitating role by developing standardised training curricula and benchmarking tools for operations cost management tailored to the realities of the Nigerian hotel market.

Directions for Future Research

This conceptual paper identifies several promising directions for future empirical inquiry. First, the propositions advanced require testing through primary quantitative survey research in hotels in Uyo and the broader Akwa Ibom State, employing structured questionnaires administered to hotel managers and operational staff to measure the variables specified in the conceptual framework. Second, a mixed-methods approach incorporating qualitative interviews and direct observation would enrich understanding of the mechanisms through which pilfering and wastage behaviours are rationalised and sustained within hotel workplace cultures—an area where survey data alone is likely insufficient. Third, longitudinal studies tracking the impact of specific internal control and training interventions on operational cost metrics over time would generate stronger causal evidence than cross-sectional designs permit. Fourth, comparative studies across Nigerian cities and hotel tiers—from budget properties to five-star establishments—would illuminate the extent to which the conceptual relationships proposed here are moderated by property type, star classification, and market segment. Finally, future research might explore the role of digital technology adoption—including AI-assisted inventory management and predictive waste analytics—as a specific mechanism for strengthening internal controls and reducing the impact of human factors on hotel operations costs.

CONCLUSION

This conceptual paper has examined the influence of human factors—specifically pilfering and wastage—on operations cost reduction in hotels in Uyo, Akwa Ibom State. Drawing on the Swiss Cheese Model and the Dirty Dozen framework, the paper has argued that pilfering and wastage are not random individual behaviours but systemic outcomes of latent organisational weaknesses that enable and sustain resource attrition in hotel operations. A conceptual framework has been proposed that maps the direct negative effects of pilfering and wastage on operations cost reduction, moderated by the quality of internal controls, staff training, ethical climate, and supervision systems within hotel organisations.

The Nigerian hotel context—characterised by macro-economic pressures, infrastructural deficiencies, and thin operating margins—heightens the cost implications of these human factors, making their systematic management a strategic imperative for hotel operators in Uyo. The paper has developed five propositions to guide future empirical investigation and has offered implications for hotel management practice, regulatory policy, and scholarly research.

Ultimately, operations cost reduction in hotels is not achievable through financial engineering alone. It requires sustained, systems-oriented attention to the human factors that drive avoidable resource losses—an insight that the aviation industry has long embraced and that the hotel industry in Nigeria is well positioned to adopt. By treating pilfering and wastage as systems problems amenable to organisational solutions, hotel managers in Uyo can build the internal resilience necessary to sustain profitability in an increasingly demanding operating environment.

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