Whitelaw Lisa Anne and Garcia-Lorenzo Lucia

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CREATIVE DISRUPTION: THE EVERYDAY INNOVATION PRACTICES OF INTRAPRENEURS AT A TECHNOLOGY COMPANY

LISA WHITELAW
Department of Psychological and Behavioural Science
The London School of Economics and Political Science
London UK WC2A 2AE

LUCIA GARCIA-LORENZO
The London School of Economics and Political Science, London

ABSTRACT

This article contributes to disruptive innovation studies by exploring the micro-dynamics of everyday 'creative disruption' – the creative practices intrapreneurs engage in during their daily work to advance innovation projects at Thales UK[1], a multinational technology organization. We expand the notion of disruptive innovation, re-framing it as a micro-level generative process.

INTRODUCTION

To avoid decline, organizational leaders are advised to take the initiative and 'become the disruptor' by simultaneously keeping abreast of market trends and exploring new areas alongside their existing business operations (Christensen & Raynor, 2003). However, carrying out these ambidextrous capabilities causes internal tensions in firms (Bledow, Frese, Anderson, Erez, & Farr, 2009; Christensen & Overdorf, 2000; Denning, 2005).

While recognizing that disruptive innovation strategies create organizational tensions, most research has focused on exploring the problem at the macro organizational level with very little engagement with the micro-social interaction processes that drive innovation forward on a daily basis in organizations (Anderson, Potočnik, & Zhou, 2014; Crossan & Apaydin, 2010; Van de Ven, Polley, Garud, & Venkataraman, 1999; Wolfe, 1994). It is suggested that organizations need to engage at this level to support organizational actors in managing conflicting demands, contradictions and dilemmas to better deliver innovation (Bledow, et al., 2009; Yu & Hang, 2010). Our research responds to this call by looking into the daily working practices of intrapreneurs and the tactics they use to navigate internal organizational tensions arising from firm-level efforts to become a market disruptor.

The research is based on a longitudinal qualitative action research case study following 6 innovation projects on-the-ground as they happen as a full member of Thales UK's Research, Technology and Innovation (RTI) function. The data corpus consists of 55 in-depth interviews, 25 personal diary accounts, 10 videos, 63 documents, 132 pictures, attended 29 events, 10 reporting back meetings, and 42 field notes of the first author's day-to-day experiences.

The results show how at the micro-level it is intrapreneurs' on-going ability to develop creative disruption practices in response to contextual demands that enables innovation projects to advance at Thales UK. The findings illustrate how disruption can become a generative organizational process rather than a destructive force and that it is intrapreneurs who are the main agents pushing disruptive innovation processes forward inside the firm.

DISRUPTIVE INNOVATION: A THREAT AND AN OPPORTUNITY

Disruptive innovations, new products and services that create new markets and value networks, have traditionally been perceived as an opportunity for small companies and a threat for large incumbents (Christensen, 1997). Christensen and Raynor (2003) suggest that leading firms 'become the disruptor' to avoid being disrupted by simultaneously keeping abreast of market trends and invest in exploring new areas alongside their core business activities. Despite many advantages, only a few incumbent firms have succeeded in exploiting disruptive innovations before being displaced by new entrants, mainly due to internal tensions rather than external factors (Yu & Hang 2010). Internal tensions associated with fostering disruptive innovations inside established firms center around three core themes: resource allocation and perceived incentives, cognitive structure, and organizational structure and routines (Chandy & Tellis, 2000; Wan, Williamson, & Yin, 2015; Yu & Hang, 2010). Resource allocation and perceived incentives refers to tensions generated in the decision-making process when choices must be made between investing in risky new initiatives as opposed to more predictable sustaining innovations and cost reduction initiatives (Christensen & Overdorf, 2000; Denning, 2005, 2012). A firm's cognitive structure, the mechanisms organizational members use to process and understand information, causes tensions because firms must pay attention to information that is irrelevant to their strategic imperative to address customers' current needs as well as trade-off exploitation gains to engage in exploration activities (Henderson & Clark, 1990; Levinthal, 1997). Existing firms' structure and routines cause tension because rigid organizational processes and management layers designed to carry out the development of existing products and services based on firms' current competences as efficiently as possible must be overcome to implement new ideas (Christensen & Raynor, 2003; Henderson, 2006).

To address these tensions, research has looked at adapting the firms' strategy by developing market-facing competence, (e.g. Govindarajan & Kopalle, 2006; Markides, 2006; Slater & Mohr, 2006; Tellis, 2006) or remedy disruptions through acquisitions (Wagner, 2016), and/or changing the firm's structure including their R&D processes and incentive plans (Govindarajan & Kopalle, 2006; Wan, et al., 2015) or forming separate teams and funding buckets at strategic level (Chao & Kavadias, 2007; Christensen & Raynor, 2003). Other authors suggest firms invest in external incubators and start-ups, leverage collaborations, or enable spin offs to foster disruptive innovations (Campbell, Birkinshaw, Morrison, & van Basten Batenburg, 2003; Claude-Gaudillat & Quélin, 2006; Hill & Rothaermel, 2003; Macher & Richman, 2004). Most of this research remains however at the macro level of analysis with very little engagement with the micro-social interaction processes that drive innovation forward on a daily basis (Anderson, et al., 2014; Crossan & Apaydin, 2010; Van de Ven, et al., 1999; Wolfe, 1994). The success of incumbent firms in overcoming internal tensions is often attributed to the persistence and determination of champions inside companies, but efforts to understand the daily working practices of these actors are scarce (Howell & Higgins, 1990; Madique, 1980; Park, Kim, & Krishna, 2014; Pinchot, 1985; Rigtering & Weitzel, 2013). It is important therefore to understand how organizational actors can manage in real-time and at the micro-level, these conflicting demands, contradictions and dilemmas to foster disruptive innovations in firms (Anderson, et al., 2014; Bledow, et al., 2009; Crossan & Apaydin, 2010; Wolfe, 1994). Our research responds to this call by looking at how intrapreneurs at Thales UK manage organizational tensions and also become key actors in fostering disruptive innovation practices in their day-to-day working life.

INTRAPRENEURING AS CREATIVE DISRUPTION

Extant research sees intrapreneurs as champions of innovation processes inside organizations (Howell & Higgins, 1990; Madique, 1980; Pinchot, 1985). To encourage intrapreneurship in firms, studies have mainly focused on understanding the characteristics of the individual intrapreneur (e.g. McGrath & MacMillan, 2000; Ross & Unwalla, 1986; Vesper, 1980) or the features of the organizational environment (Kanter, 1984; Kuratko, Montagno, & Hornsby, 1990; Menzel, 2007) to identify success factors for corporate venture initiatives (Cooper, 1981; Fast & Pratt, 1981; Hisrich & Peters, 1986). A recent research tradition embraces a more relational approach looking into the daily working practices of entrepreneurial actors in situated contexts to bring together the individual and their context (e.g. Johannisson, 2011; Steyaert & Hjorth, 2003; Watson, 2013). We find this approach useful to understand how intrapreneurs at Thales UK respond to the firm's innovation demands. We conceptualize intrapreneuring as a specific response to contextual constraints (Hjorth, Holt, & Steyaert, 2015), and as a way of transforming those constraints through creative disruptive practices.

As Hjorth (2003, 2005) suggests, we believe innovation processes are enabled in organizations by entrepreneurial actors employing tactics to locally withdraw from a firm's reigning managerial order to enact new paths of creative action that are within the space of but different from prescribed management practices. Recent research suggests that disruptors use wayfinding practices to overcome contextual constraints and tensions by continually adapting their strategy and relational positioning in an industry ecosystem (Ansari, Garud, & Kumaraswamy, 2015; Chia & Holt, 2009). Becoming a creative disruptor can then be seen as the on-going habituation with/in an innovative context rather than the development of a purposeful clear map for the occupation or the navigation of that context (Ingold, 2007). By attending to the detailed working practices of intrapreneurs at Thales UK, our research sheds light on the micro-dynamics of internal tensions arising from firms' efforts to become a disruptor and illuminates the innovative wayfinding routines intrapreneurs engage in using creative disruption practices to overcome these tensions. The next section illustrates this empirically.

METHOD AND DATA

Our research aims to understand how intrapreneurs navigate internal organizational tensions to foster disruptive innovation 'as it happens' (Miettinen, Samra-Fredericks, & Yanow, 2009:1310). We have followed 6 innovation projects as they unfold at Thales UK. We generated a data corpus consisting of 55 in-depth interviews, 25 personal diary accounts, 10 videos, 63 documents, 132 pictures, attended 29 events, 10 reporting back meetings, and 42 field notes of the first author's day-to-day experiences working in the RTI function at Thales UK.

The research is based on an action research case study at Thales Group, a French-owned, multinational technology company with approximately 60,000 employees in 56 countries. Thales is a complex systems provider operating in the defence, aerospace, security, transportation and space sectors and has been ranked as a Top 100 Global Innovator by Thomson Reuters (Thales, 2016). In January 2015 Thales UK, comprised of 6,500 staff based at multiple UK sites, engaged in a transformational change program 'Organizing for Growth' to better position the business for growth. As part of this change the RTI function was formed to focus on disruptive innovation.

We designed an ethnographic qualitative case study to preserve the spontaneous, informal and contextual nature of change and innovation processes in-the-making (Hoholm & Araujo, 2011; Steyaert & Hjorth, 2003; Tsoukas & Chia, 2002; Wolfe, 1994). Projects were the nodes of our study to de-center the individual actors and foreground the emergent practical activity occurring (Steyaert & Hjorth, 2003). The first author was positioned at the heart of change and innovation activity in the RTI function (Steyaert & Hjorth, 2003; Yin, 2003).

The data analysis took place in two stages. In the first stage we used 35 interviews from the senior leaders of the organization leading the changes, members of the RTI function and wider organizational community to identify the tensions arising from the firm's disruptive innovation efforts. The development of this macro-perspective was supported by the analysis of videos, documents, pictures and general observations. The second stage looked into the practices the intrapreneurs used to overcome the tensions generated by the firm's disruptive innovation efforts. We used accounts from the intrapreneurs working on the focal projects, remaining 20 interviews and 25 diary accounts from the intrapreneurs as well as observation notes made by the first author. For both stages of analysis we used a systematic inductive approach to grounded theory development that preserved the processual nature of change and innovation in-the-making (Gioia, Corley, & Hamilton, 2012). The emerging codes and themes of both stages of analysis were reported back to the research sponsors at three time points throughout the analysis as well as to the intrapreneurs at the conclusion of the analysis to validate the authors' interpretations.

RESULTS: CREATIVE DISRUPTION AT THALES UK

This research aimed to understand how intrapreneurs manage tensions generated by a firm's attempt to foster disruptive innovations in their everyday efforts to progress innovation projects. The analysis revealed internal tensions generated by Thales UK's efforts to foster disruptive innovation, creative disruption practices that the intrapreneurs used to navigate those tensions and generative outcomes from the intrapreneurs' activities.

Internal Organizational Tensions Arising from Efforts to Become a Disruptor

The first stage of analysis revealed shared perceptions among participants about the tensions they experienced from the company's efforts to become a disruptor. The tensions aligned with the core tensions outlined in the disruptive innovation literature: resource allocation and perceived incentives, cognitive structure, and organizational structure and routines (Chandy & Tellis, 2000; Wan, et al., 2015; Yu & Hang, 2010).

In relation to the resource allocation and priorities tension, in Thales UK this took the form of *prioritizing a new future versus today's known deliverables*. The participants dreamed of the company achieving its growth targets from the development of new products and services but experienced the organization focus its efforts on delivery and exploiting near-term opportunities (Denning, 2012). The firm's uncertainty avoidance prevented the company from working in new markets with new customers because decision-makers tended to allocate resources to core business activities rather than prioritize innovation and change initiatives.

In Thales UK the cognitive structure tension took the form of *collaborative market focus versus narrow internal focus*. The participants described that the company should be embedded within the innovation ecosystem and influencing future markets (Markides, 2006; Tellis, 2006). In being more externally oriented, it would be market-focused, working collaboratively across

the business and with external partners to understand what potential customers are trying to achieve and shape solutions around their needs (Govindarajan & Kopalle, 2006; Slater & Mohr, 2006). But the company was internally focused on delivering projects and programs in its existing domains based on its current competences (Henderson & Clark, 1990).

In relation to the organizational structure and routines tension, in Thales UK this took the form of *agile united operations versus rigid fragmentation*. The participants described that if the company were truly innovative it would be fully aligned and flexible to respond to its changing environment. But in reality the firm was fragmented, overly complex and bureaucratic processes and project commitments prevented the company from being agile (Henderson & Clark, 1990).

Here is an example of how one of the organizational members described the collaborative market focus versus narrow internal focus tension:

> *"organization for growth was about working more closely with customers, better understanding not just the market's needs today but the market's likely needs tomorrow… we have been a technology push company for many years. We have to be far better at predicting the future… because that will form what your future business is going to look like." – P06*

Intrapreneurs' Creative Disruption Practices

The second stage of analysis revealed 5 common creative disruption practices the intrapreneurs working on the development of 6 different innovation projects at Thales UK used to navigate the internal organizational tensions: creating space for imagination, crossing organizational boundaries, making do, creating common interests, and desire for change. The intrapreneurs developed these creative disruption practices in response to their contextual constraints to progress their projects (Chia & Holt, 2009; Hjorth, 2003, 2005).

Creating space for imagination refers to the creative disruption practices the intrapreneurs used to break free from the firm's rigid and prescriptive organizational processes to progress their innovation projects. These creative disruption practices enabled the intrapreneurs to move beyond everyday proximal activities in delivering existing projects and programs to experiment and play with new ideas (Zittoun & Gillespie, 2016).

Crossing organizational boundaries refers to the creative disruption practices the intrapreneurs engaged in to move outside their immediate environment to advance their innovation projects. Rather than upholding the perspective of the core organization, they dwelled outside the firm boundaries where they experimented with different concepts and learned from new experiences (Brown & Duguid, 1991).

Making do describes how the actors made do with resources at hand to progress their innovation projects. With limited resources, the intrapreneurs used their wits to improvise and creatively used available resources to advance their projects (Lévi-Strauss, 1967; Weick, 1998).

Creating common interests refers to how the intrapreneurs worked to align the interests of relevant stakeholders to engage them in the development of their projects (Carlile, 2004). The intrapreneurs tailored stories to highlight the value of their activities to different stakeholders.

Desire for change describes the actors' motivation to enact 'the new' in spite of the challenges they faced (Hjorth, 2003, 2005, 2014). This was based on the intrapreneurs' aspiration to realize an alternative future state for the company and themselves.

The following is an example of how the intrapreneurs developed the creative disruption practice creating common interests to overcome the tension agile united operations versus rigid fragmentation. Jasper and Kate were aiming to take advantage of a disruptive change they

predicted would impact one of the firm's existing markets in which the company was a market leader. They experienced the challenge that the opportunity did not fit one area of the business:

> *"this particular project is somewhat idiosyncratic in that it is so broad you can't hand it over to the business because there isn't one bit of the business that would have it" – P43*

In a diary entry, Jasper reflected that in order to overcome this challenge they linked the opportunity to the capabilities of the individual business units and highlighted the benefits to individual domain stakeholders to encourage them to work together to pursue the opportunity:

> *"We have overcome this by drawing/mapping and communicating relevance from nascent [target] market opportunities to Thales competences" – P43*

The intrapreneurs creatively circumvented the fragmented company structure by using their contextual understanding of the needs of the different stakeholder groups to highlight the benefits of the opportunity they identified to the different areas of the business (Carlile, 2004).

Impacts of the Intrapreneurs' Creative Disruption Practices

The second stage of analysis also showed *generative outcomes* that resulted from the intrapreneurs' creative disruptive practices. The intrapreneurs disrupted customary ways of doing things in the firm through their activities and, as a result, impacted on the understandings and behaviours of the stakeholders they engaged as well as developed themselves (Hjorth, 2014).

The following is an example of how the intrapreneurs impacted on the organizational context through their activities. Natalie, one of the members of the business units, explained:

> *"the work you guys have been doing… I think it's very interesting work that is very powerful and I think that having a shared understanding of that and a shared messaging across the different businesses in Thales UK has got to be a good thing" – P33*

As a result of the intrapreneurs carrying out creative disruption practices in the firm, people in different areas of the business began to adopt a shared understanding of a new concept.

DISCUSSION AND CONCLUSIONS

This paper looked into how intrapreneurs navigate internal organizational tensions to progress innovation projects. Our research shows how intrapreneurs creatively navigate internal organizational tensions in their daily efforts to advance innovation projects at Thales UK. Rather than following a deliberate plan, they engaged in innovative wayfinding routines through real-time strategic engagement with their context (Chia & Holt, 2009). They constantly adjusted their strategies by locally employing creative disruption practices to overcome the contextual constraints they encountered. Through their creative disruption practices the intrapreneurs disrupted existing company routines and generated new ways of doing things. Our findings re-frame the notion of disruptive innovation as a micro-level generative process carried out by intrapreneurial actors relationally situated on the ground in firms.

ENDNOTES

1. We have the explicit permission and consent from the UK division of Thales to use its real name in disseminating our research.

REFERENCES AVAILABLE FROM THE AUTHORS