

Platforms and Job Quality: Ripple Effects in Local Labour Markets

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Extended Abstract

Work in the digital platform era has recently become a major focus of both academic research and policy debate (Wood et al., 2019; Vallas and Schor, 2020). The rise of platform-based business models does not simply represent a technological innovation, but to a new way of organising work which, enabled by digital technologies, strengthens an ongoing structural shift toward greater labour market flexibilization and the expansion of non-standard forms of employment (Henley, 2022). By matching labour supply and demand through algorithmic coordination, digital platforms operate as intermediaries that reshape how work is accessed and carried out, blur the distinction between dependent employment and self-employment (De Stefano, 2015; Aloisi, 2016), and heighten the precariousness of platform jobs (Vallas and Schor, 2020).

Empirical research has documented how platform work, particularly in low-skilled in-person services such as food delivery and ride-hailing, is associated with fragmented tasks, compressed wages, limited career progression and heightened insecurity and, overall lower job quality (Wood et al., 2025). Yet, focusing exclusively on workers directly engaged in platform-mediated jobs underestimates the systemic reach of platformisation, which increasingly reorganises work and employment conditions in conventional firms and across local labour markets (Potocka-Sinek and Aloisi, 2025). Indeed, by enabling access to flexible, on-demand labour pools, platforms encourage user firms to reorganise production, fragment jobs into tasks, externalise employment risks and adopt algorithmic monitoring and performance control (Aloisi, 2016; Cirillo et al., 2025). Over time, these platform-related practices can diffuse beyond platform-users, shaping expectations about “normal” employment arrangements (Sun et al. 2023) and influencing competitors that do not directly use platforms but operate within the same local labour market. This diffusion is reinforced by competitive pressures—firms imitate platform-based models to remain cost-competitive—and by mimetic isomorphism and local peer effects, whereby firms emulate neighbouring organisations perceived as successful

(Di Maggio and Powell, 1983; Cao et al., 2024). As a result, platformisation can generate ripple effects that deteriorate job quality in the wider local workforce, including workers not directly involved in platform work.

From this perspective, the paper advances three main contributions. First, it shifts the focus from platform workers to firms' adoption of digital platforms, emphasising labour demand and organisational change rather than labour supply engaged through platforms. Second, it theorises and empirically tests the existence of negative ripple effects on job quality, arguing that platform-related practices—such as atypical contracting, task fragmentation and pay variability—diffuse beyond platform-mediated jobs and permeate local labour markets. Third, it identifies and examines two sources of heterogeneity in these effects: (i) workers' skill level, which shapes exposure and vulnerability to platform-based practices; and (ii) the cooperative atmosphere of local labour markets, understood as the density of informal coordination, social ties and community-based monitoring that can constrain opportunistic firm behaviour.

Three hypotheses are formulated. Hypothesis 1 posits that the intensity of digital platform use by local firms is negatively associated with individual job quality, indicating the presence of detrimental ripple effects in local labour markets. Hypothesis 2 expects these negative effects to be more pronounced for low-skilled workers, who are both more exposed to tasks that are easily standardised and allocated via platforms and structurally weaker in terms of bargaining power and outside options. Hypothesis 3 argues that the adverse impact of platform diffusion on job quality is mitigated in local labour markets characterised by a strong cooperative atmosphere, where dense social ties, industrial district logics and community-based coordination mechanisms constrain firms' ability to generalise platform-inspired degrading practices.

The empirical analysis focuses on Italy, exploiting an original database that combines information on individual job quality with indicators of firms' platform use and local socio-economic conditions at provincial (NUTS3) and macro-sector level over 2018–2024. Individual-level data come from the Italian Labour Force Survey (*Rilevazione sulle Forze di Lavoro*, RFL), conducted quarterly by ISTAT, covering the period 2019–2024. The key outcome variable is a composite job quality index that captures both objective and subjective dimensions, thereby recognising the multidimensional nature of job quality and the double channels through which platformisation may operate. On the objective side, the index includes contractual stability (permanent vs atypical and involuntary fixed-term contracts) and working-time arrangements (work intensity, measured as adherence to standard weekly hours, and the absence of non-standard shifts such as evenings, nights and weekends). On the subjective side, it covers satisfaction with job, earnings, working hours, commuting time, stability and career opportunities, job meaningfulness, and perceived job insecurity.

The main explanatory variable is an indicator of platform intensity, constructed as the share of firms using digital platforms in each province–macro-sector combination, derived from the ISTAT Permanent Census of Enterprises for 2018 and 2022. Because firm-level information on platform use is available only for these two years, each individual observation in the RFL is linked to the closest census wave: workers observed in 2019–2022 are matched to 2018 platform intensity, and those in 2023–2024 to 2022 platform intensity.

The empirical specification is a weighted OLS regression where the dependent variable is individual job quality and the key regressor is platform intensity at the provincial–macro-sector level. The model controls for a set of individual characteristics (skill level, age group, household composition, gender, citizenship, early career experience, second job), regional-sectoral variables (employment structure, value-added growth, digitalisation proxies) and regional variables (cooperative atmosphere, large functional urban areas, social capital). Regional fixed effects at NUTS2 level, macro-sector fixed effects and wave dummies are included. Standard errors are clustered at the NUTS3 level to account for intra-provincial correlation. Survey weights are used in the main specification to reflect population representativeness, and a set of robustness checks compares these results with unweighted OLS and multilevel models.

Cooperative atmosphere, the key institutional moderator, is proxied by the share of manufacturing firms located in municipalities classified as industrial districts over all manufacturing firms in the province. This proxy captures the presence of territorially embedded production systems characterised by dense cooperation networks, strong local ties and informal rules of reciprocity, which are expected to limit opportunistic behaviour in labour relations. Additional regional controls include a dummy identifying provinces that host a large functional urban area—capturing urban-specific labour market dynamics such as thicker markets and stronger competition—and an indicator of social capital, measured as the number of non-profit organisations per capita. These controls help disentangle the specific role of cooperative atmosphere from broader territorial features that may independently affect job quality.

To test the heterogeneity hypotheses, the baseline model is extended with interaction terms. For Hypothesis 2, platform intensity is interacted with a three-category skill-level indicator distinguishing low-, medium- and high-skilled workers according to the Italian occupational classification CP2011 and standard OECD groupings. For Hypothesis 3, platform intensity is interacted with the cooperative atmosphere variable. In both cases, marginal effects are computed following best practices for interaction models to recover the conditional impact of platform diffusion on job quality across different skill levels and different levels of cooperative atmosphere.

The results provide clear evidence of negative ripple effects. In the baseline weighted OLS model, platform intensity is negatively and significantly associated with individual job quality, even after controlling for a broad set of individuals, sectoral and regional covariates, as well as fixed effects. This indicates that workers employed in provinces and sectors where firms more intensively use digital platforms experience lower job quality than observationally similar workers in less platformised contexts. At the same time, investments in other digital technologies, captured by the share of firms investing in new 4.0 technologies, are positively associated with job quality, suggesting that platformisation does not merely proxy for a generic digitalisation process but operates through a distinct organisational and institutional logic.

Turning to heterogeneity across skills, interaction results show that the negative association between platform intensity and job quality is statistically significant for all skill groups but strongest among low-skilled workers. Marginal effects estimated from the interaction model reveal a clear monotonic gradient: as skill level

decreases, the adverse effect of platform diffusion on job quality increases. This pattern is consistent with the idea that low-skilled workers are more exposed to platform-compatible tasks—simple, standardised and easily codifiable activities—and have fewer resources to compensate for the erosion of institutional protections. The diffusion of platform-related practices thus exacerbates pre-existing inequalities in job quality, disproportionately penalising the bottom of the skill distribution while leaving high-skilled workers comparatively less affected.

The interaction between platform intensity and cooperative atmosphere further highlights the importance of local institutional configurations. Marginal effects computed at different percentiles of cooperative atmosphere show that the negative effect of platform diffusion on job quality is strongest in provinces with weaker cooperative environments and progressively attenuates as the density of industrial districts increases. At the 90th percentile of cooperative atmosphere, the marginal effect becomes statistically indistinguishable from zero, suggesting the presence of a threshold beyond which local cooperative features effectively neutralise the adverse association between platform use and job quality. This finding supports an institutional reading of platformisation: platforms diffuse across all types of territories, but their consequences for workers are mediated by place-specific arrangements that can buffer or amplify their impact.

Overall, the analysis challenges a narrow view of the platform economy that confines its consequences to platform-mediated jobs and shows that firms' adoption of digital platforms induces broader transformations in local labour markets, with negative repercussions for job quality among the wider workforces. These ripple effects are not evenly distributed: they are concentrated among low-skilled workers and are substantially muted in territories characterised by strong cooperative atmospheres. The findings highlight the need for policy responses that go beyond platform-specific regulation and isolated protections for platform workers and instead address the wider labour market transformations induced by platformisation. In particular, strengthening employment protections, wage-setting mechanisms and training opportunities for low-skilled workers, alongside place-based policies that reinforce local coordination and cooperation among firms and institutions, appears crucial to contain the degradation of job quality in the digital platform era

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