Firm responses to disruptive innovations

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Chapter 3: Questioning Organizational Identity during Disruptive Innovations

Exploring Shifts in Organizational Identities in Response to Identity-challenging Disruptions

"Innuendo"

- *Queen*

While the sun hangs in the sky and the desert has sand
While the waves crash in the sea and meet the land
While there's a wind and the stars and the rainbow
Till the mountains crumble into the plain

Oh yes, we'll keep on trying
Tread that fine line
Oh, we'll keep on trying, Yeah
Just passing our time

While we live according to race, colour or creed
While we rule by blind madness and pure greed
Our lives dictated by tradition, superstition, false religion
Through the eons and on and on

Oh, yes, we'll keep on trying, yeah
We'll tread that fine line
Oh oh we'll keep on trying
Till the end of time (2x)

Through the sorrow all through our splendor
Don't take offence at my innuendo

You can be anything you want to be
Just turn yourself into anything you think that you could ever be
Be free with your tempo, be free, be free
Surrender your ego be free, be free to yourself

(..)

(END)

Questioning Organizational Identity during Disruptive Innovations

Exploring Shifts in Organizational Identities in Response to Disruptions in the Music Industry

Abstract

Firms are increasingly exposed to disruptive innovations that have far reaching effects on firms and their performance. As existing organizational structures and identities no longer sustain, organizations have to reinvent themselves in light of disruption. Drawing upon organizational identity theory, we explore the role organizational identity plays before, during and after a firm is confronted with an identity-challenging disruption. Using comprehensive case studies in the Dutch music industry, this study addresses how processes of identify shift help to explain how firms transform their organizations in response to the same disruptions. Our analysis suggests that firms attach heterogeneous meanings to disruptions in relation to enduring, central and distinctive aspects of their organizational identity. Ultimately, we illustrate how this variation indicates the existence of a typology of three types of identity shift in response to disruptiveness (namely: identity *affirmation*, identity *acculturation* and identity *accommodation*) which drive firms' strategic decisions and actions during disruptiveness. Our findings improve understanding with regard to the fundamental differences in firm transformation in response to disruptiveness.

Keywords: digitization, disruptive innovation, music industry, organizational identity, organizational transformation, technological change

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Earlier versions of this chapter have been presented at the 75*th Annual Meeting of the Academy of Management (AOM) in Vancouver* (2015), the *30th IASPM Benelux Conference in Rotterdam* (2014), and at a research seminar at the *University of Groningen* (2015).

Introduction

For music publishers, embracing digital technology presented a completely new path that deviates from their historical legacy in physical music recording and publishing (Moreau, 2013). For EMI Music the digitization of music meant a dramatic reversal of fortune; despite attempts to restructure, almost a century's experience in music recording and publishing turned out to inhibit a shift to new technologies (Business Week, 2007; 2008; 2011; 2012). Universal Music, on the other hand, set forward a clear focus on investments in digital initiatives (Billboard, 2015), enabling the firm to even increase its market share during the disruption (Music & Copyright, 2014). Even though both firms faced the *same* situation of a rapidly changing business environment created by the introduction of disruptive innovations (Christensen, 1997; Christensen & Raynor, 2003; Tushman & Anderson, 1986; 1990), their responses, and hence their organizational adaptation were *different*.

This divergence in organizational responses to disruptiveness, recognized both within extant research and within organizational practice, indicates that the question how firms should cope with an uncertain, disrupted future remains a fundamental challenge (Adner & Snow, 2010ab; Ansari & Krop, 2012; Charitou & Markides, 2003; Christensen & Overdorf, 2003; Danneels, 2004). As emerging disruptive technologies –like renewable energy, crowd funding, block chain or direct marketing technologies (Grossman, 2016)-, increasingly confront firms within diverse industries with disruptive innovations that have far reaching consequences for firm performance, exploring the adaptability of firms during the process of disruptiveness (Christensen, Raynor & McDonald, 2015) becomes crucial. Although extant research has made significant progress identifying sources of rigidity and inertia that inhibit firms to respond (i.e. Christensen, 1997; Hannan & Freeman, 1977; Henderson & Clark, 1990; Kaplan & Tripsas, 2008; Leonard-Barton, 1992; Nelson & Winter, 1982), the countless anomalous cases of surviving incumbents (i.e. Bergek, Berggre, Magnusson & Hobday, 2013;

Hill & Rothaermel, 2003; King & Tucci, 2002; Rothaermel, 2001; Roy & Sarkar, 2016) question the applicability and predictability of the disruption theory (Danneels, 2004; King & Baartagtokh, 2015). As a result, a deeper exploration of how firms actually adapt to disruptive innovations and why there are such differences in the way firms adapt to the new requirements of disruptions, even within the same disruptive context, is demanded (Danneels, 2004; Tripsas, 2009).

We argue that identity plays a critical role in understanding whether and how firms respond to disruptiveness. A growing stream of literature takes into account that organizational activities are infused with meaning because they are an expression of enduring, central and distinctive aspects of a firm's identity (Albert & Whetten, 1985; Ashforth & Mael, 1989; Dutton, Dukerich & Harquail, 1994). Technological change challenges those enduring, central and distinctive aspects of a firm's identity, creating a state of identity ambiguity (Corley & Gioia, 2004), wherein identity labels are questioned (Kogut & Zander, 1996; Tripsas, 2009). Nevertheless, the self-reinforcing dynamic of identity creates a strong impediment to change, making explicit efforts to shift identity in order to accommodate technological change a very difficult and challenging undertaking (Duton & Dukerich, 1991; Corley & Gioia, 2004; Fiol, 2002; Tripsas, 2009).

These studies therefore discount specific efforts to address processes of organizational identity shift after a disruption challenges the organizational identity and *necessitates* an adaptation of a firm's identity. After all, the main challenge of disruptive innovation is that it often has implications beyond the disruption itself: they introduce new products and business models that utilize new technologies and address new customer segments with different preferences (Christensen, 1997; 2006; Christensen et al., 2015; Markides, 2006; Tushman & Anderson, 1986; 1990). They require, ultimately, a very different organization and an alteration of the assumptions and beliefs about what is core about the firm and the firm's identity. We therefore propose that a focus organizational identity shifts can serve as a valuable lens through which to improve understanding of the variety of meanings firms attach to an identity-challenging disruption in relation to their organizational endeavors, as well as the effects of such variety on organizational transformation processes and outcomes. Such a perspective goes beyond the mere identification of inertial forces of identity on firm behavior to account for the (re-) alignment of organizational identity with the disruptive “identity” to ensure firm survival (Garud & Karunakaran, 2017; Schultz & Hernes, 2013). Firms might be aware of disruption, and they might be capable and motivated to respond, but this does not ensure transformation over indecision. Organizational identity theory provides a particularly useful perspective from which to increase understanding as to how and why different responses to the same disruptive innovations come about.

To investigate empirically the process of organizational transformation during disruptiveness we conducted an in-depth multiple-case study (Eisenhardt, 1989) among publishers and record companies in the Dutch music industry. The music industry is a unique setting to investigate organizational responses to the same disruption over time as technological advancements have disrupted the music industry from the ‘90s onwards (Christensen & Raynor, 2003; Leyshon, Webb, French, Thrift & Crewe, 2005; NVPI, 2012). Using field and archival data of a heterogeneous group of 15 former “record companies”, we systematically analyzed the processes of identity shift among these firms via within-case and cross-case analyses (Eisenhardt, 1989; Van de Ven & Poole, 1990). Based on the distinct meanings firms in our sample attach to the disruption in relation to enduring, central and distinct aspects of their identity, we identify three types of identity shifts during disruptive innovations –which we define as identity affirmation, identity accommodation and identity acculturation. Our results further illustrate that the type of identity shift in response to disruptive innovations affects the subsequent strategic decisions and actions made by firms and ultimately serves as a mechanism to enhance and re-enforce the shifted identity.

This study therefore makes two important contributions for firm adaptation processes during disruptiveness and the role of identity herein. First, in the field of disruptive innovation, this study goes beyond addressing firm responses and the organizational characteristics that drive a certain firm response to disruption by focusing on the actual process of organizational transformation during an identity-challenging disruption. The focus on identity shift emphasizes the central role of identity in exploring organizational survival. Our unique and rich empirical data indicates how identity serves as a guidepost that directs firms' strategic decision making and actions during disruptiveness and thus serves an important role in understanding how and why different responses to the same disruption come about. Second, this study contributes to the organizational identity literature by providing one of the first multiple-case comparative views on the role of organizational identity during organizational transformation. By illustrating the multifaceted and context-dependent nature of organizational identifications, we establish a typology detailing the primary types of organizational identity shift in response to identity-challenging disruptions.

Theoretical background

Disruptive Innovations & Organizational Responses

Disruptive innovations introduce a different performance package, initially inferior to existing, mainstream technologies and dominant product attributes that mainstream customers' value. Due to technological advancements and improvements to the disruptive technology this novel feature is ultimately liked by mainstream customers (Christensen, 1997). As incumbents encounter challenges in recognizing the potential threat of the disruption, most incumbents tend to ignore the disruption (Christensen, 1997; Charitou &

Markides, 2003) until these technological advancements challenge business as usual and disrupt core competencies and competitive advantages (Christensen, 1997; Christensen & Raynor, 2003; Tushman & Anderson, 1986, 1990). As a result, incumbent firms' market leadership will be replaced in the face of disruptive innovation by new entrants introducing innovations based on these technologies (Christensen, 1997).

Extant research has made significant progress documenting the difficulties incumbent firms encounter in their attempt to adapt to the new requirements of such a challenging disruption. These studies have indicated how established capabilities and prior commitments (Christensen & Overdorf, 2003; Christensen & Roosenbloom, 1995; Henderson & Clark, 1990), organizational routines (Nelson & Winter, 1982) and cognitive frames (Kaplan & Tripsas, 2008; Tripsas & Gavetti, 2000) often become rigidities and inertial forces that constrain firms in their adaptive flexibility and response to disruptive innovations (Christensen, 1997; Hannan & Freeman, 1977; Leonard-Barton, 1992; Tripsas, 2009). Numerous "anomalous" cases however (cf. Bergek et al., 2013; Christensen, 2006; Macher & Richman, 2004), have led to a more nuanced view: *some* incumbents can survive disruptive innovations (e.g. Ahuja & Lampert, 2001; Bergek et al., 2013; Furr & Snow, 2014; Hill & Rothaermel, 2003; Rothaermel, 2001; Tripsas, 1997), and *not all* new entrants are able to capture the gains from new technologies (e.g. Golder & Tellis, 1993; Suarez & Lanzolla, 2005; Teece & Leih, 2016). Such findings have initiated a second stream of disruptiveness research which addresses organizational responses to disruptiveness as an important mechanism for firms to respond to the challenges of disruptive change. Such studies have identified how, for example, establishing a separate organizational unit or spin-off organization (Christensen & Overdorf, 2003; Corley & Gioia, 2004) or accessing knowledge and resources through collaborative efforts or joint ventures (Christensen & Overdorf, 2000;

Madhavan, Koka & Prescott, 1998; Rothaermel, 2001; Rothaermel & Boeker, 2008), can have a positive effect on organizational survival of firms during disruptions.

The mixed findings within the extant literature and in organizational practice with regard to organizational survival during disruptiveness illustrates the need for a deeper exploration of how firms adapt to disruptive innovations and why there are such differences (Danneels, 2004; King & Baartagtokh, 2015; Markides, 2006). After all, the main challenge of disruptive innovation is that disruptions often have implications beyond the disruption itself, i.e. they introduce new products and business models that utilize new technologies and address new customer segments with different preferences (Christensen, 1997; 2006; Christensen et al., 2015; Markides, 2006; Tushman & Anderson, 1986; 1990). As the disruptive technologies are in conflict with existing methods and procedures, they require, ultimately, a very different organization and an alteration of the central, distinctive and enduring features about what is the core of the firm and its identity (Albert & Whetten, 1985) – a very difficult and challenging undertaking which goes beyond the mere identification of the effect of, and response to, disruptive innovations (Corley & Gioia, 2004; Garud & Kuranakaran, 2017; Kogut & Zander, 1996; Tripsas, 2009).

Prior research: the role of organizational identity in organizational change

We argue that organizational identity plays a critical role in understanding how and why firms that face a similar disruptive context come to respond differently to disruptions over time. According to organizational identity theory, a firm's self-definition of identity reflects constituents of a shared understanding regarding what is *central*, *distinctive* and *enduring* about an organization (Albert & Whetten, 1985; Ashforth & Mael, 1989; Dutton et al., 1994; Whetten, 2006; Weick, 1995)[1]. These core identity dimensions influence firm actions and behavior and serve a coordinating and guiding role (Ashforth, Harrison & Corley, 2008;

Fauchart & Gruber, 2011; Ullrich, Wieseke, Christ, Schulze & Dick, 2007). They provide firms with a focal point for what constitutes legitimate action that is in line with the organizational identity and reflects central, distinctive and enduring aspects (Dolfsma, Chong-Simandjuntak & Geurts, 2017; Dutton & Dukerich, 1991; Gioia, 1998; Kogut & Zander, 1996). As such, organizational identity can be viewed as a constant process of becoming (Ashfort & Mael, 1989), whereby stronger identification motivates people to pursue beneficial outcomes for the firm in question to ensure its success, which ultimately reinforces the organizational identity (Christ, van Dick, Wagner & Stellmacher, 2003; Dolfsma et al., 2017).

Even though the cumulative knowledge of the role of identity in understanding organizational actions and behavior is considerable, the dynamic nature of organizational identity, in particular when firms have to respond to identity threats that create identity inconsistencies, has received far less attention (Garud & Kuranakaran, 2017). This is remarkable given that changes in the external environment cannot always be accommodated within the limits of the existing organizational identity, forcing a change to avoid an "identity trap" (Bouchikhi & Kimberley, 2003; Vuori & Huy, 2016). Recent work has therefore started to explore processes of identity change via in-depth case studies of, among others, a high-technology company (Fiol, 2002), a corporate spin-off of a Fortune 100 company (Corley & Gioia, 2004), a producer of audio-video systems (Ravasi & Philips, 2011; Ravasi & Schultz, 2006), a R&D Company (Nag, Corley & Gioia, 2007) and a digital photography company (Tripsas, 2009). However, the theoretical and empirical focus of these studies revolve around the concept of identity ambiguity (Corley & Gioia, 2004; Fiol, 2002) and, respectively, inertial forces of identity (Nag et al., 2007; Tripsas, 2009): as environmental or internal changes challenge the core essence of an organizational identity and demand organizational change, a firm experiences a state of so-called "identity ambiguity" (cf. Corley & Gioia, 2004), wherein old identity labels still exist but no longer apply and new identity labels have yet to take on meaning to create renewed identity clarity (Kogut & Zander, 1996; Ravasi & Schultz, 2006; Tripsas, 2009). In addition, the self-reinforcing dynamic of identity creates a strong impediment to change when a firm is confronted with environmental or internal changes that challenge the organizational identity (Fiol, 2002; Tripsas, 2009).

Understanding firm responses to disruptiveness: organizational identity shift

Even though studies have started to explore the role of organizational identity in processes of organizational change, the actual process of organizational transformation in response to disruptions that challenge existing understandings of identity has served a secondary role within extant research. Nevertheless, when firms are confronted with an "identity-challenging" disruption (cf. Anthony & Tripsas, 2016; Tripsas, 2009), firms are necessitated to embark on major reorientations of their organizational identity (Tushman & Romanelli, 1985) or "gestalt switch" (Kuhn, 1970). After all, the simultaneous existence of two technological paradigms –the existing and the disruptive-, are opposites by definition: not only is the technological paradigm different from, but also in conflict with the other (Charitou & Markides, 2004). Conflicts with existing resources, competences, value networks, cognitive frames and identity claims (Afuah & Tucci, 2012; Christensen & Raynor, 2003; Tripsas, 2009), and uncertainty, ambivalence and lack of knowledge about the new technology (Gavetti & Rivkin, 2007; Tushman & Anderson, 1986) are common.

In other words, disruptions challenge a firm's identity and require a very different organization and an alteration of the assumptions and beliefs about what is *enduring*, *central* and *distinctive* about the firm and the firm's identity (cf. Albert & Whetten, 1985; Ashfort & Mael, 1989) to establish renewed identity clarity. Disruptions may therefore incentivize a firm to establish a renewed identity that does justice to its new self-perception of the firm and its role and activities: the disruption of the *central* attributes and activities of a firm refutes the essence of the organization and no longer provides a focal point for legitimate action. As disruption requires a fundamentally different organization, the *distinguishing* attributes of the firm and its ways of working are affected. As a result, the self-reinforcing dynamic of organizational identity that motivates people to pursue beneficial outcomes for the firm, i.e. the *endurance* of the organizational identity, is discontinued (see Table 1).

Empirical evidence that substantiates and provides systematic and comparative insights on how and why firms address this shift in their *enduring*, *central* and *distinctive* identity aspects is scant, and often only provides an in-depth case study of a single organization. As a result, the context-dependent and multi-faceted nature of organizational identifications are neglected: firms might attach a variety of meanings to an identity-challenging disruption when considering the effect of disruption on firms' enduring, central and distinctive organizational endeavors. Such variety might influence organizational transformation processes and outcomes during disruptiveness. A focus on *shifts* in the organizational identities due to disruption can therefore serve as a valuable lens through which to improve understanding as to how and why different responses to similar disruptive contexts may come about.

Table 1: Defining dimensions organizational identity during disruption

Identity Dimension	**Conceptual Definition** Albert & Whetten, 1985; Ashfort & Mael, 1989	**Conceptual Definition applied to disruptive context**
Enduring	Continuity of organizational characteristics that define the organizational identity and create a self-reinforcing dynamic.	Discontinuity and instability of the self-reinforcing dynamic of the organizational characteristics that define the organizational identity.
Central	Core set of attributes and activities that denote the essence of the organization and provide a focal point for legitimate action.	Disruption of core set of attributes and activities, which refutes the essence of the organization and no longer provides a focal point for legitimate action.
Distinctive	Distinguishing attributes that the organization excels in and that sets it apart from others (i.e. competitors).	Disruption of differentiating attributes of the firm and its ways of working.

Empirical Analysis

Methodology

Given the limited understanding of how and why the aggregate differences in organizational responses to identity-challenging disruptive innovations come about, this study relies on an inductive qualitative research design that gives voice to the various interpretations and experiences of those undergoing the effects of the same disruptions within one industry (Eisenhardt, 1989; Weick, 1995). Multiple cases are used to enable the collection of comparative data upon which retrospective and comparative accounts of different processes of organizational transformation can be constructed, which yields more accurate and generalizable theory than single cases (Eisenhardt, 1989).

Research Setting

To explore the role of organizational identity during disruptive changes, this study choose digitization of music[2] in the Dutch music industry as research context for several reasons. First, the digitization of music provides a unique opportunity to compare different firm responses to the same disruptions, while eliminating potential contingencies based on industry or disruptive innovation characteristics (Charitou & Markides, 2003; Govindarajan & Kopalle, 2006). The origin of the disruptions can be traced back to the 1990s, when technological advancements like the Internet and MP3 technology enabled the digitization of music (Moreau, 2013; Mol, Wijnberg & Carroll, 2005). File sharing services like Napster (1999), Kazaa (2001), iTunes (2006) and Spotify (2010) appeared that exploited these technologies and introduced innovative ways of distributing, promoting and selling music (Alexander, 2002; Leyshon et al., 2005)[3]. The alterations these disruptions enabled in the way music had traditionally been protected (IP), produced, distributed, promoted and consumed directly challenged incumbents in the music industry and caused a digital disruption:

traditional competencies were challenged, worldwide revenues were cut in half and new market opportunities were created (Einhorn, 2003; IFPI 2015; Moreau, 2013; NVPI 2004-2015).

Second, digitization in the music industry is well suited to study processes of organizational identity transformation during the same disruption: disruptive innovations that build upon new digital technologies have challenged the core essence of firms' identities as "record company". As a consequence, firms have been forced to initiate processes of "identity shift" to resolve the ambiguity caused by the disruptions within their industry. The following quote from the executive VP of Digital Strategy of Warner Music Group, Alex Zubillaga, is exemplary: "*The digital music revolution is also contributing to the transformation of Warner Music Group from a traditional record and song-based company into a diverse, music-based company (..)*" (IFPI, 2006).

Case Selection

The research has been built upon 15 case studies with independent publishers in the Dutch music industry. An overview of the case studies and their characteristics can be found in Table 2. Our sample includes independent SME record companies because these firms are able to develop an autonomous strategy which does not rely on headquarter orders or only concentrates on a few pop stars or bands to maximize economies of scale (Mol et al., 2005; Moreau, 2013). This also allows the collection of rich and detailed data directly from the firms' CEOs and general managers, who play a decisive role in the development and strategy of firms (Eggers & Kaplan, 2008; Tellis, 2006).

Given our interest in identifying the scope of organizational transformations during disruptions, and then exploring the link between a firm's identity shift and actions during disruption, we relied on theoretical sampling to maximize opportunities to discover variations

(Miles & Huberman, 1994). We first purposely sampled 3 incumbent firms, that is firms that entered the industry *before* the disruption of the music industry at the end of the 1990s. We purposefully sampled independent record companies of small to medium size, that were registered at the Chamber of Commerce as record company (SIC code 5920 or 90012), and served one of the three biggest market segments in the Dutch music industry: Dutch language music, classical music and world music. We matched this initial selection with 3 “new entrants”, that is firms that entered the industry *after* the disruption of the music industry at the end of the 1990s, that were also registered at the Chamber of Commerce as record company (SIC code 5920 or 90012). Similar to the three incumbents, the three new entrants served one of the three biggest market segments in the Dutch music industry. We continued to add cases to collect data until we reached a point of theoretical saturation and no new insights emerged (Miles & Huberman, 1994).

This resulted in a final list of 11 participating independent record companies of relatively the same size, of which 6 firms entered the industry before the start of the disruption (incumbents) and 5 firms that entered the industry afterwards (new entrants). All of these sampled firms used SIC codes that label them as a “record company” at the Dutch Chamber of Commerce, were of SME size and served one of the three major market segments in the Dutch music industry. Using Orbis results, we further ensured that all firms in our sample, with the exception of the late new entrant Van Halen Records (2013), experienced negative effects of the disruption in terms of a downturn in revenues. This ensures that the disruption challenges the organization and its way of doing business, and thus necessitates change in identity. Furthermore, it ensures that the documented shifts are not so-called “rational” decisions that depend on the circumstances a firms finds itself in, as performance does not drive the type of identity shift. We added two additional companies that did not survive the process of digitization as well as two major record companies. The inclusion of these four firms avoids a bias towards successful and/or independent companies and helps to improve robustness and generalizability of the results (Gioia et al., 2012; Miles & Huberman, 1994).

Table 2: Overview of cases

Firm	SIC code	Founding year	Target Market	Size *(No. of FTE)*
Pink Floyd Records	5920	1976	World	1 (formerly 5)
Radiohead Records	5920	1994	Classical	>15
Beastie Boys Records	5920	1995	Classical	9
AC/DC Records	90012	1996	World	5 (formerly 8)
The Beatles Records	5920 90012	1997	Dutch	7 (formerly 10)
Pearl Jam Records	90012	2001	Classical	8
The Who Records	5920	2004	Dutch	1
Nirvana Records	5920	2006	Dutch	3
U2 Records	5920	2006	Dutch/Pop	6
Oasis Records	5920	2007	World	2
Van Halen Records	5920	2013	Dutch	4
Exit 1 Records	-	2008-2015	Exit	Formerly >15
Exit 2 Records	-	2003-2010	Exit	Formerly >15
Major 1 Records	Holding	1958	Major NL	>15
Major 2 Records	Holding	1934	Major NL	>15

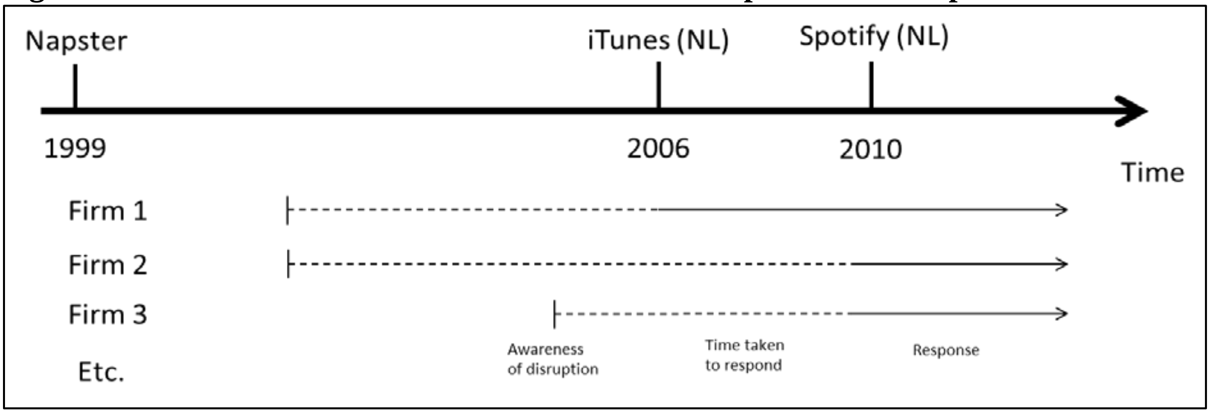
Notes: Firm names are pseudonyms.
SIC code 5920: production and distribution of music recordings, SIC code 90012: production of performing arts (music). Both SIC codes represent common key roles of record companies.

Data Sources & Data Collection

Data from several sources have been gathered, consulted and triangulated to strengthen the confidence in the accuracy of the findings (Eisenhardt, 1989; Miles & Huberman, 1994). Primary in-depth case study data have been collected via 1) semi-structured face-to-face interviews with C-level managers responsible for the strategic behavior of the firm and/or the digital business development of the 15 selected firms (see Appendix B) and 2) informal follow-ups with phone calls, emails and follow-up meetings and dinners. Secondary archival data, including news articles, internet sources and company documentation (i.e. Orbis, Chamber of Commerce information), have been consulted alongside interviews with a variety of music industry experts and association representatives, and attendance at multiple industry conferences. Secondary data sources provided insights into the major changes and critical events that affected the Dutch music industry in the period 1997-2015, and into the daily business activities of record companies and the way the disruptions affected them. Appendix A provides an elaborated overview of the sampled cases and the data sources used per case.

Potential biases have been addressed in several ways. To limit rationalizing of behaviors, actions, and motivations, respondents were not questioned about their identity directly. Respondents were also guaranteed anonymity (Miles & Huberman, 1994). We used a non-directive questioning technique, in which questions became increasingly specific. Probing tactics were used to stimulate respondents to elaborate on their responses, especially regarding topics related to the process of organizational transformation and the role of identity. To guide the retrospective narration while mitigating for the bias of retrospective rationalizing a factual critical event timeline for each of the participating firms has been created prior to the interviews that could be used to revive memories without distorting them (Van De Ven & Poole, 1990). We interviewed multiple respondents within the same organization, or conducted multiple interviews with the same interviewee at different points in time to address potential informant and information biases. Finally, to mitigate bias of interviewer effects, the participating firms have been visited and interviewed by at least two interviewers. In a similar fashion, the interviews and archival data have also been analyzed by at least two interviewers, whereby the interpretations have been synthesized (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Miles & Huberman, 1994).

Figure 1: Individual critical event timelines of firm responses to disruption



Data Analysis

Acknowledging the guidelines for coding and analyzing qualitative data, we identified identity meanings by analyzing the transcribed interview data and additional data sources (Gioia et al., 2012; Miles & Huberman, 1994). We began the data analysis by writing individual case histories based on triangulated interviews, observational and archival data to construct a sense of the firm and its identity (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Weick, 1995). Analyzing these data sources, we argue that the type of identity statements firms make reflect their organizational identities (Fauchart & Gruber, 2011; Hatch & Schultz, 2002) and acknowledge the relational construction of identity as discussed in organizational identity literature (Albert & Whetten, 1985; Ashforth & Mael, 1989; Brown et al., 2006). Interviews, observational and archival data were also used to develop an individual critical event timeline for each of the participating firms, as depicted in Figure 1, portraying e.g. strategic decisions, public announcements and communications, resource allocation, sales and investments (Van de Ven & Poole, 1990). Follow-up meetings, emails and telephone calls were used to fill in missing details. Internal documents, press releases, public documents and news articles served as supporting evidence. The final case histories were about 10-30 pages for each firm, which were then transformed into 2-3 pages case summaries to construct a concise understanding of each of the cases in our analysis.

To preserve the integrity of the replication logic, we began with the cross-case analysis when most data had been collected, and individual case histories had been constructed (Eisenhardt, 1989). We analyzed our data by looking for similar identity related constructs and themes in the extended case histories (Eisenhardt & Graebner, 2007; Gioia et al., 2012). We categorized these identity meanings according to the three key dimensions that researchers use to define organizational identity: a firm's *enduring*, *central* and *distinctive* organizational attributes (cf. Albert & Whetten, 1985; Ashforth & Mael, 1989). For each of these dimensions, we examined how the disruption changed the meanings of each of these key dimensions. A common document was created to enable comparisons among firms related to these three identity dimensions. In an iterative process, we used tables and other cell designs (Miles & Huberman, 1994) to re-group firms according to the similarities and variations in the identity meanings that interviewees associated to their company and to the disruption (Gioia, et al., 2012). Via replication logic, the initial pairings of firms have been redefined, whereby each case has been frequently revisited to compare and verify the findings, also in light of the extant literature (Eisenhardt, 1989). This iteration process helped to sharpen operational construct definitions, which, in turn, enabled the clustering of firms into groups, which represent highly similar processes of organizational transformation in response to the disruption.

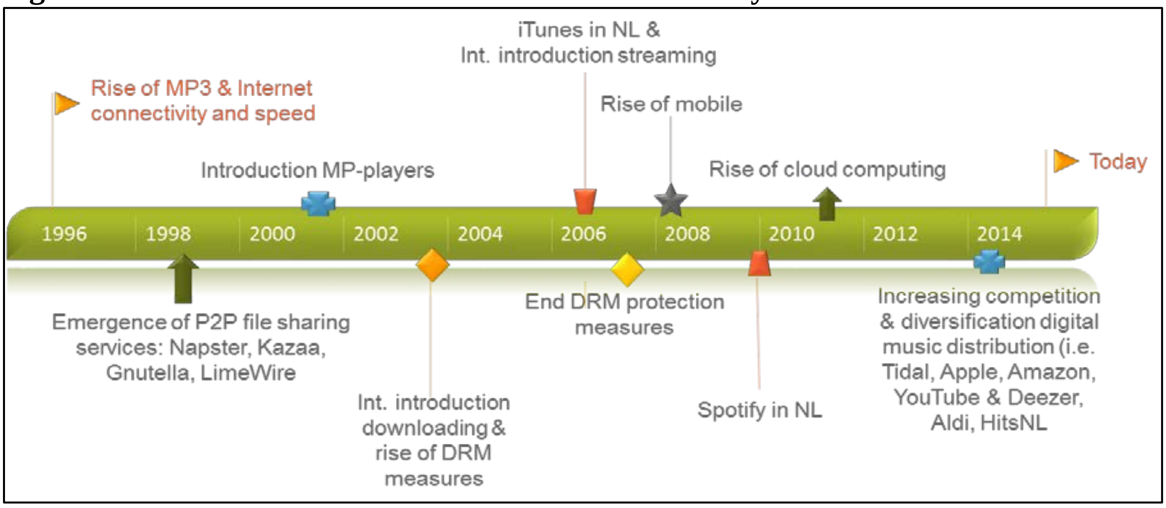
Results

Disruption in the Dutch music industry and the role of identity

Organizational identity provides a firm with a frame of reference with which to interpret organizational actions consistent with that identity. Disruptions challenge the self-reinforcing dynamic of identity (i.e. its *endurance*), and question what constitutes legitimate (i.e. its *central* aspects) and distinguishing (i.e. its *distinctive* aspects) activities (cf. Table 1).

Technological change in the music industry is a classic example. Although technological change is common in the music industry, the impact of new, disruptive technologies, like MP3 sound compression technology and the Internet was unprecedented (Leyshon et al., 2005; NVPI, 2012). The introduction of these new, digital technologies at the end of the 1990s made it possible to develop innovative new services that enabled the distribution and promotion of musical products directly to end consumers. As a result, our experts explained how traditional core competencies and value networks of record companies in music production, distribution, promotion, and IP-protection were seriously challenged: whereas previously, an established incumbent could produce an album, distribute it widely via major record stores and promote it immensely in stores and on television and radio, the digitization of music undermined such traditional core competences and value networks and required new business models and investments to re-establish the value offered and captured by record companies.

Figure 2: Critical Event Timeline Dutch Music Industry



Even though the initial impact of these disruptions in the years 1997-2005 were limited according to our experts, the introduction of a legit business model by iTunes in 2006 in the Netherlands, alongside further technological developments as depicted in Figure 2, changed this. For the independent record companies in our sample this meant that they started to realize that the digital disruption was not inconsequential and had a thorough impact on their traditional business and value networks. Increasingly, the record companies we interviewed expressed how they felt challenged by the disruption regarding who they are and what they do as a “record company”. Both incumbent and new entrant firms in the sample stated how they started to feel “*nervous*” (Major 2 Records) regarding the disruption, resulting in “*an all-encompassing notion of apathy in the business, like; what is happening to us?!*” (U2 Records). The situation was further characterized as “*the Wild West*” (Radiohead Records) or “*one big playground*” (AC/DC Records). The increasing feelings of uncertainty, caused by the disruption, fueled a crisis of legitimacy regarding the core essence of a “record company”, regardless of incumbency, size or target market. As a result, firms started to feel the need “to do something” to legitimize themselves as record companies in a digital era, thereby triggering processes of identity shifts to adapt the organizational identity to the disruptions. As the CEO of Pink Floyd Records said: “*That [introduction iTunes around 2006] was the moment when I thought; this is a turning point. And now I need to do something, because otherwise my company doesn’t have any legitimacy anymore*”.

Managing organizational transformations: the role of identity

Tracking the sequence of events of both incumbent and new entrant firms acoording to the critical-event timeline of the Dutch music industry (see Figure 2), we analyzed the link between organizational identity and disruption in terms of 1) the *endurance* of the firms identity, 2) the *central* aspects that reflect legitimate firm actions and 3) the *distinguishing* attributes that a firm excels in (cf. Albert & Whetten, 1985; Ashforth & Mael, 1989). Our analysis reveals that considerable variation exists along these three dimensions. In other words, firms significantly differed in the level of identity instability of the organizational characteristics that define the organizational identity (i.e. *endurance*), the extent to which core set of attributes and activities that denote the essence of the organization (i.e. *central*) are refuted by the disruption and, finally, whether the key differentiating attributes of the firm (i.e. *distinctive*) were affected by the disruption. By clustering these firms into three groups, clear group differences appear. The next section illustrates our findings.

Disruption and the endurance of organizational identity

The self-reinforcing dynamic of organizational identity motivates employees to pursue beneficial outcomes for the firm that ensures the endurance of the organizational identity in the long run (Albert & Whetten, 1985; Ashforth & Mael, 1989). We argue that as identity-challenging disruptions generally create identity instability (Corley & Gioia, 2004; Fiol, 2002; Nag et al., 2007; Tripsas, 2009), they challenge, or even discontinue, this self-reinforcing dynamic of organizational identity. Our analysis, however, provides a more nuanced view of how this self-reinforcing dynamic is affected by disruption. More specifically, our analysis indicates that firms, confronted with the same disruption, differ significantly in the extent to which they find that the disruption challenges business as usual, and hence the endurance of their organizational identities. Our analysis further indicates that these differences are not limited to specific types of firms (i.e. in terms of incumbency, size or target market). Table 3 provides an overview of three groups that appeared from our data regarding the different perceptions of the endurance of the organizational identity during the disruption.

First, we find a group of firms (i.e. Group 1) that acknowledge the impact and challenges posed by the digital disruptions in their industry, but who continue to belief that these disruptions will neither displace their traditional business model suddenly, nor completely. Even as the digital disruption of the music industry had an increasing impact on their firms over time, these firms kept on adhering to the enduring relevance of their organizational identity as “record company”. The confrontation with the digital disruption of their business is then used to reinforce, or even affirm, the organizational identity of “record company" – as if that organizational identification is an anchor in the sea of disruptive change. This low experience of identity ambiguity during disruptiveness means that these firms also did not feel pressure to change their organizational identity or to engage with new business completely. What is more, according to these firms, the core business of "record companies" has been, and will continue to be the *making of music*. The comments shown below illustrate this interpretation of identity endurance during disruptiveness:

> "*Music wise and sound-conceptual not much has changed. Of course, the music changes though the years, but the classical craft of recording music is separate from the equipment. (..). The only thing that really changed is the medium: where do you put it [music] on?*" (Pink Floyd Records).
>
> "*I believe, (..), that it [traditional business model] will only become more important. (..). Of course we invested in digital distribution; I cannot deny its existence. (..). However, in our eyes, digital is just not the future*" (Van Halen Records).

Second, we find a group of firms (i.e. Group 2) that, like the first group of firms, typically cling on to their "old" organizational identity as "record company" for prolonged periods of time. For these firms, the uncertainty created by the disruption means that the disruption does not immediately challenge the organizational identity. For instance, the CEO of Beastie Boys Records explained how their organizational identity as "budget label" was an enduring and distinctive organizational identity even during the disruption: "*I believe that because [Beastie Boys Records] was a budget label, and still is, we experienced the effects way less than a lot of other companies did*" (Beastie Boys Records). Nevertheless, when the uncertainty surrounding the disruption decreases and firms are confronted with the continuous effects of the disruption, these firms ultimately feel that this "old" identification has become discontinued and realize that an organizational (identity) shift is necessary.

When we look at the cases in Group 2, we found that this identity discontinuation happens around 2011: when downloading became mainstream with iTunes (introduced in the Netherlands in 2006), and streaming (introduced in the Netherlands in 2010 by Spotify) quickly gained impact. Taking into account the two exiting firms in our sample, the emphasis on the need for change due to the continuing development of their market becomes clear: according to them, their organizational irresponsiveness to the development of the digital disruption is the most important reason for their organizational failure. For the firms that did survive, the responsiveness to the discontinuation of their organizational identity as "record company" is considered decisive: it is only at this specific point in time that this group of firms acknowledges that the disruption challenges the endurance of their organizational identity: the digital disruption of their industry can no longer be ignored, and an organizational "turnaround" or a "shift in the organizational identity" has to take place. The following statements illustrate this:

> "*And what we need to do <u>now</u> [referring to 2011], is to adapt our record company. (..). It is an assignment to cause a turnaround, to do it differently than the traditional labels [did]*" (Beastie Boys Records).
>
> "*We wanted to continue it [Pearl Jam Records], our products are really good. And we care about classical music… But we can no longer ignore digitization [referring to 2013]*" (Pearl Jam Records).

Third, we find a group of firms (i.e. Group 3) that acknowledge the impact and challenges posed by the digital disruptions in their industry at an early stage – which means before 2006 in the case of the music industry (see Figure 2). In addition, these firms belief that the digital disruption of their industry will soon displace their traditional business model. These firms consider "old" organizational identifications as "record company" to limit the organizational motivations and capabilities, especially when it comes to handling the challenges of the disruption of their industry. Due to this sharp contrast between the digital "future" identity and the "old" organizational identification as "record company", these firms feel that the endurance of their organizational identity is disrupted and that action has to be taken to re-establish an enduring organizational identity. The resulting identity discontinuation therefore increases the pressure to change, or shift the organizational identity in order to (be able to) fully engage with new "disruptive" business. The next quotes are illustrative:

> "*So we really had that confidence [in digitization]. So I believe we foresaw a change much earlier [than the other companies]*" (U2 Records).
>
> "*But we really felt the pressure to do something [with new business, >2006]*" (Radiohead Records).
>
> "*We knew we had to do business with iTunes, and fast [around 2000-2006]. Otherwise we wouldn't matter anymore in the future. And that's why we accelerated the development [of our aggregator service]*" (Nirvana Records).

Table 3: Interpretations of Identity Endurance across Firms

Diverging interpretations of identity endurance during disruptiveness			
Grouping	*Group 1* Identity endurance barely disrupted "It cannot happen that the physical product disappears suddenly. I don't believe that" (Major 1 Records) "I do not see the value of it [adopt digital distribution]. (..). So I thought; why should I worry about it [digital distribution]? It only costs me a lot of time and effort" (Pink Floyd Records)	*Group 2* Delayed identity endurance disruption "So at a certain point you have to adapt your firm; what will you focus on?" (Beastie Boys Records) "I tried to find ways to extend my service-package, because I wanted to start offering a service package as broad as possible" (The Who Records) "In three years time we were bankrupt, unless we would have taken actions" (Exit 1)	*Group 3* Identity endurance highly disrupted "Because we belief that there [digital] is the future" (U2 Records) "We really felt the pressure to do something [with new business models]" (Radiohead Records) "We knew we had to do business with iTunes, fast, otherwise we wouldn't matter anymore in the future" (Nirvana Records)
Firms	Pink Floyd Records (I) Oasis Records (N) Van Halen Records (N) AC/DC Records (I)	Beastie Boys Records (I) Pearl Jam Records (N) The Who Records (N)	U2 Records (N) Beatles Records (I) Radiohead Records (I) Nirvana Records (N)

Note: (I) = Incumbent firm; (N) = New entrant firm

Disruption and the central aspects of organizational identity

The firm's core set of attributes and activities denote the essence of the organization and provide a focal point for legitimate firm action (Albert & Whetten, 1985; Ashforth & Mael, 1989). As disruptions generally disrupt or even refute the value of such core attributes and activities (Corley & Gioia, 2004; Fiol, 2002; Nag et al., 2007; Tripsas, 2009), they no longer provide a focal point for legitimate firm action. As a result, firms reconsider their core attributes and activities to assess whether change is needed. Our analysis provides a more nuanced view of what constitutes legitimate firm action during disruptiveness. More specifically, our analysis indicates that firms, when confronted with the same disruptions, differ significantly regarding their business focus and which firm activities are considered legitimate organizational actions that denote the essence of the firm. Again, these differences are not limited to specific types of firms, hence, firm characteristics such as incumbency, size or target market cannot adequately explain the business focus. Table 4 illustrates the different, shifting business foci across the cases during the disruption over time. Below we elaborate on these differences.

First, we find that the same group of firms (i.e. Group 1) who consider the endurance of their organizational identity barely discontinued by the disruptions in their industry, also emphasize that their central organizational activities can stand the test of time, even when disrupted. What is needed, then, is that extra attention is paid to further reducing the costs of the traditional business model and firm activities; for example, by decreasing overhead costs, by fighting music piracy, by compensating the loss of physical selling points (i.e. retailers) via new retailers and new physical products, and finally, by gaining control of the production process by investing in a firm's own recording studios. As the CEO of Oasis Records explained: "*The core business [of my firm] is still the recording, mixing and mastering of music. And that is also the focus of my company (..). A record company is not an agency or so. I am not one at* *least. An agency, a bookings office, that's something else than a record company*" (Oasis Records). Similarly, the CEO of AC/DC Records mentioned: "*Solutions do not always have to be sought in digital, it is even easier to find them at the physical side [i.e. traditional music exploitation]. We exploit the opportunities there [traditional music exploitation]*" (AC/DC Records).

Around 2010 these firms admit that the disruption is not inconsequential for their businesses, and cannot be ignored. In their organizational actions, however, the disruptive opportunities are considered in terms of extending the exploitation of traditional business activities. As a result, key business activities are only *expanded* from the offline to the online world: traditional offline activities serve as a stepping-stone to new, online alternatives. For instance, when it comes to the retailing of music, the decision is made to also offer music in online "shops" like iTunes and other downloading or streaming "stores". The daily activities, however, hardly change. As these firms lack digital capabilities, these firms approached intermediaries, so called aggregators, to help them distribute their music online. Often, these firms started to distribute only a part of their music catalogue to explore how their music performs in online "shops". Over time, more and more parts of their music catalogue becomes available online via the aggregator. By doing so these firms ensure that the core activities and central aspects of their organizational identity as a "record company" are not changed: the core-business remains the same, the core activities remain the same and the working methods remain the same. If they are changed, then only as an extension of activities. The following statements illustrate this:

> "*Only in the last couple of years we have expanded [our business] to such platforms [iTunes]. The working methods of the firm have remained the same*" (AC/DC Records).
>
> "*A part of the decrease in sales of physical CDs is more than compensated for by the monthly payment of my aggregator for digital distribution. And the net effect is that I have to do less work for it. (..)*" (Pink Floyd Records).

Table 4: Variance in Core Activities of Firms during Disruptiveness

Diverging core business activities during disruptiveness			
Grouping	*Group 1* Business focus: Persist in traditional business activities	*Group 2* Business focus: Move from traditional to disruptive business activities	*Group 3* Business focus: Embrace disruptive business activities
Firm investments during disruption	Traditional business activities (extra): Studio, Alternative physical products & selling points Timing: from 2006 onwards Digital business activities: Digital distribution via intermediary (aggregator) Timing: from 2011 onwards	Traditional business activities (extra): Alternative physical products & selling points Timing: from 2006 onwards Digital business activities: Digital distribution via intermediary (aggregator) Timing: from 2010 onwards Digital services Digital retail/webshops Timing: from 2011 onwards	Traditional business activities (extra): Management Bookings TV/Media productions Timing: from 2006 onwards Digital business activities: Digital publishing & distribution services (no aggregator) Timing: from 2006 onwards Digital services Digital retail/webshops Data analysis Timing: from 2010 onwards Streaming service Timing: from 2014 onwards
Additional SIC Codes	No additional SIC codes (0)	One (1) additional SIC code: Webportals/webhosting	Multiple (2+) additional SIC codes: Various additional firm activities, including webportals/webhosting patenting (IP-rights), data processing, software
Firms	Pink Floyd Records (I) Oasis Records (N) Van Halen Records (N) AC/DC Records (I)	Beastie Boys Records (I) Pearl Jam Records (N) The Who Records (N)	U2 Records (N) Beatles Records (I) Radiohead Records (I) Nirvana Records (N)

Note: (I) = Incumbent firm; (N) = New entrant firm

Second, we find that the same group of firms (i.e. Group 2) that experience a delayed discontinuation of the endurance of their organizational identity, also experience a delayed effect of the disruption on the value of their core organizational activities. More specifically, these firms emphasize that at first, they foresaw continuing value in their core activities. Like the previous group of firms, these firms emphasize that their central organizational activities can stand the test of time, even when the disruption would become more pervasive, if only they would spend enough time to further reduce the costs of the traditional business model and firm activities; for instance, by decreasing overhead costs, by fighting music piracy, and by compensating the loss of physical retailers' selling points. The CEO of Beastie Boys even emphasized that physical music sales still make up the majority of their earnings: "*Don't forget, our greatest source of revenue is still being obtained via [the sale of] physical CDs*".

As a result of this continuing focus on the traditional business model, only limited attempts are initially undertaken to explore the disruptive business model and new firm activities. Nevertheless, when the uncertainty surrounding the disruption decreases and firms are confronted with the continuous effects of the disruption in consecutive years, these firms ultimately feel that this focus on traditional firm activities limits their firm performance under the disruption. Established sources of information, i.e. music associations such as IFPI, RIAA or NVPI, are used to explore and assess the level of customer adoption of new products and platforms. When evidence of the impact accumulates (e.g., signs of proven returns on investments in industry reports as well as in their own revenue streams), they realize that the disruption is real, and that firm actions toward digital can now be considered "legitimate". As a result, these firms express, finally, the need to make a "*180 degrees turnaround*" (Pearl Jam Records), or "*to do things different from before*" (Beastie Boys Records). Fortunately, by the time these firms realize the need of such a strategic shift around 2011, sustaining new business opportunities have already been clarified. These firms can diversify their core activities with "proven" disruptive opportunities, like providing online promotional services and/or online retailing (i.e. web shops). The addition of new SIC codes invigorates this decision. More importantly, the shift in focus is also substantiated by reallocating resources from traditional to digital business. By hiring new personnel with experience in the digital music industry, these firms ensure that the organizational capacity to embrace these opportunities are also present in-house. The following quote from the GM of Pearl Jam Records is representative for this transition process:

> “*We started to consider what our strategy should be. We said to ourselves: what should we do now, as a company? And the first thing that we started to do [in 2013] is to establish our own sales-channel in the market. And the next thing was to establish our own digital platform. (..). We started to do those things in 2014. (..). But in this company, there was no one with that experience. Now we have 5 [newly hired] employees on these tasks*” (Pearl Jam Records).

Third, we find that the same group of firms (i.e. Group 3) that beliefs that the digital disruption of their industry will soon displace the traditional business model, also emphasize that the pure exploitation of music, which used to be core organizational activities of a “record company”, is no longer a sustainable business model. Instead, new business opportunities, created by the disruption, should be exploited or even seized. Nevertheless, as these firms cannot rely on existing market knowledge, they largely rely on new knowledge sources, for example from marketing stakeholders (e.g. GfK, Nielsen, IFPI), from discussions among stakeholders at industry meetings and from insights from new stakeholders within the music industry (e.g. Spotify, Apple, YouTube, Deezer, etc.).

Due to this shift in focus toward disruptive business activities, these firms invest to broaden their organizational activities to exploit new revenue streams well beyond just the exploitation of music. First, such activities include firm activities formerly performed by separate stakeholders within the music industry, such as bookings, live performance and artist management agencies. By internalizing these activities (vertical integration) within the firm, these firms can start to “*offer the whole package to our artists*” (U2 Records). Second, such activities also include firm activities that did not exist as organizational activities of “record companies” before the disruption, namely those performed by digital aggregator services, webportals or distribution platforms. Reflective of the firm’s desire to invest in such disruptive business activities are the numerous additional SIC codes that these firms registered at the Chamber of Commerce, which serve new market segments well beyond their traditional market segment (i.e. software, web portals, webhosting, etc.). By incorporating these activities within the core activities of the "record company", these firms can make important cost reductions, while gaining new knowledge concerning the disruptive technology at the same time. This way, these firms diversify their activities towards areas formerly outside the scope of their firm and its identity as "record company", and even towards areas formerly outside the music industry. As the general manager of U2 Records strikingly said: "*(..) we now have artists, managers, pluggers, promoters, bookers, tech-people…. We actually have everything here, in-house. So we actually cover the whole spectrum. (..). So that is a different approach and that also requires different disciplines and a different organization".*

Disruption and the distinguishing aspects of organizational identity

According to organizational identity theory, the firm's distinguishing attributes set the firm apart from other firms (Albert & Whetten, 1985; Ashforth & Mael, 1989). As disruptions generally disrupt or even refute the value of such distinguishing attributes (Corley & Gioia, 2004; Fiol, 2002; Nag et al., 2007; Tripsas, 2009), firms have to reconsider what it excels in, more than other firms, and what sets it apart from other firms. Our analysis indicates that as digital disruptions in the music industry challenges the endurance of firms' identities and affects the value of firms' core value creating activities that represent central aspects of being a "record company", we find that firms also emphasize different distinctive characteristics to set themselves apart from others during disruptiveness. Again, our analysis indicates that firm characteristics cannot adequately explain the type of identity shift pursued. Table 5 provides representative data from the cases regarding the different ways in which firms define such distinctive elements during disruption.

Table 5: Distinctive Characteristics of Firms' Identity under Disruption

Diverging interpretations of distinguishing aspects of identity during disruptiveness			
Grouping	*Group 1* Disrupted identification: *Record company*	*Group 2* Disrupted identification: *1. Record company* *2. (Digital) Service company*	*Group 3* Disrupted identification: *Music company*
Distinguishing aspects	Music	1. Music 2. Digital services	Disruptive capacity
Frame of reference	Other record companies (traditional competitors)	1. Other record companies 2. Digital service companies	Disruptors (future competitors); Dissociation with record companies (traditional competitors)
Representative quote	*"The core-business [of my company] is still the recording, mixing and mastering of music"* (Oasis Records)	*"I tried to find ways to extend my service-package, (..). So that is really my focus now (..), a company in digital services*" (The Who Records)	*"So actually we are not a record company, but rather a kind of music company"* (U2 Records)
Firms	Pink Floyd Records (I) Oasis Records (N) Van Halen Records (N) AC/DC Records (I)	Beastie Boys Records (I) Pearl Jam Records (N) The Who Records (N)	U2 Records (N) Beatles Records (I) Radiohead Records (I) Nirvana Records (N)

Note: (I) = Incumbent firm; (N) = New entrant firm

First, we find that the same group of firms (i.e. Group 1) that consider the endurance of their organizational identity and the value of their central organizational activities barely discontinued by the disruptions in their industry also emphasize that the distinguishing characteristics of their firm's identity are hardly challenged. According to these firms, the distinguishing characteristic of the firm's identity remains its core activity of recording and selling music: despite the pervasive effects of the disruption, music (re-) production and music publishing is what sets the firm apart from other firms, as if a firms musical productions have a certain distinctive identity with other music producers and publishers. The following quote from the CEO of Oasis Records is representative:

"If it is your business to make music, then you have to focus on music. And it is nice to mention, (..), that is why we received an Edison (a prestigious Dutch music award) in 2014.

For a CD that I made and produced, in my studio, with an artist from my record company" (Oasis Records).

Second, we find that the same group of firms (i.e. Group 2) that experience a delayed discontinuation of the endurance of their organizational identity and of the disruption on the value of their core organizational activities mention a delayed shift in how firms distinguish themselves from other firms. The case of Beastie Boys Records is illustrative. This firm started as a *budget* record company in classical music, an identity with which it could set itself apart from other firms: "*Digitization came, (..), which made consumers less willing to spend money. But that's why we had such a good position [in comparison to others], because we already did so: budget productions for budget prices!*". Nevertheless, the same CEO also mentioned that as the disruption developed and gained a foothold in the music industry, it realized the need to adapt: "*(..) at a certain point we had to adapt our firm [2010-2011]. (..). We thought, if we can't beat it [digitization],then we should join it!*". So from 2011 onwards, Beastie Boys Records realized that the business model, focused on music (re-) production and music publishing, no longer sets the firm apart from other firms. Instead, it copied the popularized digital business model, which emphasized that providing digital music services is a legitimate action that can set these firms apart from other firms in the industry that either focuses on music exploitation or on disruptive possibilities alone.

Third, we find that the same group of firms (i.e. Group 3) that belief that the digital disruption of their industry challenges the endurance of their organizational identity and the traditional core activities of record companies, also emphasize that the pure exploitation of music no longer serves as their primary frame of reference when distinguishing themselves from other firms active within the music industry. Rather, disruptors and the disruptive technologies themselves become their primary frame of reference, whereby running at the forefront of these new developments as being an "innovator" becomes the distinctive factor for these firms. For instance, on its company website Radiohead Records describes itself in 2016 as an "*innovative*" music company. In news publications Radiohead Records is referred to as "*the new Radiohead Records*", that is "*ready to embrace the future*" (Beerda, 2005). Similarly, several news articles discuss how U2 Records "*Over the past few years the company has developed itself and diversified its business with U2 Management, U2 TV and U2 Bookings*" (Weikamp, 2012). On the company website, the record company is now defined as a "*music label*", who "*specializes in more than just the exploitation of music*". The general manager of U2 Records also marked this difference by saying: *"So actually we are not a record company, but rather a Music Company"*. As a result, various highly similar quotes can be found among these firms, in which these firms claim that their firm was the first, or among the first, to shift towards the disruption.

> "*Then [2006] we did see that the pure exploitation of music that it was facing some heavy weather. (..).So we were actually the first independent label in the Netherlands that had established a direct deal with iTunes. And eh, we also were at the forefront of all the streaming developments*" (U2 Records).

Discussion

This study posits that organizational identity plays a critical role in explaining organizational responses to identity-challenging disruptions (Garud & Karanukaran, 2017). Extant research has already shown how organizational identity serves as a filter that helps firms to understand external stimuli in a manner consistent with the extant organizational identity, and that feelings of identity ambiguity therefore serve as an important signal of the necessity to change that identity (cf. Corley & Gioia, 2004; Tripsas, 2009; Tushman & Romanelli, 1985). Using in-depth case studies of a representative sample of Dutch firms, who faced the same disruptions in a relatively recent timeframe, we extend extant literature by substantiating and providing systematic and comparative insights on how and why firms *differently* address this necessary shift in their organizational identity. Our results provide two important contributions, which we will elaborate on.

1. Typology of organizational identity shifts in response to disruption

First, our analysis indicates that how firms respond to the disruption is in large part determined by the way a firm interprets the effect of the disruption in relation to the endurance, central and distinctive aspects of a firm's organizational identity (cf. Albert & Whetten, 1985; Ashforth & Mael, 1989). Comparing firms on these identity characteristics, we show how firms can be classified as belonging to one of three types of identity transformation during disruptive innovations, as illustrated in Table 6: *identity affirmation*, *identity acculturation* and *identity accommodation*. We argue that these types highly resemble the mechanisms exploited by ethnic minorities when confronted with a majority population in migration studies: when facing a (threatening) majority population (or: disruption), ethnic minorities (or: incumbents) can use different mechanisms to relate to that majority (or: disruptors) (cf. Bochove, Burgers, Geurts, Koster & Waal, 2015; Bond & Yang, 1982; Baretto, Spears, Ellemers, & Shahinper, 2003). This implies that in a disruptive context, the disruption undermines the organizational identity of a "record company", which becomes – with increasing disruption success– a so-called minority position, and hence firms exploit different mechanisms to address this minority position.

Table 6: Organizational Identity (OI) Dimensions during Disruptiveness

Identity dimensions under disruption	**Variance in meanings**		
	Identity affirmation	*Identity acculturation*	*Identity accommodation*
Endurance of OI	*Reinforcement* - Low identity ambiguity - Attitude: disruption does not affect the OI and therefore there is no pressure to change OI	*Delayed discontinuation* - Delayed identity ambiguity - Attitude: continuing confrontation with disruption necessitates a change in the OI	*Discontinuation* - High identity ambiguity - Attitude: disruption affects the OI and therefore the pressure to change the OI and to engage with new business is high
Central aspects of OI	*Traditional business focus* - Established core activities can survive disruption - Behavior: expansion of core activities from offline to online (low hanging fruit)	*Dual focus* - First a focus on traditional core activities - Behavior: later adopting "proven" new, disruptive organizational activities	*Disruptive business focus* - Pure exploitation of established core activities is no longer sustainable - Behavior: exploiting new organizational activities, also beyond the industry
Distinctive aspects of OI	*Record company* - Record companies as primary frame of reference - Music seen as distinctive factor	*Digital service company* - A hybrid between record company and digital service company as primary frame of reference - Distinction by offering bundles of products (services) that support both music and the disruption	*Music company* - Disruptors as primary frame of reference - Distinction by being a frontrunner on new developments, using 'innovator status' as distinctive factor
Firms	Pink Floyd Records (I) Oasis Records (N) Van Halen Records (N) AC/DC Records (I)	Beastie Boys Record (I) Pearl Jam Records (N) The Who Records (N)	U2 Records (N) Beatles Records (I) Radiohead Records (I) Nirvana Records (N)

Note: (I) = Incumbent firm; (N) = New entrant firm

More specifically, the first type of organizational transformation observed in our sample, organizational *identity affirmation*, is one that we would expect when thinking about disruption in any industry, because it corresponds to the expected standard incumbent response during disruptiveness: incumbents who ignore disruptive technologies and/or defend their traditional business model against the disruption (cf. Christensen, 1997; 2003). However, our analysis indicates that identity affirmation is not unique to incumbents: new entrants can just as well choose to take on or affirm the organizational identity of a "record company".

Therefore, our analysis indicates one group of firms emphasizing that in a changing business environment the *differences* between themselves as “record companies” and the disruption becomes a means of distinction within their industry (Bochove, Burgers, Geurts, Koster & Waal, 2015; Bond & Yang, 1982; Baretto, Spears, Ellemers, & Shahinper, 2003), and therefore these firms affirm their (traditional) organizational identity as “record company” during disruptiveness.

The second type of organizational transformation observed in our sample is organizational *identity acculturation*. Firms with this type of organizational transformation typically cling on to their old identity for extended periods of time. Nevertheless, when the uncertainty surrounding the disruption decreases, and firms familiarize with and are affected by the disruption, these firms ultimately realize that a strategic refocus or turnaround is necessary. Disruption thus enables these firms to acculturate their organizational identity to this establishment of the disruption. Ultimately, these firms adjust their organizational identification by copying and taking over certain characteristics of the disruption that have proven to be the new standard.

Finally, the third type of organizational transformation observed in our sample is organizational *identity accommodation*. Examining incumbent-entrant dynamics during disruptiveness, we conclude that this type of organizational transformation comes closes to the literature’s assumption of new entrants embracing disruptiveness (cf. Christensen, 1997; 2003). Our results, however, again provide a more nuanced view as the firms that adhere to this type are not limited to new entrants. Rather, incumbents are, like new entrants, able to accommodate to the challenges of disruptions. Our analysis indicates that firms that adhere to this type of organizational transformation emphasize that in a changing business environment, their organizational identity as “record company” stands in sharp contrast to and is *in conflict* with the disruption. Firms therefore accommodate their organizational identity to the disruption by creating an identity that fits with the attitudes and behaviors related to the disruption (i.e. these firms stress *similarities* with competitors that embrace the disruption) and what they perceive as becoming the norm due to the identity-challenging disruption.

Identifying these different types of organizational identity shift is important. Prior research has emphasized the inertial forces (i.e. Nag et al., 2007; Trispas, 2009; Vuori & Huy, 2016) or the self-reinforcing dynamic of organizational identity (i.e. Ravasi & Schultz, 2006; Schultz & Hernes, 2013), which constrains the transformation of given or pre-existing organizational actions, beliefs or opinions. Our results, however, indicate vastly different interpretations of the own organizational identity during disruption, which go beyond the simple re-evaluation of the existing identity. It provides a typology of three different bottom-up approaches, via which firms gain legitimacy and collective resonance for new, disruptive, identity aspects (Garud & Karunakaran, 2017). As a result, disruption becomes a new boundary object of organizational identification that enables firms to pro-actively engage with disruptive innovations that challenge the enduring, central and distinctive aspect of a firm's identification. In other words, disruption marks the organizational identity as inherently different to the disruption, and firms can employ different mechanisms to cope with and relate to that disruption. Firms that may seem similar before disruption, might relate to and react differently to the disruption. As a result, disruption creates a source of conflict and tensions among firms in established value networks (cf. Christensen, 2006): the disruption necessitates network actors to develop markedly different organizational identities, which can become composed of markedly different firms.

2. The generative power of organizational identity

Our study also provides evidence of how shifted identities are reflected in a firm's strategic decisions and actions during the disruption. More specifically, it provides empirical evidence that indicate how firms seek to behave and act in ways consistent with the way their organizational identity *transforms* during disruptions: by the way a firm identifies and perceives itself in relation to disruption, by the type of firm activities the firm pursues or wants to pursue, and by the archetypical firms the firm relates to. In contrast to organizational identity theory, which predicts that firms will act in ways that match the particular meanings they associate with their firm (Albert & Whetten, 1985; Ashforth & Mael, 1989), creating a strong impediment to change (Nag et al., 2007; Tripsas, 2009), we provide evidence that firms, when challenged in their identification by disruption, will differ systematically across key organizational decisions based on the type of organizational identity shift they adhere to in such circumstances: only by resolving the identity ambiguity caused by identity-challenging disruptions firms are able to re-install a focal point for what constitutes legitimate action, and to re-establish the distinguishing attributes that the firm can draw upon to set itself apart from others. This, then, in time re-installs the self-reinforcing dynamic of organizational identity that motivates to pursue beneficial outcomes for the firm. Ultimately, these decisions enable a convergence on a set of different re-defined identities. This study thus provides an new explanation as for *why* we find fundamental differences in organizational responses to the same disruptive innovations.

Theoretical implications

Our emergent typology of identity shift helps to explain the vastly different responses and strategic actions made by firms when confronted with disruptive innovations. The findings have several implications in the areas of disruptive innovation, organizational identity and strategy research.

To the field of disruptive innovation, we introduce the role of organizational identity to explain firm responses to disruptive innovations, and why we find such a variety in responses to disruption. The processes of organizational identity shift that we document reach well beyond current debates about whether the incumbency of firms makes firms perish under the sudden, disruptive impact of new technologies and innovations (cf. Christensen, 1997; 2003) or not (cf. Danneels, 2004; King & Baartagtokh, 2015), as our sampled did not show that specific types of organizational transformation are limited to either incumbents or new entrants. We provide one of the first systematic and comparative insights into the vastly different processes of organizational identity shifts during disruptiveness and show how organizational identity plays a key role in determining what constitutes legitimate action (Garud & Karunakaran, 2017) in highly uncertain and identity-challenging disruptive contexts. As firms aim to create consistencies with the type of organizational transformation selected, we find that the type of organizational identity shift a firm adheres to not only influences firm behavior by defining what actions are considered appropriate (i.e., in line with the type of organizational identity shift), but also determines *when* certain firm actions are considered appropriate and undertaken. Therefore, our documentation of the shifts in organizational identity indicates that the response of a firm should not be considered at one point in time, but rather as a time-paced process (Schultz & Hernes, 2013).

We contribute to the organizational identity literature by establishing a typology detailing the primary types of organizational identity shift in response to identity-challenging disruptions (as called for by Ravasi & Schultz, 2006, Tripsas, 2009). This typology takes into account the multifaceted and context-dependent nature of organizational identifications, and documents how firms confronted with a disruption adopt different mechanisms to relate to that disruption – much like the mechanisms exploited my ethnic minorities when confronted with a majority population in migration studies (cf. Bochove, Burgers, Geurts, Koster & Waal, 2015). These mechanisms enable firms to gain legitimacy and collective resonance for new, disruptive, identity aspects that can be used as a new boundary object of organizational identification. Exploring this stream of research may help further explaining the processes of organizational transformation.

Our findings also contribute to the organizational identity literature by indicating a new perspective to understand the role of organizational identity during disruption, in which organizational identity does not always work as a lense filtering out threats (cf. Albert & Whetten, 1985; Nag et al., 2007; Tripsas, 2009): when firms have to respond to identity-challenging disruptions that necessitate a shift in the organizational identity, we find that identity does not only serve an inertial and restrictive role, as the type of organizational identity shift can become generative and serve as a guidepost that directs the strategic decision making and actions of firms during the disruption. The type of shift thus enables firms to pursue firm activities that, before the disruption, would be considered illegitimate and in conflict with the organizational identity. As such, our results document a close relationship between the "being" dimension of identity – who we *are* as an organization-, and the more strategical "doing" dimension of identity – what we *do* as an organization (cf. Bochove et al., 2015; Gavetti & Rivkin, 2007; Nag et al., 2007, Ravasi, Tripsas & Langley, 2017). This relationship between the "being" and the "doing" component of identity can help to explain why firms make vastly different strategic decisions when confronted with the same disruption. These findings therefore also offer novel insights into the ways in which firm heterogeneity arises in a particular industry (Fauchart & Gruber, 2011; Zott, 2003).

Finally, the findings of this study enrich understanding of opportunity recognition during disruptiveness (March & Shapira, 1992; Ocasio, 1997). Specifically, we have seen that firms who adopt a particular type of identity shift exploit opportunities that are systematically different from firms that adopt another mechanism of identity shift in response to disruption: firms perceive as an opportunity only those situations that are consistent with their shifted self-concepts as they strive for identity-relevant actions in response to the disruption. The type of identity shift can thus be considered a key factor in opportunity identification and, more importantly, opportunity pursuit, that is separate from factors discussed in the literature, such as a firm's prior knowledge, information access, cognition and abilities (i.e. Ansari & Krop, 2012; Christensen, 1997; Eggers & Kaplan, 2009).

Practical implications

This study provides insights to business practice by helping practitioners to make more informed strategic decisions when faced with disruptions that necessitate organizational (identity) transformations. The close relationship that we document between identity (i.e. *who you are*) and strategy implementation (i.e. *what you do*) provides implications for how managers can best accomplish identity changes necessitated by disruptive change. This helps firms to discern important trade-offs associated with the decisions related to how to respond to disruption. As we indicate that there is no single resolution to resolve identity inconsistencies and ambiguity due to such disruptions, we lend support to the notion that identity influences organizational decision making. The identification of the acculturated identity shift further foregrounds the importance of understanding disruption as a process over time (Christensen et al., 2015), requiring firms to maintain a given level of organizational agility to manage the uncertainty of disruptiveness (Teece & Leih, 2016). Finally, as the type of shift creates restrictions as only some actions are considered appropriate and fitting with the type of organizational identity shift, this could serve as a fundamental source of conflict among firms in established value networks, which, due to the disruption, become composed of firms with markedly different organizational identities.

Limitations & future research

Like all studies, this study has its limitations. First of all, the study is based on multiple cases in the same industry, confronted with the same disruption. Using a sampling strategy that aims to minimize heterogeneity within this research context, this research has identified three ways in which identity is shifted during disruptiveness. However, more research is needed to ascertain whether the findings of this study can be more broadly generalized, especially as there might be differences that are unique to the situation, industry or disruption faced. In addition, although we purposefully sampled independent record companies of small to medium size that survived the disruption because they are expected to develop an autonomous strategy (Mol et al., 2005; Moreau, 2013), we included Major 1 Records and Major 2 Records to avoid a bias to independent companies (Miles & Huberman, 1994). Nevertheless, even though the process of identity shift of larger firms (Major 1 Records and Major 2 Records) highly resembled the identified processes of identity shift in response to the disruption, the mere size of these major record companies allows for an unprecedented, and therefore uncomparable, investment in digital business models. Therefore, we would encourage further research to analyze the process of identity-shift in larger companies. Additionally, we included two exiting firms (Exit 1 Records and Exit 2 Records) to avoid a bias towards more successful and surviving companies (Miles & Huberman, 1994). Despite the inclusion of surviving and exiting firms, the small sample size does not allow to asses which form of organizational transformation is most successful. An important question for future research could therefore be whether certain types of identity shift are better than others and under what circumstances. This calls for a closer investigation of the mid to long-term financial performance of different types of identity shifts.

Finally, the identified processes of identity shift during disruptiveness should be considered within the limitations of a cross-sectional, exploratory research design. More specifically, it is important to consider that identity construction is a longitudinal process, that is influenced by social contexts and events that existed and or happened even before the confrontation with a disruption. In support of this notion, the data that has been collected for this study is limited in acknowledging differences in perceptions and attitudes towards identity shifts that emerged earlier, or that emerged from the social network of the firm. For instance, we have not been able to determine the extent to which firms have previously experienced disruption(s), or whether the network of the firms favored one type of identity shift over another. Longitudinal research projects in real time would be useful in clarifying causal relationships and feedback loops. Social network analysis could then determine the influence of the social network. An experimental design can assess whether and to what extent organizational identity influences organizational behavior, and vice versa.

Conclusion

Organizational identity has become an important concept to describe and explain inertial forces within organizations during radical technological change. Yet knowledge regarding the role of identity when firms are confronted with an identity-challenging disruptions that necessitate organizational transformation is in its very early stages. The application of organizational identity theory to disruption theory provides the opportunity to obtain fundamental insights into firms responses to identity-challenging disruptions. By identifying heterogeneous meanings firms associate with disruption we showed how the firms could be classified as belonging to one of three types of identity shift during disruptive innovations – identity affirmation, identity acculturation and identity accommodation. We further provided evidence that these shifted identities are reflected in the strategic decisions and actions made by firms during the disruption. These findings provide a compelling explanation for how and why similar firms develop different organizational responses to disruptive innovations, and why different firms develop similar organizational responses to disruptive innovations. Identity clearly has important theoretical and practical implications for firms dealing with disruptiveness. Hopefully the insights of this study will inspire other researchers to further explore the complex relationship between technological change and organizational identity.

Notes

[1] The shared understanding of organizational identity emphasizes how identity is a relational construct, which reflects both insiders' views, beliefs and projections of the identity and outsiders' views of the organization (Albert & Whetten, 1985; Ashforth & Mael, 1989; Brown, Dacin, Pratt & Whetten, 2006). We argue that the type of identity statements firms make ultimately represent the social construction of the identity orientations of firms, in which both insiders and outsiders view are reflected (Fauchart & Gruber, 2011; Hatch & Schultz, 2002).

[2] Digitization is the process of converting product information, like music, into a compressed digital format like MP3, which can be easily and immediately shared over the Internet (Einhorn, 2003; Leyshon et al., 2005).

[3] The structure of the Dutch music industry and the impact of the disruptions are very similar to larger music industries like the US, the UK and Sweden (Mol et al., 2005; IFPI, 2015). A notable difference concerns the timing of the launch of downloading and streaming services. Whereas iTunes was launched in the US in 2003 and in the UK in 2004, it was only launched in the Netherlands in 2006. Similarly, whereas Spotify was launched in Sweden in 2006 and in the UK in 2009, it was only launched in the Netherlands in 2010.