The Impact of Digital Platforms on Performance Measurement and Management

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Abstract

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In this thesis, I examine the impact of digital platforms on performance measurement and management practices. The thesis consists of three essays.

In the first essay, I examine practices through which fluid accountability is configured in a fluid organisation by focusing on a case of a luxury resort hotel that operates in a dynamic and complex organisational environment. First, I identify three components of accountability from the literature (transparency, disciplinarity, manageability) through which accountability is configured. Second, I trace practices observed from the case organisation to build a conceptual model to explain the configuration of 'fluid accountability' and show how the three components work differently in a fluid organisation. My in-depth case study builds the basis for understanding of how organisations can configure fluid accountability, in which it seems 'anyone' can be held accountable for 'anything' by 'anyone', in order to adapt to the increasingly dynamic and unpredictable environment.

In the second essay, I explore the process through which a luxury hotel resort incorporated smartphones and mobile platforms into its performance management routines. Drawing on an imbrication framework, I conducted case study research in which I found that different sets of affordances and constraints that arose during the smartphone adoption process acted as the building blocks that reconfigured the hotel's performance management routines. This essay improves our understanding of how smartphone and mobile platforms affect performance management routines through an improvisation process that involves various groups of employees. My results highlight the importance of improvisation and the flexibility of mobile platforms in improving the management control system.

In the third and last essay, I investigate how external digital platforms shape user organisations' surveillance practices and influence individuals within the organisation. Drawing on Bauman's notion of liquidity, I critically analysed how digital platform and the user organisation's surveillance practices became entangled and new forms of surveillance emerged. The findings reveal that when digital platforms infiltrate user organisations, they can affect the existing surveillance and control practices by making them more flexible, adaptable and efficient, but can also be problematic for individuals within the organisation by increasing surveillance. Specifically, this essay adds new insights into how external digital platforms can influence how individuals experience surveillance, freedom and connection.

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I declare that no portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Chapter 1: Introduction

Management accounting practices in organisations have been changing rapidly in the past decades in light of advances in information technology. Specifically, the recent spread of digital platforms (Constantinides et al., 2018; de Reuver et al., 2017) has led to the emergence of new business models, organisational structures and new performance indicators (Arnaboldi et al., 2017b). While advanced information technologies provide tools to analyse the 'big data' generated by various digital platforms, Quattrone (2016) argues that 'data' cannot be used neutrally in decision-making as it is influenced by politics, biases and epistemological limitations. Therefore, instead of solely focusing on new performance measures enabled by data from digital platforms, this thesis focuses on understanding the organisational process and practices involved in incorporating and utilising digital platforms in organisation's performance measurement and management.

Constantinides et al. (2018) define digital platforms as "a set of digital resources – including services and contents – that enable value-creating interactions between external producers and consumers" (p. 381). Some popular examples of digital platforms are social media (e.g., Facebook, Twitter, Instagram), online review sites (e.g., TripAdvisor), and mobile platforms that comprise both hardware (smartphones) and software (operating systems such as iOS and Android, and associated app markets). Constantinides et al. (2018) further clarify the difference between digital platforms and 'lightweight infrastructure', such as smartphones or other consumer computing devices (e.g., tablets and laptops). While the latter may contribute to the use and/or access to digital platforms, they do not have the characteristics of popular digital platforms, such as TripAdvisor, Facebook, Twitter or Instagram.

Cusamano, Gawer and Yoffie (2019) identify two basic platform types: innovation platforms and transaction platforms (Figure 1). First, innovation platforms consist of common technological building blocks that users can share to create new complementary products and services. Examples of digital platforms under this category are smartphone apps, smartphone operating systems (OS) or cloud computing services. Second, transaction platforms include examples such as TripAdvisor, Amazon Marketplace or Google Search. These platforms act as intermediaries that enable users to share information, buy and sell, as well as access other services. These platforms gain additional value from the increasing utility of the complementary products and services created by users (Cusumano et al., 2019).

In an organisational context, digital platforms have created an increasingly unpredictable and dynamic environment for organisations, in which organisations have less control over information that can influence their performance and reputations (Brivot et al., 2017; Scott and Orlikowski, 2012). As a result, the boundaries between internal organisational practice and the external environment have become blurred. For example, previous studies have explored how TripAdvisor's guest reviews and hotels/restaurant rankings can influence organisations' practices from beyond the organisational boundaries, as such information is often used as a performance indicator by user organisations (Ghose et al., 2012; Jeacle and Carter, 2011; Luca and Zervas, 2016; Scott and Orlikowski, 2012). Extant literature has shown that the publicly available rankings in digital platforms cannot only influence the organisations' decision-making process, but also have a wider social impact (Bialecki et al., 2017; Espenland and Sauder, 2016; Sauder and Espenland, 2009). Therefore, organisations need rapid, flexible and continuous adaptation in their management accounting practices to survive and succeed in the increasingly unpredictable and dynamic environment (Ahrens and Chapman, 2007; Schreyögg and Sydow, 2010). In this thesis, I aim to explore how digital platforms influence organisations' performance measurement and management (PMM) by specifically focusing on the following platforms: TripAdvisor, mobile platforms, and digital infrastructures, such as smartphones and mobile internet, and other digital technologies such as WhatsApp.

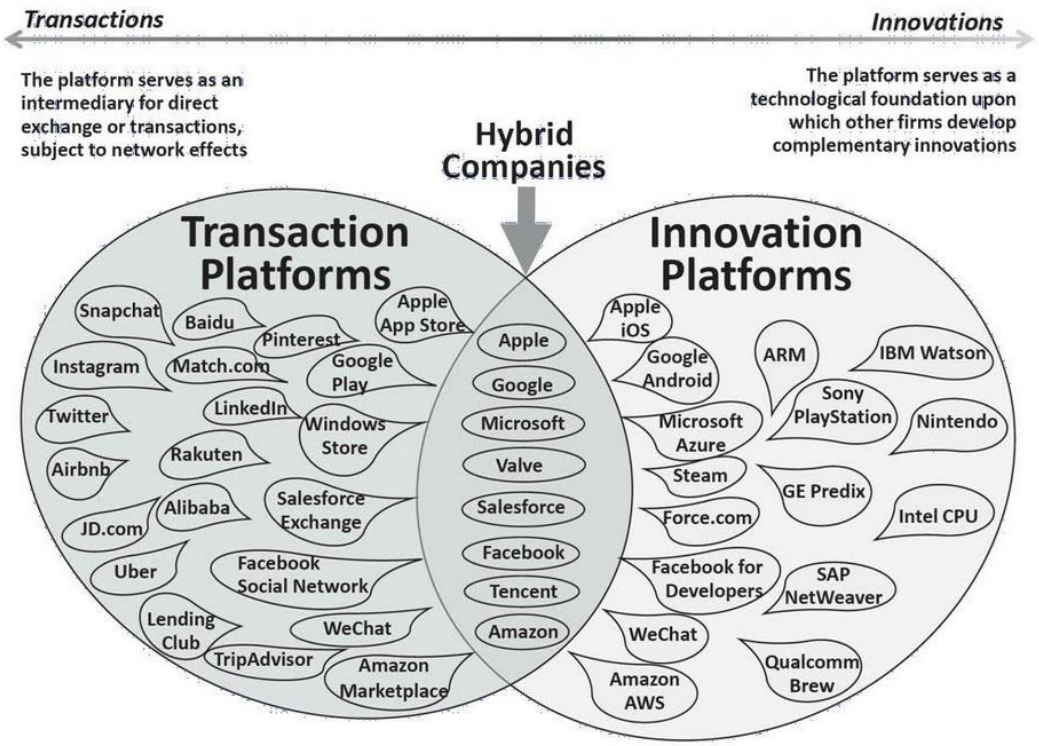

Figure 1: Two basic platform types (Cusumano et al., 2019, p. 19)

Previous information systems and accounting research has explored digital platforms in various ways. For example, prior information systems research has highlighted the strategic benefits of digital platforms from both the platform owner (de Reuver et al., 2017; Gawer and Cusumano, 2014; Tilson et al., 2012) and the user perspectives (Rolland et al., 2018) and has thereby improved our understanding of how digital platforms can help organisations in terms of innovation, adaptation, and flexible working. In accounting research, researchers have explored how digital platforms are governed differently, in comparison to traditional organisations (Leoni and Parker, 2019), and how different forms of accountability can emerge through social interactions within digital platforms (e.g., Jeacle and Carter, 2011; Scott and Orlikowski, 2012). However, empirical investigation of digital platforms' influence on organisations' accounting practices is still in its infancy (Arnaboldi et al., 2017). In this thesis, I have identified three gaps in our understanding of how digital platforms can influence accounting practices: 1) digital platforms influence on PMM practices, and the configuration of accountability within an organisation; 2) the process of digital platform adoption and PMM change; and 3) the consequences of the changes resulting from an organisation's use of digital platforms in its PMM practices.

To address these gaps in the literature, the thesis is structured around three self-contained essays in Chapter 2, 3, and 4, focusing on different research areas. These essays have separate literature reviews and address three different research questions by drawing on my three-year (2014-2017) interpretive case study (Ryan et al., 2002a). The case organisation is a luxury resort hotel in Vietnam that incorporated smartphones and mobile platforms as part of an improvised solution to improve day-to-day PMM practices. Following this specific organisation provided me with an opportunity to observe in detail how digital platforms became incorporated into the organisation's PMM practices. I obtained data from three cycles of data collection (two weeks in July 2014, two weeks in August 2016, and three weeks in April 2017) during which I conducted a total of 25 semi-structured interviews with 34 informants, as well as three weeks of ethnographic field research (April to May 2017). The combination of face-to-face interviews and ethnographic fieldwork allowed me to gain rich insights into the social activities and context of the case organisation's day-to-day PMM practices. While each chapter can be read independently, these essays share a central theme, namely the impact of digital platforms on PMM in organisations. Chapter 2 focuses on understanding how employees' and managers' use of smartphones and mobile platforms gave rise to practices[1] that enable the configuration of a new form of accountability. Chapter 3 studies the process through which smartphones and mobile platforms were incorporated into the organisation's PMM routines.[2] Finally, Chapter 4 investigates how external digital platforms can shape an organisation's surveillance practices and influence how individuals within the organisation experience surveillance. I now briefly discuss each of the chapters.

In the first essay (Chapter 2), I examined how accountability is configured in the case organisation, which operates in an increasingly dynamic and unpredictable environment influenced by various digital platforms. Specifically, I draw on the concept of 'fluid organisation' (Schreyögg and Sydow, 2010) to trace practices through which 'fluid

[1] In the first essay, I adopt a practice perspective to "understand a wider and more complex field of organising practices" (Ahrens and Chapman, 2007, p. 22) in relation to the configuration of accountability. This paper defines practices as "organised open-ended spatial temporal manifold of actions" (Schatzki, 2005, p. 471) and focuses on employees' and managers' actions, behaviours and experiences of day-to-day PMM.

[2] In the second essay, I adopt Leonardi's (2011) imbrication framework, influenced by (Giddens, 1984) structuration theory, to focus on understanding how imbrications of human and material agencies produce technologies or routines which may guide future actions. Therefore, in order to clearly distinguish technology and practice routine changes, the second essay follows Leonardi's (2011) definition of routines as "patterns of social action that are often mediated by technology" (Leonardi, 2011, p.151).

accountability' is configured in the case organisation's day-to-day PMM practices. While pre-determined performance measures and a hierarchical structure can help organisations to clearly identify 'who' can be held accountable for 'what' by 'whom' (Zan, 2006), recently organisations' dependency on the transparency of pre-determined performance measures has been criticised for its rigidity (O'Neill, 2002; Roberts, 2009; Strathern, 2000). Furthermore, others have explored how different forms of accountability can emerge and influence organisations from beyond their organisational boundaries. For example, Scott and Orlikowski (2012) investigated a new form of accountability, which they refer to as 'online accountability', by focusing on the interactions among various users of TripAdvisor. However, little is known about the particular practices and internal processes of organisations operating in the increasingly dynamic and unpredictable modern organisational environment (Chenhall and Moers, 2015). To address this blind spot in the literature, I identified three components of accountability from the literature (transparency, disciplinarity, manageability) and traced practices in the case organisation to understand how these three components work differently in the configuration of fluid accountability. My findings demonstrate how, in an organisation which configures accountability in a more fluid form, in order to adapt to the increasingly dynamic and unpredictable organisational environment, it seems that 'anyone' can be held accountable by 'anybody' for 'anything'.

In the second essay (Chapter 3), I analysed the process through which mobile platforms and smartphones became incorporated into the case organisation's PMM routines by drawing on Leonardi's (2011) imbrication framework. Specifically, I analysed how different sets of affordances and constraints, which arose during the smartphone adoption process, acted as building blocks that reconfigured the case organisation's performance measurement routines. This essay aims to contribute to two strands of literature: 1) smartphone and mobile platforms' impact on organisational routines; and 2) PMM change. In the first strand, prior studies have explored how mobile phones (with little or no computing functions) can influence organisational practices (Ferneley and Light, 2008; Sorensen and Pica, 2005; Wajcman and Rose, 2011), and the implications of using mobile consumer devices (such as smartphones and tablet PCs) in workplaces (Harris et al., 2012; Koffer et al., 2015; Weeger and Gewald, 2014). While these studies provide important insights into understanding the potential benefits of utilising mobile devices in the workplace, little is known about the process through which smartphones become introduced and incorporated into organisational

routines. In the other strand, prior studies have highlighted that organisations need to design performance measures and performance management routines to provide strategically relevant performance measures that can highlight different aspects of an organisations' operations (Kaplan and Norton, 1996, 1992; Kloot and Martin, 2000; Otley, 1999). The traditional approach to PMM routine design has been largely top-down, and consequently provided few opportunities for lower-level employees to express their values and beliefs (Chenhall et al., 2014). As a result, it is often difficult for lower-level employees to access or understand the performance measures and the organisation's strategies (Boedker and Chua, 2013; Chenhall et al., 2014). Prior studies have explored different ways of improving the accessibility and understandability of performance measures, such as visualisation of accounting information (Boedker and Chua, 2013) or creating a comfortable informal space for employees to voice their opinions (Chenhall et al., 2014). However, these approaches are still time-consuming as they involve strategic planning and discussion at various levels. There is a lack of research that considers bottom-up changes in PMM routines. In response to this gap, my findings illustrate a bottom-up smartphone adoption process which led to changes in the case organisation's PMM routines. Specifically, the findings highlight the role of improvisation and workarounds (Ciborra, 1996) at the employee level.

In the third essay (Chapter 4), I examine the potential dystopian consequences of the use of digital platforms in the organisation's PMM practices by focusing on surveillance issues. The prior literature has highlighted how different forms of surveillance can emerge within various digital platforms, which in turn influence the organisations' behaviours and practices. For example, Scott and Orlikowski's (2012) study of online accountability in TripAdvisor, demonstrated how synoptic surveillance (i.e., everyone watches everyone) can emerge in the online community. As this form of surveillance emanates from online communities, such as TripAdvisor, or from other social media interactions, it is difficult for organisations to control, even though it can have a significant influence on their performance and reputation (Brivot et al., 2017). Zuboff (2015) examined the surveillance algorithms embedded in Google Search, which monitor usage patterns to provide personalised services, and raised concerns about hidden panoptic surveillance (i.e. one watches the many). She argued that while digital platforms offer greater freedom to search for and consume information, often without any cost, Google's case shows how digital platforms can exercise control over their users' behaviours. While these prior studies provide important insights into how the hidden

surveillance embedded in digital platforms is shaping modern society, little is known about how digital platforms can have moral consequences for user organisations by reconfiguring their surveillance practices. To address this gap in the literature, I drew on the notion of 'liquid surveillance' (Bauman and Lyon, 2012) and Jensen's (2010) 'six demoralising processes' to examine the influence of surveillance, enabled by digital platforms, on the case organisation's existing surveillance practices and on individuals' morality within the organisation. Specifically, the analysis revealed that surveillance enabled by digital platforms can cross organisational boundaries, even against the organisation's will, and influence the organisation's existing surveillance practices, making them more flexible, adaptable and efficient, but can also lead to greater surveillance and in turn desensitise individuals towards the potential consequences of their actions.

Overall, the three empirical studies in this thesis contribute to the digital platforms and accounting literature by improving our understanding of how digital platforms can influence accounting practices. Specifically, each of the three essays complements the others by focusing on different areas in accounting research. The first essay examines the configuration of a fluid form of accountability observed in the case organisation, which operates in a dynamic and unpredictable environment shaped by digital platforms. That essay provides an overview of how digital platforms influenced the case organisation's PMM practices. The second essay then examines the changes in PMM routines and technology in the case organisation. That essay aims to contribute to our understanding of how smartphones and mobile platforms can be introduced and incorporated into an organisation's PMM routines. The final essay examines the moral consequences of employees' and managers' use of digital platforms in their day-to-day PMM practices. The analysis reveals that, while digital platforms can help employees and managers to be more flexible, adaptable and efficient, they can also influence their experience of surveillance and freedom. By looking at the case findings through a critical lens, this essay explores the potential dystopian consequences of digital platforms in the user organisation, which was not explored in the other essays. As such, the three essays in this thesis enable us to gain a more comprehensive understanding of how digital platforms can influence accounting practices.

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Chapter 2: Exploring the Configuration of Fluid Accountability

Abstract

The recent developments in information communication technologies (ICT), such as mobile internet, mobile platform and smartphones, have created a more dynamic and unpredictable organisational environment in which organisations need speed, flexibility and continuous adaptation to survive. Prior research has gone as far as theorising 'fluid organisation' which moves beyond the traditional hierarchical structure to cope with the dynamic and unpredictable environment faced by modern organisations. This paper will look at an organisation in an ongoing process of transformation to becoming a more 'fluid' organisation facilitated by flexible improvisation in accountability practices. This paper first identifies the three components of accountability from the literature (transparency, disciplinarity, manageability) through which accountability is configured. Second, this paper traces the practices observed from the case organisation to build a conceptual model to explain the configuration of 'fluid accountability' and to show how the three components of accountability work differently in the context of a fluid organisation. This in-depth case study highlights how the configuration of accountability in the context of performance measurement and management has changed from being relatively clear about 'who' is holding 'whom' accountable and for 'what', to a more fluid form in which 'anyone' can be held accountable for 'anything' by 'anyone'. This paper contributes to the accountability literature by improving our understanding of how organisations configure fluid accountability in order to adapt to the increasingly dynamic and unpredictable organisational environment.

Keywords: Performance Measurement System, Accountability, Fluid Organisation, Mobile platform, Practices, Smartphones, WhatsApp

2.1. Introduction

This paper aims to improve our understanding of how digital technologies can become incorporated into the practices involved in the configuration of accountability in the context of performance measurement and management. The developments in information communication technologies (ICT), such as social media and mobile ICT, can create a dynamic internal and external organisational environment in which improvisation and continuous adaptation are no longer a choice but a necessity to survive (Chatterjee et al., 2017; Schreyögg and Sydow, 2010). In the increasingly dynamic and unpredictable environment, organisations attempt to move "*from hierarchies to networks, from formal programs and coordination rules to spontaneous interaction, from specialized departments and staff units to improvised processes and temporary project teams, and from vertical lines of command to lateral organization-wide communication"* (Schreyögg and Sydow, 2010, p. 1251), through the use of various ICTs to achieve speed and flexibility in their day-to-day practices. Scholars from various disciplines, such as organisational studies, information system and management accounting, have used the term 'fluid' or 'fluidity' as a metaphor to explain the implications of spontaneous interactions, networked business, bricolage and information infrastructures (e.g., Eisenhardt and Brown 1998; Ciborra 1996; Ahrens and Chapman, 2007; Kenis et al. 2009; Schreyögg and Sydow 2010), but the concept is largely absent from accounting research. This paper draws on the concept of the 'fluid organisation' to explore how the configuration of accountability can have a 'fluid' form to adapt to a dynamic and unpredictable environment.

The traditional configuration of accountability enables organisations to determine 'who' is holding 'whom' accountable for 'what' (Zan, 2006). It is often associated with stable practices, such as, contracts, targets, and performance measures (Sauder and Espenland, 2009), that are used to govern individual action. However, organisations' dependency on the transparency of pre-determined performance measures and structures has been recently criticised for its rigidity (Messner, 2009; Roberts, 2009; Strathern, 2000), as *"transparency must rely on periodic snapshots that capture performance at a moment of time"* (Roberts, 2009, p. 966). Further, the advancement of ICT has enabled the configuration of different forms of accountability. For example, Scott and Orlikowski (2012) show how a new form of accountability emerged through the interactions among various users within TripAdvisor, and they call for research to explore other new and different forms

of accountability. Furthermore, accounting scholars have emphasised the importance of understanding the processes and stories behind the numbers, figures and performance measures (Al-Htaybat and Alberti-Alhtaybat, 2017; Chenhall and Moers, 2015; Quattrone, 2016). Yet, little is known about the particular practices and internal process in the context of organisations operating in an increasingly dynamic and unpredictable modern organisational environment (Chenhall and Moers, 2015). To address this blind spot in the literature, we need to know more about the practices by which organisations achieve fluidity in their performance measurement and management. This paper addresses this gap by tracing the practices through which accountability is configured, in the context of an organisation in which accountability practices are becoming more fluid, by addressing the following research question.

RQ: How are mobile ICTs and digital platforms incorporated into practices involved in the configuration of accountability?

To address this question, this paper draws on an interpretive case study of a performance measurement system in a Vietnamese luxury resort hotel, in which accountability is becoming more fluid as its employees have flexibly introduced a wide range of new performance information enabled by digital platforms, including reviews on TripAdvisor, reactions in social media and pictures, and flexibly adapt internal practices to the continuously changing environment through improvisations. Consequently, the boundary between the case hotel's internal performance measurement and management practices and its external environment has become blurred.

The main contribution of the paper is to improve our understanding of how the components of accountability work differently in the specific context of an organisation in which accountability practices are becoming more fluid through the use of various types of ICT. Specifically, the paper provides a study of how the three components of accountability (transparency, disciplining, manageability – see Figure 1) work together to configure 'fluid accountability': i.e., a form of accountability which is less reliant on the hierarchically designed organisational structure and which can flexibly adapt to the continuously and unpredictably changing environment.

The rest of the paper proceeds as follow: section 2 reviews the key literature related to accountability and organisational fluidity. Section 3 provides an outline of this paper's

research method and analytical approach. Section 4 presents the findings. Section 5 presents the discussion, and section 6 provides conclusions.

2.2. Literature Review and theoretical framing

2.2.1 Configuration of Accountability

Roberts (1991) defined accountability as "a social acknowledgment and an insistence that one's action makes a difference in both self and others" (p.365). His broad notion of accountability is based on the argument that it is one's acknowledgment of action, shaped the by a sense of responsibility, which gives rise to accountability. He also points out that such acknowledgment of responsibility varies based on the individual's position within the organisational hierarchy and the types of performance targets used. Within organisational practice, accountability has been tied to such stable social agreements as contracts, targets, and performance measures, which are used to govern individuals' actions (Miller and Rose, 2008). These stable social agreements help organisations and individuals to construct a more traditional sense of accountability, with "someone" is being held accountable for "something" by "someone else" (Zan, 2006), that often emerges in hierarchical relationships (Sauder and Espenland, 2009).

In the context of the configuration of accountability in performance measurement and management, we can broadly classify prior research into three themes: 1) transparency of performance information; 2) disciplinary effects on individuals or areas identified in the enhanced transparency; and 3) manageability of the performance information to enhance the disciplinary function of performance measures.

First, organisations often rely on sets of structured, predetermined measures that enhance the *transparency* of performance information to configure accountability (Sauder and Espenland, 2009). For example, balanced scorecards (BSC) (Kaplan and Norton 1992, 1993, 1996) provide a coherent performance measurement and management framework that comprises both financial and non-financial performance. By adopting a hierarchical structure, the BSC allows top management to monitor a wider range of performance measures, providing greater transparency and stronger surveillance of employees' actions. The wide range of performance measures is used to better locate which part of organisation is causing a problem and to efficiently conduct training, development, appraisal, and provides feedback to employees (Townley 1993).

Second, the asymmetry of power associated with hierarchically designed performance measures give rise to *disciplinarity* in the configuration of accountability. Sauder and Espenland (2009) argue that the enhanced transparency provided by performance rankings creates a disciplinary effect on the subjects by creating a perception of constant monitoring. The asymmetry of power associated with hierarchically designed performance measures, which often disregards the opinions of members with lower ranks, pressures organisational members to demonstrate accountability by following the norms, such as formal and often quantitative performance measures (Sauder and Espenland 2009).

Third, an important component involved in the configuration of accountability in the context of performance measurement and management are the practices involved in achieving *manageability* of performance information (Kloot and Martin, 2000; Tuomela, 2005). Manageability is crucial in the configuration of accountability as the performance information needs to be efficiently managed to construct audit trails for creating and managing evidence for future disciplinary actions. The traditional hierarchical performance measurement and management structure helps organisations to achieve efficiency in managing identified performance issues by focusing on a relatively small number of strategically relevant performance measures (Chenhall and Moers, 2015). These pre-determined sets of measures provide a systematic framework for turning performance issues into a more structured form and have thereby transformed the meaning of accountability. As Espeland and Sauder, (2007) explain, "where accountability once included many different practices, making institutions accountable now usually means making them 'auditable', which often involves devising indicators to measure performance (p.2)."

2.2.2 Different forms of accountability

The notion of accountability within an organisational context can be complex as there is not only a hierarchical configuration of accountability, which is often grounded in accounting numbers and pre-determined performance measures, but also a more social form of accountability which emerges from face-to-face verbal interactions (Roberts, 1991). Roberts (1991) argues that in social relations between individuals, there is mutual understanding which goes beyond the accounting numbers. As such, socialising interactions make it possible for people to relate to each other informally and provide a more reflexive understanding of what is beyond the imposed targets. This is increasingly important in the

modern organisational environment with its rapid and unexpected changes. For example, information from social media, such as customers' responses, reactions, and reviews, can have a significant impact on the businesses. However, as these types of information are relatively unstructured, they are often open to interpretation.

Prior literature distinguishes between 'narrative accountability' and 'calculative accountability' (Kamuf, 2007; McKernan, 2012; McKernan and McPhail, 2012; Roberts, 1991). This distinction was made to improve our understanding of how an informal, sense-making type of narrative within an organisation can give rise to different types of accountability compared to the more formal, structured, hierarchical form of calculative accountability. 'Calculative accountability' refers to the type of accountability that often relies on 'objective' facts, such as numbers, measurements, and similar types of evidence. In the context of a performance measurement system, calculative accountability is often associated with hierarchical structures where management uses pre-set criteria and rules to monitor and discipline their employees (Roberts 1991). Such criteria are based not only on economic 'facts', usually captured by financial accounting numbers, but also on regulations and laws *imposed* by such regulatory bodies as the government and other standard setters (Baker, 2014). In contrast, 'narrative accountability' is established through face-to-face social interactions and often reflects subjective feelings that are not captured by objective evidence (McKernan, 2012).

While performance measurement and management promote transparency to help the organisation to better understand relationships of accountability, researchers have been raising concerns regarding the transparency view of accountability (Messner, 2009; Roberts, 2009; Strathern, 2000). Strathern (2000) points out that transparency typically 'works backward' from pre-determined relevant categories of information and disregards other relevant information from our personal and local knowledge situated in a different context. She further argues that in practice, the measures often get transformed into target and incentives schemes, which are associated with such measures, and which become managements' motivation for tampering with performance measures. In the same vein, Power's (1999) example of performance audit shows how the transparency achieved by pre-determined performance measures does not necessarily reflect actual performance. Therefore, we need to recognise the limitations of transparency as a form of accountability

"grounded in the continuous acknowledgment of the impossibility of this ideal of a self that is fully transparent to itself and others" (Roberts 2009, p.958).

In light of such critiques of the limitations of transparency as a form of accountability, researchers have called for 'intelligent accountability'. O'Neill (2002) argues that an intelligent form of accountability can be achieved through active self-enquiry, listing, asking questions, and talking through how the pre-determined set of categories or indicators can be understood in specific contexts. Intelligent accountability does not disregard the calculative accountability associated with achieving transparency, but it recognises the benefits of integrating with narrative accountability from social interactions among organisational members (O'Neill, 2002; Roberts, 2009).

This intelligent form of accountability is increasingly becoming more widely discussed with the growing interest in social and environmental concerns (e.g., O'Leary 2017) and the increasingly complex modern organisational settings in which the configuration of accountability is no longer confined within organisational boundaries. For example, Scott and Orlikowski (2012) explored how the 'wisdom of crowds' and 'collective intelligence' produced by online communities can give rise to what they refer to as 'online accountability' outside the organisational boundary. Further, other studies have explored the potential of an adaptive form of accountability (O'Dwyer and Boomsma, 2015; O'Leary, 2017) by focusing on accountability relationship in NGOs. These previous studies provide important knowledge for understanding this form of accountability by exploring the role of individuals' value and ethics in aligning calculative (imposed) and narrative (felt) accountability (e.g., Roberts, 2009; O'Dwyer and Boomsma, 2015; O'leary 2017). However, there is a paucity of research exploring how intelligent accountability can be achieved through improvisations and spontaneous interactions in fluid organisations, which operate in a dynamic and unpredictable environment.

2.2.3 Accountability in Fluid Organisations

The concept of a 'fluid organisation' is becoming increasingly significant in making sense of the multiple dynamic possibilities of organizing which have been created by the rapid advance of ICT (Chatterjee et al., 2017; Schreyögg and Sydow, 2010). Similarly, digital artefacts, such as images, films, videos, and files can have a fluid nature, as they are often editable and embedded in complex, distributed, and shifting digital environments (Kallinikos

et al. 2013, p.358). These artefacts create continuous, rapid, and unpredictable changes in both the internal and external environments in which organisations face new sets of challenges (Schreyögg and Sydow, 2010). These artefacts can potentially be used to identify new performance issues for the configuration of accountability. For example, Pritchard and Symon (2014) examined how a mobile platform can help rail engineering operational management to achieve flexibility and efficiency by using smartphone photography. Their findings highlight how managers are able to keep better track of day-to-day progress by looking at the pictures of the site in addition to periodically gathered progress reports. Although they do not specifically draw on accountability issues, their study offers insights into understanding how smartphone pictures can help managers gain more detailed understanding of the contexts, without face-to-face social interaction.

Mobile ICTs such as, smartphones and associated mobile operating systems (such as iOS or Android and their app markets), have contributed to greater flexibility in the workplace by enabling a mobile working environment in which workers are no longer restricted by their physical locations (Chatterjee et al., 2017).

To survive and succeed in such rapidly changing environments, organisations need to "adjust fluidly to the unanticipated situation" (Grabowski and Roberts 1999, p.707). Chatterjee et al. (2017) argue that mobile ICT facilitates a mobile working environment which can enable flexible organising in which employees are less bounded by their physical location or working spaces as well as the types of accessible information. The mobile workforce enabled by mobile ICT are argued to have greater freedom, which in turn leads to the 'empowerment' of workers and more autonomous practices. Mobile ICTs, such as smartphones, not only provide a mobile computing environment (Tilson et al., 2012), but also "more flexible and less structured hierarchical forms" of organisation (Zammuto et al., 2007, p. 752), to meet the challenges of the increasingly unpredictable business environment. Mobile ICTs help organisations to create a virtual workspace where face-to-face contact is not essential to mediate communication between different group of people. In the virtual working environment, communications take place through documents, messages, and images (Kallinikos et al., 2013).

Advances in technology have increased the complexity of business processes and led to changes in the configuration of accountability. More specifically, digital platforms[3] have given rise to less structured forms of accountability, relying on online social interaction among service users. Scott and Orlikowski (2012) examined the relations of accountability in social media in the travel sector (TripAdvisor) by analysing the complex relationships among hotels, users, and the TripAdvisor platform's ranking mechanisms. Their findings highlight forms of accountability which can emerge without strategically designed organisational control systems and argue that the perceived wisdom of the crowd can emerge from large volumes of online reviews and user participation and thereby create what they call 'online accountability'. In this accountability relationship, employees and hotels are accountable for their actions to a group of individuals who may (or may not) have consumed the services. Their study shows how conversations taking place in an online community can configure accountability relationships and influence organisations from outside organisational boundaries.

For organisations adopting modern ICT and digital platforms, evidence to identify performance issues can be found outside organisational boundaries, such as online forums, social media, and blogs. Further, as shown in Scott and Orlikowksi's (2012) study, collective individuals in online communities can monitor and influence organisations' behaviours from outside the organisational boundaries. Therefore, the new forms of accountability configured by relying on such evidence can differ from the previous ones in two main areas: 1) they often do not require objective evidence or face-to-face social interactions and 2) are not confined within the organisational boundaries. It is important to note that advances in technologies is reducing the organisations' ability to control information and consequently blurring the boundaries between organisational practice and the environment (Schreyögg and Sydow, 2010). Further, the evidence collected is not necessarily reliable, objective, or even truthful, as it often relies on individuals' standards, judgements, and opinions (Brivot et al., 2017). Therefore, following Schreyögg and Sydow (2010), this paper argues that for a fluid configuration of accountability in the context of the performance measurement

[3] Digital platforms can be defined as double or multi-sided markets that blur the distinction between service/content providers and consumers by enabling active value-creating transactions between them (Parker et al., 2016). Popular examples include social networking services (e.g., Facebook), multi-sided market (e.g., eBay, Airbnb), and mobile platforms (e.g., iPhone and iOS, Android).

system, organisations still require guidance from a frame of reference from past learning, experience, and standards.

In accounting research, Ahrens and Chapman (2007) examine management control from a practice perspective and extend our understanding of management control practices that brings out fluidity and variety in the day-to-day management of a restaurant division. More recently, Chenhall and Moers (2015) examined how performance measurement systems became integrated with a management control system in pursuit of a dynamic, complex and open approach to management control that can continuously adapt to an increasingly complex and unpredictable environment. These two papers used the term 'fluid' to emphasise the importance of a flexible and adaptive approach to management control, but they do not explicitly explore how internal practices can be less structured and less restricted by organisational boundaries. Further, while the importance of fluid practice has been raised, there is still limited research exploring fluid practices in the context of the configuration of accountability.

To summarise, the extant accountability literature has proposed different forms of accountability that can better reflect the dynamic and unpredictable environment. There are two strands of literature that take different perspectives in understanding alternative forms of accountability. The first strand of literature (O'Dwyer and Boomsma, 2015; O'Leary, 2017; O'Neill, 2002; Roberts, 2009) distinguishes calculative and narrative accountability to emphasise the importance of self-enquiry and having conversations about the imposed targets to gain a deeper understanding of the continuously changing context. The second strand (Pritchard and Symon, 2014; Scott and Orlikowski, 2012) explores how accountability can be configured outside a more traditional organisational structure, such as the pre-determined performance measures and the boundaries between the external environment and internal practices. While this extant literature points out the potential of alternative forms of accountability, there is still a limited number of studies that explores the practices through which organisations can configure accountability to cope with the dynamic and unpredictable organisational environment. Therefore, in order to understand the practices through which 'fluid accountability' is configured in such organisations, it is important to explore the practices that enable them to 1) align calculative and narrative forms of accountability to better understand the continuously changing context, and 2) move

beyond the hierarchically designed organisational structure to achieve flexibility and adaptability in their practices.

2.2.4 Conceptual Model

Digital platforms and other advanced digital technologies provided modern organisations with sets of tools which can be used to change the way in which performance is measured (Arnaboldi et al., 2017b; Moll and Yigitbasioglu, 2019). However, the 'data' created by digital platforms and technologies cannot be used neutrally in decision making as it is already influenced by politics, biases and epistemological limitations – see Quattrone (2016). Therefore, instead of focusing on how digital platforms can facilitate new performance measures to achieve better transparency, this paper explores how digital platforms and technologies can influence the processes and practices involved in the configuration of accountability.

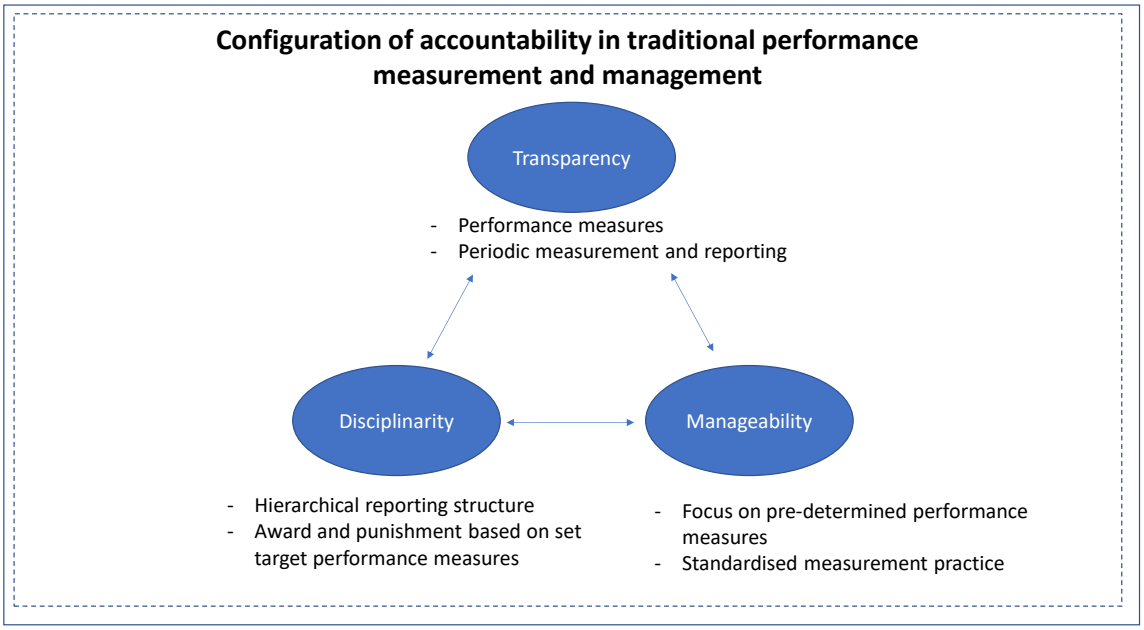

Figure 1: Configuration of accountability in the context of organisations' performance measurement and management

Figure 1 provides a conceptual model which depicts the components of accountability previously discussed in the context of more traditional performance measurement and management following hierarchical structures (see section 2.1 above). Each component of accountability represents a set of practices involved in achieving: 1) transparency of

performance information; 2) disciplinary effects on individuals; and 3) manageability of the performance information. This model formed the theoretical starting point for this paper's inquiry and provided guidance for exploring the empirical data and understanding how these components work differently in the context of our case organisation.

2.3. Research Methods

This research is based on a three-year (2014-2017) interpretive case study (Ryan et al., 2002b) of a luxury resort hotel (IR) located in Da Nang, Vietnam. During the three years of the observation, there were a number of changes made with IR's use of mobile platform, including the introduction of mobile internet (3G and 4G networks), employees' use of smartphones, and incorporation of TripAdvisor into performance measurement and management practices. Therefore, this case offered an ideal opportunity for us to see how mobile platforms enabled the configuration of accountability to become more flexible and adaptable.

The research method was an interpretive case study conducted over three years, covering July 2014 to Many 2017. It involved three cycles of data collection (2 weeks in July 2014, 2 weeks in August 2016, and 3 weeks in April 2017) for the formation and refinement of findings regarding the process of day-to-day performance measurement and management in IR which incorporates mobile platforms and smartphones. I conducted 45 semi-structured interviews with 34 informants within the case organisation. Each interview lasted between 20 to 160 minutes (40 minutes per interview on average). In the first and second phase, I formed an overall view of the processes involved in day-to-day performance measurement and management from the stories of the interviewees, observed events, and employee demonstrations. These stories focussed on particular events and actions involving individual and organisational use of mobile platforms and smartphones in performance measurement and management. Table 1 provides an overview of interviewees. In addition to the interviews with the informants from the case organisation, I also conducted 8 interviews with 5 interviewees from three different hotels during the first phase of case study to gain a general understanding of the industry.

Table 1: Overview of interviewees			
Department	**Phase 1**	**Phase 2**	**Phase 3**
Management (6 interviewees)	Resort manager (former)	General manager	General manager Personal assistant Resort assistant managers (3)
Guest relations and services (14 interviewees)		Director Manager Employee	Directors (2) Managers (2) Assistant managers (2) Supervisors (3) Employees (3) Interns (2)
Quality-consistent improvement (QCI) (2 interviewees)		Director	Director Hygiene and safety manager
Human resources (5 interviewees)			Director Manager Employees (3)
Accounting (2 interviewee)		Director Manager	
IT (2 interviewees)		Director	Manager
Owner (VD) (3 interviewees)		Operations director Marketing director	Supervisor
No. of Interviews	**3**	**14**	**28**

In the third phase, I adopted the ethnographic field research technique to gain rich insights into the social activities and context of the day-to-day performance measurement and management practice involving the use of mobile platforms and smartphones. I spent three weeks (April to May 2017) shadowing three departments involved in day-to-day performance measurement and management.

During the ethnographic fieldwork, I kept a diary to record my daily experience as well as pictures and videos to record the context in which the observed practices and events took place. I observed the case organisation's monthly performance review meetings, daily announcements, quarterly internal service standard audits, and shadowed employees and managers to observe how they cope with emerging performance issues via their smartphones and apps, as well as information from various sources outside the pre-determined performance measures. Additionally, I stayed near the employee residential areas and

commuted to the research site by the employee shuttle bus. This process helped me to become personally immersed in the context which the staff experience. Extensive notes were taken after each interaction and observations along with illustrations of the scene and the context. This data collection approach helped me collect rich data in the form of stories which I could use to search for practices involved in the configuration of fluid accountability.

To understand the practices through which fluid accountability is configured, this paper adopts a practice perspective and focuses on individuals' activities, behaviours, and experiences of day-to-day performance measurement and management. Schatzki (2005, p.471) defines practices as "organised open-ended spatial temporal manifold of actions". By focusing on the practices, this paper aims to to "understand a wider and more complex field of organising practices" (Ahrens and Chapman, 2007, p 22), in the context of an organisation in which accountability practices are becoming more fluid. The notion of fluidity was not selected a priori but was used to re-analyse the data to understand how accountability is configured through transparency, disciplinarity, and manageability practices in the context of the case organisation.

2.3.1 Analytical Approach

With the configuration of accountability in focus, I started to examine patterns from the recurring accountability practices involving the use of mobile platforms. Following the Smets et al. (2015) approach to the study of practices, this paper explores the sets of practices at play as employees at the case organisation use smartphones, a wide range of performance information from various sources, and mobile platforms to configure accountability during their day-to-day practices to deal with the dynamic and unpredictable organisational environment.

In tracing practices that influence the components of accoutnability, this paper follows an abductive approach that entails a reflective process of engaging theoretical insights with the empirical findings (Smets et al., 2015; Strauss and Corbin, 1998). As this paper focuses on understanding the configuration of accountability, a well-discussed topic in the accounting literature, this paper adopts the abductive approach in tracing the practices through which the case organisation achive fluidity in the configuration of accountability, which I now explain.

To trace the practices behind the configuration of fluid accountability, I followed Smets et al., (2015) and started with an inductive approach to develop the empirical puzzle from the empirical data, which was then categorised and reflected back to theory to explain the research question (Golden-Biddle and Locke, 2007; Strauss and Corbin, 1998). This reflective process helped me to generate new theoretical insights from the interplay between the narratives of events and the literature. Similarly, this paper's analytical approach was a reflective process of engaging with multiple theories to generate new theoretical insights interactively from the interplay between tracing practices involved in the configuration of 'fluid accountability' and the accountability literature, which is explained in the remainder of this section.

One of the empirical puzzles that fascinated me arose from the accountability relationship emerging via the active conversations among the case organiastion's employees' within their WhatsApp group chatrooms. The employees' use of their smartphones and WhatsApp group chatrooms enabled continuous, simultaneous and horizontal communication among employees and managers from various departments which were previously not possible. It was observed that the employees were using different information, such as their own observations, pictures they took or collected from social media, to start a conversation about their current service performance that was not pre-determined by the formal performance measurement and management to configure accountability among themselves. As a result, the case organisation's configuration of accountability in the day-to-day performance management practices were dynamic, flexible and continuously changing in the sense that the evidence they used (such as pictures taken by employees or information taken from social media), the person collecting the evidence and how they communicate this evidence, was different each time. These less structured practices seemed fascinating as they reduced employees' dependence on the case organisation's existing hierarchical performance management system which consisted of ten key performance indicators (five financial and five non-financial measures). I gradually moved from inductive to abductive theorising to explain this observation of fluid accountabiltiy. After some iterations, I began to explore the configuration and reconfiguration of accountability relationship in the dynamic and flexible organisational environment by drawing on organisational fluidity as a theoretical framework.

Drawing from the list of practices generated during the fieldwork, I pursued two strands of analysis. In the first strand, the practices were classified and recorded in terms such as 'day-

to-day performance management practice', 'taking pictures of facilities', 'using smartphones', 'posting on group chatrooms', 'conversing with peers over lunch', 'providing introduction for guests'. The practices were then clustered into broader thematic categories (first-order theme), such as 'performance data collection', 'horizontal communication', or 'peer monitoring'. As the type of employees (e.g., interns, employees, supervisor, directors, etc.) seem pertinent, I layered the employee ranks' categories across the practice themes. For example, once I realised that the day-to-day performance data (e.g., pictures of the facilities, social media comments) was collected bottom-up, I clustered the category as 'improvised bottom-up data collection'. Likewise, the practices associated with managing collected data were clustered, such as 'standardisation of collected data' and 'linking multiple computing devices'.

In the other strand, the emergent classification of the observed practices that enacted the configuration of fluid accountability in IR's day-to-day performance measurement and management were closely compared with the theoretical framing. To do so, the above-listed practices were compared against the theoretical ideas of accountability, and organisational fluidity. For example, practices such as 'improvised bottom-up data collection', 'constant access to data' and 'horizontal communication' resonated with the use of mobile platforms to characterise the organisation's practices used to enhance the transparency of information. Other practices, such as 'peer monitoring', 'continuous reminder of performance expectation', and 'award by inclusion' reflected the organization's disciplinary practices. This step, therefore, allowed me to underpin such different practices with the three components of accountability. This process helped me explore how these observed practices influence the components of accountability and enable the configuration of 'fluid accountability'. Table 2 provides a summary of this paper's analytical approach.

Having identified the sets of practices associated with the components of accountability in the case organisation, I abstracted further by arranging those clustered practices that drive the causal relationship into second-order themes by referring back to the accountability literature. I took the components of accounatility, transparency, disciplinarity, and manageability, as the second-order theme of the updated conceptual model to explain the configuration of 'fluid accountability' in the context of performance measurement and management of the case organisation.

After identifying the practices associated with the three components of accountability, the relationships between each component was analysed to understand how fluid accountability is configured through the theoretical insights reviewed from the literature. Specifically, I began to theorise the relationship by referring back to the fieldnotes using the lens of the analytical concepts explained above and examined how these practices came together in specific instances. The analysis revealed that the three components support each other in the configuration of accountability for day-to-day performance measurement and management. Further, the analysis shows that the relationships of the three components of accountability in the context of the case organisation works differently to the relationships shown in Figure 1. These findings provided the basis for this paper's conceptual framework, which is discussed in the following findings and discussion sections of this paper.

Table 2:Summary of the analytical appoach		
Stages	**Tasks**	**Outputs**
1. Identify the components of accountabiltiy	1. Review the prior literature on performance measurement and management and accountability 2. Review different forms of accountabiltiy 3. Identified three components of accountability (Transparency, disciplinarity, and manageability).	Conceptual model to understand configuration of accountability in hiereachical organisations (Figure 1)
2. Construct case narrative	1. Identify and categorise observed performance measurement and management practices by focusing on employees use of smartphones and mobile platforms in configuration of accountability. 2. Re-categorise the sets of practices based on the actor who enacted those practices. 3. Reflected the sets of practices (from step 2 above) with the theoretical insights from accountability and fluid organisation literature.	Sets of practices enacting the three components of accountability in the case organisation
3. Generate conceptual model	1. Build on findings emerging from Stage 2 to examine how each practices of components of accountability work together in the configuration of fluid accountability. 2. Iteratively compared the emerging conceptual model with evidence from the case study, prior literature on accountability and fluid organisation to answer the research question: How is accountability configured in a fluid organisation? 3. Compare the newly generated conceptual model with the previous one (Figure 1) to analyse how the configuration of accountability in fluid organsation differs from accountability in hierarchical organisation.	Conceptual model explaining the practices and components involved in the configuration of 'fluid accountability' (Figure 5)

2.3.2 Case description

This paper's case study organisation is a luxury resort hotel, IR, located in Da Nang, Vietnam. IR is owned by a Vietnamese hospitality and tourism developer (VD), but managed by an international hotel chain (MIG). IR opened in 2012 with the aim to be the best luxurious hotel resort in Asia. The resort was initially developed with a specific strategic focus for both the VD and MIG, due to its strategically important geographic location and growth potential. For VD, it is an opportunity to establish itself as an internationally successful hotel and resort developer, and for MIG, it is an opportunity to gain the prestigious title as the management of the world's most luxurious hotel resort. The interviews with the resort manager in the first round of field work revealed that IR's management started to use these systems to convey to employees the organisational goals and values, namely to provide the best possible luxurious service. Therefore, their primary goal was not to maximise revenue from day one, but to create a prestige and unique resort that will become a phenomenon of Asia. In order to achieve their goal, the management team from MIG brought in a number of established and tested performance measurement and management systems, including HeartBeat (service performance measurement system), and Winning Metrics (10 key performance indicators (KPIs) that comprise both financial and non-financial performance measures). While these 10 KPIs have not changed, IR has experienced some changes in the way these KPIs are measured. In late 2015, MIG engaged in a partnership with Medallia, which provides performance measurement services for hotels, and outsourced survey analysis. Furthermore, this new partnership with Medallia offered multi-platform applications through which managers can access internal performance rankings and scores on different computing devices, such as PCs, smartphones and tablets. However, these changes did not influence IR's daily performance measurement and management practices until later.

By 2017, IR's average room rate had increased to over $500 per night from $150 in 2013. This is evidence that IR had become more confident with the level of service quality, but on the other hand, by increasing the room rate, IR also increased the guests' service expectation and the pressures on employees to deliver internationally accepted luxury service. In order to achieve this, they implemented a Quality Continuous Improvement approach and Root Cause analysis in its performance management.

IR has individual lodges scattered across several acres of the beach. Due to the distance and the hot sunny weather, the hotel offers transportation via golf carts. In early 2016, in an attempt to resolve one of the most common complaints relating to the coordination of golf cart services, IR experimented with communication methods by reallocating radio frequencies to be used only by golf cart drivers. This change in practice led to other operational employees using mobile platforms (i.e., their personal smartphones and mobile apps) to communicate with each other. Prior to this event, the use of smartphones was prohibited for employees during working hours, which is an industry norm for a luxury resort hotel that aims for the highest possible service quality. However, interestingly, such unconventional use of personal mobile devices during the working hours has led IR's service performance measurement and management being more flexible and efficient.

This research examined how mobile platforms have shaped the configuration of accountability in IR's performance measurement and management. The analysis yielded several recursive patterns in how the configuration of accountability became more flexible, emergent and adaptable to the quickly changing environment. In what follows, this paper elaborates these patterns in the form of three components of accountability, transparency, disciplinarity and manageability, that were reconfigured by the active use of mobile platforms in day to day performance measurement and management.

2.4. Findings

This section presents and discusses the case study of IR. Specifically, it focuses on the practices which utilise mobile platforms to enhance the flexibility and adaptability of IR's configuration of accountability in its day-to-day performance measurement and management. The findings highlight how the three components of accountability, transparency, disciplinarity and manageability, are reconfigured by the introduction of smartphones, mobile technology (WiFi, Broadband signals), and mobile applications (apps), which enable the configuration of a more fluid form of accountability. It was observed that IR's employees improvised in using their personal smartphones, which in turn created sets of practices that enhanced transparency of performance issues. The use of smartphones enabled employees to improvise and explore different applications, such as messenger apps (e.g., WhatsApp), a performance management app (Medallia) and social media (TripAdvisor, Instagram). This has resulted in the creation of a fluid configuration of accountability and a fluid performance measurement and management system in which different types of performance information are used to identify emerging performance issues through employees' improvisation. Table 3 explains the components of accountability through which fluid accountability is configured and the sets of practices which comprise these components.

Table 3: Summary of the components and practices through which fluid accountability is configured		
Components	**Definition**	**Practices**
Transparency	Practices by which mobile platforms facilitate the accessibility of data used for performance measurement and active communication between different levels of employees.	**Improvised bottom-up data collection:** The activities enacted by managers and employees utilising performance data from various sources such as social media, booking intermediaries, travel forums and pictures taken by employees to measure the most recent service performance. **Constant access to data:** The utilisation of smartphones allows employees and managers to have constant access to performance data from various sources (internal report, social media, etc.) for more timely decision making. **Horizontal communication:** The use of WhatsApp group chatrooms, which consist of various employees from the top management to interns, to enact timely and flatter reporting practices.
Disciplinarity	Practices by which mobile platforms reduce the need for the physical presence of managers in the monitoring of employees and encourage self-monitoring behaviour.	**Peer monitoring:** The activities that employees enact by utilising apps such as Medallia, WhatsApp, and other social media, to evaluate their peers' and their performance. **Continuous reminders of performance expectation:** The immediate notifications reminding employees what is expected by the customers/guests based on formal and informal guidelines. **Reward by inclusion:** The activities enrolling employees into workgroups, such as project teams, and WhatsApp group chatrooms, to signal their importance in the process of creating better performance.
Manageability	Practices by which shared performance data is processed and stored for more formal performance analysis and future reference.	**Link multiple computing devices:** The immediate changes undertaken by multiple computing devices supported by cloud data storage to update and access the same set of information effortlessly. **Standardised collected data:** The activities of sorting a wider pool of less-structured data for later formal analysis of performance and identification of problem areas.

2.4.1 Transparency

The data analysis revealed practices that enhance the transparency of performance data through the flexibility of these practices. These practices are grouped under the transparency component in the configuration of fluid accountability. The starting point of such fluid accountability was the vast amount of data captured from various sources; via internal sources (IR's own performance surveys, daily logs completed by the managers, guest call logs), as well as data from external sources (TripAdvisor, social media, pictures posted online). Some of this data comes from company systems, such as the formal performance report and internally designed guest surveys, but much of the externally generated performance data collection practices were developed in a series of improvisations during day-to-day operations. These improvised practices were facilitated by the employees' flexible use of their personal smartphones to enhance their daily tasks, and were encouraged by top management, but controlled by shared organisational goals and values of providing the best service and experience for the guests. I grouped these improvised practices based on their recurrent patterns and named them: Improvised bottom-up data collection, constant access to data and flatter communication.

2.4.1.1. Improvised bottom-up data collection

New practices to achieve more timely and responsive performance measurement and management emerged without strategic planning when IR's employees begun to use a messenger app (WhatsApp) on their personal smartphones to communicate among each other and to complete their daily tasks. Employees created various group chatrooms with other employees from different departments and used WhatsApp to communicate with their teams more efficiently. They not only shared the updates on their daily tasks, such as helping guests with check-in and check-out processes, escorting guests with special needs, and general observation of the facility status, but also started to share their observations on service performance. For example, during the ethnographic fieldwork, it was observed that one of the guest relations employees took pictures of the cobblestone paving on a pedestrian road that might cause people to trip because there are steps that are not very visible at a quick glance. The picture was taken to indicate the health and safety risk, as it could potentially cause accidents at night. These pictures (Figures 2 and 3) were immediately shared on

several WhatsApp group chatrooms that include employees with different types of responsibilities ranging from interns to the top management.

Figure 2: Pedestrian paving, showing how difficult the steps are to see from this angle

Figure 3: Pedestrian paving from the other side

These pictures started a conversation among various employees related to potential ways to fix this problem cost-effectively and without changing the design theme. Shortly after this picture was shared, a slippery paving warning sign was placed as a tempory solution.

One of the interns provided another example of employees collecting data to identify their current performance issue:

> *On our way to assist new guests with their check-in, we saw a broken lamp on the way to guest rooms. One of the employees took pictures of this on the way back and shared it on our group chat room and asked if this was spotted during the morning*

maintenance. We found that no one was aware of this, and we knew that something needed to be done to prevent this from happening

This discovery of a broken lamp and the picture, shared by the employees, not only led to the timely repair of the broken facility, but also started an investigation of the maintenance and cleaning department's daily practices. The above examples illustrate how the use of smartphones can enhance mobility and connectivity in the performance measurement process. The use of smartphones made it easier for new performance issues to be identified by pictures or videos taken by the employees and pictures posted by the guests on social media, to be shared more efficiently. In contrast to the previous method of performance measurement, in which employees relied on management's formal performance report, employees are now utilising their smartphones and WhatsApp to exchange views on their current performance by using various forms of data. This practice has allowed IR to avoid potential guest dissatisfaction as the enhanced transparency and continuously updated event status encourages discussion about current performance and ways to improve it even further.

2.4.1.2. Constant access to data

The use of smartphones and WhatsApp enhanced not only the data collection process but also the way the employees access the data. For example, previously when the employees were not allowed to carry their smartphones during working hours, reviews on TripAdvisor were accessed mainly in two ways. First, through the formal service performance report in which reviews and comments on social media were processed by analytics software, Medallia. Second, through the printed copy of reviews on TripAdvisor, which were placed in an album in the front of the employees' canteen (Figure 4). The purpose of this album was to encourage the employees to understand their performance from the guests' perspective.

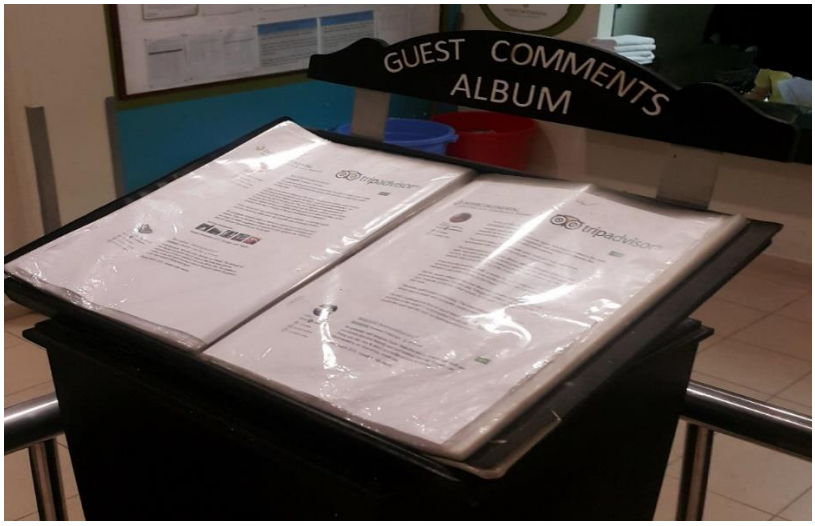

Figure 4: summary of reviews on TripAdvisor

This album was not very popular among the employees due to its limited accessibility and infrequent updates and during the fieldwork observation no one was ever seen reading it. When the use of smartphones during working hours became the norm for operational employees, this album quickly became obsolete.

Use of smartphones allowed employees to, not only stay connected with each other, but also to access external sources of relevant information. For example, during one of the interviews with a guest relations employee, the interviewee received an alert on his phone about a negative review that was just posted on TripAdvisor. He then proceeded to check which guest had written this review and if he/she was still at the site by contacting other employees in one of the group chatrooms. It was soon discovered that the guest was still staying in the hotel. They then shared the guests' room number and a summary of the review on the group chatrooms and reminded employees from different departments to pay extra attention to this guest. As this employee described, the performance report app (Medallia) allows them to create a notification alert on their phone for any relevant updates on social media, booking intermediaries, or internally conducted surveys. The interviewee stated:

> *It is important for us to get such information quickly because now we have a chance to make this guest happier…. In order to do my job better, I feel that it is necessary to know how our guests think of us at all times. I created an alert for TripAdvisor reviews and Medallia because they get frequently updated and I think they are most relevant….*

When I find something interesting like someone's name was mentioned on TripAdvisor, I share it with others on our [WhatsApp] messenger group to keep us motivated.

The above example illustrates how the use of smartphones and mobile platforms change the way employees' access and act on different types of performance information. This is in contrast to the previous way of accessing service performance reviews, which was relatively slow and often outdated and, the use of smartphones enabled constant access to information for the employees. This new practice has resulted in more information being shared by a wider group of employees. Moreover, as the various smartphone apps, such as TripAdvisor, WhatsApp and Medallia apps, have allowed the employees to access the same information in multiple different computing devices (e.g., smartphones, tablets, and PCs), the performance information has become more easily accessible. The use of smartphones and apps have allowed employees and managers to keep a more detailed record of the events taking place during the day to complete the daily event logs for formal reporting. This has resulted in greater transparency of performance information and an improvement in IR's daily service performance management.

2.4.1.3. Horizontal communication

Prior to the use of smartphones, the communication of performance measures and reports had a hierarchical structure. Most of the service performance measures were handed down to the employees by the managers from each department during regular briefings and meetings. This previous practice delayed employees' access to relevant performance information and the decision-making processes. Moreover, because employees were required to follow the formal reporting procedures, when they discovered any issues during their shift, the employees and managers were unable to achieve timely performance management.

The use of WhatsApp that was freely available on employees' smartphones has enhanced connectedness and mobility in their communications. This new practice has increased the speed of communication among different groups of employees and with different levels of responsibility. For example, there are various WhatsApp group chatrooms that consist of a wide range of employees from interns to managers and the general manager of the resort. WhatsApp has allowed employees and managers to create these group chatrooms, which in turn has removed some barriers to communication between different groups. For example,

during the ethnographic fieldwork, there was a car accident on the site that involved a delivery truck tipping over and destroying the stone walls along the road. Because the accident took place on one of the main roads connecting the resort to the city centre, it created inconvenience to guests who were coming for check-in and for those who wanted to get to the city centre. The potential significance of this event was communicated quickly and effectively to all relevant employees on shift through the WhatsApp group chatrooms.

> *We received a message on the group chat [WhatsApp group chatrooms] saying that there was an accident with a truck. I thought it was not a big deal. Then, one of the employees sent us this picture (picture of the broken stone walls and a truck tipped over) and it looked very serious… everyone became aware of this and we all knew what needed to be done. My team knew what questions to expect from the guests, maintenance knew that this was now their priority. They did not have to ask the general manager for his permission because we all saw what happened and it looked serious.* (Director of Guest Relations)

The use of the group chatrooms and the use of pictures effectively communicated the seriousness of the event to the various groups. Employees who discovered the problem were able to communicate their observation directly to their directors, employees from different departments, and the general manager without having to go through the formal reporting process. The presence of the directors and general manager in the WhatsApp group chatrooms has allowed them to monitor the events as they were happening and approve any necessary actions suggested by the employees even while they were absent from the site. As a result, this accident did not lead to other issues such as traffic congestion within the site and guest relation employees were able to notify the taxi drivers to use the different route to avoid the scene.

This example illustrates how the use of smartphones and the WhatsApp group chatrooms has improved the accessibility of service performance information by enabling continuous and simultaneous communication among employees. Such use of the WhatsApp group chatrooms provides mobile notice boards that are continuously updated by a wide range of employees who are all connected by the mobile internet. As opposed to the previous system, in which the service performance information was shared by the managers at the beginning of each shift, such enhanced connectivity has accelerated the process of achieving

transparency of service performance information in IR. As more employees have simultaneous access to performance relevant information, they can think of potential solutions outside the boundaries of their responsibility and standard practices. For example, the guest relation employees were able to make their own decision to notify taxi drivers directly, and the maintenance department head was able to immediately reprioritise his employees' daily tasks.

2.4.2. Disciplinarity

The findings revealed three sets of practices in IR that help create a more responsive and adaptive form of disciplinarity. The starting point for these new disciplinary practices was the enhanced transparency of performance information, which allowed a wider group of employees to keep track of current service performance in IR. The better accessibility of performance information, provided by mobile platforms, has led to a new organisational environment in which employees are encouraged to speak up and share their opinions. I grouped the observed practices into three recurrent patterns and named them: *peer monitoring, a continuous reminder of performance expectation and award by inclusions.*

2.4.2.1. Peer monitoring

As previously discussed, the use of smartphones and various apps in IR has resulted in better accessibility and sharing of performance information among various groups of employees, i.e., they have enhanced transparency. This enhanced transparency of performance information has resulted in a notable change in IR's disciplinary practices. During the ethnographic fieldwork, it was observed that many employees had downloaded the Medallia app, which provides a simple graph that represents each department's ranking and performance against IR's peers within MIG, to keep track of their department's performance. Some employees were actively using the Medallia app, and they were sharing any interesting information on the app, such as their department's ranking changes:

> *Some of our employees are using this [Medallia] like a game. They get excited when their department outperforms other hotels in the group and share it with other employees to celebrate… sometimes my employees tell me how we performed before even I get to find out.* (Director of guest relations)

The use of Medallia is only mandatory for guest relations employees who directly interact with guests and those at a management level, but it is optional for employees in other departments, such as food and beverage, entertainment and spa. However, as more employees have started to carry their smartphones during working hours, and the use of the WhatsApp group chatrooms has become the norm, more employees have become aware of the existence of the Medallia app. This has allowed employees to monitor their own performance without having to wait for feedback from their supervisors and managers.

Moreover, in order to keep the department's ranking high, they have begun to monitor each other's performance and to handle issues before they escalate. As described by one of the interviewees, *"it is better to deal with the problem now before it gets escalated'.* He pointed out that many employees would rather share their opinions on each other's performance, or mistakes when they see them, because when the problem is solved, they will not be penalised.

> *Anyone can share their observation on our groupchat and they are not afraid of speaking up because they know it is the right thing to do and what directors would do… things can happen in the resort and sometimes it is somebody's fault, or sometimes it is nobody's fault, but it affects the whole resort… when something big happens, we keep ourselves updated to make sure that we are doing everything we can.* (Guest relations employee)

These examples suggest that the more mobile and connected performance information has removed, to some extent, the need for previous disciplinary practices. The use of WhatsApp and Medallia apps has provided better transparency of performance information, which is now more mobile, connected (frequently updated against IR's peers) and accessible to IR's employees. As employees can see the more immediate outcomes of their performance (such as updates on problems being solved and their department's ranking on Medallia), it encourages them to monitor their own and each other's performance and to work together towards their shared goals of providing the best service and making sure no guests are leaving the hotel unhappy.

2.4.2.2. Constinuous reminders of performance expectations

The use of smartphones has brought a new way for employees in different positions of responsibility and departments to communicate and report their findings to each other.

Previously, due to differences in their locations, it was difficult for employees to communicate with other departments' employees and/or the directors and general manager. This had been causing delays in daily decision-making because, previously, if one employee wanted to report an issue to another department, she/he had to go through a formal reporting process. One of the interviewees provided an example to illustrate this issue:

> *[A] few years ago, there was an incident when we accidentally mixed [up a] check-in guest's luggage with the check-out guest's luggage… it was a kind of problem that involves more than one department… but the luggage had already left the site. When we [front desk] found out and reported to the guest relations department, the employees did not have [the] authority or experience to deal with this problem. We had to wait for managers to respond…it was too late, and the check-out guest had already traveled to Hong Kong with the wrong luggage… it took us a few days to retrieve the luggage and it was a nightmare.* (Concierge Manager)

Even though they had employees who were at the airport to help VIP guests with arrival and departure, the delayed communication and slow decision-making process caused IR to fail to contact those employees in time to retrieve the luggage before it left the country.

However, because of the use of smartphones and the effective mobile network coverage around the site, employees were able to stay connected and talk to each other regardless of their location. As a result, the current performance became more transparent to a wider group of employees. This has resulted in some employees and managers sharing examples of good and bad performance using pictures with short descriptions. One of the guest relations employees provided an example:

> *There was a large group of tourists at check-in, and some of the luggage was already broken. We arranged all the luggage and took a picture of the broken ones and shared it in our group chat… because we did not break these bags, we were not responsible, but others needed to know that there are some unhappy guests in the group.*

By sharing a picture of broken luggage, they were able to protect themselves from financial penalties and possible disciplinary actions for something they were not responsible for. In addition to the picture of broken luggage, this employee also provided a picture of all the other luggage lined up and grouped according to the location of the guests' rooms. These

two pictures were then picked up by managers to remind them of what is expected in a similar situation and immediately shared with all other relevant employees as an information guideline.

As the conversations in the WhatsApp group chatrooms are accessible through other devices, such as PCs and tablets, events can easily be summarised and recorded in the daily logs. This has led to employees' believing that everyone, including the top management, knows everything that is happening on-site and pressures them to act professionally. One of the most common phrases used by the interviewees when they were describing the reason for their actions was *"because it is the MIG standard."* The actual MIG standard is a book with over 3000 specific guidelines setting out how everything should be done, ranging from the recipe for a latte to how to fold toilet paper edges. However, the employees were using the term "MIG standard" even for actions that are not mentioned in the actual standard book, e.g., grouping guests' luggage and taking pictures of broken luggage. Their perception of "MIG standard" is the things that deliver a perfect service to guests, although this ideal is unlikely to exist. However, the employees were using the term "MIG standard" to justify their improvisations and attempts to improve service quality. The use of smartphones and WhatsApp group chatrooms provided opportunities for a wider group of employees to share their attempts and improvisations to provide better service. This active communication works as a constant reminder of IR's shared goal and value of delivering perfect service and guest experience.

In contrast to a previous demerit points system, which relied on the physical presence of managers and supervisors, the employees use of smartphones, and the enhanced transparency of performance information has created a constant reminder to employees that they are working together in pursuit the same organisational goal. This has created a self-questioning and monitoring environment in which employees are voluntarily seeking ways to improve their service performance. Moreover, this has saved IR's supervisors and management's much time in patrolling the site and monitoring their employees' behaviour.

2.4.2.3. Reward by inclusion

As the use of smartphones and WhatsApp became a crucial part of IR's employee monitoring and management practice, in addition to the compulsory training issued by the HR

department, the management began to use the group chat rooms to train employees before their promotion:

> *Before I take my medical leave and I have to find a replacement… to get him ready to take over my tasks, we added him into one of our management chatgroups [group chatrooms], so he can see how things should be done… I think in this way he gets the taste of the role and has enough time to be prepared.* (Concierge manager)

By including this employee in the group chatroom, he was able to monitor the conversations of the existing members to learn how and what should be communicated in the chatroom. For example, during the fieldwork, when the concierge manager extended his medical leave, the replacement employee's training was taken over by other senior employees in the group chat.

The inclusion in the group chatroom was also seen as a type of award as it was a potential signal of future promotion. Despite some concerns about having too much information and/or being constantly monitored by managers, all the interviewed employees claimed that they were generally happy to be included in active group chatrooms:

> *Sometimes I get invited into a new group chat [WhatsApp group chatroom] when there is a special event and it feels like my skills are valued… it is more work for sure, but I came here to learn and if I do well, who knows what will happen?* (Guest relations supervisor)

On the other hand, employees who were not included in these chat groups were often not satisfied with their job and felt they were not given many opportunities to develop their skills. One of the guest services employees described how being left out of the group chatrooms felt:

> *For the front desk employees, they can use their smartphones freely. For another department, we can use it but not in front of the guest… I also have several group chats with other colleagues but because I am not [part of] guest relations, even though I work next to them, I do not get to be in their groups… it is sometimes discouraging knowing they [guest relation employees in the group chatroom] are interacting with*

the guests, moving around the resort and getting involved in different things while I am doing all the paperwork here.

To solve the issue of demotivated employees, the number of group chatrooms for information sharing has increased to include more employees. However, there are still exclusive group chatrooms that were specially created for higher level managers' communications and for special events management. Access to these group chatrooms has remained exclusive to the managers in charge, and to employees who have proven his/her skills and performance.

WhatsApp group chatrooms have created a virtual space in which IR's employees extend their social and professional interactions outside their physical workspace. As the importance of WhatsApp group chatrooms have grown, the number of group chatrooms has increased along with the number of members. As the managers began to use the chatrooms to prepare employees for promotion, employees began to see this as a form of recognition and award. Inclusion in a management group chatroom can work as a convenient motivation and disciplinary tool that can be used to control employees' actions, without any financial cost.

2.4.3. Manageability

The widespread use of social media, booking intermediaries and travel review websites (e.g. TripAdvisor) has led to a vast volume of information that cannot be controlled by IR. The continuous flow of new information, such as guests' reviews on TripAdvisor (both reviews of IR and its competitors) and social media reactions, has had a significant impact on IR's business as this information has continuously reshaped the market in which IR operates. To cope with the rapidly changing business environment, IR's employees and managers have improvised by using various functions on their personal smartphones and apps in their day-to-day practices. As previously discussed, this has resulted in improved transparency of service performance issues, where more types of data (such as pictures taken by the employees, social media comments and interpretation of the current performance) are shared among wider groups of employees in real time.

The enhanced transparency of performance issues has created an issue of manageability as the pace of performance data generation, and the volume of the conversations in WhatsApp group chatrooms, have become too dynamic to keep track of:

> *We can see and now get all the updates from Facebook, Twitter, TripAdvisor, booking.com from Medallia [service performance report app]… before we only got an alarm when we received a survey [internally generated survey] but now my phone is vibrating restlessly and it is exhausting… I had to keep other alarms off and just to try to focus on TripAdvisor*. (Guest relations supervisor)

The information from various sources was often handpicked by the employees and communicated in group chatrooms to start a conversation about a current service performance issue and ways to improve it. Although such information helps IR's service performance measurement and management to be more dynamic and flexible, because the information generation is fast and dynamic, much of this information often gets lost and not discussed again during the formal performance review meetings.

The increased volume of unstructured performance information became problematic for IR's management team because they needed to be able to present substantive evidence to its owner (VD) and the management headquarters (MIG) in its regular reports. The new dynamic form of communication in the WhatsApp group chatrooms and the quicker response to daily emerging issues have improved the service quality, but at the same time made it difficult for IR to keep track of all the identified performance issues and conversations.

The analysis of findings identified IR's practices utilising smartphones and apps to solve its difficulties with the manageability of the vast amount of unstructured performance issues. These practices ensure that IR can transform the enhanced transparency of performance information into formal performance measures, which can be used as a basis for disciplining and rewarding employees. Using various apps on smartphones has provided opportunities for IR's employees to try out various methods to improve the manageability of the service performance information. I grouped these practices into two recurrent patterns and named them: *linking multiple computing devices and standardisation of performance data*.

2.4.3.1. Linking multiple computing devices

Previously, measurement of some aspects of service performance, such as the cleanliness of the employees and the rooms, service standard compliance and employee problem handling, relied on managers and supervisors' observations and manual recording using pre-designed checklists. For example, in order to conduct a room standards audit, the management accounting department employees had to take their notepads with printed checklists and visit guest rooms to check if everything is managed properly. One of the employees who has been conducting such service audits since IR's opening described:

> *It [a standard room audit] used to take us a long time. We had to update the files, print it and carry it around and fill it in. Then we would go back and type everything into an Excel spreadsheet, send it to managers with an email and upload it separately onto our system. Now we just carry our smartphones and use a survey app to do our audit. It gets updated automatically and anyone with the password can see the result of the audit in their PC, tablet, or smartphones.* (Hygiene and Safety manager)

By using the survey app, the results are automatically saved in cloud storage, which is accessible via any computing devices with an internet connection. The survey app then analyses the results automatically to show simple statistics, such as the number of samples, the percentage of positive responses and comparison with previous results. Although the results of the survey need to be entered into the formal system separately, the simple analysis of the survey results provided by the app can still be used immediately for more timely management decision making. This use of smartphones and the survey app not only helps with the efficiency of the service performance audit process, but also improves the quality of the measurement.

Another example of the use of smartphones and apps from mobile platforms to improve the manageability of the service performance data, is the recording of the daily log. Previously, the resort assistant managers who are responsible for keeping a record of notable events that take place during their shift, had to rely on their observations to create their daily log. With the WhatsApp group chatrooms, more events are discovered and shared among the employees. However, not all these events were significant enough to be recorded in the log for future reference. This active communication has improved the transparency of current service performance, but has also created an information overflow. Moreover, it is difficult

to search for previous conversations in the group chatrooms, as the only way to do so is to scroll through all the previous conversations manually.

In order to identify and record all the significant events discussed in the group chatrooms, the resort assistant managers implemented a PC version of WhatsApp to help them access the conversations shown in the smartphone version of WhatsApp. By utilising the two different versions of WhatsApp to go through the conversations, the resort assistant managers are now able to keep a more detailed record of all the events that take place during the day.

> *We have so many things happening all around the site during the day [showing the researcher the number of unread messages on his WhatsApp] and I cannot be in two places at once… it would have been a nightmare if there was no PC version for WhatsApp. It is already difficult to read all these messages, but thanks to these, we can keep more detailed logs.* (Guest Relations supervisor)

This example shows how IR converted the transparency of its service performance data and enhanced the manageability of its service performance measures. The use of various apps with cloud data storage has allowed flexible information exchange between different types of computing devices, such as PCs, tablets, and smartphones, and this has enabled IR's managers to record more detailed service performance information. This not only allows IR to include more employees' in the service performance measurement process, but also makes it possible to incorporate information from the conversations in the group chatrooms into their formal service performance reports and daily logs.

2.4.3.2. Standardisation of performance data

The increased volume of service performance data from various sources has created several difficulties for IR's managers and employees in managing and utilising this data. Although active communication among employees and the constant access to data have enhanced the transparency of service performance, it has also made it difficult for employees to utilise the data. In an attempt to solve this difficulty, several data management practices were developed, such as introducing some structure into messages on the group chatrooms, integrating information from various websites using Medallia, and categorising performance issues and recording them in the formal daily event logs.

When IR's employees began to use the group chatrooms, the messages did not have a standard structure. For example, in the beginning, if employees found out that one of the guests required urgent attention, they would send a message looking like the following: *"there is a guest who is staying in room 000 who requires immediate attention from any one of us. Can anyone nearby pay a visit?".* Although this message communicates the key information, when there are hundreds of messages in the group chatroom, it can be confused with other non-urgent messages.

During the fieldwork, it was discovered that employees in group chatrooms had developed informal rules to classify and communicate different types of messages. For example, urgent messages would be communicated as follow:

> "*URGENT – Room 000 – guest needs immediate attention. Anyone nearby, please pay a visit and confirm."*

In this way, when the message shows up on the smartphone notification bar, employees can immediately know that this message is important. Moreover, this makes it easier for the resort assistant managers to look for the important events to record in their logs at the end of the shift.

Another issue with the group chatrooms was that there was no way of knowing if all the members in a group chatroom had received the message. Although WhatsApp provided a confirmation sign (for example, one grey tick for when messages are successfully sent, two grey ticks for successful delivery and two blue ticks when the recipient has read the message), this did not work well when there were many people in a group chatroom. In order to signal that they had received and understood the message, employees began to write a short message, such as r*eceived, read and understood,* to indicate that they had clearly received the message. Although this increased the number of messages, it indicates a configuration of an accountability relationship by sending the message as it indicates that the contents of the message have been accepted. Therefore, employees can no longer say that they have not read a message or missed an announcement on the employee notice board because they have already confirmed that they have received and understood the information shared in their group chatrooms.

When IR's employees first started to carry their smartphones, they had to download separate apps (e.g., Facebook, Twitter, TripAdvisor) to collect guest reviews and online reactions about IR's service. This made it difficult for employees to collect data because these apps have different interfaces and different embedded systems that make the information format very diverse. For example, Instagram and Twitter users often communicate with *'hashtags'* below their pictures to indicate the content of the pictures and messages (e.g., #IR, #beach). On the other hand, TripAdvisor shows user ratings (0~5 circles) and headlines on the top of its reviews. Moreover, sometimes, the convenient features designed by the app and service provider make it even more difficult for IR's employees to extract performance information:

> *Because I am Korean, my TripAdvisor app automatically configured my language setting to Korean… the problem is that it prioritises the reviews written in Korean and does not show me other more recent reviews written in different languages... [and] when I switch to English, it becomes difficult to find Korean reviews.* (Guest relations supervisor)

To standardise such information from the various sources, MIG added a feature in their service performance report app, i.e., Medallia. The newer version now incorporates a social media score directly into the service performance measures. It also allows the employees to see all the reviews from various sources on one screen, sorted by the timeline, regardless of the language used in the reviews.

As IR's employees became exposed to more real-time service performance, they needed ways to confirm the validity of the reviews and to identify the root cause of the issues. Even though the online reviews and active communication in group chatrooms helped to identify many issues that could have been overlooked under the previous practices, it only highlights a problem area. For example, if they receive a review saying that the guest was not happy because the internet connection was bad on the site, it only suggests that there could have been some issue with the internet connection. However, it is difficult to confirm if the review was written based on a true experience and if it was, what could have caused it, and if other guests have experienced a similar problem. To solve this issue, IR created a new department that focuses on classifying guests' requests and complaints into different categories:

> *We have a separate department for going through the guests' requests and complaints to classify them into appropriate categories. For example, if a guest requested a buggy*

> *[golf cart], we record it under 'buggy request'. If it was late and the guest had to call again to complain, we record it under 'buggy delay'... apart from a very few special requests, they [guests' requests and complaints] are quite repetitive so it is not too difficult for us to categorise everything… this data helped us identify our problem with transportation and build our case for more investment in new buggies.* (General Manager)

These categorised requests and complaints are used along with the daily logs to breakdown guests' reviews in order to identify the reliability of the review and potential ways to resolve the problem.

These examples illustrate different attempts taken by IR's managers and employees to utilise the enhanced transparency by creating new practices to improve the manageability of service performance. These attempts to standardise less structured performance data from various sources have allowed IR to establish accountability relationships between managers and employees, and IR and its guests. As previously discussed, enhanced transparency helps in improving employees daily service performance by inducing active communication about service performance. However, it is also important for IR as an organisation to keep structured records of its service performance for formal reporting and the justification of important decisions, such as employee promotions, disciplinary actions, and investment requests.

2.5. Discussion

This paper recognises the recent criticisms concerning of the limitations of relying solely on transparency as the basis for accountability (Messner, 2009; Roberts, 2009; Strathern, 2000) and the calls for an intelligent form of accountability that can help organisations and their members to better understand their context by utilising both calculative and narrative forms of accountability (O'Neill, 2002; Roberts, 2009). Building on previous studies that have highlighted the growing importance of narrative accountability through social interaction (e.g., McKernan, 2012; McKernan and McPhail, 2012; O'Neil, 2002; Roberts, 1991), this paper highlights how social interactions among the employees can enable the configuration of a fluid form of accountability.

The case study illustrates that in an organisation operating in a dynamic and unpredictable environment, the configuration of accountability does not only rely on the pre-determined performance measures, but can also emerge in the continuous conversations about the emerging performance issues among the employees. Furthermore, the accessibility of performance information through employees' use of smartphones and mobile platforms enabled employees in the case organisation to identify performance issues using information from various sources (e.g., social media, pictures taken on their smartphones), including information that is outside the organisational boundaries. These practices enabled IR's employees and managers to gain a deeper understanding of the emerging performance issues. This paper proposes a conceptual framework (see Figure 5) which identifies the components and practices through which fluid accountability is configured.

To uncover the conceptual framework's detailed workings and theorising of the configuration of 'fluid accountability', the following discussion is divided into three subsections: 1) *Fluid organisation*, which discusses the extent to which the case organisation has characteristics of a 'fluid organisation' and how it differs from a more hierarchical form of organisation, 2) *components* of accountability comprising *practices* observed from the case, which discusses how each component works differently in the case organisation, and 3) *the configuration of fluid accountability*, which discusses how a fluid form of accountability differs from other forms of accountability. Figure 5 summaries the components of accountability, comprising practices, involved in the configuration of fluid accountability.

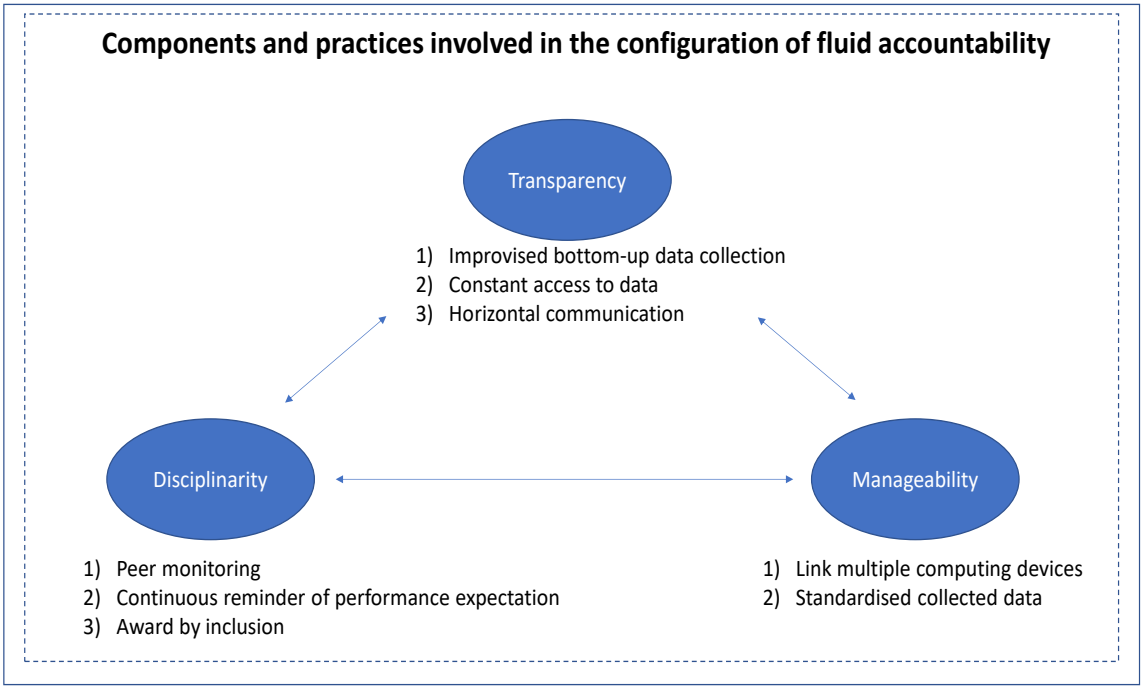

Figure 5: Configuration of fluid accountability

2.5.1. Fluid organisation

What gives the case organisation characteristics of a fluid organisation? Traditionally, organisations often draw on established performance measurement systems such as the BSC or pre-determined performance indicators to enhance transparency and configure accountability (Espeland and Sauder, 2007; Kaplan and Norton, 1996, 1992; Sauder and Espenland, 2009). These established practices help organisations to gain disciplinary power over their employees (Sauder and Espenland, 2009) and better track a wide range of performance measures for future reference (Kloot and Martin, 2000; Tuomela, 2005). Furthermore, the hierarchical structure, embedded in performance measurement system or performance indicator design and selection process, help organisations to relatively easily identify an accountability relationship by identifying 'who' (the managers) is holding 'whom' (employees) accountable for 'what' (not meeting targets set based on pre-determined performance measures).

In contrast to the hierarchical approach to the configuration of accountability, the research at IR shows that the configuration of accountability in day-to-day performance measurement and management can start by employees and/or managers identifying performance issues by drawing on various sources, often from outside the organisational boundaries, such as

TripAdvisor and Instagram, or from employees own observation during their daily routines. Identified issues are communicated and shared instantaneously using their smartphones and WhatsApp group chatrooms (Section 4.1.2). This finding suggests that employees and managers in IR are not following a traditional hierarchical structure in their day-to-day performance measurement and management, in which the managers identify performance issues to monitor and control employees' behaviours. Instead, the employees and managers in IR are flexibly adapting their practices to incorporate any information that can be used to identify emerging performance issues, and horizontally communicate them to others to quickly solve the issues. These observations of IR's practices, that illustrates spontaneous interactions, lateral organisation-wide communication, and improvised processes, mirrors the definition of a fluid organisation (Schreyögg and Sydow, 2010). Therefore, the case study observed different practices involved in achieving the three components of accountability, and configuration of a fluid form of accountability.

2.5.2. Components of accountability

2.5.2.1. Transparency

The first component is transparency, through which employees and managers identify and share the performance data with others. In a hierarchical performance measurement and management approach, organisations achieve transparency by relying on *periodic measurement and reporting* of the pre-determined performance measures (Figure 1). Furthermore, the traditional approach to improve transparency involves organisations' strategic planning and designing of new performance measures, such as illustrated in the BSCs approach (Kaplan and Norton, 1992, 1993, 1996; Kloot and Martin, 2000). However, this approach to achieve transparency is often slow and rigid for two reasons, 1) the pre-determined performance measures often become the main target for employees and managers' incentives (Strathern, 2000), and 2) the hierarchical structure of the performance measurement is often time consuming and does not reflect the opinions of organisational members with lower ranks, who are often closer to the actual operation (Sauder and Espenland, 2009). In contrast to the hierarchical approach to achieve the transparency, IR's employees and managers use smartphones and apps, including Medallia and WhatsApp, other social media, and camera apps, to identify performance issues quickly and flexibly. The use of smartphones and WhatsApp group chatrooms enabled *horizontal communication* among IR's employees and managers and *constant access* to performance data from various

sources, often outside the organisational boundaries (e.g., social media, TripAdvisor reviews, pictures on Instagram) (Schreyögg and Sydow, 2010), as well as internally generated conversations in the WhatsApp group chatrooms. Furthermore, smartphones' customisability, with the wide range of apps available on mobile platforms, and instantaneous communication in the WhatsApp group chatrooms enabled *improvised bottom-up data collection* of different types of unstructured performance information, often from outside organisational boundaries, and going beyond the pre-determined performance measures, to identify emerging performance issues. For example, it was observed that employees and managers were using pictures taken with their smartphones and TripAdvisor reviews to start conversations about their current performance (Section 4.1.1). This finding shows how these other forms of data can help organisations to improve the understanding of their context (Pritchard and Symon, 2014), which in turn improves the transparency of the current performance. These practices, observed the case study, also suggest that in a fluid organisation, employees and managers moved beyond the hierarchical structure by incorporating their social interactions, with active conversations about their performance taking place in a virtual space (WhatsApp group chatrooms), and giving rise to a narrative accountability (McKernnan, 2012). This in turn, helped them to configure a form of accountability that better reflects their different context (O'Neil, 2002).

2.5.2.2. Disciplinarity

The second component is disciplinarity, which refers to the process by which IR's employees and managers utilise smartphones and WhatsApp group chatrooms to better control and align the behaviours of employees with the organisational goals (Simons, 1995). The traditional approach to control employees often relies on the asymmetry of power enabled by the *hierarchical reporting structure* (Espenland and Sauder, 2007), and *award and punishments based on target performance measures* (Sauder and Espenland, 2009) (Figure 1). In contrast to the traditional approach, which relies on hierarchically designed pre-determined standards and guidelines (Espeland and Sauder, 2007), it was observed that the use of smartphones and WhatsApp group chatrooms gave rise to practices that enabled *peer monitoring* and *continuous reminder of performance expectation.* For example, it was observed that, instead of relying solely on pre-determined performance measures, standards and targets, IR's employees were using evidence collected from various sources and engaging in active self-enquiry and conversation among each other, via the group chatrooms, to understand their

performance in greater detail (O'Neil, 2002; Roberts, 2009). Although, they still relied on what they referred to as the "MIG standard", the standard was reinterpreted and perceived as any practices that can help them achieve a perfect service (Section 4.2.2). This finding illustrates the configuration of accountability in an intelligent (O'Neil, 2002) and adaptable form (O'Dwyer and Boomsma, 2015; O'Leary, 2007), in which organisational members are less reliant on pre-determined performance measures and imposed targets. Furthermore, the use of smartphones and WhatsApp group chatrooms enabled a new form of award to motivate employees, *award by inclusion* in a specific WhatsApp group chatroom. It was observed that IR's managers were inviting employees to join their management group chatrooms prior to the promotion (Section 4.2.3). Interestingly, employees began to perceive this invitation as a form of reward as it indicates potential promotion. This finding suggests that IR's employees are not solely relying on their pre-determined targets to define their success (Power, 1999; Strathern, 2000), but also accepting such inclusion to a social group as an indicator of their success. Consequently, these practices gave rise to a different form of disciplinarity, in which employees are engaging in active self-enquiries and less reliant on the imposed targets and quantifiable measures to define their success.

2.5.2.3. Manageability

The final component is manageability, which comprises the process by which the organisation manages the increasing volume of performance information in a more structured manner. In the context of hierarchical organisations, they achieve manageability of performance information is by *focusing on small numbers of pre-determined performance measures,* and through *standardised measurement practices* (Figure 1). For example, the BSC can provide these organisations with a set of clear guidelines to narrow their focus to the most strategically relevant performance measures. Therefore, it can be argued that, to some extent in hierarchical organisation, practices that enable manageability is considered from the performance measurement and measurement design stage. In contrast to the traditional approach, it was observed that IR's employees and managers began to think about practices to achieve manageability of performance information after they had begun to experience greater transparency. While the use of smartphones and WhatsApp group chatrooms generated a vast amount of performance information for IR's employees and managers to identify performance issues, it also created an information overflow. In order to cope with the increasing volume of information, the employees and managers began to *link*

multiple computing devices to make the information storing process easier and *standardised the collected data*. For example, it was observed that IR's employees and managers introduced some structures into their messages in the group chatrooms (Section 4.3.2), to make it easier for them to look for important messages later. Moreover, the resort assistant managers, who are responsible for recording important events in the hotel's daily log, were using a PC version of WhatsApp, instead of scrolling long lists of conversations in the various WhatsApp group chatrooms on their smartphones (Section 4.3.1). These practices enabled IR's managers to keep a structured record of the conversations in the group chatrooms for future reward and disciplinary actions. By introducing some structure into their social interaction, the employees and managers could better manage the narrative accountability (McKernan, 2012) created *without* face-to-face social interaction and transformed them into a more calculative form, such as rankings and scores (Scott and Orlikowski, 2012). These findings suggest that while the aforementioned practices can help organisations to achieve flexibility and adaptability, they still seek some structure to guide future practices (Schreyögg and Sydow, 2010) and to make practices 'auditable' (Sauder and Espenland, 2009).

2.5.3. Fluid accountability

The outcome of the interactions between the three components is a configuration of fluid accountability which embraces narrative accountability from employees and managers' social interactions and active self-enquiry (O'Neill, 2002; Roberts, 2009) and is less reliant on hierarchical organisational structures and boundaries (Schreyögg and Sydow, 2010). Specifically, through the practices associated with the three components explained above, the case organisation can configure fluid accountability to continuously adapt to reflect and to gain a deeper understanding of its context. The configuration of accountability relying on hierarchical structures, and formal standards and pre-determined performance measures, is a form of accountability which clearly shows, 'who' is holding 'whom accountable for 'what' (Zan, 2006). However, the new form of accountability, fluid accountability, observed in this paper seems more like 'any' employee or manager can be held accountable for 'anything', as anyone can identify a performance issues based on any relevant evidence from various sources, if they can justify it. While this fluid form of accountability, to some extent resembles the concept of intelligent accountability (O'Neil, 2002; Roberts, 2009), the configuration of fluid accountability is less restricted by organisational boundaries and pre-

determined performance measures, hence is more fluid (Schreyögg and Sydow, 2010). Therefore, this paper posits that in an organisation attempting to become a more 'fluid' organisation, would seek to achieve greater adaptability to survive and succeed in an increasingly dynamic and unpredictable environment, the configuration of accountability, while guided to some extent by the pre-determined formal standards, measures and hierarchical structures, needs to be less bounded by these rigid structures to reflect the continuously changing context.

As such, this paper illustrates the configuration of fluid accountability which emerged in the case organisation's attempt to flexibly adapt its performance measurement and management practices to the increasingly dynamic and unpredictable environment. The practices involved in the configuration of fluid accountability also illustrate the process through which organisations identify and develop new performance measures and management processes (Chenhall and Moers, 2015).

2.6. Conclusion

This paper has traced the practices through which fluid accountability is configured in the day-to-day performance measurement and management of a luxury resort hotel in Vietnam. The paper has demonstrated how employees in the case organisation, IR, configure accountability relationships using new performance information, including information outside the organisational boundaries, as well as internal information which is not included in the pre-determined performance measures, through active communication and continuous adaptation. As a result, the configuration of accountability is less reliant on hierarchical structures, but instead is flexibly reconfigured to adapt to the continuously changing environment. In particular, the findings demonstrate how the employees' use of their smartphones, and mobile platforms enabled them to better identify and communicate performance issues. Due to these new practices, the configuration of accountability observed in the case research appears more fluid, as it seemed as though 'any' employee or manager could be held accountable for 'anything' which can be identified and justified through social interactions.

This paper highlights how mobile platforms (comprising smartphones, apps and group chatrooms) can influence practices and the three components of accountability – transparency, disciplinarity, and manageability, in the configuration of fluid accountability.

The findings demonstrate how accountability can be fluid and move beyond the traditional dependency on hierarchical organisational structures. New practices emerged as employees' and managers' attempted to reflect and adapt to the continuously changing context, and this gave rise to the configuration of fluid accountability. As a result, while still guided by its organisational structures and, to some extent, its pre-determined performance measures and standards, the case organisation was able to achieve greater fluidity in its performance measurement and management practices and in the configuration of accountability (Schreyögg and Sydow, 2010). This paper contributes to the accountability literature by answering calls for research exploring different forms of accountability (Scott and Orlikowski, 2012) and the potential for an intelligent form of accountability (O'Neil, 2002; Roberts, 2009). There are some similarities between intelligent accountability and the fluid accountability observed in the case, as they both seek to gain a deeper understanding of the organisational context by incorporating narrative accountability to support the calculative accountability from hierarchical structures and pre-determined performance measures. However, fluid accountability is less restricted by organisational boundaries and hierarchical reporting structures, as it facilitates horizontal communication and the use of performance information from outside the organisational boundaries, as well as information which is not included in pre-determined performance measures.

This paper has explored the practices involved in the configuration of fluid accountability by focusing on the three components of accountability – transparency, disciplinarity and manageability. I hope this paper will encourage others to adopt a practice perspective to explore accountability in other fluid organisational contexts. In particular, two areas warrant further investigation. First, future research could examine the practices that influence the components of accountability in different types of 'fluid organisations' and further explore the role of context. Second, while this paper demonstrates the potential of fluid accountability in enabling organisations to adapt to continuously changing, i.e., fluid, environments, it would be worthwhile for researchers to continue to explore whether other forms of accountability, using other types of information, could help organisations survive and succeed in the increasingly dynamic and unpredictable environments faced by modern organisations.

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Chapter 3: Impact of Smartphones and Digital Platforms on Performance Measurement and Management: An Imbrication Perspective

Abstract

Although extant research on digital platforms emphasises the strategic benefits of the platform ecosystem, we know little about how digital platforms influence organisational routines. In this paper, we [4] explore the process through which a luxury hotel resort incorporated smartphones and digital platforms into its performance-management routines. Drawing on an imbrication framework, we conducted case study research in which we found that different sets of affordances and constraints that arose during the smartphone-adoption process acted as building blocks that reconfigured the hotel's performance-management routines. This paper improves our understanding of how smartphones and digital platforms affect performance-management routines through an improvised process that involves various groups of hotel employees. Our results highlight the importance of improvisation and the flexibility of digital platforms in improving the management control system.

Keywords: Organisational Routine, Change, Technology change, Digital platform, Performance Management, Improvisation

[4] I use "we" in Chapter 3 and 4 because these essays are co-authored with my supervisors, Brian Nicholson, Robert Scapens and ChunLei Yang.

3.1. Introduction

Digital platforms enable various user groups to participate in development, commercialization, and value-creation processes (Thomas et al., 2014) and platforms shape interactions among different users who have varying interests and adapt to fit the current market demand (de Reuver et al., 2017; Parker et al., 2016). Various organisations have incorporated digital platforms into their organisational routines; for example, hotels incorporate reviews from TripAdvisor into their employee-performance management (Scott and Orlikowski, 2012), and rail engineers use smartphone camera apps to improve safety-checking routines (Pritchard and Symon, 2014). Furthermore, the data generated in digital platforms create new opportunities for organisations to reshape their performance measures and management routines by providing new insights about their customers (Agostino and Sidorova, 2017); indicating new areas for business development (Arnaboldi et al., 2017a); and presenting opportunities for understanding the stories and processes behind the performance measures (Quattrone, 2016).

Prior research has explored the strategic benefits, management and outcomes of different platform types (e.g., de Reuver et al. 2010; Tilson et al. 2012; Gawer and Cusumano 2014), but paid less attention to how platforms can influence and become incorporated into the existing organisational routines. Accounting scholars have highlighted the importance of exploring in detail the processes of change in performance-management routines to better understand how organisations can cope with increasingly dynamic and unpredictable environments (Al-Htaybat and Alberti-Alhtaybat, 2017; Chenhall and Moers, 2015; Quattrone, 2016).

Although Scott and Orlikowski (2012) provide several examples of how organisations can use information from TripAdvisor to manage their employees' performance, we lack understanding about how platforms become incorporated into organisational performance-management routines. To date, we lack research that addresses detailed processes for incorporating smartphone and digital platforms into organisational routines and systematically analyses how digital platforms affect existing performance-management routines. In this paper, we fill these gaps by addressing the following research question (RQ):

> **RQ**: How can smartphones and mobile platforms affect organisations' performance-management routines?

To answer this question, we draw on Leonardi's (2011) imbrication framework to analyse how the social and technological aspects of both intended and unintended organisational change become entangled (Orlikowski, 2007) over time. We present findings from a case study of a luxury resort hotel in Vietnam that incorporated smartphones, WhatsApp and TripAdvisor, as part of an improvised solution to overcome technological constraints, which had unexpected influences on performance-management routines. Our findings highlight how different technologies interact with performance-management routines and bring changes to one another to achieve the best outcome from a given set of affordances and constraints through improvisations; i.e., subjective interpretations and situated plans to overcome emergent problems with existing resources (Ciborra 1996).

The paper proceeds as follows: in Section 2, we provide theoretical background by reviewing the related literature on platforms and performance management. In Section 3, we introduce the imbrication theoretical framework. In Section 4, we overview our research design and methodology. In Section5, we report the findings. Finally, in Section 6, we discuss the findings and their implications, and then conclude the paper.

3.2. Literature review

Our literature review covers two related streams: digital platforms and performance management. In the first stream one can characterise digital platforms as sociotechnical assemblages that involve both technical elements (such as software and hardware) and associated organisational processes and standards (de Reuver et al. 2017, p. 4). In recent years, digital platforms have become a crucial part of our social and business lives (de Reuver et al., 2010; Tilson et al., 2012). Digital platforms come in various types, such as social networking platforms (e.g., Facebook) (Gawer and Cusumano, 2014), travel review platforms (e.g., TripAdvisor) (Scott and Orlikowski, 2012); and multi-sided market platforms (e.g., eBay, Airbnb). Smartphone manufacturers, smartphone operating systems (OS), and application (apps) markets that allow third-party innovations (e.g., Apple) sustain multi-sided markets on mobile platforms (Tilson et al., 2012).

Research has used the term “platform” as both a metaphor, to describe the networked organisational structure, and to explain management phenomena at various levels, such as supply chains, products, operating systems, and business ecosystems (Thomas et al., 2014). The first use (i.e., as a metaphor) dates back to research in the 1990s that focused on the

internal/organisational level and emphasised the importance of improvisation and working around various organisational constraints (e.g., Utterback and Suarez 1993; Ciborra 1996). This early platform research emphasised the importance of short-term adaptive behaviour in innovation management. The research which has used the term "platform" as a metaphor, highlights the role of coordination between various parties (e.g., organisations, departments, individuals) in achieving efficiency in innovation management.

More contemporary research has built on these early insights to focus on network effects and how to design two- or multi-sided market platforms (e.g., Rochet and Tirole 2003; Gawer and Cusumano 2014; Parker et al. 2016). These researchers suggest that, for platform leaders to create an effective platform ecosystem, they need to focus on bringing multiple groups together to create value for each other (i.e., multi-sided effects) (Rochet and Tirole, 2003) and on sustaining a sufficient number of users to create a positive feedback circle to further increase services' and products' usefulness (i.e., network effects) (Arthur, 1989; Katz and Shapiro, 1985).

Initially, researchers conceptualised platforms as having a hierarchically designed network structure which a firm or firms at the platform's core govern (e.g., Ciborra 1996; Gawer 2014; Thomas et al. 2014). However, such design assumptions do not hold in the contemporary context, which features external and dynamic digital platforms (de Reuver et al., 2017). More contemporary digital platforms, such as mobile platforms, incorporate physical and software elements, multi-layered architecture, and a flexible core (Henfridsson et al., 2014; Yoo et al., 2010). Technological ecosystems that include both physical (e.g., smartphones) and software elements (app stores, development kits, and mobile operating systems such as Android and iOS) mediate mobile platforms. A complex network of content providers, a large community of developers, a vast number of users and complex technologies sustain these platforms (Tilson et al., 2012). The complex and dynamic interaction among the various users, organisations, and developers creates a highly dynamic and unpredictable business environment (de Reuver et al., 2017).

However, research on the effect that smartphones and digital platforms have on organisational routines remains in its nascence. Prior studies have either focused on a sample of managers (Wajcman and Rose, 2011) or on basic mobile phones rather than smartphones (Ferneley and Light, 2008; Sorensen and Pica, 2005). Although the IT consumerization

literature (which explores how individuals use mobile consumer devices in the workplace) does explore the implications of using personal smartphones in the workplace (e.g., Harris et al. 2012; Weeger and Gewald 2014; Koffer et al. 2015), it focuses on either the strategies for managing the IT-consumerization process (Harris et al. 2012) or the impact that consumer IT devices, such as tablets and smartphones, have on employees' work-life balance (Weeger and Gewald, Koffer et al. 2015). Moreover, while the existing studies that have examined digital platforms emphasise the platform developers' and platform businesses' strategies (e.g., Boudreau 2012; Tilson et al. 2012; Parker et al. 2016), they do not explore the impact that digital platforms have on organisational routines.

The second literature stream that we review here concerns performance management, which we define as strategically measuring and managing performance at both the individual and the organisational level (Kloot and Martin, 2000). Performance-measurement and management processes involve managers' collecting and analysing strategically relevant data to make decisions and disseminating performance information to employees at various levels to motivate and/or impose discipline (Bourne et al., 2003). Recently, many scholars have begun to pay attention to how the external environment shaped by the new technologies, such as digital platforms and consumer devices like smartphones, can influence the design of performance measures and performance-management routines (e.g., Al-Htaybat and Alberti-Alhtaybat, 2017; Arnaboldi et al., 2017b; Brivot et al., 2017; Moll and Yigitbasioglu, 2019).

Many researchers argue that an organisation needs to design performance measures and performance-management routines to provide strategically relevant performance measures for its different units (e.g., Kaplan and Norton 1996; Otley 1999; Kloot and Martin 2000; Tuomela 2005). These researchers argue that traditional performance measures, which often rely on financial information from financial reports, are updated infrequently and are distorted due to diversified reporting standards, thus being of limited relevance for management planning and control purposes (Johnson and Kaplan, 1987; Kaplan and Norton, 1992; Kloot and Martin, 2000). They also emphasise that, in order to achieve timeliness and strategic relevance in performance-measurement and management, organisations need to more frequently measure both financial performance and non-financial performance (e.g., customer satisfaction and also even employee satisfaction) (Kaplan and Norton, 1992; Kloot and Martin, 2000). However, their approach of including additional, more strategically

relevant, performance measures continues to rely on a hierarchical design process, which does not solve the timeliness issue. Another important aspect in performance-measurement and management design involves helping managers and employees to share organisational strategies, values, and beliefs with one another (Huy, 1999; Simons, 1994). The prior management control literature has argued that "belief" systems, which allow managers and employees share their values through, for instance, mission statements, can help organisations to inspire their employees to take initiatives, to solve problems, and to create value (Simons, 1994). However, to date, performance-measurement and management design approaches have been largely top-down, and provide little opportunity for lower-level employees to express their values and beliefs. Furthermore, individuals at lower levels of the organisation cannot often access or understand top-down performance-measurement and management approaches which impose standard performance measures and management templates, because such approaches often fail to account for the different values and beliefs in the wider organisation (Chenhall et al., 2014).

More recently, however, some scholars have recognised the importance of making accounting information, such as performance measures, more accessible to wider groups of users, such as lower-level employees who have little accounting knowledge (Boedker and Chua, 2013; Chenhall et al., 2014). They have identified various elements that make performance measurement and management more accessible, such as "playfulness", "comfort in communication" (Chenhall et al., 2014), and also visualization, via various technologies and templates (Boedker and Chua, 2013). These elements can reduce the need to train employees in specialised techniques and/or concepts, since they present information in simple and easily digestible formats. However, such an approach is time consuming as the design of performance measures requires strategic planning and many discussions at various levels.

Overall, the hierarchical approach to performance measures and performance-management routines design does not leave much room for wider group of users' participations. This could limit organisations' ability to quickly reflect the continuously and unpredictably changing organisational environment into their performance measures and practices. Therefore it is important to not only focus on the new performance measures and data's ability to provide a more 'objective' view of the company's performance (Quattrone, 2016), but we also need to explore the organisational processes and practices by which

organisations develop their new services and performance management routines (Chenhall and Moers, 2015).

The extant literature provides valuable insights into how digital platforms can generate useful data and method to better measure and manage organisation's performance, and how employees' engagement plays an important role in creating accessible performance measurement and management routines. However, we lack research that considers the detail of processes and employee level improvisations involved in performance management routines change. We aim to fill this gap in our knowledge by specifically focusing on exploring the processes through which digital platforms and smartphones became incorporated in a case organisation's performance management routines.

3.3. Conceptual framework

This paper seeks to understand how technologies and performance-management routines can mutually shape each other. We found Leonardi's (2011) imbrication framework particularly useful for analysing our case findings as it helps track the processes of change by focusing on key events that become 'imbricated' over time. It provides a conceptual framework for understanding the mutual shaping of technologies (smartphones and digital platforms) and performance-management routines through improvisations.

To study how technologies and organisational routines change in organisations, Leonardi (2011) combined sociomateriality with the theory of affordances (Hutchby, 2001) and proposed a framework to study the process of introducing technology and changing organisational routines. We follow Markus and Silver's (2008) definition of affordances, which characterises them as "a type of relationship between a technical object and a specified user (or user group) that identifies what the user may be able to do with the object, given the user's capabilities and goals" (p. 622). In other words, affordances refer to users' perceptions about what technologies can (or cannot) do, rather than what their designers initially designed them to do. For example, the IT consumerization literature shows how products initially designed for the consumer sector, such as smartphones and tablets, have seen increasing use as productive devices in the workplace (Harris et al., 2012; Koffer et al., 2015).

Gibson (1986) initially advanced a theory of affordance to study animal behaviour and specifically how animals perceive their environment. Gibson used the term affordance to describe physical objects' invariant characteristics and how users' perceptions can lead them to interpret objects' use/role in different ways. In his view, all affordances are realised through users' perceiving and interpreting them. Norman (1999, 2013) then applied this initial work to the study of technology by positing that, in the context of technological artefacts, developers, manufacturers, and designers can "design in" affordances. Thus, actors design, develop, and produce technological artefacts with intended purposes. While Gibson (1986) views affordances as an artefact's role and properties, which users perceive and interpret, Norman (1999, 2013) views users as realising the affordances that designers have built into an artefact. In other words, users simply recognise the hidden affordances by interacting with the technology.

Leonardi's (2011) framework follows Hutchby (2001), who views affordances in a way that recognises the insights in *both* Gibson's (1986) and Norman's (1999, 2013) conceptualizations and proposes a middle ground. Hutchby (2001) argues that "affordances are functional and relational aspects which frame, while not determining, the possibilities for agentic action in relation to an object" (p. 444). In Hutchby's view, the functions of technologies are both shaped by and also shape human practices.

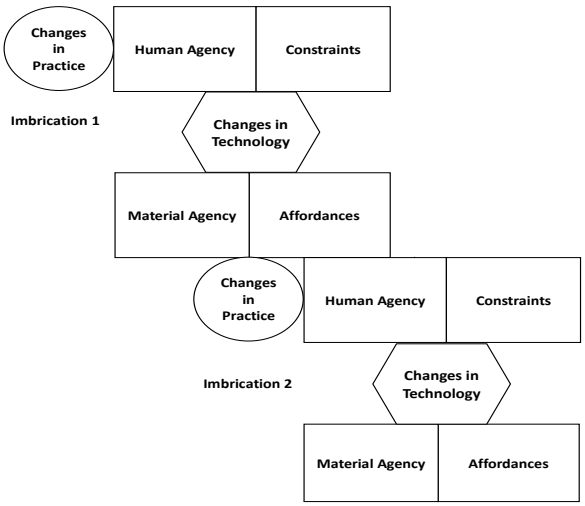
Drawing on Hutchby (2011), Leonardi (2011) conceptualised the change process in organisational routines and technologies by arguing that, when users perceive that a technology offers no affordances for action, and instead perceive that it *constrains* their ability to carry out their goals, the organisation can modify its goals, introduce new technology, or change the existing technology. When a new technology or a change in an existing technology occurs, it creates a set of new affordances that can, in turn, change organisational routines. Conversely, changes in organisational routines can give rise to technological change and/or to perceptions about what the technology can achieve (Leonardi, 2011, p. 153).

Leonardi (2011) uses the term "imbrication", which literally means overlapping but mutually supporting layers or edges (e.g., tiles or scales), as a metaphor to explain how human and material agencies can act as building blocks in an infrastructure that produces technologies and/or organisational routine changes. Imbrication implies that users and technologies

accumulate and overlap over time, but not necessarily in the same way. However, the way imbrication occurs at Time 1 will influence the way it occurs at Time 2 and so on (Leonardi, 2011, p. 152). This view of imbrication concurs with Ciborra's (2006) assertion that imbrication is active and complex in the sense that the previous layers not only affect an immediately subsequent layer but can also affect any subsequent layers. To illustrate this assertion, Ciborra (2006) uses the example of computer codes or instructions whereby previously written computer codes impact subsequent codes in a reciprocal and often non-linear way.

Leonardi's (2011) imbrication framework assumes that human and material agencies have pre-existing and distinct properties which are shaped by the context, including culture and norms. Leonardi (2011) defines human agency as the ability to perform things that available technologies can or cannot do. Further, Leonardi (2011) defines material agency as the capacity of nonhuman entities, such as technologies, to act on their own without human interaction (e.g., when "a compiler translates text from a source computer language into a target language without input from its user" (Leonardi 2011, p. 148)). The framework recognises that human and material agencies fundamentally depend on each other, are flexible, and capable of bringing changes to each other. Furthermore, as human actors' perceptions and contexts shape material agencies, the human actors can realise different technological affordances and constraints whenever routines and/or technologies change. These different affordances and constraints subsequently produce incentives for actors to either reconcile their existing routines or change their existing technologies in an attempt to achieve the best possible outcome. Table 1 illustrates this process and defines key terms.

Table 1: Imbrication of human and material agencies producing changes in routines and technologies (Leonardi 2011, p. 158)



Human agency	The ability to form and realise one's goals and to perform things that available technologies can or cannot do.
Material agency	The capacity for nonhuman entities to act on their own without human interaction (Leonardi, 2011, p.148)
Imbrication	Refers to how users (human agencies) and technologies (material agencies) accumulate and overlap over time often in a reciprocal and non-linear way.
Affordances and constraints	Affordances are "the possibilities for goal-oriented action afforded to specific user groups by technical objects" (Markus and Silver 2008, p.622) Constraints arise when the goals have shifted and when users cannot figure out how to achieve the goals with the features of the existing technology (Leonardi, 2011, p. 154)

3.4. Research Design and Methods

For our study, we conducted a three-year (2014-2017) interpretivist case study (Klein and Myers, 1999; Walsham, 2006) of IC Resort, a luxury resort hotel in Da Nang, Vietnam that opened in mid-2012. A Vietnamese developer, SV group, owned the resort, but MIG, an international hotel chain with a well-established up-market brand, managed it. Since we sought to study the process through which technology and organisational routines change, access to the case organisation offered an ideal opportunity to observe the many critical events related to this process.

We collected primary data over a three-year period from 2014 to 2017. First, we conducted semi-structured interviews and informal conversations that took place during three separate field visits (two weeks in June and July, 2014, two weeks in July and August, 2016, and three weeks in April and May, 2017). Table 2 summarises the interviewees. Each interview

was conducted with one informant at a time and lasted between 20 to 160 minutes (40 minutes per interview on average). All these one-on-one interviews were recorded and transcribed. The interview records were kept together with the observation notes and pictures that were taken during the interviews to better illustrate the context in which each interview was conducted. Additionally, we adopted an ethnographic approach (Myers, 2013) during the third field visit when the first author shadowed the three main departments involved in service-performance management in IC Resort. During the shadowing, the first author took extensive observation notes and photographs so we could understand in more detail the context in which critical events occurred.

Table 2: Overview of the interviewees			
Departments	**Interviewees**	**Number of interviews**	**Informal Conversations**
Overall management (6 interviewees)	General manager Resort manager Personal assistant Resort assistant manager x 3	3 3 1 4	2 1 2
Guest relations and service (14 interviewees)	Director x 2 Manager x 2 Assistant manager x 2 Supervisor x 3 Employee x 3 Intern x 2	3 2 2 3 3 2	2 2 4 2
Quality consistent Improvement (QCI) (2 interviewees)	Director Manager	3 3	
HR department (5 interviewees)	Director Manager Employee x 3	1 2 3	
Accounting department (2 interviewees)	Director Manager	1 2	
IT department (2 interviewees)	Director IT manager	1 2	
SV group (3 interviewees)	Director x 2 Supervisor	1 1	1
Total	**34**	**45**	**16**

To analyse the data, we began by identifying key events and actors (Miles and Huberman, 1994) and arranging them into a timeline and case narrative. To determine critical events, we deemed that they needed to relate to significant changes in the technologies that the case

organisation and/or its service-performance-management routines used. We triangulated the identified critical events and actors via observation notes and secondary sources, such as company blogs and articles in the business press, before placing them on the timeline. Subsequently, we conducted a thematic analysis in which we related the data to the imbrication framework to help explain changes in the technologies and the performance-management routines observed during our case study. By doing so, we were able to identify stories which illustrate three imbrications—as shown in Figure 1.

Following closely the hermeneutic process (Klein and Myers, 1999), we reflected and improved the interpretation of our findings over three stages of data collection based on the imbrication framework described in the previous section. Next, we thoroughly reviewed the findings using the elements in the imbrication framework: human agencies, material agencies, affordances, and constraints. In doing so, we could break down the key episodes through which the imbrication of human agencies and technologies brought about changes in IC Resort's service-performance-management routines.

3.5. Findings and Analysis

Figure 1 depicts the significant changes in IC Resort's service-performance-management routines and its technologies driven by the affordances and constraints that arose from human and material agencies' entanglement.

Prior to 2015, MIG's analytics for measuring and managing performance relied on MIG's in-house developed system, which produced monthly service-performance reports. This system helped MIG hotels monitor service performance by focusing on guest loyalty and guest satisfaction, as expressed in their own surveys and questionnaires. However, due to social media's increased influence, especially TripAdvisor in relation to the hotel industry, MIG needed a more sophisticated method to analyse data generated by the platforms. To do so, MIG implemented Revinate, an online reputation-management system and social media analytics service. Revinate helped IC Resort and MIG aggregate and analyse externally produced data, such as online reviews in TripAdvisor and social media, and provided regular social media analytics. This new technology enabled IC Resort's service-performance measurement and management system to capture more details. The former resort manager gave an example to explain how data analytics can be used to enhance the company's service-performance management:

> *When you look at customer satisfaction and it shows a great result, it does not necessarily mean that the hotel's service is perfect. For example, when you filter the data according to customer nationality, it could show very different results. Customers from countries with highly developed service industries are often more difficult to please than customers from countries with less developed service industries.*

Subsequently, MIG and IC Resort began to adapt new technologies to measure and manage their service performance by introducing new performance measures into their existing system. First, MIG significantly changed how it measured and shared its service-performance data. MIG replaced a smartphone app for service-performance measurement and management that it initially developed and managed in-house with "Medallia", a cloud-based service-performance-measurement system that analysed unstructured textual information (collected from social media, reviews on TripAdvisor, Blogs, etc.) and a mobile app. This change occurred due to MIG's desire to quicken its response to bad reviews on TripAdvisor by improving its existing system, which only provided monthly service-performance reports. Medallia's cloud-based service allowed MIG to access service-performance data via various devices with different operating software (e.g., Android smartphones, iPhones, and laptops). Medallia also enabled IC Resort to compare how its performance ranked against other MIG hotels, with service-performance data updated four times a day. Consequently, Medallia changed IC Resort's service-management practices by making them more dynamic since the company could respond daily to guest reviews. In Sections 5.1 to 5.3, we describe and analyse the imbrications in terms of three key events: 1) when IC Resort expanded the broadband signal, 2) when IC Resort reallocated its radio channels, and 3) when IC Resort introduced smartphones (see Figure 1). In these sections, we indicate the specific building blocks for the imbrication (namely, human and material agencies, constraints and affordances, and practice and technology changes) by bolding the relevant term(s) within brackets in the text.

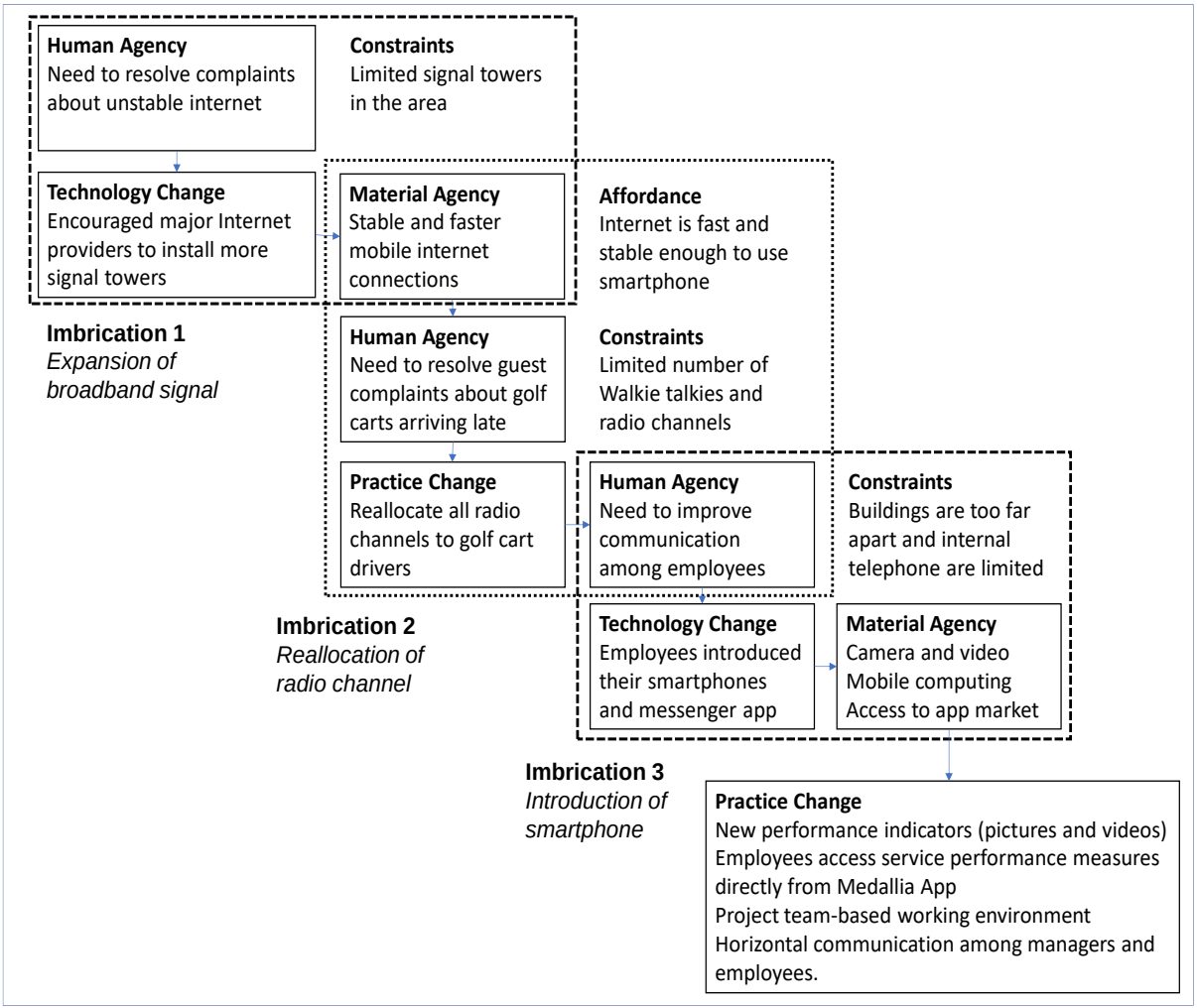


Figure 1: Process of imbrication in IC Resort

3.5.1. Imbrication 1: Expanding the broadband signal

The hotel, which is located on one side of a peninsula, has a forest behind it and a beach along its front. It takes approximately 30 minutes to drive from the hotel to the city centre. While this unique location provided IC Resort's guests with a unique experience, it also created many difficulties for its organisational activities and services. For instance, it persistently experienced weak mobile Internet coverage due to the area's poor infrastructure (**constraint**). The IT manager explained:

> *The hotel has been trying for years to improve the mobile Internet speed and coverage on the site, but because we are so far away from the city centre, we couldn't get the telecommunication companies to invest more in infrastructure just for us…. We are the only ones in this area, and they did not see any economic benefit.*

The slow and unstable Internet connection constrained IC Resort's adoption of new practices and technologies. For example, in 2014, the previous quality consistent improvement (QCI) director proposed using a smartphone app to allow managers and supervisors to share their observations and concerns in relation to service performance, such as pictures of broken facilities and employees not following the hotel's standard practices, from any location. However, the resort quickly abandoned the app. Several interviewees explained why:

> *The app required the Internet to run and it took ages to even open it. (Director of guest relations)*
>
> *It took forever to see the pictures others sent. (Manager of guest relations)*
>
> *We had to login every time to see the update and the app was just too slow. (Concierge manager)*

These mobile Internet problems, caused by the limited number of signal towers in the area, also greatly affected the guests' experience. For this reason, IC Resort's managers sought to improve the mobile Internet's speed and stability **(human agency)**. Around the same time, the hotel achieved greater recognition as one of the most luxury resorts in South East Asia. It leveraged this profile to negotiate with major telecommunication companies to install more signal towers. As the IT manager explained:

> *In 2014, we negotiated with some of the major telecommunication companies to install more signal towers to cover our hotel site better…. We used our guest profile to negotiate a great deal, which was zero cost from our side…. Because we had a lot of international guests, celebrities and even their [the telecommunication companies'] executives occasionally staying at our resort, we convinced them to see us as a strategic investment for the future and they accepted our request finally.*

Accordingly, the telecommunication companies resolved the constraint that the limited number of signal towers caused. However, although the improved mobile Internet speed and stability helped IC Resort enhance its guests' experience, it did not recognise other affordances of this improved mobile Internet capacity until later due to its policy which forbade employees from using smartphones.

3.5.2. Imbrication 2: Reallocating radio channels

IR Resort operates over several acres, and guests stay in small lodges alongside the beach. Due to the distances involved and the hot sunny weather, the resort transports guests around via a golf cart service. However, the service generated many complaints. The director of guest relations explained:

> *We have been collecting guest complaints for years now and we used this data to get more investment from our owner to buy more golf carts.... We also needed to improve the communication among the drivers, but we were not really sure what would work until we tried it.... We experimented and allocated all walkie-talkie and radio lines to the drivers to find out if it will solve the problem.*

As this quote indicates, to resolve the continuing complaints about the golf cart service **(human agency)**, IC Resort decided to reallocate all radio frequencies to the golf cart drivers so they could communicate better **(change in practice)**. This change in practice led to an immediate improvement in the guest experience, and the number of complaints decreased significantly. While this change improved the guest experience and service performance as intended, it created a shortage of internal communication methods due to the limited number of available radio frequencies that the rest of the hotel could use.

Initially, the resort planned to replace its walkie-talkies with the landline phones that connected to the internal telephone system. However, due to the hotel's unique design and its geographically dispersed guests, the internal telephone system did not prove sufficiently effective as the sole internal communication method **(constraint)**. While managers anticipated this problem, they could not think of a viable solution, since there were few radio channels available for commercial use in the area as local taxi companies, the police, and the nearby airport already used most of them.

3.5.3. Imbrication 3: Introducing smartphones

To overcome this new constraint on communications, employees started to improvise by using their personal smartphones and messenger applications (e.g., WhatsApp and Viber) to communicate with one another **(change in technology)**. To quote one employee: "We just needed to get our work done and communication is very important in what we do". At the

time, a few employees used their personal smartphones despite the resort's policy which forbid the use. However, the improvised solution for coordinating guest transport unintentionally resulted in positive changes to IC Resort's service-performance-management routines.

By using messenger applications on smartphones, employees could share pictures of guests and any problems they experienced (e.g., broken facilities). Various managers and employees noted that using messenger applications enhanced employee communication and also helped them provide a more personalised guest service. For example, a guest relations supervisor said:

> *We take a picture of our new guests and share it with others on the messenger group chat room with important notes like their dietary concerns, names, and special needs. This helps us work as a team and provide a more personalised experience for each of our guests. They feel more special because we remember who they are.*

Over time, this improvised and informal smartphone use became integrated in the resort's performance-management routines: each department used a mobile messenger chat room to share information about daily tasks, the hotel's service-performance ranking on Medallia, and matters that required immediate attention **(changes in practice)**.

The director of the guest service department pointed out that service employees actively monitored and discussed their department's performance ranking using their smartphones:

> *Some of our employees treat this [ranking on Medallia] like a game. They share it with their colleagues and say things like, our department beat Dubai branch this week.*

We can attribute this change in behaviour to the greater ease with which service employees can now access service-performance and management information. Unlike the prior service-performance reports, which top management distributed on a monthly basis, Medallia provides a daily update on IC Resort's service-performance ranking using simple numbers and trend graphs. It also provides detailed information about service performance and guest reviews. The simple visual summary made management accounting information more accessible to service employees who lack accounting knowledge. Moreover, Medallia allows employees to view their department's performance on their personal smartphones, which

means they do not have to look for performance measures in the formal documents that top management had previously issued. Feedback gathered from the interviews showed that employees were positive about using their personal smartphones and various apps (Medallia, and WhatsApp) as the following quotes illustrate:

> *I feel more included in the management decisions (Guest relations supervisor)*
>
> *We need to use our phone to work better and quicker (Guest relations employee)*
>
> *I don't have to carry my notes everywhere anymore…. This [smartphone] keeps all the events for me—to go back to at the end of the day and copy it into the log (Resort assistant manager)*

3.6. Discussion and Conclusion

In this paper, we study the process through which smartphones and digital platforms can influence organisational routines. We show how improvisations and previous imbrications can play a significant role in the way organisations use smartphones and digital platforms. We observed how the different functions/roles of the smartphone were realised and reshaped through the imbrication of different material and human agencies over time. For example, IC Resort's managers and employees did not realise the affordances that the additional signal towers provided until they improvised and started to use their personal smartphones at work. This development mirrors Ciborra's (2006) argument about how earlier imbrications can impact future imbrications in a reciprocal and non-linear way.

Scott and Orlikowski (2012) highlight how organisations can use the new forms of information that TripAdvisor provides to measure and manage employees' performance in the hospitality industry. We build on their insights and provide evidence that shows how information from TripAdvisor can interact with digital platforms and also with how employees use smartphones and various apps. Our findings show that the smartphone's flexibility and customizability (and the vast number of apps one can use on them) can facilitate improvisation and workarounds to enable organisational routines to become more effective and easier to understand. We extend previous research by introducing the notion of improvisation (Ciborra 1996) to understand the influence that mobile platforms have on

performance-management routines and empirically illustrate how smartphone use can create a flexible and interactive performance-management system.

Traditionally, organisations designed performance-measurement and management systems based on a top-down approach for selecting performance measures and reward schemes (Kaplan and Norton 1992; Simons 1995; Otley 1999). However, the dynamic and unpredictable business environment that digital platforms have enabled calls for a flexible bottom-up approach. Our findings illustrate such a flexible approach to performance-measurement and management design. As our case study demonstrates, new performance measures can be dynamic and include such things as photographs that employees take and comments on social media. Furthermore, the case study shows how smartphone practices emerged through improvisation *from the bottom up*. Thus, this research extends our knowledge about how digital platforms can enable performance-measurement and management practices to be dynamic and flexible through improvisation at the employee level by responding to the recent calls for more research on the processes of performance measures and management routines changes (Chenhall and Moers, 2015; Quattrone, 2016).

Previous research has recognised the importance of accessible and understandable performance-measurement and management systems (Boedker and Chua 2013; Chenhall et al. 2014). Recent studies suggest that informal arrangements and/or informal spaces in the workplace, together with visual information, can enhance employees' engagement with performance-management systems (Boedker and Chua 2013). Informal spaces can create a relatively safe and protective environment for employees where they have the freedom to participate in discussions and share their ideas (Huy 1999). However, these previous studies have focused on informal arrangements, such as game playing in meetings (Chenhall et al., 2014). Our empirical findings suggest that similar informal arrangements need not focus only on physical activities: employees can also create them virtually via apps on their personal smartphones. In addition, our findings illustrate how visual service-performance measures and familiarity with personal smartphones can help employees to better comprehend organisational goals.

As far we know our study is the first to explore the role that smartphones and digital platforms can play in the performance-measurement and management context. Interestingly, our findings provide a glimpse into possible challenges to the management accountants' role

in service organisations, as smartphone and digital platforms can make performance measures more accessible to users without sophisticated accounting knowledge.

While our research indicates how smartphones and digital platforms can contribute to performance management, we recognise that it has several limitations that future research could address. First, we do not explicitly discuss the potential pitfalls that can arise from using smartphones, such as privacy concerns and increased workload and stress. Although we noted in our case study some potential negative effects of using smartphones in the workplace, such effects did not emerge as a central theme in our analysis. Second, unlike Scott and Orlikowski (2012), we do not explicitly analyse how the restructured, flexible, and continuously changing organisational environments, which new digital platforms and information technology enable, can reconfigure accountability. Nevertheless, this paper provides important insights into the way in which smartphones and digital platforms become incorporated into organisational routines through improvisations and workarounds at the employee level. Future research can build on our paper and examine 1) the potential negative effects of using smartphones for improvisation in the workplace, or 2) how different forms of accountability are reconfigured via employees' use of smartphones and digital platforms.

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Chapter 4: Digital Platforms, Surveillance and Processes of Demoralization

Abstract

Recent research has explored how the hidden surveillance embedded in digital platforms is shaping modern society, a phenomenon which Shoshana Zuboff referred to as 'surveillance capitalism'. This paper extends Zuboff's work by considering how digital platforms can have moral consequences for the user organization by reconfiguring its surveillance practices. Our study of a large luxury resort hotel demonstrates that digital platforms, such as TripAdvisor and the mobile platform associated with smartphones, can reinforce existing panoptic surveillance and facilitate the development of new synoptic surveillance. Notably, while employees actively participate in such surveillance practices, they show little awareness of the potential moral consequences of their actions, such as the invasion of privacy, exploitation and pressuring others outside working hours. This paper analyses such demoralizing processes within the organization. It suggests that the digital platforms can have unintended moral consequences for user organizations, making them morally ambivalent.

Keywords: Surveillance, digital platforms, smartphone, performance management, morality

4.1. Introduction

Digital platforms comprise *"products, services, or technologies that act as a foundation upon which external innovators, organized as a business ecosystem, can develop their own complementary products, technologies, or services"* (Gawer and Cusumano, 2014).

Research which explores the implications of digital platforms has improved our knowledge of, amongst other things, how readily available digital resources on digital platforms can influence organizations' existing digital infrastructure (Rolland et al., 2018) and performance evaluation practices (Orlikowski and Scott, 2014). Furthermore, the recent high profile scandals involving some well-known digital platforms, such as Facebook and Cambridge Analytica's privacy breach (Cadwalladr and Graham-Harrison, 2018), Uber and drivers' labor rights (Butler, 2018), Google and 'surveillance capitalism' (Zuboff, 2019, 2015), have heightened concerns and drawn researchers attention to the unintended consequences of digital platforms (e.g., see Cusumano et al. 2019). Yet, literature analyzing the potential "dark-side" of digital platforms and how it can influence user organizations is relatively limited. For example, although Orlikowski and Scott's study of TripAdvisor mentions that hotels use of TripAdvisor can increase the level of surveillance experienced by employees, they did not elaborate on this issue as it was not the central focus of their paper.

Zuboff's (2015, 2019) study of *surveillance capitalism* showed how surveillance algorithms, embedded in digital platforms, can affect users' perception of privacy and freedom to make their own decisions (Zuboff, 2019, 2015). Although this and the other studies mentioned above provide valuable insights into understanding how surveillance embedded in digital platforms can influence and shape behaviors at societal level, we know relatively little about the consequences of new forms of surveillance, facilitated by emerging technologies such as digital platforms, from the perspective of the users at the organizational level.

This paper aims to contribute to the existing literature by highlighting and analyzing the moral consequences of digital platforms within user organizations. Exploring the potential "dark-side" of digital platforms can yield important insights into how digital platforms influence organizations (Bailey et al., 2019). Specifically, we build on Zuboff's (2019, 2015) treatise on the implications of digital platforms' hidden surveillance, and examine how digital platforms may reconfigure surveillance practices and concomitantly induce an

ambivalence towards the potential moral consequences of the actions of individuals. Evidence is derived from a longitudinal case study of a luxury resort hotel operating in a dynamic environment shaped by various digital platforms, such as TripAdvisor and mobile platforms associated with smartphones. Findings are analyzed by deploying a theoretical framework from business ethics, Jensen's (2010) processes of demoralization.

In the next section, we review the literature on digital platforms. This is followed by an account of the notion of liquid surveillance and Jensen's (2010) six processes of demoralization to help us understand the contexts and conditions that facilitate a state of moral ambivalence. We then present our research method and setting, followed by our analysis and discussion. The paper concludes by presenting the contributions of our study and the implications for future research on digital platforms and demoralization.

4.2. Digital platforms

Popular examples of digital platforms include social networking (e.g., Facebook: see (Gawer and Cusumano, 2014; Salehan et al., 2017), multi-sided markets (e,g., eBay, Uber: see (Tan et al., 2015), and travel review websites (e.g., TripAdvisor: see Hong et al., 2016, Jeacle and Carter, 2011, Orlikowski and Scott, 2014, Scott and Orlikowski, 2012). Other examples include smartphones and the associated apps that hardware manufacturers sustain (e.g., Samsung and Huawei), mobile operating systems (e.g., Android, iOS), and app markets that users create and sustain (Tilson et al., 2012). Here, we draw on the concepts of individualization, flexible adaptation, innovation and boundaryless interactions between content consumers and producers, and between amateurs and professionals (Constantinides et al., 2018). These concepts align with Ciborra's (1996) and Mintzberg's (1991) earlier insights which emphasize the importance of flexible management in an environment that encourages improvisation and innovation.

In the following review, we emphasize that digital platforms may cross or "blur" organizational boundaries by 1) enabling inter-organization collaboration and 2) challenging existing organizational practices.

The literature on digital platform users, both organizations and individuals, has shown how external platforms can bring changes to existing processes and practices. For example, Henfridsson et al. (2018) demonstrated how music-streaming services, such as Spotify and

Pandora, use Amazon's digital platform (Amazon Echo) to connect users to their digital resources. The Henfridsson et al.'s (2018) study provides valuable insights on how digital innovation can recombine digital platforms' resources. Rolland et al. (2018) illustrate how a user organization adopted a platform by exploring how it could be used to manage its existing digital infrastructures and organizational processes. These studies provide important new knowledge on how digital platforms can offer readily available resources for user organizations, thereby making inter-organization collaboration easier, which in turn can reconfigure existing organizational practices.

In the context of individual digital platform users, Ling et al. (2011) showed how individuals used social media platforms in Thailand following a major flood in 2011. The authors emphasized how social media helped to empower communities by enabling actors to participate collectively via simultaneous and timely communication. In a similar vein, Scott and Orlikowski (2012) analyzed online reviews on TripAdvisor and explained how this digital platform facilitates a new form of accountability and surveillance by connecting individual users and enabling active multi-way ratings and rankings. Subsequently, Orlikowski and Scott (2014) extended their previous work on TripAdvisor by examining how these online consumer-based evaluations, enabled by a digital platform, differ from the traditional standardized evaluations in the hospitality industry. Their study of TripAdvisor showed how less regulated, personalized and often contradictory qualitative assessments, contributed by a large number of anonymous consumers, can challenge the existing structured practices, despite being seemingly less reliable and ambiguous.

Overall, the extant literature provides valuable insights into how digital platforms can facilitate inter-organization collaboration and shape existing organizational practices. By challenging existing organizational structures, digital platforms can provide new forms of surveillance. For example, social networking and travel review sites can allow the public to monitor the behaviors of large corporate organizations (Orlikowski and Scott, 2014; Scott and Orlikowski, 2012), and multi-sided markets can enable flexible occupations and short term contracts (Cusumano et al., 2019). Furthermore, by creating a mobile and distributed working environment (Brynjolfsson and McAfee, 2014; Constantinides et al., 2018; Oborn et al., 2019) digital platforms can influence organizational communication methods and employees' performance signaling practices (Cristea and Leonardi, 2019). Yet, an important gap in our knowledge remains; specifically concerning the moral consequences of digital

platforms for user organizations and their employees (Bailey et al., 2019). Such consequences result from new forms of surveillance (Zuboff, 2019, 2015) which change in the way workers respond in a mobile and self-organizing working environment.

To better understand these effects, we turn to Jensen's (2010) study of demoralizing processes. Informed by Bauman's work on morality (e.g., Bauman 1993, 1995), Jensen argues that demoralizing processes can promote an environment in which individuals increasingly become ambivalent towards the moral consequences of their actions.

4.3. Theoretical Perspective: processes of demoralization

Jensen's (2010) theoretical framework is comprised of six processes of demoralization mainly underpinned by the eminent sociologist Zygmunt Bauman's work on morality. Bauman argues that moral responsibility is considered to belong exclusively to individual human beings and from such a perspective, there is no rule that can universally guide individuals (Bauman 1993). Consequently "morality may only be understood by the continuous existence of self-doubt within the moral entity" (Chatterjee et al. 2009, p. 789). For Bauman, individuals can become "morally ambivalent" (Bauman 1993, p. 10) and be easily influenced by the norms of society. Bauman characterizes two main positions on morality: "being with" and "being for". "Being with" represents a social context where individuals uncritically follow social norms and act indifferently to each other. For such morally ambivalent individuals to take increased moral responsibility, they need to act on their own beliefs and sometimes on impulse even if it contradicts the social norms, a position which Bauman characterizes as 'being-for' (Bauman 1993, 1995).

Following Bauman's argument, we posit that some individuals become ambivalent about the moral consequences of their actions, a phenomenon which Bauman refers to as adiaphoric (see Bauman & Lyon, 2012; Jensen, 2014). Bauman (1995, p.149) describes the related concept of adiaphorization as the process of "making certain actions, or certain objects of actions, morally neutral or irrelevant – exempt from the categories of phenomena suitable for moral evaluation". Put simply, adiaphoric tendencies can be understood as the process of reduction and simplification of moral obligation to a manageable size, so no single individual holds full responsibility for his/her action.

Building on Bauman's insights, Jensen (2010) identified six demoralizing processes to explain how organizations can systematically promote a realm of 'being-with', in which individuals' concern for the moral consequences of their actions are marginalized. Using these processes, Jensen (2010) argues that organizational actions can become devoid of moral judgment and this can have a profound influence on individuals' morality.

The first two of Jensen's demoralizing processes take place in contexts where organizations engage in *flexible specialization* and consequently face the *constant discontinuous reinvention* of routines. This can reduce stability in the workplace as individuals become detached from their previous experience. In such a context, individuals are faced with instabilities and uncertainties in their tasks, while being required by the organization to perpetually expand their efforts with no guarantee that they will receive reward or recognition (Bauman, 2002, 2000). This can cause the individuals' focus to shift from long-term collective commitments to short-term individual gains (Bauman, 1998). For an ambitious few, who willingly put their personal success above others, this presents an opportunity to progress by stepping over the many others who struggle with the increased responsibility and the pressure of constant (re)training to avoid being laid off (Bauman 2002). This will, in turn, loosen the "bond of trust and commitment" between organizational members (Sennett 1999, p. 31)**.** The major effect of these conditions is that they facilitate 'social production of distance' (Bauman, 1989, p. 199), creating distance between human interactions and separating each person's actions from the consequences of those actions. Jensen (2010) explains this effect as the third demoralizing process, *differentiation through mediation of action.*

Jensen's (2010) fourth demoralizing process, *substitution of technical for moral responsibility,* is explained as a context in which the moral significance of an action is concealed from individuals (see Bauman 1989). Using the example of Milgram's (2005) electroshock experiment, in which students were asked to deliver punishment (in the form of electroshocks) to another person (a hired actor), to study how learning capability was affected, Jensen (2010) argues that individuals:

> *"gradually become absorbed by technological aspects of the task at hand, how this task could best be technically solved and carried out, pay lesser and lesser attention*

> *to dimensions and consequences other than those belonging to the technological realm of action"* (p. 430).

Consequently, an individual's moral responsibility is substituted by the technicality of the task in hand, and the individual's focus becomes based solely on whether the options available to them are *"effective and ineffective, efficient and inefficient"* (Bauman, 1989, p. 180).

The fifth and sixth demoralizing processes, *concentration without centralization of power* and *reduction to traits*, concern the way in which digital technologies allow organizations to move beyond traditional hierarchical structures and allow business units to manage their tasks while pursuing the goals set by central management. In this context, individuals within organizations can experience greater control over their tasks, while synoptically surveilling each other and themselves. However, this does not imply that hierarchical or panoptic surveillance and control no longer exist. Instead of closely monitoring individuals' every action, by setting quantified targets management can reduce individuals' actions to a set of specialized and standardized traits (Bauman 1989), while giving those individuals responsibility to decide how to achieve the targets. In these contexts, individuals engage in synoptic surveillance by monitoring each other's behavior against the organization's rules and demands. As a consequence, individuals' perceptions of 'responsible actions' can come to be equated with acting in accordance with organizational rules and demands (Jensen, 2010). Responsibility is broken down into a smaller, more manageable size, because those who enact *"are excluded from the authorship of their acts, those that command do not enact. As a consequence, neither bears full, undivided responsibility for their acts"* (Bauman 2014, p. xvi).

In the next section we will further discuss these last two demoralizing processes by turning to Bauman and Lyon's (2012) notion of liquid surveillance.

4.3.1. Liquid surveillance

Digital platforms have shifted the surveillance and control relation between superior and subordinate and enabled synoptic surveillance, whereby many (e.g., the public and employees) watch each other, and the few (e.g., an organization or specific individuals who are under public scrutiny) (Bauman and Lyon 2012, see also Scott and Orlikowski 2012).

Similarly, Hancock (2003) suggested that in a society with increasing liquid modernity, actors in organizations will seek ways to benefit from both panoptic and synoptic surveillance by creating a flexible working environment. These two forms of surveillance, in combination, shape the experience of individuals in liquid organizations, making them flexible and self-organizing and, consequently, make their lives more unpredictable. Unlike in "solid modernity", where organizations construct control by instilling a sense of constant surveillance (Foucault, 1977), in a liquid organization individuals fear *"not been noticed"*, and consequently their actions are often driven by the desire to be seen by others (Jensen, 2014). For Bauman, this fear encourages individuals in liquid modernity to voluntarily submit to surveillance and to disclose private information in exchange for convenience and a sense of solidarity. This is shown in the examples of individuals routinely displaying their lives on digital platforms, such as Facebook, Instagram and Twitter. Bauman and Lyon (2012) posit that digital platforms have changed the way people live their lives: for example, publicly sharing photograph albums with private memories, and voluntarily displaying one's location through status updates or involuntarily via smartphone data which tracks the user's location. For Bauman and Lyon, using digital platforms has liquefied solid modernity and, as a result, the boundaries between private and public lives have become increasingly vague (Bauman and Lyon, 2012).

This phenomenon, in which boundaries between private and public lives are blurred, is also manifest in individual and group experiences in organizations. As Clegg (2018, p. 357) notes:

> *A life lived in public increasingly pervades people's experiences in organizations. It does it in two ways: one is through an enhancement of the panoptical tendencies of solid modernity, where the few exercise surveillance over the many; the other is through the development of new forms of synoptical power, where the many watch each other and the ambitious among them watch the few. The two systems of power combine within liquid modernity.*

In a liquid organization, synoptic and panoptic forms of surveillance supplement each other. We can see this in digital platforms which enable and strengthen panoptic surveillance and facilitate synoptic surveillance. Digital platforms, sustained by mass participation, have changed the relationship between organizations and individuals, and have given rise to new forms of synoptic surveillance. For example, Scott and Orlikowski (2012, 2014) demonstrate

how reviews on TripAdvisor, which allow anyone to monitor the performance of hotels and restaurants, synoptically influence the behavior of those organizations. Digital platforms can act as an effective tool which enables many individuals – guests and customers – to monitor relatively few organizations, and this shifts the surveillance relationship between individuals and organizations.

In contrast to studies illustrating how synoptic surveillance can be facilitated by TripAdvisor, Zuboff's (2019) analysis of Google's hidden surveillance of its users explains how digital platforms hidden algorithms and their business model can give rise to a new form of panoptic surveillance. Zuboff argues that while digital platforms offer users greater freedom to search and consume information, Google exercises control over users' behavior through predictive analytics. Thus, the freedom and benefits which Google's users experience are accompanied by a higher level of surveillance. In other words, what Google's users may perceive as a 'free' service is not free, as users pay by allowing their usage data to be used to create personalized marketing.

The forms of panoptic and synoptic surveillance facilitated by digital platforms differ from previous forms in two ways, 1) management's intention and 2) the visibility of surveillance practice.

First, technologies, such as CCTVs, cameras, and motion detectors, are often used by management with the *clear intention* of enhancing existing organizational surveillance practices (Pierce et al., 2015; Sewell et al., 2012; Sewell and Barker, 2006; Staples, 2013, 1997). Furthermore, a recent study by Anteby and Chan (2018) showed that resistance to existing forms of surveillance can be used by management to justify even stronger forms of surveillance, thereby creating a self-fulling cycle of increasing surveillance. In contrast, the changes in forms of surveillance facilitated by digital platforms may not entail management intention (e.g., Scott and Orlikowski 2012, 2014). Instead, digital platforms can become constitutively entangled in everyday social and business lives (Orlikowski, 2007), and this can, in turn, further blur boundaries between private and public life (Bauman & Lyon, 2012; Clegg, 2018). Therefore, we argue that the surveillance facilitated by digital platforms, such as TripAdvisor (Scott and Orlikowski 2012, 2014) and Google search (Zuboff, 2015, 2019), does not require a clear management intention to change.

Second, the view has generally been held that effective surveillance requires subordinates to recognize that they are being watched so as to create a constant sense of surveillance (Foucault, 1977; Townley, 1994). This view is often illustrated using the Panopticon metaphor. This was an ideal design for a prison building, originally conceived in the 19th century by the English philosopher and prison reformer, Jeremy Bentham, in which it was proposed that prisoners should be housed in cells set around a centrally located watchtower. This would give the prisoners a sense of constant surveillance, even when they were not actively being watched. In contrast, digital platforms can subject individuals to surveillance by projecting their private lives into the public space through social media (Bauman & Lyon 2012) and thereby facilitating a new and *hidden* form of panoptic surveillance (Zuboff, 2015). Unlike the Panopticon and other traditional forms of panoptic surveillance, Google's surveillance algorithms are invisible and largely unnoticed by the users. Bauman and Lyon (2012) argue that even when the hidden surveillance is noticed, individuals in liquid modernity would prefer to give up their privacy rather than the convenience and benefits they have been experiencing.

4.4. Methods

We conducted a qualitative, longitudinal case study (Miles and Huberman, 1994) of a luxury resort hotel in Vietnam, over a three-year period. For reasons of confidentiality, we refer to the hotel as IR (a pseudonym). IR opened in mid-2012 and was one of the first luxury resort hotels in the region. As part of a strategic investment to establish the city as a popular international tourism destination, a Vietnamese developer, SV, designed and built the resort, and it is now managed by an international hotel chain, MIG (again, we use pseudonyms for both names).

We collected data from three sources, observations, interviews and archival materials, to understand how digital platforms changed IR's organizational surveillance practices, and how and why individuals use digital platforms in their work and the implications of their use for individuals. Following Myers and Newman (2007), we conducted semi-structured interviews in three phases over three years: 11 interviews with 6 informants in June, 2014; 14 interviews with 10 informants in July, 2016; and 28 interviews with 24 informants in May, 2017 (see Table 1). In the first phase, we explored how individuals in the sector generally understood digital platforms by gathering data from four different organizations.

In the second and third phases, we chose one of those four organizations and focused on gathering deeper insights regarding the context and how digital platforms had become entangled with the organization's surveillance practices and thereby affected the individuals working therein.

Table 1. Overview of Interviews in IR		
Type of department	Number of interviewees	Rank
Operation departments	Management: Six interviewees (1-6)	General manager Resort manager (former) Personal assistant Resort assistant manager x 3
	Guest relation and service: Fourteen interviewees (7-20)	Director x 2 Manager x 2 Assistant manager x 2 Supervisor x 3 Employee x 3 Interns x 2
	Quality consistent improvement: (Management accounting) Two interviewees (21-22)	Director Hygiene and safety manager
Support departments	HR department: Five interviewees (23-27)	HR director HR manager HR employee x 3
	Accounting department: Two interviewees (28-29)	Accounting director Accounting manager
	IT department: Two interviewees (30-31)	IT director IT manager
Owner	Hospitality developer: Three interviewees (32-34)	Director x2 Supervisor

Additionally, we gathered observational data using ethnographic field research techniques (Myers, 1997, 2013) in order to "move beyond the immediate narrative of the subjects to the broader processes within which the narratives are embedded" (Myers and Young 1997, p. 227). By adopting ethnographic techniques, we were able understand the ongoing social activities in the hotel and obtain a rich data about the context in which individuals experience surveillance as a result of digital platforms. Specifically, during the third fieldwork phase (April to May, 2017), one of the authors spent three weeks shadowing the three main departments concerned with managing service performance (guest relation and service, quality consistent improvement, and management) involved in the hotel's surveillance practices. During this time, the author kept a detailed diary and took pictures and videos to record experiences and observations. The author was housed near the employee residential

area and commuted to the research site each day on the employee shuttle bus to become personally immersed in the context that the employees experienced daily. During these commutes, the author interacted with employees from various departments and gathered insights into how they viewed the digital platforms in use. After each interaction and observation, the author took extensive notes, which helped to illustrate the scene and the context for each interaction and observation. By so doing, we collected rich data in the form of stories that illustrate digital platforms in relation to organizational practices. Table 2 summarizes our data-collection methods.

Table 2: Data collection	
Method	How?
Interviews	We conducted 45 semi-structured interviewed within the case organization and an additional eight interviews with other organizations in the same industry. Each interview lasted between 20 to 160 minutes (40 minutes on average). During the first and second phases, we used three initial questions to guide the interview and ensure we obtained an overall view of the operations. We conducted these interviews in the offices and the cafeteria located on the fieldwork site. We selected informants using a snowballing technique and digitally recorded all interviews. In addition to the recorded interviews, the first author engaged in informal conversations with the informants while having meals in the employee canteen. The author did not record these informal conversations, but took detailed observation notes in a diary entry after each conversation.
Observation	During the third data-collection phase, the first author spent 7-10 hours per day shadowing and observing the participants for three weeks. During this ethnographic phase, the author commuted with employees and managers using the shuttle bus every day and attended daily briefings (morning and lunchtime), service audits, monthly departmental performance-report meetings, and service-performance audits. Specifically, the author observed: 1) how employees and managers used digital platforms in their surveillance practices, 2) how employees used smartphones and various apps in their work and 3) how individuals with different ranks, and from different departments, interacted with one another. During the observations, the author made detailed notes and asked follow-up questions when necessary. The author kept a fieldwork diary and observation notes and used pictures and videos to record his experiences and the fieldwork context.
Archival data	In addition to the primary data collected from interviews and the ethnographic observation, the author gathered archival data, which included websites (such as TripAdvisor), employee-training programs, internal service standards, and other service performance-related reports, such as key performance indicators and balance scorecards.

4.4.1. Data Analysis

In analyzing the data, we sought to understand how digital platforms reconfigure surveillance practices and influence individuals into a state of ambivalence regarding the moral consequences of their actions. We first identified key service-performance management episodes and actors, and then arranged them into a timeline and case narrative. To select the key episodes, we considered two criteria: specifically, whether the episode concerned: 1) the organization's surveillance practices for managing service performance or 2) changes in the way the organization used external digital platforms. By focusing on these key episodes, we were able to describe the case in detail and show how digital platforms: 1) influenced the organization's hierarchical (panoptic) surveillance, 2) influenced its practices for managing service performance and 3) gave rise to liquid surveillance (by becoming constitutively entangled with the organization's panoptic and synoptic service performance management).

After sorting the data by focusing on surveillance changes, we looked for relevant events and quotes from the key episodes to illustrate the influence of digital platforms on both organizational surveillance practices and individual morality. Specifically, we looked for evidence of individuals, both employees and managers, showing little or no awareness or concern for the potential moral consequences of their actions. The events, observations and quotes were then re-examined using Jensen's (2010) six demoralizing processes to explain why the respondents were ambivalent towards the potential moral consequences of their actions: i.e., why they were displaying adiaphoric tendencies.

We triangulated the episodes and actors with other interview findings and observations. Subsequently, through intensive discussion and continuous reading of the relevant literature, we related the data to relevant theories to explain the phenomena we had observed. We then categorized and re-categorized our findings to extract emergent themes (Walsham, 2006) by reference to our conceptual frame of liquid surveillance and adiaphoric tendencies. Through this process, we linked our theorization and thematic analysis.

4.5. Case background

IR's departments can be broadly categorized into two groups: operation departments (guest service and relations, concierge, leisure and spa) and support departments (human resources,

accounting, quality consistent improvement, food and beverage, maintenance and IT). While the support departments work behind the scenes in their dedicated spaces, the operation department members interact directly with the guests. Due to the physical layout of the resort (which spreads over a 1km beach), it was common for operation department employees to constantly move around the site to interact with guests. This made it difficult for managers to monitor employees' performance via hierarchical reporting and the monitoring practices prescribed in MIG's formal guidelines.

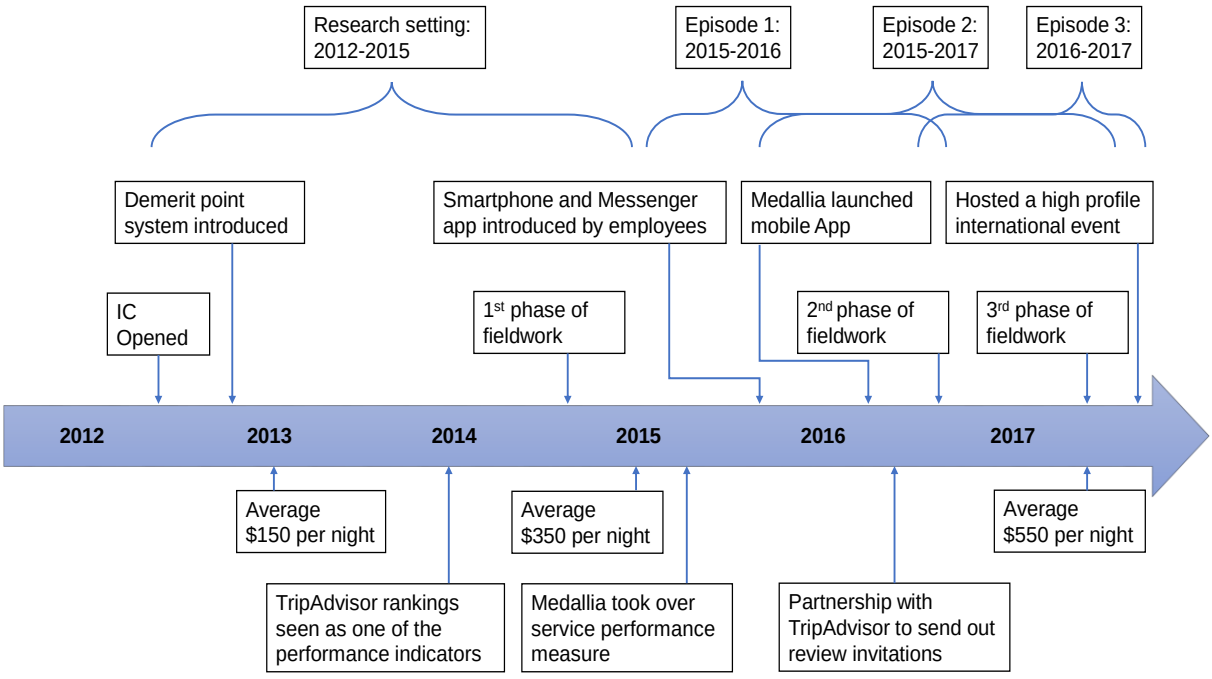
In 2014, in order to meet the service standards and requirements of MIG (which has considerable experience in managing internationally recognized luxury hotels and resorts), IR brought in an MIG management team and introduced MIG's management tools, including their key performance indicators (KPIs), employee training programs, reporting procedures, intranet and enterprise resource planning (ERP) systems. IR management use these resources to create panoptic surveillance through detailed procedures which allowed IR's management team (the few) to closely monitor their employees (the many).

A primary task for IR was to overcome the skills and experience gap between international and local employees. Compared to the international employees that MIG brought in, local employees perceived "luxury service" rather differently, as they had experience of neither working in a luxury resort, nor staying in one. IR's top managers recognized and attempted to overcome this gap by training the employees and tightening internal surveillance practices. In addition to the formal performance-reporting system, which followed the hierarchical monitoring and reporting system, the general manager introduced a "demerit point system" that created a sense of constant surveillance among the employees. As opposed to the prior surveillance practices, in which managers had monitored employees' service performance at set review times, such as during the quarterly service audit, the demerit point system allowed managers to give demerit points to employees at any time. Since this system required managers' physical presence and direct observation, the managers emphasized the importance of connecting with employees as the hotel business is "all about connecting with people" (Resort Manager). Although IR's managers highlighted the importance of understanding and establishing a connection with employees in 2014, we observed that this was beginning to change as digital platforms had begun to influence IR's surveillance practices.

4.6. Findings

This section presents three key episodes concerning the changes in surveillance practices which unfolded as digital platforms crossed organizational boundaries and employees began using smartphones at work. By discussing these three episodes we illustrate how new forms of surveillance, which we refer to as liquid surveillance, resulted in adiaphoric tendencies. Overall, the episodes reflect a gradual transition of IR, from an organization in which employees did what they believed to be right, to an adiaphoric organization in which individuals are ambivalent towards the moral consequences of their actions. Figure 1 summarizes these key episodes.

Figure 1. Key Episodes Surrounding IR's Use of Digital Platforms



4.6.1. Episode 1: Emergence of synoptic surveillance

Prior to 2015, despite TripAdvisor's growing influence over the hospitality sector, IR's management did not trust the reviews and/or the accompanying information, and consequently they took the view that it was not reliable for measuring their service-performance. This was because of the growing number of guests who used TripAdvisor to

"blackmail" the hotel for upgrades and other benefits, as the following comment by the resort manager indicates:

> *[TripAdvisor] is one of the most popular measures of hotels' success and we do include this in our service performance evaluation, but we cannot be too influenced by what is posted on this website every day…. Sometimes guests insist on getting an upgrade or freebies by telling us that they will write a bad review on TripAdvisor or Booking.com, which will influence our reputation…. The individual reviews are not always reliable, and we have our own brand and standards to evaluate our employees' performance.*

As the above quote illustrates, instead of actively engaging with TripAdvisor and focusing on obtaining good reviews, IR continued to follow the standards and practices set by MIG's formal guidelines to determine the quality of their performance. Furthermore, the evaluation of employees' performance was based on managers' understanding of internal procedures and their own interpretations. It was emphasized by the resort manager that his top priority was to train and educate employees so they can gain the ability to act on their own beliefs and interpretations, rather than becoming "obsessed" with TripAdvisor reviews.

However, IR's attempt to control its employees' behavior did not keep pace with the rapidly increasing synoptic surveillance that was emerging due to the expanding number of digital platform users, both internal and external, to the hotel. As the number of tourists grew, the influence of digital platforms increased significantly. For example, by 2015 rankings on TripAdvisor, along with IR's guests' and competitors' reviews, had begun to have a greater influence. The new general manager, who replaced the former resort manager in that year, acknowledged that:

> *[TripAdvisor] helps us get attention from potential guests, but also causes us a lot of headaches…We subscribe to TripAdvisor's service to send out invitations to leave a TripAdvisor review after our guests' checkout. TripAdvisor provides us with their invitation links, and we send it to our guests' email after they check out.... If you look at this [showing a list of TripAdvisor reviews on other resorts] many of these reviews are written by first-time users, and they don't have the verified mark…. We think some of our new competitors buy reviews or tell guests to write a good review during their stay for gifts, but we can only suspect it.*

This quotation is significant because it is clear that the new general manager recognized that TripAdvisor had effectively crossed IR's organizational boundaries. In an attempt to gain some control over the influence of TripAdvisor, IR began to actively engage with it; for example, by encouraging guests to write reviews and sending out invitations to use TripAdvisor online reviews. This not only helped to increase the number of reviews of IR, and the frequency with which they appeared on TripAdvisor, but it also helped IR to ensure that it was actually guests who stayed and experienced the hotel's service who wrote the reviews. Consequently, TripAdvisor's ranking and reviews became the more central focus of IR's employees and managers, and our informants frequently made such statements as *it is very important for us to get good reviews on TripAdvisor to stay ahead of our competition*. Furthermore, IR management's active participation with TripAdvisor helped to ensure that most of the reviews were written by guests who had pleasant experiences during their stays at the hotel. In this way, IR began to establish a degree of control over the synoptic surveillance that the users of TripAdvisor had created.

During the same period, in order to attempt to manage the content of the various digital platforms (but mainly Facebook, Twitter and TripAdvisor), MIG changed the way in which it evaluated service performance, moving from in-house generated data to an outsourced provider called Medallia. Medallia collects textual data from relevant digital platforms, chiefly Twitter, Facebook, Booking.com and TripAdvisor, which it analyses to identify trends in the resorts' service-performance. As a consequence, the idea of *good service performance*, which used to be based on comments received from guests, managers' own observations and their understandings of MIG's detailed guidelines, became simplified and *reduced to a set of traits* (Jensen 2010), such as quantified scores and rankings based on reviews from the various digital platforms. In other words, IR's managers' and employees' understanding of 'good service performance' became simplified and transformed into a 'good ranking on TripAdvisor'.

4.6.2. Episode 2: The development of liquid surveillance

In 2015 circumstances arose which led to the widespread use of employees' personal smartphones for communication at work and, concomitantly, led to the adoption of mobile platforms in the hotel. At that time management had allocated all the available walkie-talkie and radio channels to the golf cart drivers who transported guests around the hotel site.

Consequently, other employees experienced severe difficulties in communicating with supervisors, and each other, when undertaking their day-to-day tasks. To deal with these difficulties, employees began to use their personal smartphones and messenger apps. Although previously IR's rules had strictly prohibited employees from using their personal mobile phones, management now allowed, and even encouraged, them to do so, as it significantly improved communication around the hotel site. As a result, smartphones and messenger apps, enabled by mobile platforms, crossed organizational boundaries despite previously being prohibited.

The adoption of mobile platforms and the increase in personal smartphone use blurred boundaries between IR's panoptic performance-management surveillance practices and its employees. It did so by inducing synoptic surveillance among IR's employees, for whom this new synoptic form of surveillance offered greater freedom and control over their work. We can illustrate the reconfiguration of panoptic surveillance and increased synoptic surveillance with two illustrations.

The first illustration relates to employees' and managers' improvised use of the group chatrooms in their messenger apps (such as WhatsApp and Viber) to share specific observations about the service provided to guests. Each group chatroom had its own theme based either on short-term projects (e.g., VIP guest stay, conferences and weddings) or on individual departments and their responsibilities. These chatrooms allowed IR's employees and managers to share information immediately, without having to go through the previous hierarchical reporting procedures. For example, during the fieldwork, we observed employees taking pictures of broken fixtures. These pictures were then shared simultaneously with other employees and managers in messenger group chatrooms. As a result, group awareness of this particular problem was immediate, and it was fixed by the end of the day. Thus, employees had flexibility and immediacy in their surveillance practices, and communication among them began to resemble the flexible, spontaneous and transparent forms of communication typically found on social media (Brivot et al., 2017). Consequently, employees and managers began to synoptically keep track of others' current whereabouts and service-performance status.

Over time, these changes enabled *both* managers and employees, rather than just the managers, to take responsibility for the organization's service performance, by looking for

potential performance issues (as shown in the example of taking pictures of broken fixtures) and raising them with other employees and managers. In other words, the distinction between the role of managers and employees become blurred as the latter gained more freedom and control over their work. This change in IR's surveillance practices illustrates *concentration without centralization power* (Jensen 2010) as the surveillance was no longer the sole responsibility of managers; instead it was shared and distributed to many employees at various ranks, and even to others outside organizational boundaries, such as guests and other digital platform users. However, even though the surveillance moved beyond the traditional hierarchical structure, employees were still influenced by the organizational rules and demands set by top management (Jensen 2010), making it difficult to identify who is responsible, as responsibility is shared among many individuals.

Furthermore, employees' and managers' active use of group chatrooms created opportunities for some employees to explore the increased freedom and control over their tasks by voluntarily taking a surveillance role, which in turn strengthened the panoptic surveillance. Similar to Zuboff's (2015) example of Google's surveillance, the second illustration shows how IR's employees' active use of their smartphones created an opportunity for IR's IT manager to create a new form of hidden panoptic surveillance which monitors employees' smartphone usage. The IT manager explained:

> *I got a lot of complaints from the guests and the managers about the slow broadband speed and low coverage during the daytime…. Since we recently upgraded our broadband speed, I suspected that it could be our staff using too much Internet near the guest areas…. I designed software to confirm this…. Since only the staff will use the internet in both guest areas and back-office [staff canteen and changing rooms], the software collects all the devices' MAC address [unique identifier code that cannot be changed] that used Internet near the back office and guest areas. This helps me distinguish the HR staff working in the back office with the operational staff who work in guest areas. I then limit the Internet speed for operational staff's devices using the software I designed.*

Here, the IT manager saw an opportunity both to solve the problem of Internet speed with an improvised solution and to gain recognition. He proudly pointed out that this solution represented *"one of my finest outputs"* and he received a lot of praise for solving the problem

without incurring additional cost. Although the internet usage tracking software was initially designed to limit employees' internet usage, it could also be used to track employees' locations, as well as their internet usage patterns, and this created a greater level of panoptic surveillance. This illustrates two of Jensen's (2010) demoralizing processes, *discontinuous reinvention of companies,* and *flexible specialization of production.* In this example we see how the demand for continuous improvement and fast decision making resulted in the IT manager wanting to signal his performance and commitment (Cristea and Leonardi, 2019; Jensen, 2014). However, in so doing, the IT manager created software, which can invade employees' privacy, without any consideration of the moral consequence of this action (Bauman 1995).

The rationale behind the IT managers' surveillance resembles Google's rationale for retaining individual search histories; namely, to stop a problem before it occurs (Zuboff, 2015). The IT manager's surveillance relies on employees using their smartphones and is similar to the surveillance algorithms in Google's search engine. As such, the software has characteristics of panoptic surveillance as it allows the IT manager (the few) to keep track of the locations and Internet-usage patterns of employees (the many). The relationship between the IT manager's new form of panoptic surveillance and the employees' synoptic surveillance corresponds with Orlikowski's (2007) notion that the social and material are constitutively entangled in everyday life. These two forms of surveillance inextricably relate to each other in the sense that the IT manager's software influenced the way employees use their smartphones, but the usefulness and functionality of the IT manager's software depends on employees' actively using their smartphones on the hotel site. This entanglement enabled IR's surveillance practices to undergo continuous and flexible change; i.e., it is liquid surveillance.

4.6.3. Episode 3: Adiaphoric tendencies

By early 2016 the moral consequences of this liquid surveillance were becoming increasingly evident. The changes in surveillance practices, which the digital platforms enabled, provided opportunities for the employees to experience greater freedom at work, in that they could work more flexibly, adaptively and creatively. However, this increased freedom put employees under constant surveillance, which sometimes extended outside the workplace.

For instance, because IR only has a limited number of bilingual employees, other employees often ask them to translate letters, reviews and messages in, for example, Korean, Chinese and sometimes Spanish, into English or vice versa. Sometimes such requests were made to individuals not on shift; but as they were made through the group chatrooms, other employees at all ranks (including the managers) could see them. Thus, it was easy to identify whether the individual completed this translation work quickly. Although it was generally claimed that no one had to work extra hours, or check messages on group chatrooms outside their normal working hours, there was evidence that bilingual employees felt pressured to respond immediately due to the need for constant connection. For example, one employee said:

> *We are not expected to read the messages [on messenger group chatrooms] when we are off-shift…. I don't normally reply to the messages, but I still like to read through the messages to keep myself updated. Otherwise, it is difficult to keep up when I come back to work, and I don't want to feel left out…. Sometimes, it [translating] is too much work but I am here to advance my career, so I try to see it as an opportunity to develop my skills and be recognized by the management (Guest relations supervisor)*

Ironically, the group chatrooms that encouraged employees to voice their opinions, also enabled synoptic surveillance and were used to pressure a specific group of employees, in this case, bilingual employees, to working extra hours. However, we found no evidence that other group chatroom members had concerns about feeling pressured to perform extra duties outside normal working hours. When we asked the manager and employee involved in the above incident for an explanation, the manager's response was, *"this is what we do to achieve our service quality"*.

Furthermore, none of the respondents expressed particular concerns or frustrations about increased surveillance more generally in the hotel. Instead, they believed that as long as their actions improved guests' experiences, it was the right thing to do. This illustrates how the *substitution of technical for moral responsibility* (Jensen 2010) can be manifested in an organization. The above finding shows how employees and managers justified their actions based solely on effectiveness and efficiency (Bauman 1989), instead of considering the moral consequences of their actions. In other words, the task at hand and the new

organizational context in which everyone demands fast communication and decision making seemed to have concealed any moral significance.

Furthermore, many respondents repeatedly mentioned that *"it is better to deal with the problem now, before it escalates"* to emphasize the importance of solving problems quickly, and if possible, before guests leave the resort unhappy and write negative reviews on TripAdvisor. Acting on this belief, employees and managers did not hesitate to share any observation that may (or may not) indicate a potential problem, even if it required "publicly" accusing other employees. We can illustrate this with an incident which happened during an interview with a guest relations manager in one of the hotel's restaurants. The manager excused herself and took a picture of an unfinished afternoon tea (consisting of sandwiches, cake and beverages) on another table. This image was immediately uploaded to various group chatrooms with a request for opinions on the reasons for the guests leaving more than half of their cakes untouched. The following are of the responses which were posted on group chatroom:

"the cakes could have tasted bad", "the presentation might have been inadequate", and "employees could have offended the guests resulting in them leaving early".

When we asked the guest relations manager whether these group chatroom conversations could be interpreted as jumping to conclusions too quickly and even publicly accusing the kitchen and restaurant employees, she explained:

> *This is what we do to find out the root cause of the problems. If we see signs of potential problems, we share it with others to find out what could have gone wrong… If there was a mistake, we need to correct it. (Guest relations manager)*

This incident exemplifies the synoptic surveillance that emerged through the use of employees' and managers' smartphones and group chatrooms. In this instance, when combined with the fast-paced horizontal communication, participants appeared unconcerned about publicly accusing other department members without any real evidence. Indeed, as their roles have become more flexible, they experience a greater level of freedom in the workplace; i.e., the freedom to improvise, be creative and voice their opinions. However, at the same time, they displayed little concern about making accusations, which could cause a feeling of public humiliation, without sufficient evidence; this in an environment where

causing public humiliation is culturally regarded as very undesirable. Instead, employees focused on achieving the shared organizational goal of providing guests with very high quality service, and were not distracted by the potential moral consequences of their actions.

These events illustrate show how the hotel's management has been afforded new forms of control, whereby employees voluntarily monitor each other, while sacrificing their privacy and lives outside work, and without realizing the increased level of surveillance in their workplace. Jensen's (2010) conceptualization of *differentiation through mediation of action* is manifested in an absence of face-to-face interaction. This is facilitated here by group chatrooms that have created distance between the employees' actions which are happening 'now', and the potential consequences that may happen 'then' or 'there' (Jensen 2010). This finding concurs with Bauman's (1989) contention that increased social distance between individuals desensitizes them towards the moral consequences of their actions, as the moral consequences are often not readily visible to the actors due to the increased layers of social interactions, as in the potential humiliation of catering staff or the increasing of off-duty translators' workloads.

4.7. Discussion

Below, we elaborate on the significance of our findings in two ways. First, we extend Zuboff's (2019, 2015) work on surveillance and digital platforms and, second, we draw upon Bauman's theorization of liquid surveillance and adiaphoric tendencies. Specifically, in the following two sections we discuss 1) how digital platforms crossed organizational boundaries and influenced IR's existing surveillance practices and 2) how this facilitated adiaphoric tendencies.

4.7.1. Digital platforms crossing organizational boundaries and influencing surveillance practices

Our findings show how liquid surveillance created opportunities for individuals to take greater control over their daily tasks. The effect of digital platforms (specifically TripAdvisor, smartphones, and messenger apps) crossing the hotel's organizational boundaries was to liquefy the boundaries between the organization and individuals through both synoptic surveillance and increased panoptic surveillance by both the organization's employees and the public (via TripAdvisor). The changes in surveillance practices due to

the use of digital platforms and smartphones were not a planned strategy, but the outcome of a series of improvisations and adaptations. We found that individuals' improvisations with external digital platforms influenced IR's surveillance and control practices in two main ways.

First, we observed how IR's employees used the greater freedom and control over their tasks by voluntarily and actively participating in synoptic surveillance in the messenger group chatrooms (Episode 2). For instance, employees took pictures, reported their findings on social media, and voiced their opinions about IR's service performance in the messenger group chatrooms. As employees shared more aspects of their work, they gained greater freedom and control, but concomitantly submitted to greater surveillance. The findings illustrate how liquid surveillance (Bauman and Lyon, 2012) emerged as a result of TripAdvisor and internally created panoptic and synoptic surveillance through employees using their own smartphones.

We posit that the synoptic surveillance, facilitated by the group chatrooms, distributed responsibility for surveillance across all the levels of employees. This, in turn, desensitized them towards the increased surveillance as they were no longer just being monitored by the managers, but also by the others participating in the group chatrooms. This finding mirrors Bauman and Lyon's (2012) image of individuals in liquid modernity, which they term *liquid selves*, whereby individuals flexibly and continuously adapt their role to the emerging situations.

Second, we observed how digital platforms opened an opportunity for liquid surveillance to emerge and created an interplay between panoptic and synoptic surveillance. For instance, in the third episode, the IT manager's skills and knowledge led him to create surveillance software that panoptically controlled employees' mobile Internet usage. Despite the increased level of surveillance, no one we interviewed saw this as a problem. As long as they could enjoy increased freedom and control in the present, they were not concerned about greater surveillance which might have consequences in the future. This shows how both the employees and managers can gradually become ambivalent towards the moral consequences of their actions.

Both of these findings concur with Bauman and Lyon's (2012) assertion that liquid selves are flexible, adaptable and innovative, and are constantly seeking their identity in an ever

changing environment. Furthermore, these examples illustrate how the two forms of surveillance in IR were entangled with digital platforms (Orlikowski, 2007), and resulted in liquid surveillance. Our findings contribute to our knowledge of digital platforms and surveillance by building on Zuboff (2019), who examined Google Search and its implications for users' freedom and privacy. Specifically, our findings reveal that surveillance, enabled by external digital platforms, reconfigured IR's existing surveillance practices by facilitating new forms of synoptic and panoptic surveillance.

The extant literature emphasizes how user organizations can mobilize the resources and flexibility which external platforms enable (see Ghazawneh and Henfridsson 2013, Henfridsson et al. 2018), to change their existing processes and practices (Rolland et al., 2018). Henfridsson et al. (2018) emphasize how a user organization can combine readily available external digital platform resources with its existing practices to achieve digital innovation and create additional value. Further, Rolland et al. (2018) show how user organizations can manage external digital platforms to advance their existing digital infrastructure. Building on this prior work, we offer a novel perspective on how the synoptic surveillance enabled by TripAdvisor and mobile platforms can cross organizational boundaries and influence existing surveillance and control practices, making them more flexible, adaptable and responsive (i.e., liquid). In particular, our findings show that, although the synoptic surveillance facilitated by TripAdvisor affected hotel operations, IR's management initially refused to incorporate any external platforms into their formal control practices and they also prohibited employees' use of personal smartphones. However, TripAdvisor and mobile platforms were later introduced through a series of improvisations (Ciborra, 1996). Our findings also explored the entanglement of digital platforms (Orlikowski, 2007) at the individual level by analyzing how liquid surveillance became manifested in IR (Episode 1 and 2). The use of smartphones enabled IR's employees and managers to experiment with novel forms of communication, messenger apps and group chatrooms, with which they were already familiar in their private lives. This concurs with similar findings in the IT consumerization literature (e.g., Harris, Ives, & Junglas, 2012; Koffer, Anlauf, Ortbach, & Niehaves, 2015).

Our study illustrates how the constantly changing nature of digital platforms, combined with readily available resources (Rolland et al., 2018), such as the apps available on mobile platform's app market, continuously reshaped the organization's surveillance practices.

Therefore, we conclude that in the modern organizational environment digital platforms and the associated surveillance practices do not retain one stable form, but instead are liquid with both panoptic and synoptic surveillance constantly reshaping and influencing each other.

4.7.2. Digital platforms facilitating adiaphoric tendencies

While the extant digital platform literature focuses on the positive effects and benefits of using digital platforms (e.g., Lang & Shang, 2015; Parker et al., 2016; Yoo et al., 2010), our study raises serious moral concerns and questions regarding the surveillance that digital platforms facilitate. We respond to Bailey et al.'s (2019) call for research to improve our understanding of the impact that digital platforms can have on organizations and employees and to consider the "dark side" of surveillance facilitated by digital platforms. Building on Zuboff's (2019, 2015) insights, we explain through a series of episodes and examples how digital platforms can cross organizational boundaries and reconfigure existing surveillance practices, and thereby create a tendency for individuals to become ambivalent towards the moral consequences of their actions (Jensen, 2010). Drawing on Jensen's (2010) conceptualization of demoralizing processes, we argue that**,** when digital platform-enabled surveillance integrates with existing organizational surveillance practices, employees can become desensitized towards the potential consequences of their actions, which Bauman terms adiaphoric tendencies (Bauman and Lyon, 2012; Clegg, 2018; Jensen, 2014, 2010). Table 3 provides a summary of the demoralizing processes.

Table 3: Digital platforms facilitating adiaphoric tendencies in IR		
Demoralizing processes (Jensen 2010)	**Effects**	**Findings**
Concentration without centralization	The breaking down of responsibilities	Increasing group decision making and the distribution of responsibilities among a larger group
Substitution of technical for moral responsibility	Concealed moral significance of an action from individuals	Online interaction and communication, effecting other individuals with a time lag.
Discontinuous reinvention of companies	Increased uncertainties and the desire to be seen by others	Employees signaling their own achievements through improvisations and actively communicating on group chatrooms
Flexible specialization of production		
Reduction of traits	Simplification and dehumanization of social interaction	Digital platforms help simplify and quantify various types of information using ratings, scores and graphs.
Differentiation through the mediation of action	Increased distance between actions and consequences	Collective outcome of the other five demoralizing processes

In our study the effect of the first demoralization process, *concentration without centralization* (Jensen 2010), was the breaking down of responsibilities, resulting from increased group decision making and the distribution of surveillance responsibility among the larger group of employees. While this made them feel more 'in control' of their day-to-day routines, even though it put them under constant surveillance and pressure to align their actions with the organization's aim of providing the best service quality possible, but at the expense of individuals' feelings and private lives. However, we found no evidence of concerns being expressed about the increasing level of surveillance. Responsibility for this greater surveillance cannot be traced back to any single individual, as responsibility is broken down in a small, manageable size and distributed among many employees (Bauman 1989) who simply act in accordance with organizational rules and demands (Jensen 2010).

For example, bilingual employees responding to requests sent outside their normal working hours could be seen as these employees signaling their commitment to their work, without face-to-face interaction: this is similar to Cristea and Leonardi's (2019) findings. We found multiple instances in which employees were sent such requests (outside working hours) through the group chatrooms, where the other employees at various ranks (including

managers) could see them. However, we found no evidence of chatroom members, or any other employees, raising concerns; instead the respondents explained that it is a normal practice in their workplace. These findings illustrate adiaphorization, as the absence of face-to-face interaction, enabled by the group chatrooms, make it simple for everyone to monitor everyone else's actions, while concealing the moral significance of those actions. The convenience and enhanced mobility of employees and managers, together with their fear of being unnoticed (Cristea and Leonardi, 2019), blurred the boundaries between private life and work life, as individuals became desensitized towards the morality of their actions (Jensen 2010, 2014).

The second demoralizing process manifested in our study was the *substitution of technical for moral responsibility* (Jensen 2010) which increased distance between action and consequences. We posit that the benefits of digital platforms and smartphones, which employees claim to experience, interact with their (un)awareness of the moral consequence of their actions, thereby creating a state of moral ambivalence. The use of TripAdvisor by managers, employees and guests was not entirely beneficial either for the guests or for IR. Some guests sent blackmailing drafts of reviews to the general manager, indicating that they wanted upgrades or other benefits in return for not submitting a negative review. In addition, there is evidence of fake reviews on TripAdvisor, possibly at the instigation (and maybe even paid for) by competitors. Although such behaviors are not illegal, these actions can be seen as an indication of the demoralization process.

Interestingly, although initially severely critical of such behavior, as TripAdvisor became an essential part of the hospitality industry, the general manager began to recognize the importance of TripAdvisor for IR, and the need to take action to obtain good reviews, such as reminding satisfied guests at checkout to write a review on TripAdvisor. Although IR's practice of targeting happy and satisfied guests, to manage its TripAdvisor ranking and reviews, is not illegal, such practice tampers with the reliability of the reviews. The uses of TripAdvisor we observed (within IR and elsewhere) could influence the value of this digital platform in the long term (see Episodes 1 and 2). Yet, our findings suggest that users were unaware of, or simply not interested in, the potential consequences of their behavior. Instead, they regarded it as one of the rules of a game which they need to play to survive and succeed. This is likely to be because the potential consequences (of TripAdvisor's reviews becoming unreliable) are distanced from the individuals' actions. Whereas the actions are taking place

'here' and 'now', their consequences will take place 'there' and 'then' – i.e., in the future (see Bauman 1993, 1995, 2002).

The third and fourth demoralizing processes observed in our study were *discontinuous reinvention of companies* and *flexible specialization of production*, which increased uncertainties for employees and their desire to be seen by others (Jensen 2010, 2014). As a consequence, employees and managers actively participated in group chatrooms and constantly adapted to the continuously changing organizational environment (Episode 2). While the smartphone and messenger group chatrooms helped IR's employees to stay technically connected with others, their desire for this connection interacted with their fear of being isolated from other group members. This finding concurs with Jensen's (2014) assertion that liquid selves fear they will not be noticed by others and willingly give up privacy to feel connected. Our findings extend our knowledge of how digital platforms' impact user organizations and their members by illustrating how individuals can become disconnected from the consequences of their actions and result in adiaphoric tendencies (Bauman and Lyon, 2012) due to the liquid surveillance enabled by digital platforms.

The fifth demoralizing process observed in our study was the *reduction of traits* (Jensen 2010), which resulted in the simplification and dehumanization of information communicated via digital platforms. Employees in IR began to use graphs, scores and rankings to enhance the efficiency of communications in the group chatrooms. Both employees and managers emphasized how simple and useful the service ranking and scores were, and how everyone was eager to keep a "high score" on TripAdvisor. This simplification and quantification of online reviews made the vast amount of textual data more accessible and understandable to the wider group of employees, even those without the skills or training to interpret the scores. Although this simplification and quantification engaged and encouraged employees, it also diverted their attention from *"providing good service and experience for guests"* to "*achieving good scores and reviews on TripAdvisor".* As the managers and employees began to utilize pictures and videos, (such as the example of the manager taking and sharing pictures of the unfinished afternoon tea) they treated every observation as potential data to indicate their service performance. However, we found no evidence of employees raising concerns about overstepping other departments' boundaries or the danger of public accusations without sufficient evidence. Our study indicates how the simplification and quantification of social interaction – dealing with guests and

communicating among employees – can detach employees' actions from their emotional connection with others (Bauman and Lyon, 2012).

Our study illustrates how liquid surveillance facilitated by digital platforms can result in adiaphorization by drawing on Jensen's (2010) six demoralizing processes. Above we discussed five (of the six) demoralizing processes. For us, the sixth demoralizing process, *differentiation through the mediation of action*, was a collective outcome of the other five demoralizing processes, with the other processes contributing additional layer and distance between social interactions, as well as between actions and consequences of the actions.

We would argue that the freedom that IR's employees claimed to experience interacted with the increased surveillance and desensitized them toward the potential moral consequences of their actions. Given that the influence of digital platforms and smartphones on surveillance practices afforded IR effective surveillance and management practices, the new technologies allowed managers, and also employees, to avoid (or at least not acknowledge) responsibility for their actions. The greater surveillance we observed in IR was a collective outcome of the actions of the many employees and managers who participated in the use of digital platforms. The increased freedom, which employees claimed to experience, was made possible by their "voluntary" submission to the greater surveillance which they helped create and sustain. Consequently, the focus of both employees and managers became narrowed to getting good scores and reviews on TripAdvisor, and in this process, there was no place for concerns about the moral consequences of their actions. Instead of questioning themselves, about whether their actions were morally right or have potential consequences for others, "being for" in Bauman's conceptualization, they followed the shared organizational rules (Bauman, 2002; Clegg, 2018), claiming it was the right thing to do if it leads to good reviews and scores on TripAdvisor, Illustrating the moral position of "being with".

Although employees reported that they were experiencing greater freedom (despite the increased surveillance), their freedom was restricted by the organization's rules and the demands of getting good scores on TripAdvisor. This contrasts with Bauman's (1989, 1993, 1995) argument that morally responsible individuals should be able to exercise their freedom to act in accordance with their own beliefs of right and wrong. Our study supports Zuboff's (2015) claim that "freedom from uncertainty is no freedom" as individuals act without questioning the potential consequences of their actions, and therefore are uncertain about the

rightness or wrongness of their actions. As Constantinides et al. (2018) points out, the modern continuously changing environment, enabled by digital platforms, currently lacks regulation or clear sets of rules which can guide individuals' moral behaviors. It is therefore the individual's responsibility to question and consider potential moral consequences, however, distanced or concealed they may be, in order to really experience and embrace the freedom new technology offers.

Our findings concerning adiaphoric tendencies in a hotel could have implications for the use of digital platforms in other contexts, such as a University. It is evident that lecturers and researchers are subject to increasing synoptic surveillance, often from outside the universities. For example, a website called RateMyProfessors.com puts students' comments and assessments of their lecturers' teaching performance into the public domain. Similar to our observation of the morally ambivalent behaviors of TripAdvisor users, we may face a situation where students, hidden behind the websites' anonymity and with responsibility shared among other users on the website, may threaten lecturers with bad reviews (whether the truth or not) to extort better grades.

Furthermore, similar to the above episode of the uneaten afternoon tea, imagine academic colleagues or students taking pictures or short videos of our presentation slides and then sharing them online in order to criticize our performance without considering the context in which the presentation was delivered. We are already experiencing universities' growing obsession with publicly available university rankings and scores based on pre-determined journal rankings, impact factors and student satisfaction surveys. If lecturers and researchers mindlessly follow such pre-determined rules and only consider their effectiveness and efficiency in achieving higher scores, we may see the value of our work deteriorate very quickly.

Our paper, therefore, presents an extreme case, but one which is taking place at the moment, to raise awareness of the potential moral consequences and implications of digital platforms facilitating new forms of surveillance in service organizations. We argue that, in order to be morally conscious individuals in this modern society, which is defined by rapid changes and blurred boundaries between private and public lives, as individuals we must consider the potential moral consequences of our actions.

4.8. Conclusion

In this paper, we show that digital platforms can cross organizational boundaries and create new forms of surveillance without conscious management planning. Previous work has shown how technology enabled surveillance can be driven by external factors, such as availability and affordability of new technologies, coupled with managements' demand for greater control over their employees (Pierce et al., 2015; Sewell et al., 2012; Sewell and Barker, 2006; Staples, 2013, 1997). Furthermore, employees' resistance to surveillance may provide managerial justification for even more surveillance (Anteby and Chan, 2018). In contrast, our findings demonstrate that new forms of surveillance facilitated by digital platforms can emerge without strategic planning or explicit management decision making, but through a rather spontaneous process of improvisation. As the case study shows, employees' active participation in the creation of synoptic surveillance through group chatrooms allowed them to experience greater freedom and control over their work, but without realizing that they were also strengthening management's panoptic surveillance over them. Furthermore, the surveillance extended outside working hours and blurred boundaries between private lives and work lives. These findings illustrate how surveillance practices in modern organizational settings are no longer confined within organizational boundaries. As a consequence, surveillance practices are becoming increasingly liquid, in the sense that they are constantly adapting to a changing environment.

In addition, this paper raises questions about the potential moral implications of digital platforms that enable surveillance practices. Recently, there has been growing interest in organization studies in the "dark side" of digital platforms (Cusumano et al., 2019; Zuboff, 2019, 2015). Our study analyzed the effects of liquid surveillance, facilitated by digital platforms, on individual managers, employees and guests. It highlights the potential dystopian consequences of the surveillance facilitated by digital platforms on managers, employees and platform users. By drawing on the concept of adiaphorization (Bauman and Lyon, 2012; Clegg, 2018; Jensen, 2014), our findings shed some initial light on how digital platforms can facilitate demoralizing processes and create a state of moral ambivalence, as individuals judge the value of their actions based on the organizational norms and rules, without considering their moral consequences. In such a context, what is right or wrong simply does not matter provided it satisfies organizational values and goals.

Future research can further explore the relationship between digital platforms, surveillance practices and demoralizing processes in other contexts. Our research has been based on a case study of an organization in the hospitality sector. Digital platforms could have different influences on surveillance practices in other service industries, as they may require different forms of surveillance. For instance, we mentioned above the potential dystopian consequences of digital platforms in universities, and similar research could be conducted in that context. Furthermore, whereas we have studied how digital platforms can cross organizational boundaries, other technologies could also cross organizational boundaries in a similarly unplanned way. Future research could explore how technologies, such as cloud computing and artificial intelligence, could cross organizational boundaries in various industries and have unintended and potentially harmful consequences.

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Chapter 5: Thesis Summary and Suggestions for Future Research

This thesis examines the impact of digital platforms on PMM. The purpose of the thesis is to further our understanding of the different issues associated with how digital platforms can influence organisations' existing PMM practices. The thesis is organised into three essays. The first essay explored how 'fluid accountability' is configured in an organisation going through a transformation to become a more 'fluid' organisation to survive and succeed in an increasingly dynamic and unpredictable environment shaped by digital platforms. I then analysed the process of technology and PMM change by focusing on how smartphones and digital platforms became incorporated into the case organisation's day-to-day practices. Lastly, I examined the potential moral consequences of digital platforms by exploring how digital platforms influenced the organisation's existing surveillance practices and individuals' experience of freedom and surveillance.

Overall, the findings show that digital platforms can enable PMM in organisations to be more flexible and adaptable, by enabling improvisation and horizontal communication among employees and managers. As a result of new practices, enabled by employees' and managers' use of smartphones and mobile platforms, the findings illustrate how 'fluid accountability' can be configured in the context of day-to-day PMM. Further, the case study indicates the potential of digital platforms to reinforce organisations' existing surveillance and management control practices. However, some potential dystopian consequences on individuals' morality, specifically, in regard to their little awareness of the potential moral consequences of their actions, were also observed. I now summarise the findings of each essay and discuss the implications for future research.

The first essay (Chapter 2) traced the practices through which 'fluid accountability' is configured in the case organisation's day-to-day PMM by focusing on the three components of accountability: transparency, disciplinarity and manageability. The findings demonstrate how employees and managers configure accountability using new performance information, such as information from digital platforms outside the organisational boundaries, and internally generated information that is not included in the pre-determined performance measures. The new practices enabled by employees' and managers' use of smartphones and apps resulted in a configuration of accountability that is less reliant on hierarchical structures and more adaptable to the continuously changing environment. This essay contributes to the

accounting literature by introducing the notion of fluid organisation (Schreyögg and Sydow, 2010) to demonstrate how a different and more fluid form of accountability can be configured by incorporating narrative accountability from social interactions (O'Neill, 2002; Roberts, 2009; Scott and Orlikowski, 2012). Further, this essay also illustrates the practices through which organisations identify and develop new performance measures and management practices (Chenhall and Moers, 2015). By drawing attention to the notion of fluid accountability, this essay seeks to encourage and guide future research to explore other practices involved in the configuration of accountability in other types of fluid organisations, as well as other forms of accountability, potentially using other types of information technologies, that could assist organisations to cope with the increasingly dynamic and unpredictable modern organisational environment.

The second essay (Chapter 3) explored the processes of change in the case organisation's PMM routines and the technologies used by focusing on how smartphones and digital platforms, mainly TripAdvisor and mobile platform associated with smartphones, became incorporated into the PMM routines. By drawing on Leonardi's (2011) imbrication framework, the findings demonstrate how the changes in technologies and PMM routines were driven by a series of bottom-up improvisations (Ciborra, 1996). The prior PMM system literature has emphasised the importance of informal arrangements and/or informal spaces in the workplace in enhancing employees' engagement (Boedker and Chua, 2013; Chenhall et al., 2014). This essay builds on these prior studies by demonstrating how informal arrangements can be achieved, not only through physical activities, but also by allowing employees to use devices they are more familiar with (Harris et al., 2012; Koffer et al., 2015). By highlighting the importance of improvisation, the essay has the potential to encourage future researchers to explore the role of improvisation and other bottom-up changes in PMM practices.

The third essay (Chapter 4) examined the potential moral consequences of the use of new forms of surveillance practices facilitated by the use of digital platforms in the organisation's PMM practices. Specifically, this essay draws on Bauman's (2000) notion of adiaphorization (Bauman, 1995, 1993; Clegg, 2018; Jensen, 2014; Pelzer, 2014). This essay adopts Jensen's (2010) 'six demoralising processes' to examine how individuals can become morally ambivalent and desensitised towards the potential moral consequences of their actions . The findings illustrate how TripAdvisor, smartphones and other apps were used to reinforce

existing panoptic surveillance and facilitate the development of new synoptic surveillance, resulting in more efficient organisational surveillance. Consequently, it was observed that managers' panoptic surveillance was complemented by synoptic surveillance, which employees initiated with their use of WhatsApp group chatrooms, and this led to 'liquid surveillance' (Bauman and Lyon, 2012). The essay argues that the freedom and connection that individuals report experiencing interacts with their fear of being isolated (Jensen, 2014), creating an illusion of freedom (Zuboff, 2015). By exploring the potential dystopian consequences of digital platforms' influence on individuals within organisations, this essay challenges the platform literature that focuses mostly on the positive impact of digital platforms (e.g. Henfridsson et al., 2014; Lang and Shang, 2015; Yoo et al., 2010). While the findings concur with the contentions of previous studies that organisations can benefit from integrating digital platforms into organisational practices (e.g. Henfridsson et al., 2018; Rolland et al., 2018), as it was observed that the case organisation achieved greater managerial efficiency with the new surveillance practices, the findings also demonstrate how this can result in potentially problematic consequences for employees. Although the case study did not find immediate consequences for the organisations, it can be argued that, in the long-term, there may be negative impacts for the organisation due to the greater surveillance that its employees experience. This essay aims to build on Zuboff's (2019, 2015) work on 'surveillance capitalism' by narrowing the focus on exploring the surveillance issues and potential dystopian consequences of digital platforms in an organisational context. Although this essay gives a glimpse into how different performance rankings' and scores' (both internally and externally measured) real-time or constant update can influence its users' behaviours in the context of organisational PMM, there is still more to be explored in this area. This essay seeks to divert researchers' attention away from the positive benefits and opportunities of digital platforms and encourage them to explore the potential problematic impacts and/or moral consequences associated with using digital platforms in organisations.

Overall, this thesis extends our understanding of the impact of digital platforms on management accounting practices by exploring the following areas: 1) configuration of fluid accountability; 2) the process of changes in PMM routines and technologies used in an organisation; and 3) digital platforms' surveillance and its influence on individuals' morality within an organisation. The three essays in this thesis aim to encourage researchers to explore the different impacts of existing digital platforms on accounting practices, as well as inspire

practitioners to be aware of the potential problematic consequences of digital platforms for individuals within organisations. Furthermore, the thesis is cross-disciplinary research aiming to bring together two fields of research: information systems and accounting. By bringing these two disciplines together, the thesis seeks to draw the attention of accounting researchers to the influence of rapidly developing information technologies, as well as drawing the attention of information systems researchers to an overlooked but important area of organisational practice. The thesis endeavoured to bring these two disciplines together to explore a contemporary research topic of digital platforms, in view of the increasing influence of information technologies over accounting practices. The overall thesis aims to encourage future researchers to engage in more cross-disciplinary studies to improve our understanding of contemporary issues in accounting practices and information systems, influenced by dynamically changing information technologies.

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