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Exploring the Impact of COVID-19 on Quantity Surveyors, and the Future of Work within the UK Construction Industry

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The COVID-19 pandemic forced a rapid shift to remote working across the UK construction industry, fundamentally altering established Quantity Surveying (QS) practices that traditionally relied on site presence and face-to-face collaboration. While prior studies have examined these changes at an industry level, limited qualitative evidence exists on how UK-based Quantity Surveyors experienced this transformation in practice. This study aims to explore how the pandemic reshaped QS roles, working practices, and future competency requirements. A qualitative, phenomenological approach was adopted, using semi-structured interviews with seven practising UK Quantity Surveyors. The data were analysed thematically. The findings indicate that digital tools enabled continuity of service but weakened informal communication and mentorship, while remote working intensified workloads and blurred work–life boundaries, increasing burnout risk. Hybrid working and enhanced digital competence emerged as central to sustainable future practice, alongside the continued importance of traditional site-based skills. The study provides empirical insight into the professional impacts of pandemic-driven change and highlights implications for organisational policy, professional development, and the future delivery of Quantity Surveying services.

Keywords: Quantity Surveying, Digital Transformation, Hybrid Working, Post Pandemic Construction Industry

Introduction

The COVID-19 pandemic, first identified in December 2019, precipitated an unprecedented disruption to the global construction industry, including the United Kingdom. Quantity Surveying (QS) practice, which has traditionally relied on physical site presence, face-to-face collaboration, and manual verification of measurements and valuations, was particularly affected. As restrictions on movement and social interaction were imposed, established professional routines were rapidly displaced by remote working arrangements and digitally mediated processes (Hansen et al., 2021). This sudden transition represented not merely an operational adjustment, but a fundamental challenge to how Quantity Surveyors deliver assurance, manage risk, and add value within construction projects.

Prior to the pandemic, QS roles were widely characterised by routine site visits, direct engagement with project teams, and in-person contractual and commercial negotiations. COVID-19 accelerated

the adoption of digital tools—such as online collaboration platforms, digital cost management systems, and remote inspection methods—that had previously been adopted unevenly across the sector (Shafiee and Bakar, 2023). While these technologies enabled continuity of service, they also raised critical questions about accuracy, professional judgement, workload distribution, and the long-term sustainability of remote and hybrid working models. Emerging studies suggest that, although digitalisation offered flexibility and operational resilience, it simultaneously introduced new pressures related to productivity, communication, and professional wellbeing (Wanigasinghe et al., 2024; Modiba, 2024).

Existing literature has begun to document the impacts of COVID-19 on construction practices more broadly, including site safety measures (Olanrewaju et al., 2021), virtual site inspections (HKA, 2021), and shifts in workforce organisation (Pamidimukkala and Kermanshachi, 2021). Within the QS domain, studies report mixed outcomes. Some authors highlight productivity gains and improved work–life balance under remote working arrangements (Leontie et al., 2022), while others identify reduced wellbeing, blurred work–home boundaries, and challenges associated with self-discipline and domestic distractions (Jallow et al., 2021; Tan and Zainon, 2023). These contrasting findings suggest that the profession's readiness for digital and organisational transformation has been uneven and context-dependent.

Beyond changes in work location and tools, the pandemic appears to have altered the *scope* of QS responsibilities. Literature indicates a growing expectation for Quantity Surveyors to adopt more advisory, strategic, and contractually focused roles, particularly in navigating procurement uncertainty, health and safety compliance, and cost volatility under pandemic conditions (Chauhan, 2023). At the same time, concerns have been raised regarding the reliability of remote valuation practices, as photographic evidence and video inspections may lack the contextual depth required for accurate cost assessment and client assurance (Hansen et al., 2021; HKA, 2021). These tensions point to an unresolved challenge: how digital efficiency can be balanced with the traditional, site-based competencies that underpin professional credibility.

Despite this growing body of work, two significant gaps remain. First, much of the existing literature adopts survey-based or high-level analytical approaches, offering limited insight into the *lived experiences* of UK-based Quantity Surveyors navigating rapid digital and organisational change. Second, there is insufficient empirical exploration of how interconnected factors—such as digital tool adoption, communication practices, workload intensification, mentorship, and hybrid working—collectively shaped QS practice during and after the pandemic. In particular, the mechanisms through which remote working affected informal learning, professional development, and workload governance remain underexplored.

In response to these gaps, this study adopts an exploratory qualitative approach to examine how Quantity Surveyors experienced and interpreted pandemic-driven transformation at a professional level. Existing literature provided a clear conceptual foundation for the design of the research instrument. Studies examining COVID-19 impacts on QS practice consistently point to role evolution and expanded responsibilities, particularly in relation to advisory functions, procurement strategy, and contractual risk management under conditions of uncertainty (Chauhan, 2023; Fauzi, 2021). Research addressing remote working and digital adoption highlights both the rapid uptake of collaboration platforms and cost-management technologies, and the uneven levels of digital readiness across the profession (Hansen et al., 2021; Shafiee and Bakar, 2023; Wanigasinghe et al., 2024).

Further, literature on communication and collaboration identifies a decline in informal knowledge exchange and mentoring when face-to-face interaction is replaced by digitally mediated engagement,

contributing to professional isolation and reduced learning opportunities for junior staff (Jallow et al., 2021; Fateh and Zamri, 2022). Parallel studies focusing on productivity, workload, and wellbeing present conflicting findings, with some reporting improved efficiency and flexibility (Leontie et al., 2022), while others highlight extended working hours, blurred work–life boundaries, and heightened risk of burnout (Pamidimukkala and Kermanshachi, 2021; Modiba, 2024). Finally, a growing body of work emphasises the importance of future competencies, arguing that digital proficiency, adaptability, and continuous professional development will be central to sustaining QS relevance in increasingly hybrid and technology-driven environments (RICS, 2020; Osunsanmi et al., 2022; Wanigasinghe et al., 2024). Collectively, these strands of literature informed the structure of the semi-structured interview questions, which were organised around five interrelated areas: role evolution, pandemic-related work impacts, adaptation to digital technologies, implications for productivity and work–life balance, and future skills and working models. This alignment ensured that the empirical investigation directly engaged with established debates while enabling participants to reflect on how these issues intersected in practice.

Accordingly, the aim of this research is to investigate how the COVID-19 pandemic reshaped Quantity Surveying practice in the United Kingdom, with particular emphasis on digital transformation, evolving professional roles, and future competency requirements.

To address this aim, the study is guided by the following research questions:

1. How did the COVID-19 pandemic alter the roles, responsibilities, and daily practices of Quantity Surveyors in the UK construction industry?
2. In what ways did the shift to remote and digitally mediated working affect project management, collaboration, and professional communication among QSs?
3. How did these changes influence productivity, workload, and work–life balance during and after the pandemic?
4. What skills and competencies do Quantity Surveyors perceive as critical for effective practice in a post-pandemic, increasingly hybrid working environment?

By addressing these questions through in-depth interviews with practicing Quantity Surveyors, this study contributes empirical insight into how digitalisation and organisational change were experienced at the professional level. In doing so, it seeks to inform not only academic debates on post-pandemic work transformation, but also practical discussions within firms, professional bodies, and educational institutions regarding the future development and resilience of the Quantity Surveying profession.

Methodology

This study adopts a qualitative research approach, which is appropriate for exploring complex, context-dependent professional experiences that are not readily captured through quantitative methods (Creswell and Creswell, 2017). Given the study's focus on how Quantity Surveyors experienced, interpreted, and adapted to pandemic-driven changes in working practices, a constructivist epistemological stance was adopted. This position recognises that professional realities are socially constructed and shaped by individual experience, organisational context, and interaction with wider structural conditions, such as digitalisation and regulatory change. Within this paradigm, a phenomenological research design was employed to examine the lived experiences of Quantity Surveyors during and after the COVID-19 pandemic. Phenomenology is particularly suited to this research as it seeks to understand how individuals make sense of significant disruptions to their professional routines, identities, and responsibilities. The approach aligns directly with the study's aim to investigate how rapid digitalisation, altered working arrangements, and changing role

expectations were experienced at the practitioner level, rather than merely documenting observable outcomes.

Sampling Strategy and Participant Recruitment

A purposive sampling strategy was adopted to ensure that participants possessed direct and relevant experience of the phenomenon under investigation. Participants were required to meet the following criteria: (i)actively working as a Quantity Surveyor within the UK construction industry during the COVID-19 pandemic; and (ii)having experienced a transition to remote or hybrid working arrangements during this period. Participants were recruited through professional networks and industry contacts, with invitations issued to individuals across both consultancy and contractor organisations to capture variation in organisational context and role expectations. Seven participants agreed to take part in the study. While modest in size, this sample is appropriate for phenomenological research. Creswell (2017) suggests that phenomenological studies typically involve between three and ten participants, as the emphasis is placed on depth of insight rather than breadth of representation. In this study, thematic saturation was observed, with recurring patterns emerging across interviews in relation to role evolution, digital adaptation, communication challenges, workload intensification, and future competency requirements. The participant cohort represented a range of professional seniority, experience levels, and employer types, as summarised in Table 1, enabling comparative reflection across career stages and organisational settings without diluting the phenomenological focus on lived experience.

Table 1. Demographics of the interviewees

Participant	Age	Exp. (years)	Role	Employer
1	25	3	QS	Consultant
2	53	28	Chartered QS (MRICS)	Contractor
3	31	8	QS	Contractor
4	46	26	Associate (QS)	Consultant
5	35	12	Senior QS	Consultant
6	35	9	QS	Contractor
7	45	21	Assoc Partner (QS)	Consultant

Data Collection: Semi-Structured Interviews

Data were collected through semi-structured interviews, which offered a balance between consistency and flexibility. This format enabled the researchers to explore predefined areas informed by the literature, while allowing participants to elaborate on issues they considered most significant to their own professional experience.

The interview questions were explicitly informed by gaps and debates identified in the literature review. Studies highlighting role evolution and expanded advisory responsibilities (Chauhan, 2023; Fauzi, 2021) informed questions on changes in scope of practice. Literature on digital transformation and remote working (Hansen et al., 2021; Shafiee and Bakar, 2023; Wanigasinghe et al., 2024) shaped questions on technology adoption and collaboration. Research identifying conflicting outcomes relating to productivity, workload, and wellbeing (Jallow et al., 2021; Leontie et al., 2022; Modiba, 2024) informed questions exploring work–life balance and performance. Finally, work addressing future competencies and automation (RICS, 2020; Osunsanmi et al., 2022) guided questions concerning professional development and future practice.

The interview schedule was organised around the following thematic areas: (i)role evolution before and after COVID-19; (ii)immediate impacts of the pandemic on daily QS practice; (iii)adaptation to digital tools and remote working arrangements; (iv)changes in responsibilities, productivity, workload, and work–life balance; (v)perceptions of future skills, hybrid working models, and professional development.

Data Analysis and Theme Development

All interviews were audio-recorded with consent and transcribed verbatim. Identifying information was removed, and participants were assigned numerical identifiers to ensure anonymity. Data were stored securely and accessed only by the research team.

Thematic analysis was employed due to its suitability for exploring meaning-making within under-researched professional contexts. Analysis followed the six-phase framework proposed by Braun and Clarke (2017), supported by NVivo software. Coding was primarily inductive, allowing themes to emerge from participants' accounts, while remaining sensitised to concepts identified in the literature to ensure alignment with the research questions.

Analysis involved iterative familiarisation with the data, generation of initial codes, clustering of related codes into candidate themes, and refinement of themes through constant comparison across transcripts. This process resulted in five overarching themes capturing both shared and divergent experiences across participants.

Ethical considerations were integral throughout the study. Participants received an information sheet outlining the study's purpose, procedures, and rights, and provided written informed consent prior to participation. Given the professional nature of the sample, care was taken to avoid reputational or organisational risk through anonymisation of both individuals and employers.

Reflexivity was actively considered. The researchers' academic background and familiarity with the built environment sector may have influenced interpretation. To mitigate this, a structured interview guide, systematic coding procedures, and continual reference back to raw data were employed to ensure that interpretations remained grounded in participants' accounts. These measures enhance the transparency, credibility, and trustworthiness of the analysis.

AI Use Disclosure Statement

OpenAI's *ChatGPT* (version GPT-5.2, 2025 release) was used to support the preparation of this manuscript. The tool assisted the authors in improving the clarity, coherence, and structure of text drafted from the authors' original analysis and interview data. It was also used to refine language expression for readability and consistency. The tool was not used to generate data, analyse results, or create new ideas, figures, or references. All interpretations, analytical conclusions, and final editorial decisions were made entirely by the authors.

Results & Discussion

Seven semi-structured interviews explored how Quantity Surveyors (QSs) experienced pandemic-driven disruption and how those changes continue to shape post-pandemic practice. Five themes were developed. Collectively, the findings show not only a rapid operational shift to remote working, but a deeper reconfiguration of assurance mechanisms (how QSs verify and defend commercial decisions),

communication norms, workload governance, and the competency profile expected of contemporary QSs.

Theme 1: Changing working practices and role evolution

Participants described an abrupt displacement of office- and site-centred routines, consistent with the rapid practice transformation identified by Tan and Zainon (2023). Pre-pandemic working was framed as physically anchored and socially coordinated; as Participant 3 put it, "We were attending work five days a week. We were best on site." The immediate transition was characterised less as planned change and more as emergency continuity: Participant 1 recalled being "shoved with laptops" and working via Zoom before Teams was embedded. This aligns with Simpeh and Amoah (2023), who note that suspended site activities accelerated reliance on digital substitutes.

However, the interviews indicate that the critical issue was not "remote work" per se, but the fragility of verification when the QS's assurance function depends on presence. Participants described delegating site checks to colleagues and relying on photographs to progress valuations (Participant 3), while others reported shifting towards tasks that were more readily digitised (Participant 6). This division reinforces the point that QS work contains both *digitisable* activities (e.g., document-based commercial administration) and *presence-dependent* activities (e.g., valuation verification). Hansen et al. (2021) and HKA (2021) help explain why: photographs and video inspections can sustain reporting but are vulnerable to missing contextual detail. Participant 3 articulated the professional risk directly: "You want to go make sure that what you're paying is what has been executed on site."

Role boundaries also shifted. While core functions remained, dispersed delivery pushed additional monitoring and advisory responsibilities onto QSs (Chauhan, 2023). Participant 3 described bringing in-house work previously completed by external consultants, and Participant 5's move into team leadership suggests that remote conditions may have accelerated accountability and decision-making responsibilities, consistent with Tan and Zainon (2023) and the broader role-expansion narrative in Mohd Fauzi (2021).

Beyond confirming that remote working was widely adopted, these findings specify *where* and *why* remote QS delivery becomes professionally constrained—namely, at the point where valuation assurance relies on contextual site verification—and show how emergency reallocation of tasks contributed to role expansion rather than simple role substitution.

Theme 2: Digital transformation and uneven digital readiness

Digital communication tools became the backbone of coordination, but participants framed adoption as a rapid normalisation rather than a strategic transformation. Participant 7's account ("Before COVID I'd never had a Teams call… now 95%…") illustrates how platform adoption became near-universal. Participant 4's observation that remote working increased flexibility by removing travel aligns with Modiba (2024), but the interviews add that flexibility was often operationalised through earlier start times rather than reduced total working time—an important precursor to later workload effects.

Digitalisation also introduced friction in day-to-day problem solving. Participant 1 highlighted the loss of immediacy ("You can't just tap someone…"), and the reported reluctance to use cameras reinforced a sense of transactional, formalised contact ("you wouldn't have a clue"). This suggests that digital tools preserved scheduled, task-oriented interaction while weakening rapid, low-cost exchanges that support coordination and learning.

Learning curves were described as steep but short for some, and minimal for others, indicating uneven digital literacy. Participant 1's "hour" of Teams instruction and the "week" to learn basics sit alongside claims that working from home was "nothing really different." Loke (2023) supports the view that remote management and technological issues were salient challenges, but the interviews indicate variability shaped by prior exposure to tools and the extent to which roles required new digital routines.

The findings nuance "digital transformation" by differentiating between *tool adoption* (rapid and widespread) and *capability maturity* (uneven), and by showing how digital communication increased formal continuity while reducing the speed and richness of micro-coordination.

Theme 3: Communication, collaboration, and mentorship under remote conditions

Participants consistently framed the most consequential communication change as the loss of informal interaction—precisely the kind of spontaneous dialogue that supports clarification, confidence-building, and tacit knowledge transfer. Participant 1's repeated emphasis on not being able to "tap someone on the shoulder" and the need to "set up a Teams call" signals an increase in the transaction costs of asking for help. This supports Jallow's (2021) concerns about siloed working and aligns with Fateh and Zamri (2022) regarding isolation effects.

Crucially, the data indicate why digital tools were weaker for mentorship: they formalised contact into scheduled episodes and reduced "ambient learning" that occurs through overhearing, quick checks, and socially safe questioning. Participant 7's comments about reduced rapport and fewer opportunities reinforce that mentorship is not only about information transfer, but also about relational proximity and psychological safety. Camera-off norms further reduced social cues, creating a second-order detachment even within "connected" meetings.

The interviews move beyond generic claims about reduced collaboration by identifying a specific mechanism: digital platforms preserved planned coordination but disrupted informal learning pathways and help-seeking behaviours, which are central to mentorship in QS practice.

Theme 4: Productivity, workload governance, and work–life boundaries

Participants reported initial productivity benefits, consistent with Pamidimukkala's (2021) discussion of early-pandemic performance effects. Yet the interviews show that productivity gains were closely tied to intensified working patterns and weakened boundary controls. Participant 2's shift to longer days ("log on around 7… log off… 5") and Participant 4's description of commute time being absorbed into work explain how "flexibility" translated into extended availability rather than protected wellbeing. This indicates a structural issue in workload governance: when temporal and spatial boundaries erode, self-regulation replaces organisational regulation, increasing burnout risk. The furlough scheme compounded these pressures by reducing capacity and redistributing junior tasks upward. Participants linked furlough to inefficiency and project delays, not simply because staff were absent, but because knowledge continuity was disrupted and remaining staff had to onboard replacements (Participant 3). Participant 4's perception that workloads could have been "more reduced" indicates a mismatch between resourcing decisions and workload realities, with consequences for stress and delivery pace.

Hybrid working emerged as a corrective rather than a simple preference: it was framed as restoring efficiency while reintroducing in-person interaction and clearer boundaries. Participant 1's gradual

shift back and Participant 2's "two hours given back" illustrate how hybrid models can rebalance time, but the interviews also imply that benefits depend on policy and norms—without guardrails, "given back" time can be reabsorbed into work.

These findings problematise simplistic productivity narratives by linking early performance improvements to boundary erosion and capacity shocks (including furlough), and by positioning hybrid working as an organisational mechanism for restoring communication quality and workload sustainability.

Theme 5: Future competencies, automation, and the persistence of traditional skills

Participants agreed that digital competencies are now embedded in QS practice, with hybrid delivery described as durable rather than temporary. This aligns with RICS (2020) and Pamidimukkala (2021) on the continuing relevance of hybrid working and digital proficiency. Yet the interviews emphasise that competence is not static: Participant 6's continued learning of Teams functions and notification management illustrates ongoing adaptation needs, reinforcing Loke (2023) on the importance of sustained training.

At the same time, participants asserted the persistence of traditional, material practices. Printing documents (Participant 2) and the continued need to "go to site" for assurance work highlight that professional credibility still rests on site-based verification and judgement. The theme therefore resolves as an integration challenge: technology can accelerate processes, but it cannot fully substitute for the evidential and contextual grounding of core QS tasks. Views on AI and automation were framed as opportunity contingent on professional judgement; Participant 6's point that graduates must "master" AI aligns with Osunsanmi (2022), but the interviews imply that automation strengthens, rather than replaces, the QS's evaluative role.

The findings show that "future skills" are best understood as a dual competency profile—advanced digital fluency alongside preserved assurance-oriented, site-informed judgement—rather than a linear transition away from traditional practice.

Conclusions

This study examined how the COVID-19 pandemic reshaped Quantity Surveying (QS) practice in the UK, with a particular focus on digital transformation, evolving professional roles, and future competency requirements. Addressing a gap in existing literature—namely the lack of qualitative insight into practitioners' lived experiences—the research provides an integrated understanding of how pandemic-related change was enacted and sustained at the professional level.

The findings demonstrate that COVID-19 triggered a rapid and lasting reconfiguration of QS working practices. Traditional site- and office-based routines were replaced by digitally mediated and remote modes of delivery, reshaping daily workflows and professional responsibilities. While core commercial functions remained central, participants reported an expansion in advisory, administrative, and leadership tasks, indicating a shift towards greater individual accountability and autonomy within dispersed team structures. Digital technologies played a critical enabling role, allowing project continuity under unprecedented constraints. However, the findings reveal that while digital tools were effective for task coordination and formal communication, they were significantly less effective in supporting informal interaction, mentorship, and experiential learning. This distinction highlights an important limitation of remote working that is insufficiently captured in technology-led accounts of digital transformation in construction. The study further reveals that

productivity gains associated with remote working were often short-lived. Reduced commuting initially enhanced efficiency, yet organisational expectations, furlough-related staffing pressures, and blurred work–home boundaries contributed to extended working hours and heightened burnout risk. These findings complicate narratives that frame remote working as an unqualified improvement in work–life balance and underline the importance of workload governance in digitally enabled environments. Looking forward, participants identified digital proficiency, adaptability, and continuous professional development as essential competencies for future QS practice. Nevertheless, traditional skills—particularly site-based verification, professional judgement, and valuation assurance—remain indispensable. Hybrid working emerged as a preferred and stabilising model, perceived as offering a more sustainable balance between efficiency, collaboration, and wellbeing.

Overall, this study contributes to knowledge by demonstrating that the transformation of QS practice during and after COVID-19 was shaped not by technology alone, but by the interaction between digital tools, organisational structures, communication practices, and professional norms. These insights have practical implications for firms, educators, and professional bodies seeking to support resilient, sustainable, and professionally grounded QS practice in an increasingly hybrid construction environment.

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