

Data-driven Management and Taylorist Fantasies: A Case Study of Performance Quantification in the Indian IT Services Industry

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Human capital management (HCM) software applications are being widely used to assess the performance of knowledge workers in various sectors of the Indian economy. The use of data-driven performance management systems is claimed to make the performance appraisals fairer and more transparent to the worker, and their supposed objectivity is used to justify their deployment in the workplace as instruments of remote surveillance. This paper presents insights from the case study of a performance management system that was installed at an Indian IT services organisation following the transition to remote work. Despite its mobilisation around greater accuracy and objectivity in performance appraisals, the paper demonstrates that techniques of quantification in the system generated information that was empty of any managerial value. The dichotomous understanding of productivity encoded in the system also entrenched the subjective interests of managers into performance appraisals, creating conflicts of interest in supervision that eroded the interests of the workers. As the system misread and distorted the everyday realities of work, the workers governed by it were compelled to engage in “meta work” (Maggiori 2023) that effectively undermined their productivity. By staging the empirical insights from this case study within the politically fraught character of digital Taylorism, the paper seeks to understand why the performance management system failed to meet the sanguine promises of the digital that are often marshalled around data-driven management. Based on evidence from the Indian IT sector, it argues that the translation of worker activities into egregiously oversimplified productivity data, and the eventual normalization of the data using statistical techniques, enabled the organisation to translate the worker population into a fleet of disposable human capital. This, it further argues, has been a strategy that has been in place not only to control alienated labour but also to protect the IT industry’s ability to arbitrage labour costs amidst the vagaries of informational capitalism.

Article

Data-driven Management and Taylorist Fantasies: A Case Study of Performance Quantification in the Indian IT Services Industry

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Abstract

Human capital management (HCM) software applications are being widely used to assess the performance of knowledge workers in various sectors of the Indian economy. The use of data-driven performance management systems is claimed to make the performance appraisals fairer and more transparent to the worker, and their supposed *objectivity* is used to justify their deployment in the workplace as instruments of remote surveillance. This paper presents insights from the case study of a performance management system that was installed at an Indian IT services organisation following the transition to remote work. Despite its mobilisation around greater accuracy and objectivity in performance appraisals, the paper demonstrates that techniques of quantification in the system generated information that was empty of any managerial value. The dichotomous understanding of productivity encoded in the system also entrenched the subjective interests of managers into performance appraisals, creating conflicts of interest in supervision that eroded the interests of the workers. As the system misread and distorted the everyday realities of work, the workers governed by it were compelled to engage in “meta work” (Maggiori 2023) that effectively undermined their productivity. By staging the empirical insights from this case study within the politically fraught character of digital Taylorism, the paper seeks to understand why the performance management system failed to meet the sanguine promises of the digital that are often marshalled around data-driven management. Based on evidence from the Indian IT sector, it argues that the translation of worker activities into egregiously oversimplified productivity data, and the eventual normalization of the data using statistical techniques, enabled the organisation to translate the worker population into a fleet of disposable human capital. This, it further argues, has been a strategy that has been in place not only to control alienated labour but also to protect the IT industry’s ability to arbitrage labour costs amidst the vagaries of informational capitalism.

Introduction

When I spoke to Sandip on the phone before we met on a Wednesday afternoon, he told me that he would be working through the day. So, when I met him in a sparsely patronised coffee shop in Indiranagar, I was surprised to see that he did not have his laptop out. “I am running a script to keep the cursor moving,” he assured me, “they will think that I am working even if I am not on the laptop” (Sandip; December 14, 2022; in-person interview). Sandip is a project manager at Merchador Technologies, an Information Technology (IT) company based in Bengaluru.¹ Merchador is one of the several companies in the city that have tapped into the lucrative IT outsourcing sector in India, an industry that employs close to five million workers and contributes to more than seven percent of the country’s GDP (Sun 2022).

¹ The names of the organisations and research participants in this case study are changed to protect their anonymity.

Once the Indian economy reopened following the COVID-19 pandemic, the business unit that Sandip is a part of instituted a new performance management system to handle the transition to remote work. The system integrated three discrete Human Capital Management (HCM) software applications into an information infrastructure that quantified the workers' contributions to the company, assigning an unambiguous performance score to each worker. Merchador's decision to adopt this system was continuous with management trends across the world to use techniques of quantification to deal with the abrupt transition to remote work. In the months following the pandemic, organisations began using productivity scores to bring professionals as diverse as radiologists, copywriters, financial executives, hospice chaplains, and pharmaceutical assistants (Kantor and Sundaram 2022) under "new and accelerating surveillance practices that increasingly [bridged] the gap between one's workplace and home" (Vitak and Zimmer 2023: 32).

Notwithstanding the ubiquity of productivity tracking tools across income brackets and industries, the performance management system at Merchador was unique in its orientation towards quantifying work. At a glance, the system engendered the philosophy of management from a twentieth century factory. It evaluated the worker based on whether they were or were not meeting easily quantifiable goals, with little regard for the manner in which they were achieving these goals. The industrial indices used by the system measured worker productivity by evaluating factors such as the time a worker spent at their computer or the number of "bugs" they resolved in an appraisal cycle. The indicator of performance, within each module of the system, was not any concrete information about the workers' contribution to the organisation, but a simple binary derived from the metadata collected from a few surveillance instruments. On a closer examination, the informational surplus generated by the system seemed ineffective in informing managerial decisions at the organisation.

While such a performance management system may appear anomalous in the picture of India's burgeoning technology sector, the interactions with workers, HR professionals, software developers, and union representatives in the Indian IT industry reveal that Merchador is one of the many organisations that govern their workers using such seemingly unavailing digital management systems. In this paper, I present a comprehensive case study of the performance management system at Merchador as a representative illustration of how principles of "digital Taylorism" (Altenried 2020: 5) are reanimated in the Indian IT industry. Despite its mobilisation around the sanguine promises of digital technology, I argue that the performance management system often undercut the data imaginaries that orbit popular understandings of digital management. Rather than make performance appraisals more objective, Merchador's insistence on quantification entrenched the subjective interests of managers into the measurements of productivity. It misread and distorted the everyday realities of work, compelling workers to engage in "rituals of verification" (Cole, Radice, and Umney 2021: 91) that effectively undermined their productivity.

To understand how such a performance management system served the interests of the organisation, I stage the empirical insights from this case study within a larger model of performance quantification in the Indian IT outsourcing industry. I argue that the translation of worker activities into egregiously simplistic productivity data, as well as the eventual normalization of the data using statistical techniques, enable IT organisations to protect their competitive positioning amidst the vagaries of informational capitalism. By situating the data imaginary of fair appraisals within the politically fraught character of Taylorist management, I submit that the affordances of digital technology are routinely leveraged by organisations to render the worker population disposable, and consequently, to arbitrage labour costs when confronted with fluctuations in the outsourcing market.

Quantification and Its Origins in Taylorist Management

As a system of workplace administration that was conceived to manage the division of labour on the twentieth century factory floor, Taylorist techniques are often seen as the foundation of management as a

distinct discipline of supervising work (Drucker 1993). It was first codified by the American engineer and management consultant Frederick Winslow Taylor in his 1911 book *Principles of Scientific Management*, where he used the systematic analysis of the labour process to measure and augment worker productivity. For Taylor, scientific management was a unique moment in the history of capitalism, where the perfection of the “science of work” (Braverman 1974: 62) would destabilise the assumed correlation between productivity and worker exploitation (Drucker 1993). In his introduction to *Fundamentals of Scientific Management*, Taylor (1911) posits this political imperative as the driving force of his factory organisation. Taylor (1911) observes that mechanical efficiency and rational objectivity could improve productivity without making workers work longer or harder and, in the process, resolve the historical antagonism between the capitalist and the worker. Scientific management not only removed the excesses from the production process but also liberated workers from the tyranny of inefficiency; its foundation was the conviction that the interests of the employer and the worker are “one and the same” (Taylor 1911: 3).

Even though the affinities between Taylorism and contemporary data-driven management may seem surprising, an examination of the history of management reveals that there is a powerful line of continuity between them. Scholars note that the technocratic governance of the contemporary workplace has its lineage in the Taylorist trust in expertise, where measurement and control of the worker are central to improving worker productivity (Ajunwa 2023: 36). Today, activity tracking devices, RFID badges, and health apps are marshalled in the workplace to collect accurate information that flows upward in the management chain, and enterprise software systems are used to consolidate them into a cohesive infrastructure of management (Ajunwa 2023; Head 2014: 10). The event-driven process chains (EPCs) that are built into these software systems allow managers to break down tasks into a sequence of machine readable subprocesses and import processual methods of management from the factories into white collar jobs (Head 2014).² As a result, scholars note that the four pivotal components of Taylorist management—“rationalisation, standardisation, decomposition, and deskilling” (Altenried 2020: 5)—continue to manifest in sites as diverse as retail warehouses, food-delivery platforms, software development companies, and design firms (Altenreid 2020; Gautié, Jaehrling, and Perez 2020; Liu 2023; Head 2014).

As knowledge work is conceptualised according to the terms of the assembly line, we also observe a reanimation of various normative claims that present Taylorism as a reciprocal arrangement that benefits both the organisation and the worker. Today, the discursive mobilisations around digital management present management software as tools that “help employees grow and succeed no matter where they work” (Oracle Corporation 2022) and that are “owed to and well-deserved by every part of [the] worker population” (Averbook 2022). The repackaging of organisational activities into productivity data is claimed to reveal them as a repository of hidden insights, where the transparent flow of information can empower workers to understand and improve their own productivity. In spite of this progressive positioning of quantification, critical studies of scientific management have demonstrated that its introduction into the workplace was never designed to improve production proper but instead to accrue more power in the hands of management. As Harry Braverman (1974: 220) shows, just as techniques of quantification began entering the early offices, activities of the clerks—ranging from reading reports to handling stationary—were broken down by the logic of time and motion study. As mental labour was reduced to “a repetitious performance of the same small set of functions,” control over work practices could be wrestled from the hands of the workers into the hands of a few managers (Braverman 1974: 62, 222). While such an intensification of surveillance may have superficially appeared to be a direct application of science to generate gains in productivity, Braverman (1974) shows that its primary goal was neither to increase the rate nor the quality of clerical output.

² Head (2014: 12) notes that, as compared to the Fordist plant where the activities of the worker were in plain sight, the work of the contemporary white-collar worker becomes concealed in “the innards of servers and software systems,” which makes the task of understanding and critiquing these systems far more difficult.

More recent labour histories also caution us against uncritically importing notions of efficiency, and its attendant claims of accuracy and objectivity, into how we understand the digital iterations of Taylorist management. As this scholarship shows, while the deployment of digital technology is promised to give greater autonomy to skilled professionals and free them from micromanagement interventions, the “re-Taylorisation” (Gill and Pratt 2008: 8) of cultural and intellectual work has further deskilled the workers and reduced them into replaceable tools through techniques of quantification.³ Such effects of digital Taylorism are especially stark in the services sector, where an intensified audit culture is instituted by organisations to provide managers with “the illusion of control” (Graeber 2018: 48) amidst the uncertainties of capitalism. As David Graeber (2018: 178) astutely observes, “efficiency has come to mean vesting more and more power to managers, supervisors, and other presumed ‘efficiency’ experts.” Various accounts of digital management also show that managerial audits can transform work into an exercise in managing the representations of activity rather than actually accomplishing any concrete goals. Rather than adding value by completing their work, workers spend time planning how tasks must be divided between teams, providing status update to team members and managers, and in many cases, pretending to be busy (Maggiori 2023). What we see in many organisational settings today, then, is “a performance of management,” where workers engage in redundant “box-ticking gestures” that not only fail to add value but also actively undermine their own productivity (Solanki 2019: 591; Graeber 2018).

In the ensuing sections, this paper will attempt to provide a detailed description of the performance management system at Merchador and situate it within the findings of this critical scholarship on digital Taylorism. In attending to the social life of this performance management system, this paper is interested not just in understanding how the workers experienced the quantification of their productivity. Rather, it connects the paradoxical characteristics of datafication in Merchador’s performance management system with the larger business model of the Indian IT services sector and, consequently, seeks to understand how practices of quantification enable organisations to improve their competitive positioning without really improving their productivity.

The Performance Management System

Before the pandemic, Merchador was commissioned by a global technology company called Blocktext to program their virtual assistant technology in Indian languages. The workers in Sandip’s business unit appeared well-positioned to take advantage of this multinational collaboration. They worked out of Blocktext’s regional development centre in Bengaluru and reported directly to a Blocktext manager who oversaw the project. During this period, the workers were governed by the liberal on-site policies laid down by the client company, giving them a degree of control over their time and deliverables. As commentators note, such managerial arrangements are not uncommon in the Indian IT services sector, where the unbridled circulation of labour and capital following the liberalisation of the Indian economy promise workers new forms of “social and spatial mobility” in their careers (van der Veer 2008: 371). However, the favourable working conditions experienced by the workers were disrupted by the COVID-19 pandemic. Following the transition to remote work, most of the managerial responsibilities were transferred back to Merchador, prompting the organisation to institute a system that closely tracked the productivity of the employees working from their homes.

At the heart of the new performance management system were three HCM software applications. These were: a time and labour application that gauged workers’ punctuality and timely work completion, a bug tracking application that measured the quantity and quality of their work, and a learning and development application that recorded their efforts towards learning and skill development. Before their integration into

³ For instance, in their study of accountants governed by practices of scientific management, Cooper and Taylor (2000: 565, 567) note that the use of information technology to break down work into a sequence of tasks transforms accountants into “helpless attendants” who lose a comprehensive, processual understanding of accounting practices.

the system, the applications represented independent functional domains that served particular organisational goals. For instance, the bug tracking application had been instituted by the company long before the transition to remote work. It operated as a collaborative platform for Merchador and Blocktext stakeholders who worked on common deliverables, allowing them to prioritise action items and set deadlines, distribute and review work, and provide and seek feedback from each other. However, the infrastructural consolidation of the application within the performance management system transformed the application into an instrument that benchmarked the quantity and quality of the worker's output.

To jumpstart the project, Merchador appointed a performance administrator who was tasked with consolidating the three applications into an integrated system of quantification. All employees were required to install the applications on their computers and sign into them remotely using their employee credentials. Once set in motion, this three-dimensional system was to render irrelevant the subjective assessments of Merchador managers and score workers objectively on various dimensions of their productivity.

The first module in the system was the time and labour application. During the nine billable hours they worked each day, the worker needed to open the application and select the task they were completing from a list of predefined options. Each job role was broken down into a set of attendant tasks, encoded in a drop-down menu through labels such as “attending a meeting,” “curating data,” “out for lunch,” or “debugging code.” Each task was programmed to have a permitted window of “away time,” and depending on the chosen activity, the application would log the worker out if they are found inactive on the computer for longer than a few minutes. The time during which a worker remained away from the computer was recorded as “idle time.” In this way, the tasks self-reported by the worker and the metadata from the activity monitoring system were used by the organisation to record and classify the time spent by a worker on their job.

The second module of quantification was a bug tracking application that reported the quantity and quality of the tasks completed by the worker. When issues were identified in testing, Blocktext stakeholders would “log bugs” on the application to alert Merchador to add, update, troubleshoot, or amend a feature. These bugs were assigned to specific workers by their Merchador managers. The workers who were assigned the bugs were required to acknowledge them within twenty-four hours and resolve them by the designated deadline. The bug tracking application allowed relevant stakeholders to track the status of each bug and post review comments on the quality of its resolution. Once integrated with the performance management system, Merchador began using the application to generate a consolidated report of the bugs logged each month. The report recorded the number of bugs resolved by each worker and the review comments posted on the bugs. The performance administrator also tasked specific Merchador managers with auditing the review comments. Such auditors were supposed to look at each review comment and ascertain if Blocktext stakeholders were satisfied with how a worker had resolved the bug. In this way, the number of bugs resolved by the worker and the nature of comments they received were respectively used by the organisation as proxies for the quantity and quality of the work completed by a worker.

The final module in this information infrastructure was a learning and development application. The application allowed the worker to enrol in online courses and gain various skills that improved their productivity. During each assessment cycle, a worker was required to enrol in at least two courses (one skill-related and one behavioural) from those specifically tailored for their job. Most of these courses were related to the Blocktext project the workers were staffed on; they assessed whether the workers were up to speed on the technical and stylistic guidelines used by the client company. At the end of each lesson, the learnings of the worker were evaluated through a multiple-choice question (MCQ) test which would determine whether they passed or failed the course. Once integrated with the performance management system, the number of courses completed by the worker were used to calculate their investments towards learning and skill development.

With the consolidation of these applications into a performance management system, Merchador could begin construing each worker's activity as falling within a dichotomous logic of "productive" and "unproductive" behaviours. The time and labour application distributed working hours into "active" and "idle" time, the bug tracking application divided review comments into "positive" and "negative" feedback, and the learning and development application marked competencies as "complete" or "incomplete" lessons. This simple binary was critical to making knowledge work amenable to calculation. For example, a worker gained points for completing courses or resolving bugs by set deadlines or lost points for taking unplanned leaves or receiving "bad" review comments from auditors. These points were scaled according to the weightage predetermined for each task. A worker's performance in bug resolution, for instance, contributed to forty-five per cent of their total performance score—where ten per cent of the score was the result of the number of bugs they resolved within the deadline and thirty-five per cent of the score was the result of the quality of review comments they received.

Once the activities were quantified and scaled in this manner, the performance scores would be shared with the worker in the form of a performance report. The report, which was ostensibly instituted to improve the work process, broke down worker activities according to the parameters of the new system of appraisal. It openly disclosed the parameters through which they were quantified by the system. A worker now could see not only their own scores but also the scores of their team members. The fidelity of this data gave the report a sense of unambiguity and rawness that was hitherto absent in Merchador's performance appraisals. Before the new performance management system was instituted, Merchador did not share the details of worker performance with all members of the business unit. Rather, the organisation showcased the accomplishments of individual workers on its internal employee site. Here, the performance data were repackaged according to the managerial assumptions of what was relevant and irrelevant for each worker. The productivity of the worker, for instance, was gamified as "performance badges" and "skill tags"—graphical icons that linked worker output to a set of milestones embedded within the incentive structure of the organisation. The visualisation of employee performance on the site collapsed the complexity of the backend calculations from the workers, re-rendering software outputs into symbolic objects that abstracted their productivity.

The performance report circulated within the Merchador business unit, however, was decidedly more transparent in the way it quantified the worker. It made no attempt to disaggregate the infrastructural totality of the performance management system or conceal the discrete logics of quantifying productivity from the view of the worker. In juxtaposing the performance of the worker with their peers as a collection of numbers, the report had an unmediated mathematical quality that was absent in its visual representation on the employee site. In communicating the close-ended, interpretive certainty of numbers in a spreadsheet, the report reified indicators of performance as accurate and incontestable representations of worker performance. As this report was shared with all members of the business unit, Merchador also appeared committed to making the new system fairer and more transparent to the worker, enabling them to better understand and calibrate their own growth in the organisation.

Accuracy, Efficiency, and other Myths in the Performance Management System

A cursory look at Merchador's performance management system shows remarkable continuities between how it quantified the worker and how productivity was imagined within the calculus of scientific management. Even though the nature of work at Merchador seemed incongruous with the rigid demands of quantification, the performance management system translated each task as if it belonged on an assembly line. The three modules of the system decomposed work into attendant tasks, breaking them down by temporal rhythms, numerical milestones, and predefined competencies. If supervisors in the twentieth-century factory had relied on timers and stop-motion cameras to record and coordinate the activities of the workers fixed in place on the factory floor, the managers at Merchador used activity monitors and bug reports to measure and direct the activities of remote workers tethered to their computer desks. By linking

a system of incentives and penalties to the scores generated by the performance management system, they sought to eliminate the behavioural excesses of the worker and integrate working bodies within a standardised logic of productivity.

Despite its attempts to bring regularity to how work was understood, measured, and rewarded by the organisation, the experiences of the workers who were governed by the performance management system indicate a range of issues with its implementation at Merchador. While it was ostensibly committed to improving worker productivity and making performance appraisals fairer to the worker, the crude classification of worker activities into the binary of “productive” and “unproductive” behaviours disregarded a range of worker activities that fell outside the scope of the system. Paradoxically, this augmented “wasted effort” (Zuboff 1984: 43) that is seemingly the antithesis of computerised management, creating demands of reporting that reduced the actual productivity of the worker. For instance, workers reported that the time and labour application, which was installed to measure their productivity, effectively undermined their productivity by segmenting work hours into “active” and “idle” time. The threat of being penalised for spending time away from their keyboards compelled workers to take unnecessary breaks between tasks such as reading guidelines or attending meetings to input mock commands into the system. As digital presence was conflated with productivity, the intensified surveillance became “introjected” (Fisher 2009: 52) by the workers, compelling them to find new ways to render visible the value they added to the organisation. If some workers kept reminders on their phones to periodically feed an information infrastructure that generated metadata that attested their productivity, others had devised more ingenious ways of circumventing the application’s activity monitoring system. The “script” that Sandip was running on his laptop during our first meeting, I later discovered, was a mouse juggler.⁴ This software program simulated the movement of a computer mouse to create an impression of activity, misleading the activity monitoring system into registering random movements of the pointer on the screen as productive worker activity.

Many workers in the business unit also noted that visibilising the activities that fell outside the gaze of the system often required the company to rely on the subjective judgements of managers. This undermined the presumed objectivity of the performance management system. Workers, for instance, reported egregious instances of managerial prejudice in the use of the bug tracking application. The application, which had been transformed into an information inlet for the performance management system, disregarded the complexity of each bug and crudely reduced the performance of the worker to the absolute number of bugs resolved by each worker. This allowed managers to influence the performance ratings of the workers indirectly. Managers, who were at the risk of losing performance-based incentives if team members left in the middle of a project, frequently manipulated the performance ratings in order to prevent employee disgruntlement. They kept worker attrition in check by assigning easily resolvable bugs to the workers who were lagging behind others. This was further complicated by the fact that, in many outsourced projects, project managers were also individual contributors to the project. This meant that the performance scores of the managers were tied not only to their managerial competence but also to the number of bugs they resolved themselves. This amorphous layering of job roles, while enabling Merchador to extract more work from the managers, created particular conflicts of interest in supervision. Managers now had incentives to assign specific bugs to specific workers, including themselves, and increase their own performance scores.

The pernicious effects of quantification extended even to the audit of the review comments collected using the bug tracking application. The review comments received by the worker, which previously served as inputs that helped workers improve the quality of their deliverables, began being seen as representations of the quality of the worker’s output. If the number of bugs resolved by the worker came to stand in for their productivity, the review comments they received indicated the quality of the worker’s output. Radhika, a

⁴ Following the transition to remote work, mouse jigglers also became popular on India’s online retailing sites as plug-and-play hardware contraptions.

worker who was staffed on Sandip's project, described to me how the imperative of quantification had adverse effects on the morale of the workers. Radhika once received a review comment from a Blocktext stakeholder on a bug assigned to her. The comment was based on the stakeholder's misunderstanding of the functionality and requested Radhika to clarify how she had fixed a bug. As expected of her, Radhika proactively addressed the bug by not only clarifying the fix but also reworking the fix so that the steps were clear to all the relevant stakeholders. However, this adversely affected her performance score. An auditor, noticing that Radhika had reworked the functionality, imposed a penalty on her without suitably considering the context in which the bug was reworked (Radhika; December 17, 2022; in-person interview).

The demand of quantification compelled auditors to classify the comments into "positive" or "negative" feedback. This insistence on dichotomous classification meant that any comments requiring a worker to rework the bug were construed as "negative" feedback. "Negative" feedback, invariably, was to be penalised by a deduction in their performance score. While this was a simple misunderstanding that could have been resolved by more contextual information, Radhika did not have any formal avenues to explain to the auditor the error in the audit. She eventually contacted the Blocktext stakeholder who had left the comment and managed to get the penalty reversed before her annual performance review. However, in doing so, she undermined the informal policy of the Merchador team to not escalate internal conflicts to the client and was reprimanded by her manager. While the managers were also periodically audited to minimise prejudicial treatment, assigning bugs to their reports and interpreting the nature of review comments were ultimately subjective decisions made by managers based on their (presumed) expertise. The negotiations through which bugs were allocated to specific stakeholders fell outside the scope of worker evaluation, and managers could now unduly influence the performance score of each worker by deciding which bugs to assign to them and how to interpret the review comments they received.

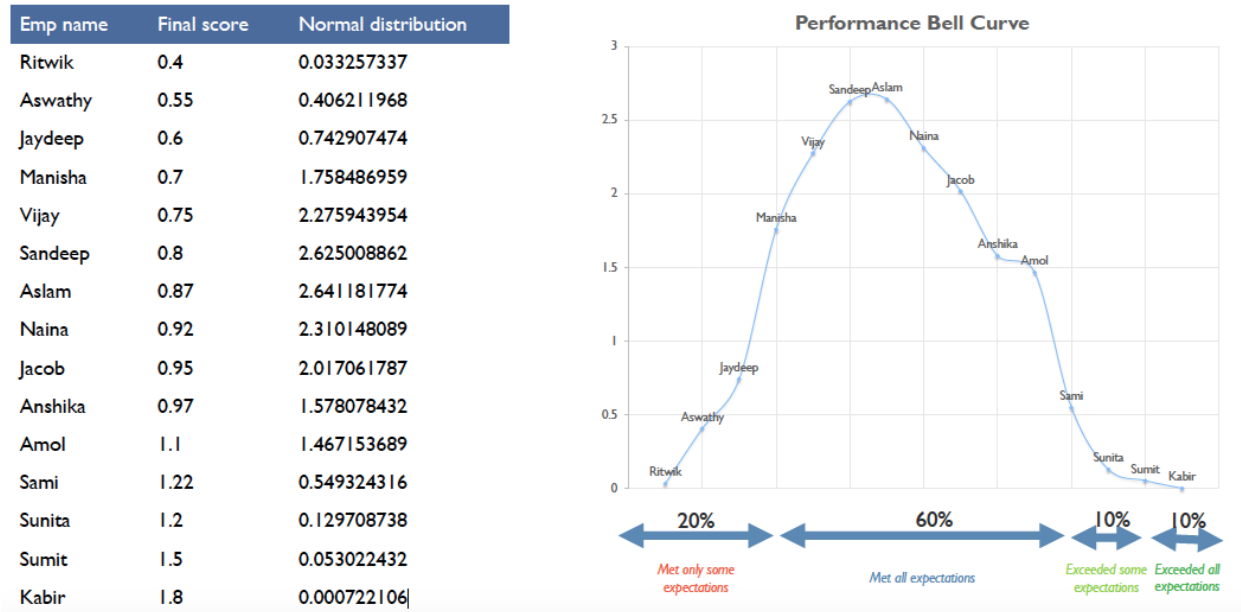
The Aggregation of Worker Information and the Tyranny of the Curve

Why would an organisation like Merchador—with its access to vast technological and human resources—employ a management solution that is demonstrably irreconcilable with the demands of a modern knowledge workplace? Unlike other industries in the country that are characterised by "nepotism, corruption and old-fashioned ways of doing business," the IT industry is often presented as a transparent and merit-based beacon of India's modernity (Upadhyaya 2016: 4). For a sector that has pioneered and profited from technological innovations and accelerated the formalisation of the Indian economy (Nilekani 2023), one would expect the IT industry to leverage digital technology in improving the everyday operational processes of the workplace. Yet, as we have seen from the description of the three modules of the performance management system, data-driven management at Merchador often distorted the true picture of workers' performance and created an audit culture that undermined their productivity. Attempts by workers to flag the issues in the system were continuously dismissed by managers and, many a times, workers like Radhika had to escalate complaints to the client to have their performance information corrected in the system. In the ensuing discussion, I situate the performance management system at Merchador within the business model of the IT industry that is based on creating a fleet of disposable workers for its overseas clients. By assigning a numerical value to each worker's performance, IT companies often use particular techniques of statistical normalisation to aggregate the productivity of the worker population. This, as the final section of this paper demonstrates, not only recreates the political membrane of Taylorism underneath the apparent sophistication of data driven management but also reinforces a longstanding business model in the IT sector that is based on matching "mobile labour" to "volatile capital" (Xiang 2007: 7).

In order to understand the utility of quantification for an Indian IT services organisation, it is vital to understand how Merchador used the information collected from the performance management system. Merchador used an appraisal model known as "bell curve evaluation." Rather than merely rank order the workers based on their cumulative score from the three subsystems, Merchador "normalised" the scores on a bell curve, symmetrically dividing the entire worker population into four segments according to their

performance. The first two segments of this classification consisted of the top performers of the worker population, representing workers who “exceeded all expectations” (the top ten per cent of the population) and “exceeded some expectations” (the next ten per cent of the population). The overwhelming majority of the workers were slotted into the third segment, representing workers who “met all expectations” (sixty per cent of the population). The final segment consisted of workers who “met only some of the expectations” (the bottom twenty per cent of the population). The workers who were in this final segment were at the greatest risk of being terminated from their jobs.

Figure 1: Sample bell curve created by the author in consultation with the workers.



Merchador is one of the many companies in the sector that employs bell curve evaluations in worker appraisals. A Fact-Finding Committee report following a massive IT sector layoff in 2015 shows how bell curve evaluations can segment the worker population arbitrarily, often with devastating consequences for the workers who fall at the wrong end of its statistical formulation of productivity (Bhaskar et al. 2015). The Committee collected information from 130 employees of Tata Consultancy Services (TCS) (Bhaskar et al. 2015)—a prominent IT-services company and a key competitor to Merchador—that used the bell curve model to evaluate its workers. TCS segmented its worker population into five broad bands according to their performance ratings. These bands were more or less identical to the four segments used at Merchador, except for the fifth band, which explicitly classified workers in the bottom tier as those performing “below 90% of the expectations” (Bhaskar et al. 2015). The performance bands used by the organisation came under scrutiny when the company decided to lay off several workers who were in the lowest band of normalised performance scores. As many workers interviewed by the committee noted, the organisation was seldom concerned with the accuracy or objectivity of the performance data. Like Merchador, it employed the strategy of aggregation to segment worker population according to conditions of disposability. What is perhaps most striking about this report is the following observation it makes about the constitution of the performance bands: “[I]n most cases, the band assigned to an employee did not reflect the actual performance of the employee or the appraiser’s satisfaction with his/her performance. Employees with a

performance rating of 4.3 or above also reported that they were placed in the C band due to these circumstances and ‘curve-fitting’ compulsions” (Bhaskar et al. 2015: 6).⁵

The case was no different at Merchador. “You were doing fine,” a manager told one of Sandeep’s coworkers before his contract was terminated, “but your teammates were doing better” (Aswin; January 5, 2023; telephone interview). This worker, who fell in the bottom twenty per cent of the bell curve segmentation, was designated by Merchador as someone who “met only some of the expectations” (Aswin; January 5, 2023; telephone interview). This meant that, once reformulated using the logic of statistical normalisation, data collection would take on certain transitive properties that disciplined the worker. The managers, as it were, still had considerable say in determining the outcome of their appraisals. The bell curve compelled the worker to take on work beyond their contractual obligations and prove that they were outperforming their team, engaging in what has been imaginatively called “meta work” in the sector (Maggiori 2023). Each worker needed to not only complete the tasks assigned to them but also ensure that they were not slotted into the category of bottom performers. Many workers I interviewed as part of this case study meticulously documented their output on a daily basis, creating visually rich slide decks that graphically represented their productivity. A team lead I interviewed, for instance, created diagrams that represented the breakdown of the time he spent on the job, especially calling attention to tasks that he felt could not be easily performed by an AI system (Sangeet; December 16, 2022; in-person interview). The uncompensated time he spent mentoring workers, formulating guidelines, and performing other managerial responsibilities were especially highlighted in these diagrams. He seemed to feel that such measures would help him market himself to his manager, as his parallel system of documentation captured contributions that escaped the gaze of a flawed performance management system (Sangeet; December 16, 2022; in-person interview). With the threat of automation looming on the horizon, the performance management system that did not accurately capture their contributions to the organisation had exacerbated how insecure the workers felt in their jobs. In addition to forcing the workers to make their contributions visible to their managers using indigenous forms of documentation, the bell curve model also antagonised the workers against each other. “If one of the workers decided to lick the manager’s boots, everyone will have to,” a worker explained to me (Aswin; January 5, 2023; telephone interview).

The repurposing of collaborative working tools into a normalised benchmarking system had allowed Merchador to transform the way in which workers related to each other. The collection of performance data now worked purposively to the advantage of Merchador, where the segmentation of the worker population enabled a business model anchored in the precarity of the worker. The same year the report indicting the bell curve method came out, Merchador forced hundreds of their employees to “voluntarily” resign from their jobs citing “underperformance” on the bell curve. As a commentator notes, in the absence of strong labour laws that protect the interests of the workers, mass layoffs are “a fundamental feature and norm for the sector, rather than some kind of unavoidable SOS response to market environment” (Agarwal 2023). Bell curve evaluations, in this context, work as a restructuring template that has been perfected over several decades to enforce labour flexibility. The availability of a permanent bottom quartile in the performance ratings ensured that the company does not have to navigate the expensive and complex legal formalities of an official retrenchment when confronted with a downturn in the market. Rather than terminating their contracts, HR units pressurised workers to “resign voluntarily,” citing their performance ratings on the curve. In exchange for leaving quietly, they were offered favourable reviews that could be presented to future employers. By fitting the performance of the workers into the curve, a company could successfully segment the worker population into statistically legible categories of top performers, middle performers,

⁵ Fashing and Goertzel (1981) observe similar effects in the case of bell curve normalisation in student evaluation. They note: “Under ordinary circumstances, the ‘excellent’ are encouraged and allowed to pursue professional and other high status careers, the average to pursue a wide range of business and other white collar careers, and the below average or failures are ‘guided’ into less desirable areas of employment” (Fashing and Goertzel 1981: 24). “The imposition of the curve,” they further observe, leads to a systematic decoupling of the quality of the instruction the students receive and their performance on class tests (Fashing and Goertzel 1981: 24).

and bottom performers—all occupying arbitrary tiers in a classification system developed according to conditions of disposability.

The IT Services Business Model and the Flexibilisation of the Workforce

Understanding the salience of bell curve evaluations in Indian IT organisations requires us to pay attention to how the organisational practices of the IT industry are engineered to contain the flows of global capital and circulation of local labour. In spite of employing only a minority of India's workforce, the services sector in India has been the major driver of its economy (Lakshmanan 2019). Ever since the liberalisation of the country's economy in the 1990s, the IT sector has accounted for the lion's share of the contributions of the services sector and, consequently, acted as the primary driver of India's participation in globalisation (Dossani 2018; Balakrishnan 2011). Historians of the sector note that its rise was intimately tied to the commercial opportunities presented by the "Year 2000 problem" or the "Y2K problem"—a software bug that created a global demand for workers with software expertise. With the regulatory friendliness of a newly liberalised Indian economy and access to a large, English-speaking workforce, this moment was a lifeline for the Indian IT industry that was hitherto reliant on the unstable revenues from body shopping practices. A combination of factors, including the movement of surplus value from rural agriculture, declining data storage and transmission costs, the availability of government subsidies, and the deregulation in Indian telecommunication and intellectual property policy, created the conditions for the rise of the sector (Xiang 2007; Balakrishnan 2011; Dossani 2005). As the aspirations for upward mobility pushed a number of workers to participate in the outsourcing market (Xiang 2007: 26), the IT industry rose meteorically as the "back office to the world" (*The Economist* 2001).

Notwithstanding the favourable circumstances, what drove the Indian IT industry's success was its ability to arbitrage labour costs in response to the global demand for cheap IT labour. The Indian IT industry's success, scholars note, is dependent on "[deploying] hundreds of programmers on short notice and [managing] them with high reliability" (Balakrishnan 2011: 12). With the task segmentation made possible by standardisation in software development practices, IT work could be "[examined, decomposed, and standardized]" in Taylorist fashion and distributed between development teams that worked collaboratively from disparate geographies and time zones (Dossani and Kenney 2007: 775). As the Indian IT development facilities were located in cities with large populations of college educated employees, firms were able to better "manage variable and peak loads" as well as "buffer absenteeism and capture inefficiencies from a greater division of labor" (Dossani and Kenney 2007: 777). By staffing workers from their offices in cities like Bengaluru, Gurugram, and Hyderabad, Indian IT companies could supply workers for projects as diverse as network management, backend development, system integration, data search, and customer service, and in the process, build a transcontinental feeder network of skilled labour for American corporations (Greenspan 2004; Bal and Sharan 2023). In just a decade after the Y2K crisis, it is the human resource management capabilities of the IT companies that catapulted them into becoming the dominant supplier of the world's IT workforce (Sukumar 2019; Kaka 2009).

This business model, however, has made the Indian IT sector especially vulnerable to the gyrations of the international outsourcing market. In order to continue arbitraging labour costs amidst the vicissitudes of the global economy, IT companies must maintain a steady supply of "talented, high quality, low cost" IT workers readily available to their clients, regardless of the demand-supply fluctuations in the labour market (Greenspan 2004: 86). As organisations seek to protect their competitive advantages, new techno-managerial practices are continuously invented in the IT sector to minimise the overhead costs of maintaining a permanent workforce. From employing workers on short-term contracts to placing them in low-paying "bench" periods, companies use a variety of flexible employment practices to maintain "a large reserve of workers" (van der Veer 2008: 374). As commentators of postcolonial India observe, such employment practices have created dire conditions of insecurity for workers in the technology sector. In a country where employee compensation is one of the lowest in the world, IT workers are often compared to

sweatshop labourers and described as “cyber-coolies” shortchanged by the IT revolution (van der Veer 2008; Greenspan 2004). Yet, it is precisely such managerial techniques that have allowed Indian IT companies to remain resilient to the fluctuations in the outsourcing market.

This became especially evident during the COVID-19 pandemic. Even as other sectors were devastated by the pandemic-related shutdowns, 2020 was a surprisingly good year for the Indian IT industry. Reports indicate that the international demand for “technological solutions” grew the industry’s exports by three billion dollars (Ministry of External Affairs 2021). Even as other organisations were downsizing, Indian IT companies went into “frenzied hiring” (Fayisa 2024)—not only growing their workforce at a breakneck pace but also refining their managerial techniques to flexibilise their new fleet of workers. As exemplified by Merchador’s performance management system, quantification of worker performance and its eventual aggregation were critical to maintaining the elasticity of this labour supply. On one hand, the new working conditions had diminished the social dimensions of management, eliminating the need for managers to directly confront the workers who were being evaluated using a fundamentally flawed system. On the other hand, the circulation of performance data in an open report reified the claims of objectivity and fairness around the performance appraisals. Once aggregated using bell curve evaluations, the information collected using the system created an indisputable basis for offloading workers as liabilities in the balance sheet, as and when this was required. Improvement in the productivity of the individual worker, if there was any, was merely a useful coincidence of instituting such a performance management system.

Understanding Merchador’s performance management system against the context of the IT outsourcing market allows us to better converse with the current scholarship on digital Taylorism. Critical accounts of Taylorist management, as discussed in the foregoing sections, correctly note that quantification is seldom concerned with improvements in productivity. Rather than work on deliverables that conceivably improve an organisation’s bottom line, quantification often compels workers to engage in “meta work” (Maggiori 2023) that effectively undermines their productivity. As Brown and Duguid (2002: 21) note, once incorporated into systems of quantification, information becomes a procrustean bed upon which various issues of management are redefined in terms of actionability, translating the complexity of the workplace into “a one-dimensional, infocentric view” of productivity. As critical scholarship from numerous sites demonstrates, it is precisely the capacity of digital management systems to “informate” (Zuboff 1988: 10) workers that makes them suitable tools to control “alienated labour” (Braverman 1974: 62) in the modern corporation. This, however, does not mean that Taylorist installations are necessarily decoupled from the imperative of profitmaking. As this case study sought to demonstrate, contemporary iterations of Taylorism can also leverage the “ceremonial character” (Fourcade and Healey 2017: 13) of data collection towards meeting managerial goals beyond disciplining the workers. In Merchador’s case, the unique constellation of technical artefacts, managerial structures, and statistical techniques that constituted the performance management system enabled the company to economise workers with low performance ratings as both useful and disposable labour inputs in the face of turbulent market conditions. As digital quantification enabled the re-Taylorisation of the workplace underneath the apparent sophistication of data driven management, it also created “objective” conditions to justify the disposability of its labour surplus.

Conclusion

In this paper, I have argued that the objective of the performance management system at Merchador was not to widen the scope of worker surveillance and introduce modalities of quantification that merely disciplined the workers. The infrastructural substrate of this performance management system had long been in place before Merchador’s transition to remote work. As the COVID-19 pandemic created the justification for remote surveillance, the managers at Merchador could creatively repurpose the applications that were already in place to record time, track bugs, and organise skill development into data inlets for a new system of performance management. As I demonstrated through a fine-grained examination of the system, the reanimation of Taylorist principles at the organisation did not fit the familiar tropes of efficiency and

objectivity that characterise the data-driven workplace. Rather than acting as instruments that indexed the actual productivity of the worker, the applications were used by the organisation to leverage the precarity of the worker and improve its own competitive positioning amidst the vagaries of informational capitalism.

Even as the workers recognised the unfairness of the system that compelled them to spend uncompensated time documenting their own activities, resistance could only manifest in ingenious and atomised forms, exemplified in the use of subversive technical instruments, parallel documentation, and client escalations. In the unique interaction between the technical form of the software applications and the economic conditions of informational capitalism, Merchador managed to use bell curve evaluations to aggregate the worker population into a statistical unit legible to conditions of disposability. Thereby, digital performance management presented a new vision of Taylorist management, where the precarity in working conditions and its associated cost savings were engineered by the company through the aggregation of performance scores. This new way of “seeing like a market” (Fourcade and Healy 2017: 25) delivered the company a unique fleet of disposable workers based on a fundamentally local logic of neoliberal human capital management.

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