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# MEDIATED CONTROL: ON THE IMPLICATIONS OF INNOVATIVE ICT-DRIVEN INTERACTIONS

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# MEDIATED CONTROL: ON THE IMPLICATIONS OF INNOVATIVE ICT-DRIVEN INTERACTIONS

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## **ABSTRACT**

Interactions driven by Information Communications Technologies (ICT) have gained significant acceptance and momentum in contemporary organisational settings, this is illustrated by their massive adoption and varied deployment across the various levels of an organisation's hierarchy. The study looks into the dynamics of ICT-driven interactions and, distinctively, focuses on the manifestations and implications of mediated control in a collaborative environment. Findings indicate that networks set up through the instrumentality of technology mediated interaction induce unanticipated social and psychological implications in spite of their promise of organisational efficiency. The study draws on the notions of behavior and outcome control to reveal that the nature of mediated control is not static, but evolutionarily dynamic that springs from highly unpredictable contexts of work. The analysis reflects the observation that mediated control is not only about the predetermination of targets that are attained at the subordinate level but the wider implications of ICT-led interactions that have a somewhat direct bearing on subordinates' psychological make-up.

## **Keywords:**

Behavior control, outcome control, mediated control, Innovative interaction.

## **PROLEGOMENA**

Information Communication Technologies (ICT) and the techniques of interaction and processing of information have expanded the possibilities of their application in controlling organisational and business functions (Beniger, 1986). As modern-day organisations continue to survive on varied forms of information, innovative methods of interaction are required to cope with the challenges that characterise the dynamics of organisational strategising. Relying on ICTs to mediate control between staff in different sections and locations within, and sometimes outside, the layout of an organisation demands an appreciable degree of ICT-driven interaction in the form of collaboration from the entire organisational machinery.

This research presents findings from an empirical investigation and scrutinizes the implications of the innovative application of interactions driven largely by ICTs from the standpoint of mediated control in a tele-centre of a medium-sized, semi-finished food processing company in a UK city. The key activities reflect the diverse and novel use of ICT-driven interaction techniques by telesales staff in processing customers' purchasing orders from different and distributed addresses across the city. The analysis indicates that ICTs applied innovatively from mediated control perspective introduces two fundamentally different implications: strong customer relationship management practices and unintended negative behaviour that result from intense mediated interaction activities.

Technology mediated interaction is hardly a new phenomenon (Hinds and Kiesler, 1995, Belanger et al., 2001, Walther, 1997, Green, 2002, Ngwenyama and Lee, 1997), however its innovative application against the context of mediated control environment has yet-to-be articulated implications for information systems research. Accordingly, the preoccupation of this paper remains how well we can better understand the consequences of mediated control from the perspective of ICT-driven interaction. The paper particularly analyses how interactions, fundamentally driven by ICTs, occasion customer loyalty and, simultaneously, result in unfavourable behaviour. The analysis is informed by this overarching research question: How does mediated control manifest and how is it ensured in ICT-driven interaction in an organisation's collaborative work? What mechanisms constitute control in technology mediated interaction?

This research aims to address this situation by means of situational analysis of the work of telesales representatives in undertaking their assigned daily functions in a highly structured work environment characterised by intense computer mediated interactions. This paper also accounts for the rationalization of business process that articulates the underlying rationalities and consequences (intended and unintended) of technology-driven interactions and mediated control. The analyses illustrate the point that intense but varied innovative ICT-driven interaction efforts affords the opportunity of strengthening the bond of

affinity with an organisation's customers while at the same time raising concerns of undesired organisational behaviour that demands a strategic and pragmatic approach towards beneficial organisational strategising.

Firstly, it would seek to bring out the issues pertaining to the controlling capabilities of people and technology in their respective areas of strengths and limitations in ICT-driven interaction. Secondly, such a study could help mould our reconceptualisation of ICT-driven interaction and its practical application to diverse situational contingencies, such as the administration of mediated control in organisational behaviour.

In what follows, a review of control and organisational design is provided to understand the two fundamental forms of control that continue to dominate contemporary organisational practices as a means of illustrating the significance of the present challenge to look at control from a radically different perspective. Then a view of current considerations of ICT-driven interactions is presented, bringing out the diverse motivating factors for their application. Methods applied in soliciting data for this research exercise are subsequently discussed leading up to the key findings that furnish the platform for analysis. Conclusions are then drawn that reflect insights to signpost directions for future research.

## **CONTROL, ORGANISATIONAL CONFIGURATION AND ICT INTERACTION**

The design of organisations has often been informed by control, giving rise to structures like divisionalisation, centralisation, decentralisation and matrix (Galbraith, 1977, Mintzberg, 1983); control also influences the establishment of certain administrative mechanisms in relation to task characteristics, reward schemes, information systems, and performance satisfaction packages (Turcotte, 1974, Courpasson, 2000). Eisenhardt, for instance, unites organisation theory with economics to investigate incentive packages, performance evaluation schemes and reward systems that prevail in organisational life as an instrument of control (Eisenhardt, 1985). Reflecting on these themes, I highlight the viewpoint of the disparate literature on control that discusses both behaviour and outcome control as a major structure in organisational design due to their complementary dispositions in organisational strategising (Ouchi and Maguire, 1975, Kim, 1984).

### **Behaviour-led Control in Organisational Design**

Behaviour control stipulates conditions for suitable and improper conduct (Kirsch, 1996) in line with programmable tasks and the degree of requisite information for diverse behaviour options (Nidumolu and Subramani, 2003) that underscore effective management process. The value of behaviour control lies in its ability to achieve superior standardisation as it enables the execution of uniform job performance (Kim and Umanath, 1992-93). The degree of standardisation informs the scope of management's mandate by way of procedures and methods to direct those in the lower ranks. Child (1972) identifies two different yet seemingly complementary strategic devices for controlling human behaviour of organisations. One such device is to depend on laid-down procedures and documentary materials for decreasing subordinate discretion and for supervising events.

The other option is to embark on a strategy that directly entrusts responsibility and discretion to relatively senior members in the organisation. This view connects with the Weberian idea of bureaucratic control which links structure and decentralisation as a strategic tool (Child, 1972). Controlling behaviour in this manner delimits the need for specific aspects of specialisation which represents a cut on the requirement for detailed systems of formalities and complex procedures. Behaviour control then allows for less negotiation as instructions for the administration of job roles and performance of allocated duties become more structured (Weber, 1978). Once control turns rigid and allows inhuman structures to enforce rules, authority is passed onto a system that most invariably leaves members in the organisation to reflect Weber's description of 'specialists without spirit, sensualities without heart' (Weber, 1958 p. 182). To this end, Weber concludes that an individual member in the organisation 'cannot squirm out of the apparatus into which he has been harnessed' (Weber, 1978 p. 987-988). Edward (1981) thinks that the knowledge shaping process is achieved in a way that makes control appear subtle to the extent that subordinates are least aware of the fact that their actions are motivated by directions and instructions from their superiors. Weick specifically draws on the work of Vinacke et al (1996) and recounts the interesting revelation that 'subordinates often do not realize the amount of control they actually have' (Weick, 1979 p. 16).

### **Outcome-driven Control in Organisational Design**

The demand for measurable output invokes the use of outcome-based control mechanisms via the clarification of elaborate outcomes of task performance. In this connection, Nidumolu and Subramani claim the criteria of performance hinge on the 'specification of benchmarks, quality metrics, and performance criteria, such as productivity standards, budgets, and schedules' (Nidumolu and Subramani, 2003 p. 163). Management by Objectives, connecting with the idea of 'congruence prevailing between employers' work rules and work-group values and norms' (Goldthorpe, 2000), typifies outcome control (Lawler and

Rhode, 1976). The evaluation of performance is embedded in a knowledge structure that embodies benchmarks, milestones, reference points and blueprints.

The mechanisms for the determination of outcome are inextricably connected with subjective judgement. Outcome control emphasises the measurability of targeted results, either in qualitative or quantitative dimensions (Eisenhardt, 1985). It is therefore tempting or even plausible to agree with Snell (1992) that numerical documentation is often the basis and major indicator of effectiveness. Since outcome control ensures the achievement of goals at the lower level, it leaves a lot of control in the hands of subordinates which encourages decentralised form of organising. Once control becomes decentralised as a result of specialisation (Hofstede, 1978), information gap or information asymmetry tends to expand between subordinates and superiors due to a probable lack of close monitoring which could translate into a potential 'control loss' (Williamson, 1975 p. 296).

### **ICT Interaction – Contemporary Trends and Considerations**

ICT-driven interaction recognises the use of technical objects to function as the medium or the platform by which it can be established. Thompson (1995) recounts that technical medium such as “paper, electrical wires, electromagnetic waves, etc.” (p. 83) facilitates the transmission of symbolic and information contents to parties who are either separated by time or space or sometimes both. Modern-day research on interaction marks a radical point of departure from the study of close range communication that used to dominate the literature about half a century ago. Organisations continue to adopt innovative practices, including varying the modalities of technology mediated interactions, in an attempt to offer high degree of customer service (Mowshowitz, 1997, Snow et al., 1996) as a means of sharpening their competitive edge (Porter and Millar, 1985). The culminating effect has been the transformation and modification of our behaviour and work culture.

Reporting on the theories and methods of mediated technology, Whittaker (2003) submits that the innovative use of ICT-driven interaction was to overcome the power of distance over the audibility of speech and visual cues like gazes and facial gesticulations. The rising popularity of ‘anytime anywhere’ (Kleinrock, 1996) expressed in the redefinition of ephemeral, situational, flexible and spatial limitations of the context of work has significantly liberated many a modern organisation from the worries of the rigidities that typically characterise centralised organising (Malone, 2004).

In this sense, ICT-driven interaction may become mobile, flexible and independent while at the same time pinning individuals to a personalised geographic unit or cell. Indeed, ICT-driven interaction enables individuals and groups to conduct their interaction in both synchronous and asynchronous modes (Kakihara and Sorensen, 2001). Social relationships that form the basis of community integration (Calhoun, 1992) can also be inspired by interaction led by the application of ICTs. Certain forms of psychological and emotional imbrications are occasioned by mediated interaction that potentially impact positively or negatively on individual(s) depending on the prevailing circumstance. Wastell and Newman (1996) for example draw on Turner and Karasek’s (1984) integrated framework of system of computer design, task execution and welfare to appreciate how interaction, supported by technology, lessens the rate of heartbeat and stress of emergency workers during peak operating hours.

### **EMPIRICAL ACCOUNT AND METHODOLOGY**

The empirical body of this study sets itself to investigating the application of both mobile and immobile ICTs in an organisation within the food services industry. Quick Food Services Ltd,<sup>1</sup> hereafter referred to as QFSL, sells semi-prepared food and food related items to small and medium-size fast food shops and restaurants in and around London. QFSL has recently, through the use of technology, automated greater proportion of the processes involved in business interactions with its customers from order processing to delivery. Automation has, as a result, meant that greater aspects of control and decision-making abilities have been structured and assigned to technology, with telesales reps (who process customers’ orders on the telephone) having little room for the use personal judgement.

When a customer phones up QFSL to place an order, the call is routed – in the first instance – to the telecentre and the customer gets to talk to a free telesales rep to place their order. Customers can spend (on average) between three and ten minutes on the phone with the telesales reps depending on the nature of their orders and other pre-order queries they may have. Two factors encouraged QFSL to employ innovative interaction mechanisms in processing customers’ orders. Firstly, since most of QFSL customers were of Turkish extraction, there were instances when certain pronunciation of particular food items were mistakenly recorded on the order database as the predominantly English-speaking telesales reps heard those names differently. This triggered a chain of errors resulting in the delivery of wrong orders to customers. Secondly, customer relationship techniques also prompted QFSL to design innovative computer-driven interaction practices to strengthen the bond of loyalty and intimacy with their customers. This meant recruiting some of their telesales reps who originally speak Turkish.

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<sup>1</sup> Quick Food Services Ltd is an anonymous name used here to protect the true identity of the organisation where this study was undertaken.

In connection with this, interaction on the phone was designed in a radically novel way to facilitate a bond of affinity between customers and QFSL.

This new design and approach to processing customer orders ensured that Turkish speaking customers get to talk to Turkish telesales reps after following prompts on their telephone keypad. The system was so designed such that in a situation where, for instance, two telesales reps have previously spoken with the same customer, the system assigns the customer to telesales rep with the higher frequency of interaction. This engendered familiarity between telesales reps and those customers. Again, such customers 'felt at home' when they operate on a mode of language that comes naturally to them. Crucially, too, errors associated with mispronunciation and misspelling that led to wrong orders were reduced to the barest minimum. Last, but by no means least, instances of incensed customers who call into QFSL to register their rage at the telesales department about their disappointment and anger on the arrival of deliveries they have never ordered nearly became a thing of the past.

This study is founded on interpretive philosophy informed by a phenomenological process of logical reasoning. Phenomenology acknowledges that knowledge of reality is socially informed and constructed via the instrumentality of the researcher, and that the determination of truth is subjective (Myers, 2004). To this end, the researcher becomes inextricably bound with the events that unfold as 'the object...cannot be adequately described apart from the subject, nor can the subject be adequately described apart from the object' (Crotty, 2003 p. 79).

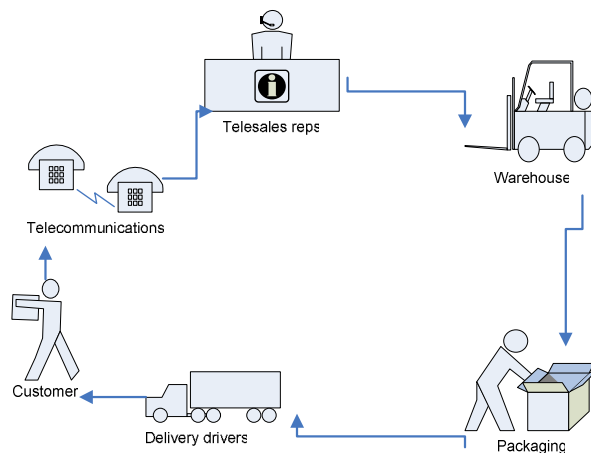
In view of this, the study orients to the ideals of the interpretive research agenda. For the IS interpretive tradition can provide richer and added situational appreciation of the concerns and challenges that emerge from a broad spectrum of matters regarding mediated control in ICT-driven interaction. This guarantees reflexive pattern to be developed in the process which is indicative of Walsham's (1993 pp. 4-5) assertion that interpretive IS research strategies are directed at "producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context". It is pretty obvious that the issues and interests surrounding mediated control and ICT-enabled interaction are too diverse and complex to solicit a solitary and thinly-defined perspective.

The preferred research technique for this study is a case study. Case study allows for the exploration of a modern phenomenon in its natural, realistic context especially 'when the boundaries between phenomenon and context are not clearly evident ... within some real-life context'(Yin, 1981 p. 13). Pieces of evidence of qualitative value were gathered from interviews, meetings, participant observation as well as documentary evidence.

## UNDERLYING RATIONALITIES OF ICT-DRIVEN INTERACTIONS

The daily activities of QFSL demand heavy reliance on technology for the conduct of its various mediated interactions, implying the adoption and application of both mobile and stationary ICTs integrated with highly structured and extensive organisational infrastructure. QFSL serves a wide variety of customers involving wholesalers and retailers. These include cafés, restaurants, burger bars, football clubs, chicken and chips shops among others. The operations at QFSL run almost seamlessly on a 24-hour basis from Monday to Friday and, half-day on Saturdays and Sundays. Supplying semi-prepared foods and drinks to small restaurants and shops requires registered customers and potential customers to call a generic telephone number anytime between 9am and 5pm from Monday to Friday and, occasionally on Saturdays to make their orders.

The following diagram below illustrates the cycle of order processing operations at QFSL:



On a day, each telesales rep handles between 90 and 100 calls. These consist of the following:

- Initiating telephone calls to customers to take their orders, either on mobile phones or landlines,
- Receiving telephone calls from customers who want to place orders and
- Receiving and re-routing calls from customers who might have complaints regarding their delivery orders and some other pertinent matters to customer service.

Part of telesales reps training involves the skill of introducing new product lines to customers on the phone and running customers through a range of other alternative food items. Telesales reps also receive guidelines on how and when to initiate calls to customers who have not purchased from the company for a month with the aim of finding from them the reason for their commercial silence or hibernation. The company adopts this measure to attain a certain degree of output control. QFSL views this 'purchase-reminder' strategy as a trust-building mechanism as well as customer relationship management technique, both of which reinforce mediated control relationship between subordinates and their superior managers.

In the course of a working day, telesales reps have a certain quota of outgoing calls to make. The telesales reps are directed to make the outgoing calls for two specific reasons. The first is to customers who, for some reasons, have not purchased from the company for about a month, what is technically known in the company's circles as 'responders'. The second reason for making outgoing calls is to introduce 'new lines' to a certain number of customers with no purchasing history of those items during a working day. What the telesales reps do in this instance is to call every customer on a given list at irregular intervals to try to persuade them of the deals on those new lines. Trying to convince customers on the telephone to add new lines to their current stock of purchases is not an easy task and getting back customers who have not made purchases for over a month is equally a challenging undertaking.

Due to the fact that interaction with customers is predominantly mediated at a distance, some customers take undue advantage of any delivery hitches and pour invectives on the phone to the reps who handle their complaints. The emotional repercussions on situations like these can be demoralising to the staff concerned. Under such intimidating circumstance, one telesales rep said she did her best to try and calm impatient customers down on the phone but in a situation where it gets beyond manageable limits, she had no option but to hang up on the swearing customer. Anytime a telesales or a customer service rep hangs up on an angry or abusive customer, he or she must inform or notify her team leader or immediate superior at their earliest convenience. To the telesales rep, this self-reporting act is more of an instinctive reaction to avoid a surprise summons by the concerned team leader than a procedural imperative.

In spite of the emotional stress and the harbour of mistrust connected with ICT-driven interactions, one telesales rep reveals the romantic side of technology mediated interaction. She described how men sometimes readily make marriage proposal on the phone instead of making their orders upfront or talking about something concerning their business. One rep even suggested it was by far easier to sell to male customers as they were predisposed to imputing or revealing their romantic promptings on the telephone.

## **MANIFESTATIONS AND REPERCUSSIONS OF ICT INTERACTION**

The various manifestations of control and the dynamics in which they are administered reflect the two fundamental techniques that the study highlighted during the review. The motivations that occasioned these structural control mechanisms are of multivariate sources, indicating the favourable dispositions and the relative strength associated with each. One of the key indicators of control, and the means by which the company seeks to assimilate its staff is to streamline their behaviour through a thorough training programme. The behaviour-streamlining strategy is motivated by standardisation on several fronts: standardisation by work processes, skills and output, all enhanced by division of labour (Mintzberg, 1983).

The communicative flexibility of the ICTs ensures interaction on at least two instances: online and offline which deepen the extent of attraction, interests and commitments of the communicating parties as they negotiate and erect a common communication platform. This resonates with Castells' (2001) idea of 'networked individualism' by which technology transforms and varies the organisation and arrangement of social relationships. Long-term relationship (developed as a result of repeated and intense mediated interaction) between two people previously unknown to each other may engender a certain kind of familiarity and relationship. The relationship could become intimate which may mean that those involved negotiate for alternative means of interaction even if it defies prevailing organisational instructions and norms.

The request for marriage via the telephone and some of the romantic gestures that sometimes characterise order taking defies and attacks one of the fundamental assumptions of social presence theory. Social presence theory primarily argues that the lesser the number of channels or signifiatory schemes there are within a given medium, the lesser regard one directs towards their interaction partners (Walther and Burgoon, 1992). The mediating power of the ICT artefacts in diverse forms of interaction enables and facilitates a high level of social presence, with a relatively high tendency to encourage personal and

emotionally charged interaction. This can be accounted for, and exemplified, by the lack of face-to-face nature of ICT interaction. Therefore the generally claimed proposition that computer mediated interaction is lower on social presence as compared to face-to-face interaction lends itself to highly contestable arguments. This is because the technology does not prevent emotions and other similar non-verbal cues from being transmitted to the person on the other end of the communication activity.

### **Manifestations of ICT Interaction through Mediated Control**

One of the means by which control is manifested is through the specific application of certain significatory schemes for the transmission of standardised, non-negotiable messages or information. Information relayed in this arrangement enables a common interpretative scheme for the intended recipients. The presence of the significatory scheme(s) therefore limits the extent to which the telesales reps can relate their personal experience on the job to the specific dynamics of its execution. By implication the reference object assumes the status of instrument for the transmission of purposes, plans and meanings (Bowker and Star, 1999). As a result, the symbolic functionality of the reference object (significatory schemes) becomes a symbolic reality of presence (Borgmann, 1999).

The administration of mediated control at QFSL evokes Weber's imagery of the 'iron cage' (1958 p. 180 - 181) in some respects and electronic chains in other considerations. The extensive rationalisation of automated structures of computer systems regulates, determines and, to some extent, dictates the pace and pattern of work that entraps telesales reps. Subsequently, their behaviour is moulded in an iron cage of rule-driven logical control. This observation can be confirmed and accounted for by the findings in respect of the domineering sales target (outcome control) instituted for telesales reps. In this connection, telesales reps are under specific instruction and obligation to sell new product lines to 11 people (both potential and existing customers) a day on the telephone.

The responses from two telesales reps about this sale expansion and customer acquisition and retention technique were laden with worry, frustration and intimidation. Indeed, one telesales rep minced no words when she declared in an interview that she feels quite apprehensive going to work at the thought of the challenge in meeting the daily sales target via the telephone. The expression of this worryingly frustrating experience connects well with an observation elsewhere that 'the increasing competitiveness of the modern economy has rendered people slaves to their workplaces' (Bolchover, 2005 p. 2). Besides, Bunting's (2005) 'Willing Slaves...' similarly has a striking resemblance with a workplace characterised by a stressed and overworked employees.

### **The Unintended Implications of ICT-driven Interaction**

The propinquity of the mediating features of the artefacts provides a psychological nearness that has the potential to generate a bond of affinity between the interaction partners. This could account for the extra-marital relationship that developed between one telesales rep and the wife of one of the company's customers which was learned during the interviews; illustrating the development of interpersonal perceptions facilitated by intense mediated interactions accumulated, presumably over prolonged period. Findings from this study support emotion as a key behaviour changing mechanism at the level of individual experience, and this idea seems more accommodative of Simon's (1997) exposition on the concept as driving the behaviour and subsequent performance of organisational agents. As an attempt is made to explore and understand technology mediated interaction in a variety of ways, the emotional repercussions among telesales reps in the telecentre become too forceful to ignore as far as the research findings. This is because the many possibilities of communication driven by technology in the study resulted in scenarios that transcend the immediate purpose of selling company products and addressing direct customer concerns on the telephone. The emotional conditions necessitated by those communication activities are worthy of reflective consideration. For instance, evidence of emotional hangover and spillover of technology mediated interaction arose from two divergent sources; one within the company (internal) and the other from outside the organisation (external).

Internally generated emotion-charged telesales reps seem to result from 'unrealistic', customer call-back daily targets. Telesales reps found it was seemingly unreasonable for their immediate superiors to expect them to introduce new products and also sell to customers via the telephone. A typical situation is when customers have expressed the least hint about their need for such purchases or when they have already been angered by unsatisfactory conditions of delivery. Further, inability on the part of telesales reps to meet sales target arouses the feeling of worry, anxiety and frustration which eventually bears on their overall performance as motivation for future duties sinks. Absenteeism – genuine or enforced – becomes the likely characteristic of employee behaviour with respect to his or her current job as the daily determined targets keep 'hunting' them.

Against this view, emotion is no longer seen in its favourably beneficial light 'as a force that helps direct actions toward particular goals'... neither does it work 'with reason' because it fails to align with the general and enduring objectives of the organisation (ibid p. 90). Entertaining the thoughts of anxiety and trepidation about a possible failure of achieving prescribed expectations is an appealing ingredient of work disaffection. The following sentiment of a telesales rep "After two years of



doing it [a reference to his job as a telesales rep] I used to get more and more worried of coming to work if my team didn't hit their target" is proxy of such alienating sentiments. When emotional worries get in the way of assigned work, there remains the lingering potential for employees to become psychologically detached from corporate objectives. They then view their once cherished job as a burden and a source of their present job uncertainty, work apathy and discomfort.

### Concluding Thoughts

This study has so far shown that mediated control can induce several challenges for organisations whose work practices imply heavy reliance on ICTs. While the study has unearthed highlighted portfolio of control mechanisms and their implications for enterprise-wide business operations, it has, at the same time, brought to the fore the ever-simmering consequences of interaction purposively driven by ICTs. However, the analytical submissions on mediated control can constitute enduring signpost to such management techniques and appropriate practices as supervision, monitoring, generation of feedback mechanisms in coordinating activities related to ICT-driven interaction.

This research has particularly focused on individuals, especially in matters of control and discretion. Therefore, in terms of future research directions, it would be interesting if scholars and researchers could pursue a line of enquiry that examines how teams or even groups apply discretion in their everyday organisational commitments. It is feasible that this could set up a parallelism so that meaningful insights could be drawn to pave way for analysis that would bring out how control and discretion work in practice between individuals on one hand and groups on the other. It would also be interesting to see how research on mediated control in ICT-driven interaction can be understood in certain contexts or industries which are not fundamentally service oriented. Again, future academic commitment to this cause could pursue the sorts of impact that the unplanned implications of mediated interaction can have on organisational performance.

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