

HOSPITALITY WORKFORCE COMPETENCY, DIGITAL TRANSFORMATION, AND SERVICE QUALITY IN SOUTHWEST NIGERIAN HOTELS

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Abstract

In Nigeria, not only is the hospitality sector booming but also excellent service standards can be maintained by integrating workforce competencies with digitization. The research aims to understand the interconnection between work competence, digital transformation, and service quality among hotel establishments in Southwest Nigeria. A cross-sectional mixed-methods research design was applied here. The interviewees (420 individuals; 300 workers, 60 managers, 60 visitors) across six provinces were randomly selected by using a multistage sample method. Data were gathered using structured Likert-scale questionnaires and semi-structured interviews. Quantitative data were analyzed based on descriptive statistics and multivariate statistical procedures such as ANOVA, many regression, and hierarchical linear modeling, while with qualitative data's content analysis was worked on. Results indicate that workplace technical and people-based (interpersonal) competence were found to be fair to good ($M = 3.18$) and problem-solving ability was found to be relatively established ($M = 3.02$), but digital literacy (computer literacy and internet literacy) ($M = 2.94$) is inadequate. Most of the hotels adopted using the internet-based booking and payment system ($M = 3.09$), but proficiency notwithstanding of using advanced means such as data analytics or artificial intelligence (AI) is weak ($M = 2.73$). ANOVA results confirmed existence of grade-wise difference of service quality between grades of hotels ($F = 15.12$, $p < 0.01$); however, upscale hotels were found to be better than budget hotels. Regression analysis subsequently revealed that workforce competence, and notably people-based (interpersonal) competence ($\beta = 0.32$) and digital literacy ($\beta = 0.29$) rather than mostly determine service quality. Qualitative results of interview revealed inhibitors such as lack of training, poor bandwidth, and misalignment of policies. The research indicates the imperative of the hotels putting money into staff training and digital literacy and into policy frameworks which align hospitality education to the industries' digital demands; they too hold the key here. Inclusive digital transformation relies on policies addressing small and medium-sized business enterprises' demands and further improvements to infrastructure.

Keywords: workforce competency, digital transformation, service quality, hospitality sector, Nigeria, SERVQUAL

1. Introduction

One of the world's quickest growing and labour-intensive businesses, tourism relies heavily on workforce abilities to deliver service of higher quality to ever increasingly discerning consumers. Increasingly, competition is getting tighter, and digital technologies are reshaping hospitality business models, developing world's hotels face enormous pressures to adopt digital innovations to deliver service and upgrade workers' abilities and competencies (Ivanov & Webster, 2019). At global markets, digital transformation is driving hospitality's innovations, by automation and data-based personalisation, and delivering best-in-class experience to the customers. In Nigeria and Southwest Nigeria to be specific, with Urbanisation on the increase, cultural tourism and business travels, the Hospitality Industry grows rapidly. However, the question of whether or not hotel workforce has capabilities of using digital transformation to improve service quality is not very clear.

The service quality of the hotels is grounded on technology adoption and staff competence to adopt and take full advantage of these technologies. The SERVQUAL model (Parasuraman et al., 1988) stresses the reliability, responsiveness, assurance, empathy and tangibles of service quality that are now increasingly intermediated by digital technologies including property management systems (PMS), online reservation engines, chat robots powered by artificial intelligence and analytics of customer feedback. But whereas digital technologies promise all-time increased productivity and better customer experiences, their success lies with the ability, flexibility and levels of digital literacy of its staff. It is this interrelation between workforce competence, digital transformation and service quality that represents the root dilemma of South West Nigeria's hotels. The problem therefore is that of understanding that despite enormous investments into digital assets of the sort that make up booking platforms and automated registration platforms, service delivery bottlenecks persist through bad training of personnel, antechanges by hotelers to technology shift processes and bad organizational support of capacity building (Okonkwo & Ezenagu, 2022). Sometimes digital transformation efforts have only exacerbated the lack of skills by landing hotels between the Scylla and Charybdis of having to adopt new, high-end technologies or training staff to manhandle them. The service quality deteriorates, and competitiveness diminishes further by virtue of operating within a landscape whereby customers now compare Nigerian hotels using global standards.

In this respect, the goal of this study is to identify the interactive connection between workforce competence, digital transformation and service quality within the hotels of Southwest Nigeria. Specifically, the objectives are: (1) to identify digital transformation (DT) efforts made by the area's hotels; (2) to quantify the abilities expected of human resources within the hospitality sector to utilize digital tool to provide service; (3) to assess workforce competence and DT's effect on general quality of service; and finally, (4) to identify inhibitors and opportunities within matching workforce building with digital creativity. Based on these aims, this research hopes to provide answers to the following research questions: RQ1 What digital transformation processes presently exist in practice by the area's hotels? How technology-savvy is staff within the concern of using technology to improve the guest experience? How do utilitarian, hedonic and social values determine the e-government service quality disparities? What inhibitors and opportunities exist that affect workforce building and digital creativity integration within hospitality?

2. Literature Review

Workforce competence in hospitality encompasses associated knowledge, abilities and attitudes and behaviour for delivering effective performance and capacity to respond to evolving operational demands (Baum, 2019). Hotels too have up-skilled competencies, extending beyond the vintage service to a minimum of basic digital literacy, CRM and utilization of data-driven technologies to enhance the guest experience. Digitalisation however refers to the integration of flashy technologies into businesses to gain efficiency, innovate and better interact with the customer (Verhoef et al. For hospitality, that would be property management systems, AI chatbots, e-payments and mobile-based booking, and customer analytics. The service quality is conceptually grounded on Parasuraman et al. 's (1988) SERVQUAL model recognizes five dimensions: reliability, responsiveness, assurance, empathy and tangibles. Increasingly, these dimensions get supported through digital—convenience through advance online booking, responsiveness through chat technology, certainty through secured payment, empathy through customised data and tangibles through technology-enabled ambience. The inter-point between talent strength and technological advances is thus key to the extent to which hotels can maintain quality of service within competition markets.

The study is informed by three interrelated theoretical frameworks. Effectively, the SERVQUAL model (Parasuraman et al., 1988) can be extended to service quality dimensions that are moderated by digital interfaces and staff behaviour. Second, the Technology Acceptance Model (TAM) (Davis, 1989) covers how workers' perceptions of usefulness and ease of use of digital technologies determine their adoption of digital tools, which is aligned with service delivery quality. Lastly, drawing on the Dynamic Capabilities Theory (Teece et al., 1997), the organizational capability of being able to assimilate, combine and reconfigure internal competencies to cope with technological and market variations is relevant. The summative frameworks thus provide a multi-dimensional representation of workforce skills and technology adopt through their effect on service quality among hotels.

Workforce capability and digital transformation were determined to be quality service driver of key driver of global world's empirical evidence. In the Europecan, Sigala (2020) determined that there were two propositions: those that developed digital platforms by their hotels came up with higher service rating but they needed to keep training their workers service quality maintenance. In Asia, Lee et al. (2021) determined that the digital innovations were only effective to improve only customer satisfaction only if workers had capability of integrating to service processes. In African context, which provide same dynamics, issues here were absent but with higher degrees. Digital adoption by hotels was hampered by workers' skill gaps and infrastructural deficiency, as was uncovered by Mutinda and Nzioka (2020) in Kenya. In Ghana, Adomako et al. (2022) uncovered that workers of the hotels were many times without the digital literacy to efficiently execute the customer management systems, and this deterred service responsiveness. In Nigeria, Okonkwo and Ezenagu (2022) uncovered that the majority of the hospitality companies adopted the online booking channel but service quality was mixed due to unskillful workers and technology resistance. In summarily, these studies all indicate that, whilst digital tools increasingly get incorporated into organizations within the hospitality sector, contingency factors such workforce capability or company willingness with respect to continuous learning correlated effects with respect to service quality.

Frameworks and policy initiatives can contribute to shaping workforce capacity and skills of digital adoption in hospitality. Globally, reskilling and upskilling of workers to tackle digital disruption across service industries is regarded by the International Labour Organisation (ILO, 2021) to be important. In Nigeria, efforts of this kind, such as the National Digital Economy Policy

and Strategy (NDEPS, 2020) have rigid digital literacy emphasis but its implications into sector specific workforce preparation across the hospitality sector is limited. The training curricula of the Nigerian polytechnic and university hospitality training institutions frequently don't align with the demands of the industry, with a concentration on conventional service rather than on digital competencies (Adebayo & Oladipo, 2021). The policy-practice gap creates a workforce within hospitality that becomes unable to adapt to new technologies, ultimately lowering service quality. To avail of this gap, integrated efforts that align digital transformation policies with workforce preparation efforts with the specific configuration of the hospitality sector have to be undertaken. The literature concurs that service quality service in hotels can now not be captured by behaviour of workers, but now take into account the interplay of workforce competence and utilisation of e-distribution systems. Speculating about this phenomenon have argued that employee acceptability, organisational adaptability and alignment with customers' expectations comprise its core. Empirical evidence to date points to digital transformation only reinforcing service delivery outcomes to the extent that staffs are qualified individuals, trained continuously and organisationally supported. There exists complementarity between workforce competence and digital transformation in Nigeria but through mending of extant competence gaps, infrastructure shortage and poor policy execution. This informs this study as we empirically observe the interplay between workforce competence and digital transformation that serves to influence service quality service delivery in Southwest Nigerian hotels.

3. Methodology

The study adopted a cross-sectional mixed-methods design to examine the interconnection between workforce competency, digital transformation, and service quality among South West Nigeria's hotels. The target population constituted hotel workers, managers, and visitors drawn from Lagos, Oyo, Ogun, Osun, Ondo, and Ekiti. A sample size of 420 (300 workers, 60 managers, and 60 visitors) were randomly sampled using a multistage sampling design. The states were purposefully sampled to represent their hospitality concentration, local government areas were divided into strata reflecting concentrations of hotel clusters, and workers, managers, and visitors were proportionally and randomly sampled with managers and visitors purposefully included to provide divergent views. Pre-structured questionnaire with four-point Likert rating scale measuring workforce competency (technical, digital, interpersonal, and problem-solving competency), digital transformation proxies (e.g., property management system, internet-based property entry, artificial intelligence/chatbot, electronic payment transfer), and service quality outcomes using SERVQUAL model (reliability, responsiveness, assurance, empathy, and tangibles) were used. Semi-structured interview schedules were used with sampled visitors and with hotel managers to gain contextual insights into digital transformation bottlenecks and its workforce alignment. To enhance research rigor, validity of the tools were assured by expert review by gurus of tourism and management, and Cronbach's alpha were conducted to assess reliability with coefficients all being above 0.80. Ethics clearance was achieved through a university research ethics board, and research participants signed letters of informed consent with confidentiality being totally upheld during research. Qualitative data were analyzed through Braun and Clarke's (2021) six-phase themed analysis with results being triangulated to achieve validity and relevance to results. Quantitative data were analyzed using SPSS software v.27 with the initial step of obtaining descriptions (descriptive statistic: means, standard deviation, frequencies) and then using following inferential procedures: ANOVA and multiple regression to establish

workforce competency and digital transformation’s impact on service quality. To account for variations between clusters of hotels, Hierarchical Linear Modeling (HLM) were utilized.

4. Results and Discussion

Table 1: Descriptive Statistics of Workforce Competency, Digital Transformation, and Service Quality (n = 420)

Variable	Mean (M)	Std. Dev. (SD)	Rank
Workforce technical & interpersonal skills	3.18	0.71	1st
Workforce digital literacy	2.94	0.82	3rd
Problem-solving & adaptability	3.02	0.77	2nd
Adoption of online booking/payment systems	3.09	0.75	2nd
Use of customer analytics & AI tools	2.73	0.83	4th
Service quality (reliability)	3.12	0.74	2nd
Service quality (responsiveness)	3.08	0.72	3rd
Service quality (empathy & assurance)	2.95	0.76	4th
Service quality (tangibles)	3.21	0.70	1st

The result of the descriptions reveals that workforce technical and people skills (M = 3.18) and problem-solving (M = 3.02) are on a rather high standard among staff, while digital literacy (M = 2.94) lag seriously behind, revealing inherent gaps. There was an identification by the hotels of being closer to online payment and accommodation (M = 3.09) than to higher order tools like customer analytics, or cab usage predictive analysis and artificial intelligence with lowest rating of interest (M = 2.73). Tangibles (M = 3.21) were ranked highest (i.e.willingness to invest on hard infrastructural provisioning), and were followed by empathy and assurance (M = 2.95) that were scored lowest, and thus service customisation remains low. The results align with Sigala (2020) that asserts that digitalisation can improve tangibles and reliability, but not replace competencies as concern over workforce empathy and people skills is ongoing.

Table 2: ANOVA Results Comparing Service Quality Across Hotel Categories

Hotel Category	Mean Service Quality Index (%)	SD	F-value	p-value
Budget hotels (n = 150)	65.2	7.8	15.12	0.000***
Mid-scale hotels (n = 150)	70.9	7.4		
Luxury hotels (n = 120)	75.4	6.9		

***p < 0.01

The ANOVA analysis of difference of quality of service among the types of hotel is statistically significant (F = 15.12, p < 0.01). The index of service quality level of luxury hotels found to be highest (75.4%) and then mid-scale (70.9) then budget hotels (65.2). It can be assumed that higher-budgeted hotels can afford to invest more on digital tools, staff learning and customer experience. Conversely, there is that budget hotel segment with bigger share of the market and struggles to balance digital transformation with staff development. The findings align with Adomako et al. (2022), who found that resource endowments play a significant role to play on company's ability to exploit digital innovations to improve service quality within Ghana.

Table 3: Regression Analysis of Predictors of Service Quality

Predictor Variable	Beta (β)	Std. Error	t-value	p-value
Workforce technical & interpersonal skills	0.32	0.08	4.05	0.000***
Workforce digital literacy	0.29	0.07	3.89	0.001**
Problem-solving & adaptability	0.27	0.09	3.02	0.003**
Adoption of online booking/payment systems	0.25	0.08	2.91	0.004**
Use of customer analytics & AI tools	0.21	0.09	2.47	0.013*
Hotel category (budget = 1, others = 0)	-0.24	0.06	-3.98	0.000***

***p < 0.01, **p < 0.05, *p < 0.10

A regression analysis reveals that technical and interpersonal ability of workers ($\beta = 0.32$, $p < 0.01$) and digital literacy ($\beta = 0.29$, $p < 0.01$) emerge strongest predictors of service quality effects, followed by intermediate relative importance problem solving and adaptability of service staff ($\beta = 0.27$). Web-based appointment/settlement systems ($\beta = 0.25$) and customer analytics software ($\beta = 0.21$) also predicted service quality effects significantly, but here much weaker. The coefficient of Category of Hotels is negative significant in Budget hotel, thus there exist reciprocal structural handicaps of service quality. The results confirm the Technology Acceptance Model rules (Davis, 1989) that perceived usefulness and ease of use dictate digital tool adoption while extending the SERVQUAL frontiers to identify that digital literacy serves a key driver by reliability/reassurance and responsiveness dimensions of hospitality services.

Table 4: Qualitative Themes from Manager and Guest Interviews (n = 25)

Theme	Illustrative Insight (Paraphrased)
Workforce competency gaps	“Most staff are willing to learn but lack structured training in digital tools.”
Digital transformation uneven	“Hotels adopt online booking but rarely invest in advanced analytics or AI.”
Service personalization	“Staff often fail to use customer data to personalize experiences.”
Barriers to digital adoption	“Cost of technology and poor internet infrastructure remain challenges.”
Governance and training	“No clear policy linking hospitality training institutions to industry needs.”

Qualitative results confirm that whereas digital adoption is increasingly being implemented, pockets of under-skill persist owing to poor training and poor supporting structures within institution. Based on those interviewed, organizations invest mostly on foundational platforms during their digital transformation and not higher-order systems such as analytics or AI. Guests were also quoted stating about poor personalization, revealing gaps among their workforce to exploit the customer data. Systematic obstacles such as internet instability and cost of technology were quoted, affirming (Okonkwo & Ezenagu, 2022). Second, shortcomings of Governance were evident and contributors noted that local Nigerian hospitality sector’s digital literacy development outweighed training curriculum. Similar to ILO (2021) that highlighted that workforce should be retrenched against the backdrop of service industry’s digital shock.

5. Conclusion and Recommendations

This study finds that service quality delivered in Southwest Nigeria's hotels is determined by a symbiotic interplay between the competencies of workforce and the extent of digital innovative adopted by organizations. If on the one hand digital technology pervades the whole of the hospitality sector, then many of the hotels nonetheless experience difficulty making effective usage of their online ordering and their e-payment frameworks owing to the lack of competency particularly of digital literacy and analytics-based Customer Relation Management. The outcome of the research reveals that technical and social abilities, digital literacy and problem solving abilities significantly predict service quality, reiterating that technology cannot substitute the significance of human ability within the realm of the hospitality sector. Large size of the hotel with higher resources on the one hand can accomplish substantial service quality outcomes; small budgetary size of the hotels on the other hand, experience difficulty owing to their limited capacity to invest either in better human resources or higher technology. Qualitative viewpoints too highlighted the systemic problems with inadequate training structures, inadequate internet infrastructure, technology expenses being too high and absence of effective government gaps between education curriculum and the demands of the sector. The combined outcomes demonstrate that digital transformative within the realm of the hospitality sector is rather not about technology adoption but really about an issue of labor preparation and organizational support.

To address these issues and to exploit digital transformation to service excellence, managers of hotels should set lifelong learning initiatives that enhance the technical and digital competence of staff with a focus on handling of customer data, analysis or customising service delivery. Government departments and trade associations should make efforts to evolve better models of governance of aligning training institutes to the requirement of the hospitality sector so that training curricula contain digital competence and service quality knowledge. Small and medium-sized hotels should be urged to make technology their tool of equipment procurement and upgrading of skills with the help of tax incentives, grants and green financing. Infrastructure facilitation including reliable access to the internet and power supply are key drivers of digitalisation. The hospitality sector of Southwest, Nigeria can improve its competitiveness, quality of service and facilitation to achieve sustainable tourism and economic growth within SDG 8 (Decent Work and Economic Growth) and SDG 9 (Industry, Innovation, and Infrastructure) by including human resources development into digital adoption strategies and strengthening policy – sector alliances.

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