

ABSTRACT

Advancing Research on Hybrid Organizations: Insights from the Management Practices of a Large Firm Diversified into Multiple Digitally Enabled Businesses

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The advances in information technology have dramatically augmented the reach, flexibility, and agility of modern enterprises. In the past years, many large companies rapidly expanded their business scopes and spanned their organizational boundaries, diversifying into various digitally enabled businesses. These firms may achieve organizational innovations and business opportunities through the integration of digital products and services in different fields. We argue that this new form of organizations be the next breed of organizations and their integration efforts pose certain intraorganizational level “organizing” challenges that have not yet covered sufficiently in the literature: How to design organizational activities, structures, and processes to support such integration. This dissertation adopts the hybrid organizing perspective to explore the intraorganizational level mechanisms that explain how large firms diversified into multiple digitally enabled businesses achieve integration. To do so, a case study of LeEco, an internet and technology giant in China, is conducted. This dissertation makes two important contributions. First, this dissertation advances understanding of hybrids by

demonstrating how hybrids embedded in a more complex pluralistic institutional environment achieve integration at the intraorganizational level. It also contributes to knowledge of hybrids by identifying the generative aspects of the combination of multiple elements. Second, utilizing hybrid organizing as a sensitizing device to unearth the intraorganizational level mechanisms that explain how a big firm diversified into multiple digitally enabled businesses achieve integration at the intraorganizational level, this dissertation contributes back to hybrid organizing by identifying several internal links between the four internal-oriented dimensions of hybrid organizing.

Advancing Research on Hybrid Organizations: Insights from the Management Practices of a Large Firm Diversified into Multiple Digitally Enabled Businesses

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TABLE OF CONTENTS

LIST OF FIGURES	vii
LIST OF TABLES	viii
ACKNOWLEDGMENTS	ix
DEDICATION	x
CHAPTER ONE	1
Introduction	1
Large Companies Diversified into Multiple Digitally Enabled Businesses	1
Hybrid Organizations	3
The Importance of this Dissertation	5
CHAPTER TWO	8
Literature Review	8
Methodology of Literature Review	9
Hybridization Strategies for Hybrids.....	11
Hybrid Organizing.....	18
Unpacking the Intraorganizational Level Hybrid Organizing Mechanisms.....	26
CHAPTER THREE	28
Methodology	28
Research Setting: The Business Ecosystem Built by LeEco.....	29
Data Collection.....	35
Data Analysis.....	39
CHAPTER FOUR.....	48
Findings.....	48
How LeEco Develops Integrated Activities	48
How LeEco Integrates Separated Subecosystems to Support Integrated Activities .	51
How LeEco Cultivates Individuals Who Are Competent in a Variety of Fields	57
How LeEco Motivates Individuals Who Are Competent in a Variety of Fields.....	59
How LeEco Builds a Single Organizational Culture.....	61
CHAPTER FIVE	65
Discussions.....	65
Moving from Tensions to Possibilities.....	67
Internal Links between Internal-oriented Dimensions of Hybrid Organizing.....	73
CHAPTER SIX.....	77

Conclusions	77
Limitations and Future Directions.....	77
Concluding Statement	79
Appendix A.....	83
Data Collection Process	83
Accumulation of Secondary Data of LeEco	83
Initial Ideas and Plans.....	84
Gaining Access.....	85
First Round of Data Collection.....	86
Adopting“Hybrid Organizing” Perceptive to Our Case Study.....	87
Second Round of Data Collection	88
Third Round of Data Collection	89
APPENDIX B	91
Baseline Interview Protocol (Final Version).....	91
REFERENCES	93

LIST OF FIGURES

Figure 1. Structure of LeEco's ecosystem.....	31
Figure 2. Seven sub-ecosystem of LeEco	33
Figure 3. Data analysis process.....	46
Figure 4. A sample project network structure diagram.....	50
Figure 5. A sample of hybrid organizational structure	54
Figure 6. A sample hybrid organizational structure.....	55
Figure 7. Internal links between dimensions of hybrid organizing	75

LIST OF TABLES

Table 1. Framework of the literature review	12
Table 2. Data description	36
Table 3. Descriptive interviewee sample pool	38
Table 4. Features of sub-ecosystems	42
Table 5. Internal tensions of LeEco	43
Table 6. Responses to internal tensions	45
Table 7. Examples of activity integration that result in innovations	53
Table 8. Negotiation spaces at LeEco	56
Table 9. The Eco channel at LeEco	60
Table 10. Summary of findings	68

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DEDICATION

To my parents, my wife, and my lovely daughter

Their love for me has enriched my life and made my accomplishments more meaningful

CHAPTER ONE

“Today we opened the biggest and most advanced hardware lab in Facebook’s history.”

—*Mark Zuckerberg, CEO and co-founder of Facebook*

“Our goal was to enter the healthcare industry in a big way and try to be a contributor to better outcomes at lower costs.”

—*John Kelly, IBM senior vice president*

“We have been and continue to invest a lot in this. We are high on AR (Augmented Reality) for the long run.”

—*Tim Cook, CEO of Apple*

“So many different things to so many different people that it must, of necessity, be partially at war with itself.”

—*Clark Kerr, Former president of the University of California, Berkeley*

Introduction

Large Companies Diversified into Multiple Digitally Enabled Businesses

The digital revolution has had a tremendous impact on the global business environment and has fundamentally changed the way companies conduct business (Brynjolfsson & McAfee, 2012). Emerging technology trends such as big data, the internet of things, mobile computing, and cloud computing have created more opportunities for companies to integrate businesses in conventionally unrelated industries (Chui, 2010). Standard digital business processes (e.g. RosettaNet’s XML-based partner–interface–processes) and shared digital platforms (e.g. service-oriented architectures) have also increased interoperability and interconnection between firms in different industries (Markus & Loebbecke, 2013). The advances in information technology have dramatically augmented the reach, flexibility, and agility of modern enterprises (Dreyer et al., 2006). In the past years, through mergers, acquisitions, and self-development,

many large companies rapidly expanded their business scopes and spanned their organizational boundaries, diversifying into various digitally enabled businesses. For example, Amazon started as a retailer in 1994. Six years later, the company introduced Amazon Marketplace, an e-commerce platform that enabled Amazon's customers to purchase Amazon's regular products as well as new and old offerings from third-party sellers. It further expanded its business to consumer electronics and became the world's largest provider of cloud infrastructure services. Google launched with a search engine in the mid-1990s and then started to deliver online advertising service from 2000. It is now specializing in numerous Internet-related services and products such as searching, online advertising, cloud computing, enterprise tools, productivity applications, and communication hardware.

Big firms diversified into multiple digitally enabled businesses may achieve organizational innovations and business opportunities through the integration of digital products and services in different fields (Jay, 2013). For example, Facebook acquired Oculus VR, the leader in virtual reality technology, to enter the VR industry. Facebook believed that integrating the products and services in the social media field and the VR area would lead to a new social platform (a computer-generated virtual environment) where individuals could share unbounded spaces and experiences with the people in their lives. Such an integration strategy also reflects an emerging innovation model powered by digital technology: The digital revolution makes innovation and value creation more likely to take place at the intersection of various products and service markets. Companies which master a more systemic presence across industries are more likely to catch such opportunities (Evans & Schmalensee, 2005).

Such an integration strategy also requires synergy and cooperation between groups of people with different values and attitudes, incompatible identities and logics, and conflictual missions and beliefs (Tracey et al., 2013). Therefore, these integration attempts pose certain intraorganizational level “organizing” challenges for those large firms: How to design organizational activities, structures, and processes to support such integration (Gil & Warzynski, 2015). For example, IBM launched IBM Watson Health and the Watson Health Cloud platform in 2015. By analyzing the massive amount of personal health data collected from the healthcare industry, the platform helps doctors to improve the care quality at lower cost. However, the development and sustainability of the platforms require synergy between groups in the fields of healthcare and IT. IBM has to carefully craft its activities, structures, and processes to promote communications and collaborations between these two groups.

In recent years, more and more innovative companies (e.g. Facebook, IBM, Google, Amazon) are diversifying into many digitally enabled businesses and are integrating digital products and service in various fields. We argue that this new form of organizations represents the next breed of organizations and their integration efforts pose certain intraorganizational level “organizing” challenges that have not yet been sufficiently covered in the literature. The key issue of this phenomenon that we are observing from a number of these firms is hybridity. Next, we describe the “hybrid organizations” concept in the organizational studies.

Hybrid Organizations

The concept of hybrid organizations originates from the term “hybridity” which refers to “the state of being composed through the mixture of disparate parts” (Battilana

& Lee, 2014, p.400). In organizational studies, hybrid organizations have been widely discussed as the combinations of elements such as organizational identities (Pache & Santos, 2010), institutional logics (Greenwood et al., 2011), organizational forms (Battilana & Lee, 2014), business models (Boyd et al., 2009), lines of businesses (Schweizer, 2005), and technologies (Furr & Snow, 2015). Hybrids also refer to the organizational arrangements which combine resources and organizing structures from multiple organizations (Borys & Jemison, 1989). Recently, hybrid organizations are gaining popularity in various business spheres because modern enterprises face the challenge of operating in pluralistic institutional environments (Greenwood et al., 2011; Kraatz & Block, 2008; Mair et al., 2015; Pache & Santos, 2010, 2013).

Hybrids arise when organizations deliberately combine multiple elements (i.e. business models, technologies, logics, business lines, identities, forms, etc.) to pursue new opportunities and achieve innovations, or unintentionally combine multiple elements to respond to unanticipated external change (Greenwood et al., 2011). Different elements of hybrids are not always compatible (Greenwood et al., 2011). Such incompatibility may lead to tensions inside hybrids which strive to fuse incompatible processes or practices (Tracey et al., 2011). For example, competing technology logics may exist in intergenerational hybrids (defined as the combination of technology elements across competing technology generations): maintaining companies' resources and routines in the old technology or leaping directly into disruptive technology and embracing uncertain technological future (Furr & Snow, 2015).

Research suggests several organizational level hybridization typologies for solving internal tensions triggered by the combinations of different elements: *dismissing*

(explicitly rejecting certain elements), *separating* (compartmentalizing elements), *aggregating* (retaining and linking disparate elements), and *integrating* (forging a new distinctive institutional order) (Kraatz & Block, 2008; Oliver, 1991; Pratt & Foreman, 2000). While these organizational level strategies provide insights to explore how hybrids ease internal tensions, the intraorganizational level organizing mechanisms through which hybrids implement these strategies remain unclear (Battilana & Lee, 2014; McPherson & Sauder, 2013; Pache & Santos, 2013).

The Importance of this Dissertation

Paying attention to the intraorganizational level organizing mechanisms is particularly important for large firms diversified into multiple digitally enabled businesses, as well as hybrid organizations in general, which strive to solve internal tensions triggered by the combination of different elements (i.e. technologies, logics, identities, forms, business lines, business models, etc.). This dissertation addresses this gap by examining how a large firm diversified into multiple digitally enabled businesses combines different elements at the intraorganizational level. To do so, a case study of LeEco, an internet and technology giant in China, is conducted. With a vision of the future that everything that matters to modern consumers is connected, LeEco has engaged in a plethora of digitally enabled businesses from streaming entertainment to smart phones to super televisions to the Internet- linked electric cars and more. Powered by advanced technologies, LeEco integrates products and services in those business areas and builds a business ecosystem that has expanded to other countries such as the United States and India. The business ecosystem consists of seven sub-ecosystems, each of which represents a particular line of business. LeEco strives to achieve synergy and

integration among its seven sub-ecosystems. In the context of the current study, we adopt the theoretical lens of hybrid organizing as a sensitizing device to unearth the intraorganizational level organizing mechanisms that explain how LeEco integrates multiple sub-ecosystems across various fields. Defined as the activities, organizational design and processes by which hybrid organizations combine different elements (Battilana & Lee, 2014), the concept of hybrid organizing was proposed by Battilana and Lee (2014) to address the following research gap: the intraorganizational level organizing mechanisms through which hybrid incorporate multiple elements remain unclear.

This dissertation makes two important contributions. First, previous research on hybrids and hybrid organizing has focused on investigating how hybrids respond to tensions triggered by the combinations of different elements (i.e. technologies, business models, logics, lines of business, identities, forms, etc.). In this dissertation, we followed the same “tensions-responses” logic and strived to identify the intraorganizational level organizing responses to the internal tensions of LeEco. However, as we dove into the detailed analysis of how LeEco developed those responses, we realized that unique possibilities (i.e. digital innovation, hybrid individuals, etc.) might also be generated by those responses. Therefore, we contribute to the knowledge of hybrids and hybrid organizing by identifying the generative aspects of the combination of different elements (Battilana & Lee, 2014). Second, none of the previous literature, to our knowledge, has investigated the interactions between the hybrid organizing dimensions. This dissertation contributes back to hybrid organizing by identifying several internal links between the four internal-oriented dimensions of hybrid organizing. The dissertation is organized as follows. First, it provides a literature review and follows with the research methodology.

Next are the case description and analysis, followed by the discussion and contributions.

The dissertation ends with a conclusion, limitations, and suggestions for future research.

CHAPTER TWO

Literature Review

The concept of hybrid organizations has been adopted to describe various combinations such as network and hierarchy (Powell, 1990), government and business (Arellano-Gault et al., 2013), academic and market (Owen-Smith, 2003), healthcare and science (Dunn & Jones, 2010). In recent years, the growing prevalence of social enterprises which combine commercial and social logics at their core has triggered academic interest to propose legitimate practices for hybrids (i.e. Battilana & Dorado, 2010; Hoffman et al., 2012; Pache & Santos, 2013; Santos et al., 2015). Researchers started to pay close attention to social enterprises because this type of hybrid has emerged in various economic sectors and many areas of the world in recent years. We noticed that most recent research on hybrid originations and hybrid organizing has focused on social enterprises (Battilana & Lee, 2014; Jay, 2013). Therefore, our literature review relied primarily on the recent studies on social enterprises. We also examined studies on other types of hybrid organizations to enhance the comprehensiveness of the review. The purpose of our literature review is to disclose the research gaps regarding the intraorganizational level organizing mechanisms (i.e. activities, structures, processes, etc.) that explain how hybrids achieve integration.

The literature review chapter has three sections. We first introduce how we identified the relevant literature and organized the review. Then, we provide a review of the literature on organizational level hybridization strategies: dismissing, separating, aggregating, and integrating. Although this dissertation is not focusing on organizational

level hybridization strategies, we reviewed this area to enhance the comprehensiveness of our review. This is followed by a review of the literature on hybrid organizing. Specifically, we review research on how hybrid organizations integrate different elements (i.e. forms, institutional logics, identities, business models, technologies, business lines, etc.) through the four internal-oriented aspects of hybrid organizing: core organizational activities, workforce composition, organizational design and organizational culture. We identify five research gaps regarding the intraorganizational level organizing mechanisms that explain how hybrids achieve integration.

Methodology of Literature Review

We started our literature review by developing the criteria for the types of studies to be included for further analysis (Leidner & Kayworth, 2006). While this dissertation focused on examining a large firm diversified into multiple digitally enabled businesses, little research in information systems (IS) field, to our best knowledge, has adopted the perspectives of hybrid organizations and hybrid organizing to study any IS phenomenon. Therefore, we returned to the area of organizational studies in which the concepts of hybrid organizations and hybrid organizing have a long tradition. We were devoted to summarizing the existing knowledge of hybrids and hybrid organizing and strived to identify critical research gaps (Alavi & Leidner, 2001; Te'eni, 2001) by applying the existing knowledge to a new IS phenomenon.

We then followed the structured approach (Webster & Watson, 2002) to identify relevant articles and structure our review. We began with the leading articles that had made major contributions in the fields of hybridization strategies for hybrids. Three extensively referred articles that explicated hybridization strategies for hybrids were

identified (Kraatz & Block, 2008; Oliver, 1991; Pratt & Foreman, 2000). Also, through reviewing 95 articles and book chapters that examined hybrids, Battilana and Lee (2014) proposed the concept of hybrid organizing and the four internal-oriented hybrid organizing dimensions. This review article was the most widely referred article in the field of hybrid organizing and was treated as the core article to lead our review of hybrid organizing. Next, we paid close attention to the citations for the four leading articles and determined key articles for further consideration. We used “Google Scholar” to locate articles that cite these key articles and determine which articles should be included for further analysis.

After determining the articles for further review, we went forward by using concept-centric approach (Webster & Watson, 2002) to construct our review framework. We utilized the four hybridization strategies (dismissing, separating, aggregating, and integrating) and the four internal-oriented dimensions of hybrid organizing (core organizational activities, workforce composition, organizational design and organizational culture) as the core concepts to synthesize the literature. Table 1 summarizes the framework of our literature review.

In total, we reviewed 25 articles which examined the hybridization strategies for hybrids and 45 articles that explored hybrid organizing dimensions. Our review of the hybridization strategies suggests that among the four strategies, the integrating strategy is the best strategy for large firms diversified into multiple digitally enabled businesses to achieve innovations and gain competitive advantages in pluralistic institutional environments. We, therefore, continued reviewing the literature on the integration strategy in the perspective of the four internal-oriented dimensions of hybrid organizing.

We synthesized existing knowledge of how hybrids integrated multiple elements through hybrid organizing and explored how to apply them to large firms diversified into multiple digitally enabled businesses. Our review ends with identifying five unspecified areas regarding the intraorganizational level organizing mechanisms that explain how hybrids achieve integration.

Hybridization Strategies for Hybrids

What are the organizational level strategies that hybrids adopt to combine different elements? Four hybridization strategies have been variously addressed by research on hybrid organizations: *dismissing*, *separating*, *aggregating*, and *integrating* (Kraatz & Block, 2008; Oliver, 1991; Pratt & Foreman, 2000). Below, we review these strategies in more detail by explicating their appropriate application contexts and exploring the disadvantages or advantages of applying them for large firms diversified into multiple digitally enabled businesses.

Dismissing

Dismissing occurs when hybrids consciously reject certain elements (i.e. logics, business models, forms, identities, technologies, business lines, etc.) inside hybrid organizations (Reger et al., 1998). Organizations may escape from certain business spheres to avoid institutional pressures such as external expectations and standards of those fields (Hirschman, 1970; Oliver, 1991). Such a strategy reveals organizations' temptation to adapt to institutional pluralism by eliminating pluralism (Kraatz & Block, 2008). It enables firms to effectively use limited resources in their experienced and promising business areas (Peters & Waterman, 1982)

Table 1. Framework of the literature review

Core concepts	Articles identified for analysis
<i>Hybridization Strategies</i>	
Dismissing -Explicitly rejecting elements	Albert, 1992; Ashforth & Mael, 1996; Eccles et al., 1992; Hirschman, 1970; Kraatz & Block, 2008; Oliver, 1991; Peters & Waterman, 1982; Pratt & Foreman, 2000; Reger et al., 1998
Separating -Compartmentalizing elements	Bromley & Powell, 2012; Crilly et al., 2012; Fiss & Zajac, 2006; Kraatz & Block, 2008; Oliver, 1991; Pache & Santos, 2013; Pratt & Foreman, 2000; Pratt & Rafaeli, 1997; Tilcsik, 2010; Westphal & Zajac, 2001
Aggregating -Retaining and linking disparate elements	Battilana & Dorado, 2010; Clark, 1956; Donaldson & Preston, 1995; Greenwood et al., 2010; Kraatz & Block, 2008; Oliver, 1991; Osborn & Ashforth, 1990; Pache & Santos, 2013; Pratt & Foreman, 2000; Reay & Hinings, 2009; Tracey et al., 2011
Integrating -Forging a new distinctive institutional order	Goodstein, et al., 2006; Kraatz & Block, 2008; Oliver, 1991; Pratt & Foreman, 2000; Pedersen & Dobbin, 2006; Selznick, 1957; York et al., 2016
Our review of the hybridization strategies suggests that among the four strategies, the integrating strategy is the best one for large firms diversified into multiple digitally enabled businesses to achieve innovations and gain competitive advantages in pluralistic institutional environments over lengthy periods of time.	
<i>Hybrid organizing dimensions</i>	
Core organizational activities - Organizational members of hybrids frequently experience internal tensions through various organizational activities. Hybrids may achieve integration by constructing a common set of activities, namely integrated activities.	Ávila & Amorim, 2016; Battilana & Dorado, 2010; Canales, 2013; Chen and O'Mahony's, 2006; Christen & Drake, 2002; Ebrahim et al., 2014; Garrow & Hasenfeld, 2012; Nielsen, 1986; Pache & Santos, 2013; Russo et al., 2015; Teasdale, 2012; Tracey et al., 2011; Zuckerman, 1999
<i>One area was identified when applying existing knowledge of how hybrid organizations achieve integration through integrated activities to large firms diversified into multiple digitally enabled businesses:</i>	
<i>-How hybrids develop integrated activities.</i>	
Workforce composition - The effects of hybrid organizations' efforts on integration are also influenced by the assemblage of organizational actors who instantiate various elements of multiple institutional logics. Populating organizations with hybrid individuals accelerates the integration process.	Albert & Whetten, 1985; Battilana & Dorado, 2010; Battilana et al., 2012; Besharov, (2014); Besharov & Smith, 2014; Blomgren & Waks, 2015; DENIS et al., 2015; Glynn, 2008; Pratt & Foreman, 2000; Weber & Dacin, 2011
<i>One area was identified when applying existing knowledge of how hybrid organizations achieve integration through cultivating hybrid individuals to large firms diversified into multiple digitally enabled businesses:</i>	
<i>-How hybrids cultivate hybrid individuals who are competent in a variety of fields.</i>	

Continued

Core concepts	Articles identified for analysis
Organizational design	
<p>- In hybrids, organizational structures determine where integrated activities are implemented and how coordination is achieved among various institutions.</p>	<p>Battilana et al., 2015; Child, 1972; Clark & Wilson, 1961; Dow, 1988; Feldman, 1976; Go´mez, 2009; Kellogg, 2009; Nicholls, 2009; Saks & Ashforth, 1997; Santos et al., 2015; Smith & Lewis, 2011; Tushman & O’Reilly, 1996</p>
<p>- Hybrids attempting to populate the organizations with hybrid professionals may design incentive systems that encourage employees to participate in integrated activities, gain broader knowledge about the different facets of the organizations, and expand skill sets by taking new tasks and responsibilities.</p>	
<p><i>Two unspecified areas were identified when applying existing knowledge of how hybrid organizations achieve integration through organizational design to large firms diversified into multiple digitally enabled businesses:</i></p>	
<p><i>-How hybrids integrate separated institutions to support integrated activities.</i></p>	
<p><i>-How hybrids design incentive systems to motivate hybrid individuals who are competent in a variety of fields.</i></p>	
Organizational culture	
<p>- Hybrids that attempt to achieve integration need to build a single organizational culture integrating competing values and behavioral norms.</p>	<p>Barney, 1986; Battilana et al., 2012; Battilana & Lee, 2014; Kraatz, 2009; Podolny et al., 2010; Schein, 2010; Smith et al., 2012; Smith & Tushman, 2005;</p>
<p><i>One unspecified area was identified when applying existing knowledge of how hybrid organizations achieve integration through the development of organizational culture to large firms diversified into multiple digitally enabled businesses:</i></p>	
<p><i>-How hybrids build a single organizational culture.</i></p>	

The dismissing strategy may be most appropriate when the marginalized institutions are peripheral to the core mission of the organizations and thus lack strategic value. It might also be adopted when the deleted institutional identities are comparatively independent or incompatible with those of others and may associate the company with certain undesirable images. It is likely to be implemented when the ridden organizational logic operates as a “black sheep” in the organization and causes loss of financial resources (Pratt & Foreman, 2000).

In the short term, the dismissing approaches are easy to implement and may help hybrids to reconcile competing resource demands that give rise to intra-organizational conflicts. However, several researchers raised the concern that the potential long-term losses of elimination outweigh immediate gains because of the underestimation of symbolic values (Albert, 1992; Ashforth & Mael, 1996; Eccles et al., 1992; Pratt & Foreman, 2000). Normally, organizational leaders who choose to implement the dismissing strategy show no interest in either synergy or plurality (Pratt & Foreman, 2000). Therefore, for large firms diversified into multiple digitally enabled businesses, such avoidance of operating within multiple institutional spheres may prove to be self-defeating (Kraatz & Block, 2008) in the long run. It threatens the hybrid nature of these companies and hinders the integration of products and services.

Separating

The separating strategy is adopted when hybrids seek to preserve all combined elements but do not attempt to achieve any synergy among them because of incompatibility and low resource dependence (Pratt & Foreman, 2000). Managers may compartmentalize competing elements and address those separated elements sequentially (Kraatz & Block, 2008). Separation may be achieved through housing different organizational goals and activities spatially or assigning elements of certain institutional logics with particular organizational symbols (Pratt & Rafaeli, 1997).

Separation approaches are most likely to be implemented when institutions that operate in various business spheres are profitable or promising while coordination costs to seek synergy among different institutions is predicted to be greater than potential benefits. Nonetheless, competing resource demands between segmented organizational

institutions still exist, and organizations face the challenge of reaching political agreements among multiple organizational elements (Pratt & Foreman, 2000).

Under conditions of incompatible institutional logics, organizations may adopt the decoupling approach, a separation strategy that has been widely discussed in institutional theory (Bromley & Powell, 2012; Crilly et al., 2012; Fiss & Zajac, 2006; Pache & Santos, 2013; Tilcsik, 2010; Westphal & Zajac, 2001). Decoupling refers to an organization's attempt to symbolically enforce practices proposed by one organizational logic while substantively implementing practices prescribed by another organizational logic. Kraatz and Block (2008) further described decoupling as an approach that organizations separate peripheral organizational forms from core organizational form. However, they also raised the concern that organizations in pluralistic environments usually include multiple cores and peripheral forms to one core may be crucial to another core. They recommended loosely coupling to be a concept closer to the real situation because this concept assumes multiple organizational cores. Nevertheless, in the long run, these separation approaches (i.e. decoupling, loosely coupling, etc.) make it difficult for hybrids to reach consensus among segmented groups on which practices should be substantively implemented (Pache & Santos, 2013). Moreover, large firms diversified into multiple digitally enabled businesses usually gain competitive advantages through linking activities from various areas and thus provide products and service that are hard to be reproduced by organizations belonging to one particular industry. The separation approach hinders the implementation of those innovations and is not an appropriate strategy for large firms diversified into multiple digitally enabled businesses.

Aggregating

A third category of incorporating strategy aims at retaining and linking various elements across different fields (Kraatz & Block, 2008). Aggregation emerges when organizations sequentially execute activities of different elements to address the most pressing problem in the immediate context, craft an acceptable balance between disparate demands of various organizational groups, or combine practices prescribed by a variety of institutions, thereby meeting expectations of a wide range of internal and external referents (Battilana & Dorado, 2010; Donaldson & Preston, 1995; Greenwood et al., 2010; Kraatz & Block, 2008; Osborn & Ashforth, 1990; Reay & Hinings, 2009). Aggregation approaches are particularly adapted to situations when hybrids want to seize market opportunities in various business spheres and gain competitive advantages through promoting cooperation among different groups (Pratt & Foreman, 2000).

Internal tensions still exist when hybrids seek to aggregate various elements. For example, hybrids may implement aggregation responses by balancing different institutional logics, an aggregating strategy named compromising (Kraatz & Block, 2008; Oliver, 1991). Either by meeting minimum demands of various logics or crafting new practices combining antagonistic business logics, a compromising strategy may satisfy crucial institutional referents in the short term but ultimately fail to meet the expectations of various organizational groups (Battilana & Dorado, 2010; Pache & Santos, 2013; Tracey et al., 2011). Hybrids may also try to build cooperative relationships between multiple organizational groups. However, organizations have to spend resources to link and maintain different organizational logics. Such expenditures may result in conflictual

aggregation processes, especially in situations concerning practices from which institutional logics should be emphasized (Pratt & Foreman, 2000).

For hybrids such as large firms diversified into multiple digitally enabled businesses, balances may be stuck among various elements when adopting an aggregation strategy (Clark, 1956; Kraatz & Block, 2008). An institutional model that integrates those elements is required to solve internal tensions of hybrids. Such an indication leads to our discussion of the final response of hybrids to pluralistic legitimacy imperatives.

Integrating

Integrating approaches are adopted when hybrids seek to fuse elements of different institutional elements into a unique whole (Pratt & Foreman, 2000). It is described as a strategy that leads organizations to the terminal point of institutionalization: a distinct organization as a whole in its own right rather than a combination of separate elements (Goodstein et al., 2006; Kraatz & Block, 2008; Pedersen & Dobbin, 2006; Selznick, 1957). York et al. (2016) distinguished the integration strategy from the blending and assimilation processes and emphasized that integration procedures should reduce the incompatibility of various institutional goals and integrate their goals through creating a new institutional model. Integration approaches seem to be the best prescription to internal conflicts of hybrids which operate and compete in pluralistic institutional environments (York et al. 2016). It facilitates managerial practices of hybrids by reducing competing resource demands of different institutional elements and keeps organizational members' focus on the shared organizational missions (Pratt & Foreman, 2000). A hybrid organization that adopts integration approaches is likely to become a

“self-directing entity” (Kraatz & Block, 2008, p.19) that addresses internal conflicts following a distinctive institutional order (Pedersen & Dobbin, 2006).

Implementing such a strategy is of particular importance for large firms diversified into multiple digitally enabled businesses. It enables organizational members to view the company as a whole and follow a shared organizational mission, rather than advance different goals of various elements through activities that compete for resources. It helps to increase employees’ commitment to the whole company instead of the organizations they belong to by building a single organizational culture that reconciles competing norms and values. It also facilitates cooperation inside the enterprise by integrating various operationally and structurally differentiated organizations (Battilana & Lee, 2014).

How can the integrating strategy be accomplished over time at the intraorganizational level? Through what organizational features and mechanisms could integration approaches be sustained over time? Battilana and Lee (2014) proposed the concept of hybrid organizing as a framework to study how hybrids make sense of and combine different elements at the intraorganizational level. Based on their conceptualization of hybrid organizing, we continue reviewing the literature on how hybrid organizations achieve integration through the four internal-oriented dimensions of hybrid organizing - core organizational activities, workforce composition, organizational design and organizational culture.

Hybrid Organizing

Defined as the activities, organizational design, and processes by which hybrid organizations combine different elements (e.g. forms, logics, identities, technologies,

business models, business lines) (Battilana & Lee, 2014), the concept of hybrid organizing was proposed by Battilana and Lee (2014) to address the following research gap: the intraorganizational level organizing mechanisms through which hybridization strategies are achieved over time remain unclear. Battilana & Lee (2014) further developed four internally-oriented dimensions of hybrid organizing that include *core organizational activities*, *workforce composition*, *organizational design* and *organizational culture*. Next, we continue reviewing the literature on integration approaches in the perspective of these four dimensions. More specifically, we summarize findings of how hybrids achieve integration through hybrid organizing and explore how to apply them to large firms diversified into multiple digitally enabled businesses. Such attempts lead us to five unspecified areas of how hybrids achieve integration at the intraorganizational level.

Organizational Activities

Members of hybrids frequently experience internal tensions through various organizational activities. In hybrids, different goals may be achieved by a common set of organizational activities or segmented sets of activities (Battilana & Lee, 2014). Hybrids may accomplish integration by constructing a common set of activities that meet expectations of different elements, namely integrated activities. For example, Tracey et al. (2011) described how institutional entrepreneurs of a hybrid organization developed household catalogue business activities and expanded those activities across the United Kingdom to satisfy both “the logic of for-profit retail and the logic of nonprofit homelessness support” (Tracey et al., 2011, p. 61). Such efforts enabled the studied firm to integrate goals of both commercial and charity logics. By addressing multiple needs

simultaneously, integrated activities enable hybrids to meet competing resource demands (Nielsen, 1986), satisfy expectations of external audiences (Pache & Santos, 2013), avoid mission drift and retain hybrid nature (Ebrahim et al., 2014).

Scholars who have examined integrated activities of hybrids generally focus on explicating how integrated activities simultaneously advance different goals of various institutional logics (Ávila & Amorim, 2016; Battilana & Dorado, 2010; Canales, 2013; Ebrahim et al., 2014; Russo et al., 2015; Tracey et al., 2011). For example, Canales (2013) illustrated how microfinance firms develop integrated activities such as loan making to underprivileged clients to achieve the market missions of making profits and thereby attracting funding from external constituencies and the social welfare goals of improving life for people in poverty. Schweizer (2005) demonstrated that certain postacquisition activities involved in integration between biotech and pharmaceutical companies helped to sustain the long-term growth of both institutions. However, little attention has been paid to research on how integrated activities are constructed (Battilana & Lee, 2014). Chen and O'Mahony's (2006) study indicated that hybrids might develop integrated activities by selectively synthesizing certain new activities with existing activities. One criterion for such selective synthesis is that the goals advanced by the new activities do not conflict with or compromise the goals and values of existing activities. Otherwise, organizational members may reject the implementation and integration of those new activities. Nonetheless, a closer observation of the process through which integrated activities are developed is still absent. Indeed, hybrids that construct integrated activities also need to engage in issues such as how to identify new activities that could be integrated with existing ones, how to determine whether goals of integrated activities are

incompatible and even conflictual in nature, how to integrate various integrated activities into a whole that reflects the core organizational missions. Those issues become more complex and challenging for large firms diversified into multiple digitally enabled businesses because their activity integration includes the process of synthesizing a vast number of activities advancing many goals. In summary, our review of literature in integrated activities of hybrids unfolds the following area that requires further examination: *How hybrids develop integrated activities.*

Organizational Design – Organizational Structures

For large firms diversified into multiple digitally enabled businesses, integrated activities are jointly addressed by organizational members belonging to different business units. Activity integration thus requires coordination between spatially compartmented and structurally differentiated segments. In hybrids, organizational structures determine where integrated activities are implemented and how coordination is achieved (Child, 1972; Dow, 1988). The design of the organizational structure is therefore crucial to the goal achievements of integrated activities.

Early research on organizational structures of hybrids (i.e. traditional craft-based firms that seek strategic partnerships in the high-technology industries, large vertically integrated firms, certain franchisors, etc.) indicated that coordination can be achieved through hybrid organizational structures (Borys & Jemison, 1989) that combine organizing elements of markets and hierarchies (Shane, 1996) or the institutional and technical structuring logics (Cooney, 2006). Recent research on the organizational structures of hybrids indicates that when organizational activities are separated, either an integrated or differentiated structure can be adopted (Santos et al., 2015). By contrast,

when activities are perfectly integrated, structural separation is unnecessary (Battilana & Lee, 2014). For example, Santos et al. (2015) categorized social business hybrids into four types according to whether company clients are also beneficiaries and whether value spillovers happen automatically. For blending hybrids and coupling hybrids, their social goals cannot be achieved by commercial activities, and additional imperatives are needed to address their social missions. Multi-functional structure with different groups of professionals enacting business and social activities is a standard structure model for them. These firms can create spaces of negotiation to facilitate the interaction and coordination across the business and social groups (Battilana et al., 2015; Kellogg, 2009). By contrast, for marketing and bridging hybrids, the implementation of commercial activities also has positive social impacts (automatic value spillover). A uni-functional structure in which the same group of commercial employees conducted all the integrated activities is recommended. Nevertheless, these findings may not be readily applied to large firms diversified into multiple digitally enabled businesses. With numerous business institutions spreading over a variety of industries, integrated activities in these firms are collectively implemented by individuals from different fields rather than the same group of organizational members. How to design an organizational structure that facilitates cooperation between these distinct groups and thereby supports integrated activities is a crucial issue to their daily operations. Therefore, we recommend the following area to be examined: *How hybrids integrate separated institutions to support integrated activities.*

Workforce Composition

The effects of hybrid organizations' efforts on integration are also influenced by the assemblage of organizational actors who instantiate various competing elements (Besharov & Smith, 2014). Populating organizations with hybrid individuals accelerates the integration process (Battilana & Lee, 2014). Hybrid individuals, defined as organizational members whose working experience and skills meet the requirements of hybrid work context, are generally highly committed to the whole organizations rather than to one particular segment for which they work (Pratt & Foreman, 2000). Hybrid individuals may help to handle the internal tension of hybrids through developing problems and solutions that integrate competing logics (Blomgren & Waks, 2015). Also, hybrid individuals contribute to integrated activities because they master a broad base of organizational knowledge and understand how integrated activities could be accomplished through the cooperation of individuals across different fields.

Different hybrid organizations possess various combinations of elements. Therefore, potential employees whose experience and skills align with the hybrid context of a particular type of hybrid organization typically do not exist (Battilana et al., 2012; DENIS et al., 2015). Hybrids taking the integration strategy may cultivate hybrid individuals through crafted management practices. For example, Battilana and Dorado's (2010) study of two pioneering commercial microfinance organizations recommended that hybrids may cultivate hybrid professionals by providing employees with personalized training (in their specific cases, one studied firm offered technical training to employees with a social work background and social training to employees with a banking background). Besharov's (2014) study of a socially responsible retail company

illustrated how pluralist managers' practices such as the development of integrated work solutions helped employees to form identities that align with the hybrid nature of the organization rather than identities favoring one organizational form or the other. While these studies all focused on hybrids which combine only two elements at their core, no study has investigated how firms that combine numerous elements across various fields cultivate hybrid individuals who develop dispositions and skills across a variety of domains. We posit that large firms diversified into multiple digitally enabled businesses have to craft a more comprehensive cultivation plan for their employees. Thus, we suggest examinations of the following area: *How hybrids cultivate hybrid individuals who are competent in a variety of fields.*

Organizational Design- Incentive Systems

Organizations distribute incentives to organizational members to direct them to conduct certain behaviors (Clark & Wilson, 1961; Feldman, 1976). For hybrids, incentive systems can be used to communicate with internal members about what behaviors are desired by the organizational leaders and also with the external funders about the guiding values of the companies (Go´mez, 2009; Nicholls, 2009). Hybrids attempting to populate the organizations with hybrid professionals may design incentive systems that encourage employees to participate in integrated activities, gain broader knowledge about the different facets of the organizations, and expand skill sets by taking new tasks and responsibilities.

Of the few studies that have addressed how hybrids design incentive systems to motivate hybrid individuals, the findings cannot be easily adapted to large firms diversified into multiple digitally enabled businesses. For example, one of the hybrid

models proposed by Santos et al. (2015) is the bridging hybrid which attends to clients and beneficiaries who are from different groups but are served through a common set of commercial activities. Business models such as cross-segment subsidy, in which offering to the underprivileged group is subsidized by the profits from a high-income group, are examples of bridging hybrids. Bridging hybrids require their employees to not only master the skills in business activities but also to process the knowledge of how to help individuals in poverty. Because both groups are served by the daily integrated activities of organizational members, incentives are only connected to individuals' operational performances. Besides, one of the microfinance firms studied by Battilana and Dorado (2010) adopted an incentive system that related to the joint performance of both social and commercial groups and not to individual performance to focus organizational members' attention on the end of the integrated activities. Nonetheless, no studies on hybrid organizations have provided clear design principles of incentive systems that can be followed by large firms diversified into multiple digitally enabled businesses. For these companies, a comprehensive incentive system is needed to motivate employees to develop dispositions and skills in numerous business fields and finally become hybrid individuals. Therefore, the following area needs to be specified: *How hybrids design incentive systems to motivate hybrid individuals who are competent in a variety of fields.*

Organizational Culture

Culture shapes organizational members' understanding of the nature of the organization (Barney, 1986). It is a critical means by which organizational leaders deliver desired beliefs and values to staff (Schein, 2010). Hybrids that attempt to integrate elements from various areas need to build a single organizational culture integrating

competing values and behavioral norms. Such an integrating process poses enormous challenges to leaders of hybrids because they may have to knit together incompatible business practices, seek synergies between structurally and spatially differentiated institutions, and organize individuals with different backgrounds to work together effectively (Smith et al., 2012; Smith & Tushman, 2005)

For large firms diversified into multiple digitally enabled businesses, the goal of building a single organizational culture can be advanced through organizational leaders' passion and dedication that promote employees to work towards the shared organizational missions. However, the influence of such efforts becomes less powerful as organizations grow (Battilana et al., 2012). Organizational leaders thus need to develop other imperatives to accomplish the integration goals. Previous research on hybrids indicates that the establishment of organizational culture can be achieved through the design and implementation of the other hybrid organizing dimensions (Battilana & Lee, 2014). However, such proposition has not been empirically explored. We posit that leaders of large firms diversified into multiple digitally enabled businesses face an extremely comprehensive leadership challenge when striving to integrate various values and behavior norms of groups in different industries and recommend the following issue to be further explored: *How organizational leaders of hybrids build a single organizational culture.*

Unpacking the Intraorganizational Level Hybrid Organizing Mechanisms

To sum up, our attempts to apply existing knowledge of how hybrids achieve integration through hybrid organizing to large firms diversified into multiple digitally enabled businesses unfold five unspecified research areas of hybrid organizations. Those

identified areas also reflect the complexity of large firms diversified into multiple digitally enabled businesses as hybrids and the investigation of how those firms achieve integration through hybrid organizing helps to advance research on hybrid organizations and hybrid organizing. Besides, such investigation builds links between competing elements and intraorganizational level processes and illustrates micro foundations of hybrids (Pache & Santos, 2013; Smets et al., 2012). Therefore, the goal of this dissertation is to explore these issues empirically by addressing the following research question: *How does a large firm diversified into multiple digitally enabled businesses achieve integration at the intraorganizational level?*

CHAPTER THREE

Methodology

We adopt a case-based research methodology because it is appropriate for exploratory studies such as ours (Siggelkow, 2007). This method enables us to unearth the mechanisms that are embedded in a rich research context, offering an opportunity to explore the “how” question (Gephart, 2004; Pan & Tan, 2011). The theoretical lens of hybrid organizing and the existing knowledge of how hybrids achieve integration through hybrid organizing serve as the guiding principles for our research design and data collection at the outset of this study, allowing us to get data with certain features based on prior knowledge (Klein & Myers, 1999). Also, the iterative process of data collection and data analysis involves an inclination of identifying new, serendipitous knowledge emerging from the field data of the studied firm, avoiding the danger of strict adherence to an established theory (Walsham, 1995, 2006).

To conduct our research, we selected LeEco as our studied firm following the process of theoretical sampling (Eisenhardt & Graebner, 2007; Mason 2002). LeEco, formally an online video company and now a leading global technology company headquartered in Beijing, has built a user-centric business ecosystem where it can enhance all aspects of the end-user experience of video contents. The business ecosystem of LeEco encompasses a huge array of digitally enabled businesses sprawling from video production and distribution to cloud computing-based video platform, to smart gadgets and large-screen applications, to super TV, smartphones, and Internet-linked cars. We chose LeEco because it fit our research context and had the potential to generate a

thorough understanding of how hybrids achieve integration through hybrid organizing. Inside the business ecosystem built by LeEco, the Mobile, Sports, Automobile, Internet Finance, Big Screen and Content sub-ecosystems are connected through the Internet & Cloud sub-ecosystem. Leaders of LeEco strive to achieve perfect synergy and integration among its seven sub-ecosystems. The empirical setting provided by LeEco enabled us to move beyond hybrids which combine only two organizational elements (e.g. forms, identities, institutional logics, business lines, business models, technologies) and further advance research on the integration strategy and hybrid organizing through a context-rich environment. Next, we briefly present the business ecosystem of LeEco and its history and detail data collection and analysis process of this dissertation.

Research Setting: The Business Ecosystem Built by LeEco

The History of LeEco's Business Ecosystem

In 2004, Jia Yueting, the founder of LeEco, established an online video company (Letv) that offered a streaming video service. With an ambition to deter electronic video piracy in the Chinese cyber video industry, Jia Yueting persistently emphasized online video companies' responsibility to buy video copyrights. By the end of 2005, Letv possessed the most wide-ranging copyrights of streaming entertainment in the industry. By providing high-quality video content to its audience, Letv attracted a significant number of customers to sign up for its website (www.le.com), which in turn brought more video sources to the platform. In addition, advertisers paid handsomely to reach customers on the platform. By 2007, Letv became the first profitable online video company in China.

In 2008, Letv founded its film and television production company which produced and released movies and dramas that were only available on le.com. Aiming to enhance the user experience of video contents and also increase customer loyalty, Letv started to engage in the TV industry from 2009 and introduced its first Internet TV (Letv-818) in that year. In 2010, Letv became the first IPO video company whose shares were traded on Growth Enterprise Market (GEM) by Renminbi (RMB).

In 2012, to enhance all aspects of the end-user experience of video contents, Letv announced that it was establishing a vertically integrated business ecosystem encompassing “devices + applications + contents + platform (Figure 1).” As we can see from the following quote, the director of the president office demonstrated why LeEco strived to build such a business ecosystem by explaining the integration experience of Apple:

“A typical example of partial integration is Apple. It integrates software with hardware. Before Apple, hardware and software were separated. In PC age, for instance, IBM made the computers. Intel provided the silicon chips. Microsoft provided the operating systems. They cooperated to produce computers. However, because hardware and software were produced by different companies, they were not deeply integrated. User experience was not too good. Then Apple started to integrate hardware with software, and also some applications. It integrated the ID design in hardware with operation design in software, providing a highly enjoyable experience for customers. Apple has not done a lot, but you can see, Microsoft is still unhappy today, Blackberry is almost dead, Nokia was already dead, Sony Ericsson became a history and Samsung occasionally rises when Apple makes mistakes. Even so, Apple has not integrated everything. For example, it does not have a cloud platform. Third parties such as Amazon provide cloud services to Apple. So in China, downloading an application in App store is very slow. Your battery needs to be more than 50% charged, and your device has to connect to Wi-Fi when updating. It seriously hurts customer experience. In LeEco, we consistently emphasize the importance of customer experience. That is why we aim to build a vertically integrated business ecosystem. We want to improve our customers’ experience in every aspect.” (Director, Office of the President)

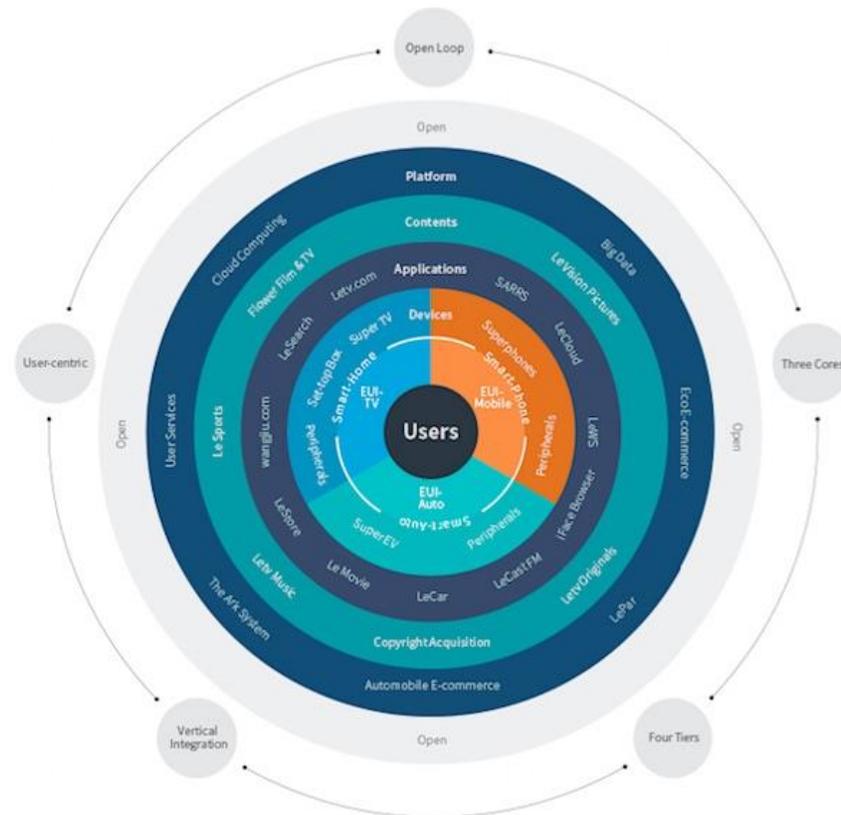


Figure 1. Structure of LeEco's ecosystem

Following such a business strategy, Letv started to engage in a huge array of boundary spanning activities: introducing its big screen super TVs to markets (2013), proposing “SEE” plan to build Internet-linked automobiles (2014), founding Le Sports (2014), Le Cloud (2014), and Le Finance (2015), launching three smartphones under its Le brand (2015), etc. In 2016, Letv rebranded to LeEco (lengthened to Le Ecosystem).

Also, with an ambition to span the boundary of its business ecosystem globally, LeEco launched some global expansion activities in 2016. For example, it announced its Super3 TV series in India, after the success of its smartphones. It opened its North American headquarters in Silicon Valley. It launched a global partnership with Aston

Martin to build its Internet-linked cars. It acquired VIZIO, a leading HDTV company in America and the #1 Sound Bar Brand in America, for \$2 billion.

On January 20, 2016, at its Global Brand Upgrade press conference under the theme of A New Eco World, LeEco introduced its seven sub-ecosystems (Figure 2). During the conference, the company announced that after the full implementation of its seven sub-ecosystems in 2015, it would focus on the goal of achieving perfect synergy and integration among them.

The Role of Technology in LeEco's Business Ecosystem

The development and sustainability of LeEco's business ecosystem rely heavily on emerging technologies. For example, a primary business activity of LeEco is to produce or acquire content such as films, dramas, and musical and sports events, and store the content in its cloud computing-based video platform. It then transmits those entertaining content to various screens of LeEco's customers who access those videos through applications embedded in LeEco's devices such as smartphones, super TVs, VR glasses, and Internet-linked cars. Such an activity encompasses businesses in the sub-ecosystems including Content, Sport, Big Screen, Mobile, Automobile and Internet & Cloud. Technologies such as cloud and mobile computing, cloud storages, and transmission, and virtual reality play crucial roles in linking these businesses together.

Big data analytics have also been widely adopted by LeEco. Such technologies enable LeEco to provide better service to the customers of its business ecosystem. For instance, by analyzing customer data, the Internet & Cloud sub-ecosystem has created a user profile which includes the content preference for each client of LeEco. Utilizing the profile information, the Big Screen, Mobile and Automobile sub-ecosystems collaborate



Figure 2. Seven sub-ecosystem of LeEco

with the Content and Sports sub-ecosystems, and send specific content introductions (e.g. movie and TV trailers, upcoming musical and sport event notifications, advertisements, application and games descriptions) to its customers through LeEco’s devices. These activities help customers to find video contents and applications they like. Preference analysis also enables LeEco to increase customer loyalty and drive customers to consume

various types of contents and applications. The following quote from the vice president of corporate level customer operations department illustrates such a point:

“Our department has two goals. First, providing dedicated service to our users to increase customer loyalty. For example, for our sports customers, we recommend certain sports events to them according to their preferences. Such practices make these clients more likely to watch sports content from us. Our second goal can be described as transferring “an X customer” to “an XYZ customer.” For example, for sports customers, we may also recommend related sports movies and dramas, related games and applications to them, making those customers consume not only the sports content but also other types of content and applications provided by us. Moreover, we have to work very close with the Internet & Cloud sub-ecosystem to get the information we need.” (Vice President, Customer Operations, Corporate level)

The EUI (enhanced user interface) design technology and mobile Internet technology enable LeEco to connect all of its screens together and provide a more convenient way for its customers to watch LeEco’s content. More specifically, a customer’s computer screen, TV screen, smartphone screen, VR glass screen, and automobile screen are connected, enabling the customer to continue watching the same video content anywhere and anytime, as illustrated by the following quote.

“For example, if you are watching a movie on your computer screen or TV screen at home, and suddenly you receive a call, and you have to get out. You can continue watching it on your automobile screen on the way. Once you arrive, you can still use your smartphone to continue watching the video, just by using the same account. All the screens are connected through the advanced mobile Internet and EUI technology. You can image that, our customers are moving inside our business ecosystem, from one sub-ecosystem to another.” (Vice president of EUI development, Big Screen sub-ecosystem)

As shown in Figure 2, the Mobile, Sports, Automobile, Internet Finance, Big Screen and Content sub-ecosystems are closely bound up with each other through the Internet & Cloud sub-ecosystem. The Internet & Cloud sub-ecosystem focuses on researching, developing, and utilizing emerging technology to link the businesses of the other sub-ecosystems together, provide exclusive products and service to the customers

of LeEco, and therefore help to develop and sustain LeEco's business ecosystem, as the Chief technology officer stated:

“LeEco, by its very nature, is still a technology company. The operation of our huge business ecosystem, the connections between different sub-ecosystems, the products and services created, and most important, our competitive advantage, rely on how we use advanced technologies.” (Chief technology officer, Office of the President)

Data Collection

Data was collected from (a) semi-structured interviews, (b) internal documents, and (c) a broad range of online articles and videos. Interview data was our primary data source used to investigate the field level organizing mechanisms through which LeEco achieve integration. Online articles and video clips provided us with LeEco's extrinsic environment and intrinsic conditions under which integration processes take place. We utilized the internal documents to complement interview data. Our data sources are summarized in Table 2. The detailed data collection process is summarized in Appendix A.

Semi-structured Interviews

In total, we conducted 27 in-depth, semi-structured interviews, ranging from 45 minutes to 2 hours. All of the interviews were recorded and transcribed verbatim in 307 pages single-spaced text. We gained access to LeEco through contacting the company's research institute located at its headquarters. Initial interviews were garnered from a contact person in the institute who possessed a strong academic background and who also well understood the purpose of our study, and also a C-level officer who helped us to

Table 2. Data description

Data type	Amount and source	Descriptions and examples
Primary data Semi-structured interviews	27 interviews lasting between 45 minutes to 2 hours 307 pages of interview transcriptions	All interviews were conducted between March 2016 and July 2016.
Secondary data Internal documents	Three internal documents describing the ecosystem strategies of LeEco (132 pages) One internal document describing LeEco's seven sub-ecosystems (201 pages) One document related to incentive systems (19 pages) One document related to projectized organizational structure (21 pages)	Electronic versions of the first four documents were sent to us by internal members. All documents were permitted to be utilized for academic purposes. Note taking was allowed when informants explained the fifth and sixth documents to us. Those two documents were not allowed to be taken out of the offices or copied.
Secondary data Online articles and videos	<i>More than 200 online articles retrieved from the following sources</i> Company website: http://www.leeco.com/ Social Media account https://www.facebook.com/LeEcoGlobal https://twitter.com/leecoglobal https://www.linkedin.com/company/letv-com WeChat official account – mobile version Other online business magazines and newspapers such as Forbes, Bloomberg Businessweek, Fortune, Yahoo Finance. <i>More than 50 video clips with a total length of more than 10 hours from the following sources</i> LeEco's YouTube channel https://www.youtube.com/channel/UCXdFui8Ov27oAnbga_Ptz0w (English version) https://www.youtube.com/channel/UCo7Pb-f3tHZS7jOF87vPG5w (Mandarin version) Company website: http://www.leeco.com/ http://www.le.com/	<i>Examples of online articles</i> From company website "LeEco Joins Forces with Twitter for Global Brand Expansion" From Forbes "What You'll Watch After 'Netflix Of China' Buys 20% Of America's TV Market" From Yahoo Finance "Fast Company Ranks LeEco Among the World's Most Innovative Companies for 2016" <i>Example of video clips</i> From YouTube "Ushering in a New Age of Smart Vehicles with Aston Martin" "Letv officially enters the global smartphone market and launches the 'LeOS for mobile' "

gain almost free access to informants. Questions for initial interviews were wide-ranging, with the main focus on the history of how the business ecosystem was built and the challenges and tensions faced by the company during historical evolutions. We adopted a snowball technique to continue the subsequent interviews. For example, the vice president of strategy introduced to us two senior managers (one from the corporate level human resource department and the other one from the corporate level project management office), whom he believed could help us to understand activity integration and incentive systems. We revised our interview protocol once new themes emerged from previously collected data. The final protocol is presented in Appendix B.

To triangulate different viewpoints from organizational members, we included in our interviewee sample respondents from different sub-ecosystems and also different hierarchical levels of LeEco (see Table 3). In addition, we sought interviewees who were familiar with how LeEco integrates its sub-ecosystems at the intraorganizational level. Thus, “hybrid individuals” who had prior working experience in different functional departments and sub-ecosystems were the candidates whom we sought to interview first. A majority of our respondents were from the corporate level functional departments and therefore knowledgeable about how integrations happened between various sub-ecosystems.

Internal Documents

We received three internal documents describing the ecosystem strategies of LeEco (132 pages) and one internal document describing LeEco’s seven sub-ecosystems (201 pages). With permission of internal organizational members, we utilized these documents to supplement our primary data. These documents helped us to develop a

Table 3. Descriptive interviewee sample pool

No.	Position	Division / Sub-ecosystem
<i>C-level interviewees</i>		
1	Chief technology officer (CTO)	Office of the President
2	Director	Office of the President
<i>Interviewees from ecosystem/corporate level functional departments</i>		
3	Vice president	Strategy
4	Director	Strategy
5	Senior manager	Strategy
6	Manager	Strategy
7	Assistant of vice president	Strategy
8	Assistant general manager	Human resource
9	Director	Human resource
10	Senior manager	Human resource
11	Vice president	Customer operations
12	General manager	Customer operations
13	Senior manager	Project management office
14	Vice president	O2O platform
15	Director	O2O platform
16	Vice president	Product management
17	General Manager	Supply chain
<i>Interviewees from sub-ecosystems</i>		
18	Vice president	Internet Finance sub-ecosystem
19	Director of marketing	Internet Finance sub-ecosystem
20	Vice president of film and television production	Content sub-ecosystem
21	Vice president of content acquisitions	Content sub-ecosystem
22	Director of content operation	Content sub-ecosystem
23	Director of strategy	Internet & Cloud sub-ecosystem
24	Vice president of EUI development	Big Screen sub-ecosystem
25	Vice president of system development	Big Screen sub-ecosystem
26	Director of supply chain	Big Screen sub-ecosystem
27	Assistant director of technology development	Mobile sub-ecosystem

comprehensive understanding of how and why LeEco built its business ecosystem along with the features of the seven sub-ecosystems. We were also able to read through another

two internal documents (one related to projectized organizational structure and the other one related to incentive systems) which were not allowed to be taken out of the offices or copied. Two senior managers carefully explained those documents to us, and related notes were taken with their permission. Such experience enabled us to get a thorough view of the important internal procedures and helped us to understand the integration approaches at the intraorganizational level.

Online Articles and Videos

We looked through more than 200 articles retrieved from a wide variety of sources including the company's websites and social media accounts, as well as online business magazines and newspapers such as Forbes, Bloomberg Businessweek, Fortune, Yahoo Finance. We also viewed more than 50 video clips on the company's website and YouTube channels. Those materials provided us with the history and current situation of LeEco, enabling us to identify the extrinsic conditions such as a particular historical period and intrinsic context such as cultural and technological changes. They also helped us to establish the analytical boundaries of the study and understand the rich context in which internal mechanisms are "sticky" in (Pan & Tan, 2011; Walsham, 1995).

Data Analysis

Stage 1: Identification of Features of the Sub-ecosystems

In LeEco, each sub-ecosystem represents a particular line of businesses. The main purpose of the first stage of analysis was to identify different features that characterized these sub-ecosystems and to examine how they played out in different sub-ecosystems. In the first step of the analysis, we read and coded the internal document describing the

seven sub-ecosystems, interviews from informants working in the sub-ecosystems, and media articles mentioning how LeEco operates and competes in different business spheres and industries. Specifically, we extracted mentions that reflected a particular feature of a sub-ecosystem or the differences between sub-ecosystems. In the second step of the analysis, we coded each mention and clustered these mentions into themes. For example, one mention from a media article described that LeEco sold super TVs at a very low price to bring customers into its business ecosystem. Then, the company made profits by charging those customers for content and applications available on the super TVs, a marketing strategy called “ecosystem feeds the devices.” This mention indeed indicated different goals of the Big Screen sub-ecosystem and the Content sub-ecosystem. Finally, three features characterizing each sub-ecosystem emerged from identified themes. We cross-validated (Pache & Santos, 2013) the accuracy of the identified features by inviting two internal experts to confirm our description of those features during our second visit to the headquarters of LeEco. Table 4 summarized how these features play out in the seven sub-ecosystems.

As we can see from the table, each sub-ecosystem has its particular goals, business activities, and professional legitimacy. As a hybridity that combines multiple business lines/sub-ecosystems and strives to integrate products and services in these sub-ecosystems, LeEco faces the challenges of integrating different goals, activities, and individuals.

Stage 2: Identification of the Internal Tensions

Building on the preceding analysis, we continued our analysis by identifying internal tensions attributable to the combination of different sub-ecosystems. To do so,

we relied primarily on our interview data. We first identified quotes describing the challenges and tensions faced by LeEco. We then filtered out quotes mentioning tensions that were not caused by the combination of multiple sub-ecosystems. For example, one quote describing the conflicts between online and offline sales of superTVs was dropped because it related to tensions inside a particular sub-ecosystem (Big Screen sub-ecosystem). Then we adopted the open coding technique (Orlikowski, 1993; Strauss & Corbin, 1990, 1998) to classify those remaining quotes into codes utilizing the language of our interviewees. Next, we grouped the identified codes into themes through axial coding (Glaser & Strauss, 1967; Orlikowski, 1993). Four themes emerged to represent various codes identified in the transcribed manuscripts: Completing resource demands, the challenge of promoting cooperation between multiple sub-ecosystems, misalignment between individual dispositions and hybrid work requirements, and competing norms and values of different sub-ecosystems.

To verify that the four themes accurately reflected the internal tensions caused by the combinations of multiple sub-ecosystems, we triangulated our analysis with extant literature in the area of internal tensions of hybrids (Austin et al, 1999; Battilana & Dorado, 2010; Battilana & Lee, 2014; Fiol et al., 2009; Glynn, 2000; Lawrence & Lorsch, 1967; Moizer & Tracey, 2010; Smith & Tushman, 2005; Tracey et al., 2011). Finally, we utilized member checking technique (Creswell, 2007) to validate our themes. We invited three informants to confirm that our descriptions of internal tensions were accurate. We explicate the four themes/internal tensions in Table 5.

Table 4. Features of sub-ecosystems

Sub-ecosystem	Goal	Primary business activities	Professional legitimacy
Mobile	Sell LeEco's smartphones on the market to get customers	Research and develop smartphones; procure components and accessories; find partners to manufacture smartphones; sell them to customers through LeEco's O2O platforms and other online platforms	Professional legitimacy is driven by technical and managerial expertise in smartphone industry
Big Screen	Sell LeEco's superTVs on the market to get customers	Research and develop superTVs; procure components and accessories; find partners to manufacture superTVs; sell them to customers through LeEco's O2O platforms and other online platforms	Professional legitimacy is driven by technical and managerial expertise in TV industry
Automobile	Sell or rent LeEco's Internet-linked cars on the market to get customers and generate economic surplus	Research and develop Internet-linked cars; procure components and accessories; find partners to manufacture Internet-linked cars; sell or rent them to customers through LeEco's O2O platforms and other online platforms	Professional legitimacy is driven by technical and managerial expertise in automobile, car rental, and Internet technology industries
Sports	Sell sports contents to customers to generate economic surplus	Acquire sports contents; operate sports events; deliver sports contents to customers through LeEco's devices	Professional legitimacy is driven by technical and managerial expertise in operations of sports events or online video industries
Content	Sell film, drama, and other streaming entertainment contents (except sports contents) to customers to generate economic surplus	Choose and purchase content copyrights; produce contents; deliver contents to customers through LeEco's devices	Professional legitimacy is driven by technical and managerial expertise in online video industry, and film and drama production and distribution fields
Internet & Cloud	Sell applications to customers to generate economic surplus; support the connection and operations of the other sub-ecosystems	Develop applications; sell applications through the app store on LeEco's devices; Operate e-commerce, advertising, big data and open video cloud platforms	Professional legitimacy is driven by technical and managerial expertise in application development, online marketing and sale, big data, internet and cloud technology fields
Internet Finance	Facilitate customers' purchases of LeEco's products and services	Develop financial products and services; deliver them to customers	Professional legitimacy is driven by technical and managerial expertise in financial and internet technology industries

Table 5. Internal tensions of LeEco

Internal tensions	Descriptions and illustrative quotes
Competing resource demands	<p>Previous literature indicates that hybrids have to address the issue of how to allocate limited financial (Tracey et al., 2011), attentional (Austin et al., 1999), and human (Fiol et al., 2009) resources to different organizational goals (Moizer & Tracey, 2010).</p> <p>In LeEco, different sub-ecosystems have different goals. The company faces the challenge of how to allocate its resources among various business activities that advance different goals of its sub-ecosystems.</p> <p>Illustrative quote:</p> <p>“I am not a PM of any project, but it seems that every project needs me to be a member. I had a couple of meetings before this interview, and I will have another two later. You know, we have seven sub-ecosystems, and my job relates to all of them. This is very challenging.” (General Manager, Supply chain, Corporate level)</p>
Challenge of promoting cooperation between multiple sub-ecosystems	<p>Previous literature indicates that hybrids face the challenge of promoting collaboration between isolated institutions (Battilana & Lee, 2014; Lawrence & Lorsch, 1967).</p> <p>LeEco strives to develop activities involving multiple sub-ecosystems. The company, therefore, faces the challenge of promoting cooperation among various sub-ecosystems.</p> <p>Illustrative quote:</p> <p>“We are making hardware, building platforms. We want our hardware and platforms to be stable. We work slowly. I mean compared to others, you know, we are in an Internet company. However, when we are working with people from other sub-ecosystems, for example, someone from the Sports sub-ecosystem, they need everything to be fast.” (Vice president of EUI development, Big Screen sub-ecosystem)</p>
Misalignment between individual dispositions and hybrid work requirements	<p>Previous literature indicates that misalignment between individual dispositions and hybrid work requirements exists in hybrid organizations (Battilana & Dorado, 2010; Glynn, 2000).</p> <p>In LeEco, the professional legitimacy of each sub-ecosystem is driven by corresponding work requirements. Individuals’ dispositions are shaped by their daily work and therefore favor a specific sub-ecosystem. However, integrated activities and hybrid work context require individuals to develop dispositions and skills across multiple sub-ecosystems.</p> <p>Illustrative quote:</p> <p>“In traditional companies, TV people are making TV; mobile people are making mobiles. Here, almost everyone is working on many projects. The question is that most projects in LeEco are crossing many sub-ecosystems and I don’t think everyone has the required abilities to handle those projects. I believe that we are falling behind Jia. However, we have no choice. Because we cannot stop.” (Vice president of system development, Big Screen sub-ecosystem)</p>

Continued

Internal tensions	Descriptions and illustrative quotes
Competing norms and values of different sub-ecosystems	<p>Previous literature indicates that hybrids face the complex leadership challenge of integrating multiple sub-cultures (Battilana & Lee, 2014; Smith & Tushman, 2005).</p> <p>The seven sub-ecosystems in LeEco are in various industries with individuals holding different beliefs and behavior patterns. The company thus faces the challenge of reconciling competing norms and values of different sub-ecosystems.</p> <p>Illustrative quote:</p> <p>“Conflicts always exist. Different dress and behavior patterns, different norms and mindsets, like different species coexisting together. People wearing big earrings and ripped jeans are working with someone like me. Engineers with years of working experience may feel uncomfortable working with someone who is making movies. But this is our working environment.” (Vice president, Strategy, Corporate level)</p>

Stage 3: Identification of Responses to Internal Tensions

In this stage of analysis, we attempted to address how LeEco addresses the four internal tensions we identified in the second stage. We read and coded the interview manuscripts through open coding, axial coding, and selective coding (Orlikowski, 1993; Strauss & Corbin, 1990, 1998). Triangulating our interviews with internal documents, we identified five field level responses to internal tensions: *Developing integrated activities, constructing a hybrid organizational structure, developing negotiation spaces, populating the ecosystem with hybrid individuals, and building a single collaborative culture*. We summarize these responses in Table 6.

Finally, to address our research question, we engaged in unraveling mechanisms that explain how these responses were constructed at the intraorganizational level. Existing codes under each response formed the main corpus for analysis. The five unspecified areas identified in our literature review were linked to the five responses and utilized to guide our analysis. We then took two identical steps to analyze the codes under

Table 6. Responses to internal tensions

Responses	Descriptions and illustrative quotes
<p>Developing integrated activities</p> <p>-Corresponding hybrid organizing dimension: <i>Organizational activities</i></p>	<p>Responding to competing resource demands, LeEco develops a variety of integrated activities that advance goals of different sub-ecosystems simultaneously.</p> <p>Illustrative quote: “When we sell superTVs, we also sell film and drama contents as well as the sports content that is bundled with superTVs.” (Director, O2O platform, Corporate level)</p>
<p>Constructing a hybrid organizational structure</p> <p>-Corresponding hybrid organizing dimension: <i>Organization design</i></p>	<p>Responding to the challenge of promoting cooperation between multiple sub-ecosystems, LeEco has built a hybrid organizational structure combining a functional organizational structure and a projectized organizational structure to support collaboration between multiple sub-ecosystems.</p> <p>Illustrative quote: “We use a two-dimensional organizational structure. On the one hand, the corporate-level functional departments direct sub-ecosystem-level functional departments to work together. On the other hand, we achieve cooperation between different sub-ecosystems through the projectized organizational structure.” (Chief technology officer, Office of the President)</p>
<p>Developing negotiation spaces</p> <p>-Corresponding hybrid organizing dimension: <i>Organization design</i></p>	<p>Responding to the challenge of promoting cooperation between multiple sub-ecosystems, LeEco has developed various negotiation spaces to facilitate communications between members from different sub-ecosystems.</p> <p>Illustrative quote: “Meetings, definitely meetings, we have many formal and informal meetings each week, persons from different sub-ecosystems gather together to address conflicts.” (General Manager, Customer operation, Corporate level)</p>
<p>Populating the ecosystem with hybrid individuals</p> <p>-Corresponding hybrid organizing dimension: <i>Workplace composition</i></p>	<p>Responding to the misalignment between individual dispositions and hybrid work requirements, LeEco strives to populate its business ecosystem with hybrid individuals who develop dispositions and skills favoring multiple sub-ecosystems.</p> <p>Illustrative quote: “The competitive advantages of a company, an Internet company, an Internet company that builds such a huge business ecosystem, rely on its people. The key is to cultivate people who are knowledgeable in many areas through comprehensive recruitment and retention efforts.” (Assistant general manager, Human resource, Corporate level)</p>
<p>Building a single collaborative culture</p> <p>-Corresponding hybrid organizing dimension: <i>Culture</i></p>	<p>Responding to competing norms and values of different sub-ecosystems, the leadership team of LeEco strives to build a single collaborative organizational culture.</p> <p>Illustrative quote: “We have thousands of people with diverse backgrounds, values, behavior patterns. So how to make them work together. Many acts could be conducted in the short term. However, in the long run, we need to build a collaborative organizational culture.” (Vice president of content acquisitions, Content sub-ecosystem)</p>

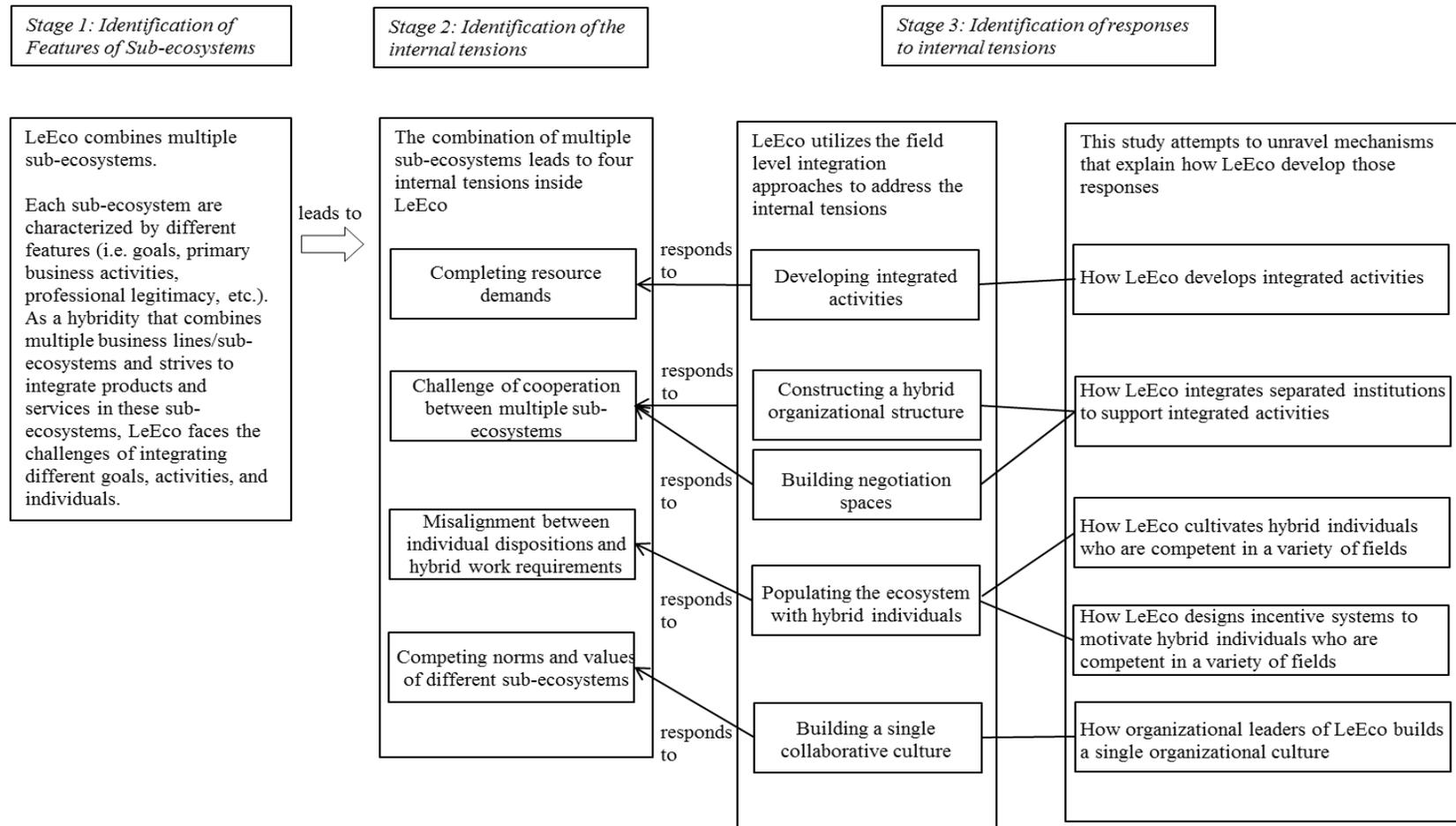


Figure 3. Data analysis process

each response. First, we followed the analysis of narratives approach outlined by Avgerou (2013). Specifically, quotes that described incidents, activities, and interactions were extracted from the codes. We paid close attention to verbs in these extracted quotes and focused particularly on identifying the links between these actions (Avgerou, 2013). We connected and grouped identified actions by certain tentative explanations. The purpose of this step of analysis was to form initial summaries that open the black boxes and show how each response was constructed (Elster, 1989; Gross, 2009).

Second, we followed an inductive process to generate abstractions of our summaries. The mechanism identification method proposed by Pentland (1999) was utilized in this step of the analysis. The theoretical lenses of hybrid organizing and previous findings on how hybrids achieve integration were used to advance the abstraction processes. A primary goal of the second step was to unearth the explanatory “deep structures” under the descriptive “surface structure” (Pentland, 1999) by refining the tentative explanations. Our notes from the two uncopied internal documents contributed to this step of the analysis. During the abstraction processes, we consistently ensured the alignment between abstractions and previous theories and sought new, serendipitous knowledge emerged from the refinement of the tentative explanations. The finalized abstractions functioned as the basis for our findings. We present our data analysis process in Figure 3.

CHAPTER FOUR

Findings

This chapter presents the case study findings of the data collected. By addressing the five unspecified areas we identified previously one after another, we illustrate the intraorganizational level mechanisms that explain how LeEco integrates multiple sub-ecosystems through hybrid organizing.

How LeEco Develops Integrated Activities

“Boundaries exist between sub-ecosystems. However, there is no boundary between activities.” (Senior manager, Strategy, Corporate level)

Integrating Activities according to Resource Dependence

LeEco strives to engage in integrating activities across multiple sub-ecosystems. Such activity integrations are accomplished through implementing projects that cross over multiple sub-ecosystems. LeEco names these projects “cross-border projects.” A cross-border project is initiated to achieve a business goal that a single sub-ecosystem cannot attain. Projects with strategic importance are generally sponsored by the president office and involve activities from multiple sub-ecosystems while projects launched by a single sub-ecosystem may extend to other sub-ecosystems according to resource dependence.

In each cross-border project, the activity integration process happens when the project management team starts to develop the project-specific “network structure diagram” at the project planning stage. Unlike the conventional work breakdown

structure which decomposes a project into manageable and deliverable-oriented components, a project network structure diagram is constructed by identifying and linking various activities executed by organizational members sprinkled across multiple sub-ecosystems. A new activity is identified according to the project goal and the resource dependence of pre-identified activities. Also, the construction process of network structure diagram lasts throughout the course of the project because new activities may also be identified and included with the project going on. Figure 4 illustrates the network structure diagram for an entertainment program online promotion project. In the diagram, activities with interdependent relationships are connected by lines while activities in cooperative relationships are same colored. As indicated by the following quote, the construction process of a project network structure diagram blurs hierarchical, departmental, and sub-ecosystem boundaries and focuses on identifying and linking various interactive activities to achieve project objectives. It empowers project management teams to reach required resources to attain project goals:

“A big difference between LeEco and other big companies is that we rely heavily on projects. In our ecosystem, hundreds of projects are running at the same time. Normally, we start to build project network structure diagram after we set the goals and the scope of a project. Then we gather individuals from all related sub-ecosystems and corporate level functional departments. We are not concerned about sub-ecosystem or hierarchical boundaries. We only focus on how to accomplish the project, what resources we need to achieve goals. We have clear goals and defined responsibilities. So the only thing we need to do is to advance the project.”(Senior manager, Project management office, Corporate level)

Integrating Activities according to Innovation Possibilities

“In the Internet age, competitions between firms are not one-dimensional. Customers care about the available video contents when buying Internet-TVs. They care about transmission stability when purchasing video contents. A company’s business ecosystem just keeps up with the multi-dimensional demands of customers. We integrate video contents with Internet-linked cars, integrate

smartphones with Internet finance. It just likes in a chemical reaction, two molecules interact to form a new molecule.” (Chief technology officer, Office of the President)

As illustrated by the above statement, leaders of LeEco consistently emphasize the importance of innovations that generated through integrating businesses in different sub-ecosystems. New activities may also be identified and placed in a project network structure diagram when the introduction of the new activities to existing ones results in innovations. In Table 7, we summarized three cases of activity integration based on our interviews. In each case, a product, service or technological innovation was triggered because of the inclusion of a new activity from a previously uninvolved sub-ecosystem. Indeed, these attempts also help to relieve the tension of competing resource demands because a new imperative can be advanced with very low cost.

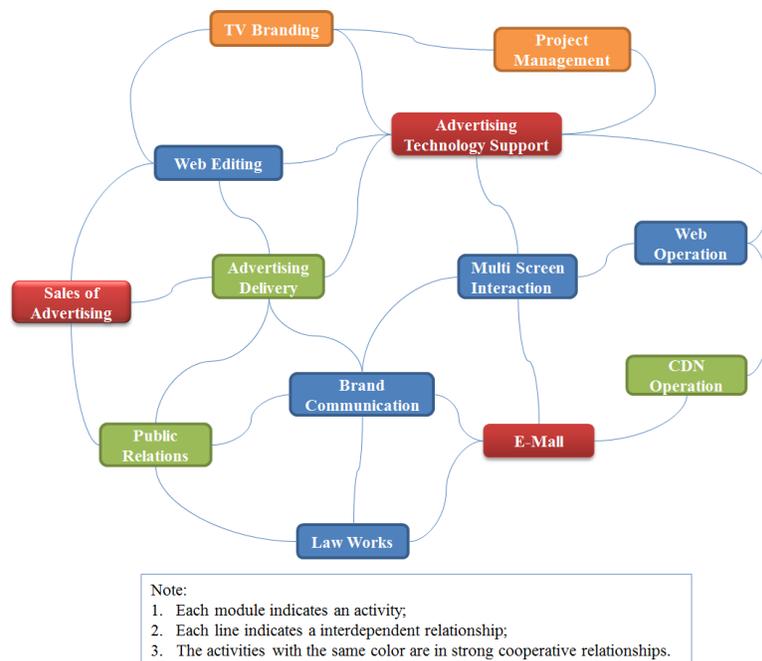


Figure 4. A sample project network structure diagram

Nonetheless, connected activities in cross-border projects are always performed by organizational members in different sub-ecosystems. LeEco has to carefully design its organizational structure to achieve synergy among individuals from multiple sub-ecosystems, and integrate various activities in its enormous and complex organizational system. Such a consideration leads to our next finding.

How LeEco Integrates Separated Subecosystems to Support Integrated Activities

“Corporate strategies determine organizational structures. Organizational structures determine the success or failure of a business.” (Vice president, Customer operations, Corporate level)

Building a Hybrid Organizational Structure

LeEco has built a hybrid organizational structure combining a functional organization structure and a projectized organization structure to support its operations of cross-border projects and activity integrations. Specifically, each sub-ecosystem adopts a functional organization structure wherein employees are classified into functional departments and supervised by functional managers. Functional managers who are responsible for the performance of their departments report to sub-ecosystem CEOs. In the meantime, a projectized organization structure is incorporated to support projects initiated by the sub-ecosystem project management office (PMO). The sub-ecosystem PMO assigns each project a project manager (PM) who strives to complete the project by implementing and integrating activities identified in the project network structure diagram. Sometimes, the project initiating PMO has to reach to and cooperate with other sub-ecosystem PMOs when some project activities need to be executed by individuals in other sub-ecosystems. Those collaborative PMOs assign PMs to manage activities

operated in their sub-ecosystems. The corporate/ecosystem level PMO coordinates resources among sub-ecosystem PMOs to support cooperation among them.

As shown in Figure 5, the central triangle functions to support activity integration among sub-ecosystems. Inside each sub-ecosystem, staff who perform project activities have to report to both functional managers and PMs. Their functional responsibilities may impede their project activity executions. Sub-ecosystem PMOs work with CEOs to facilitate close cooperation between PMs and functional managers, avoid confusion and conflict, and integrate project activities to meet business objectives. As shown in Figure 5, the central triangle functions to support activity integration among sub-ecosystems. Inside each sub-ecosystem, staff who perform project activities have to report to both functional managers and PMs. Their functional responsibilities may impede their project activity executions. Sub-ecosystem PMOs work with CEOs to facilitate close cooperation between PMs and functional managers, avoid confusion and conflict, and integrate project activities to meet business objectives.

Besides, cross-border projects with strategic importance are normally launched by the president office. A hierarchal structure is embedded with a projectized structure to support such projects. As shown in Figure 6, the corporate PMO supervised by the president's office organizes a project management team that integrates and executes activities dispersed in multiple sub-ecosystems. A support team composed of corporate level functional business partners is arranged by corporate level functional departments. The support team assists the project management team to drive activity integration and completion of the project through instructing sub-ecosystem level functional managers to allocate required resources to the project.

Table 7. Examples of activity integration that result in innovations

Innovation type	Case description
<p>A new smartphone <i>product</i> that is bundled with certain contents</p>	<p>Involved sub-ecosystems: Content & Mobile</p> <p>The content sub-ecosystem once worked on a project that produced a movie based on a novel that had already attracted a large number of fans. The mobile sub-ecosystem introduced to this project the development and promotion activities for a new type of smartphone that had the following features: Customers who bought the smartphone could watch the movie on their phones at the same time when the movie was released. Customers who bought the smartphone had free accesses to certain theaters to watch the film. The design of the smartphone included many features reflecting characters in the novel.</p> <p>Illustrative quote:</p> <p>“Because the novel had already built a huge fan base, we thought such a product would make profits for the company.” (Vice president, Product management, Corporate level)</p>
<p>A new financial <i>service</i> for car buyers</p>	<p>Involved sub-ecosystems: Automobile & Internet Finance</p> <p>The marketing director of Internet Finance sub-ecosystem once strived to integrate financial service development and promotion activities with the project network structure diagram of a planned Internet-linked automobile fair. Such efforts finally led to a new financial service for car buyers.</p> <p>Illustrative quote:</p> <p>“People who will attend the event are those who like cars or want to buy a new car. This provides us an opportunity to develop and introduce a new financial service.” (Director of marketing, Internet Finance sub-ecosystem)</p>
<p>A new anti-piracy <i>technology</i></p>	<p>Involved sub-ecosystems: Content & Big Screen</p> <p>The director of content operation in the Content sub-ecosystem mentioned that because many high-quality “minor cinemas” could hardly be watched in the movie theaters, they planned to acquire those films and make them available on LeEco’s superTV screens when those movies were released. However, they needed to make sure customers watch them in only certain periods and wouldn’t download them. This concern led to a new anti-piracy technology that could be adapted to many other fields.</p> <p>Illustrative quote:</p> <p>“On the one hand, people from the Content sub-ecosystem need to acquire those movies. On the other hand, we have to build an unyielding anti-piracy system. We have to work with those silicon chip manufacturers to make the piracy cost very high.” (Vice president of EUI development, Big Screen sub-ecosystem)</p>

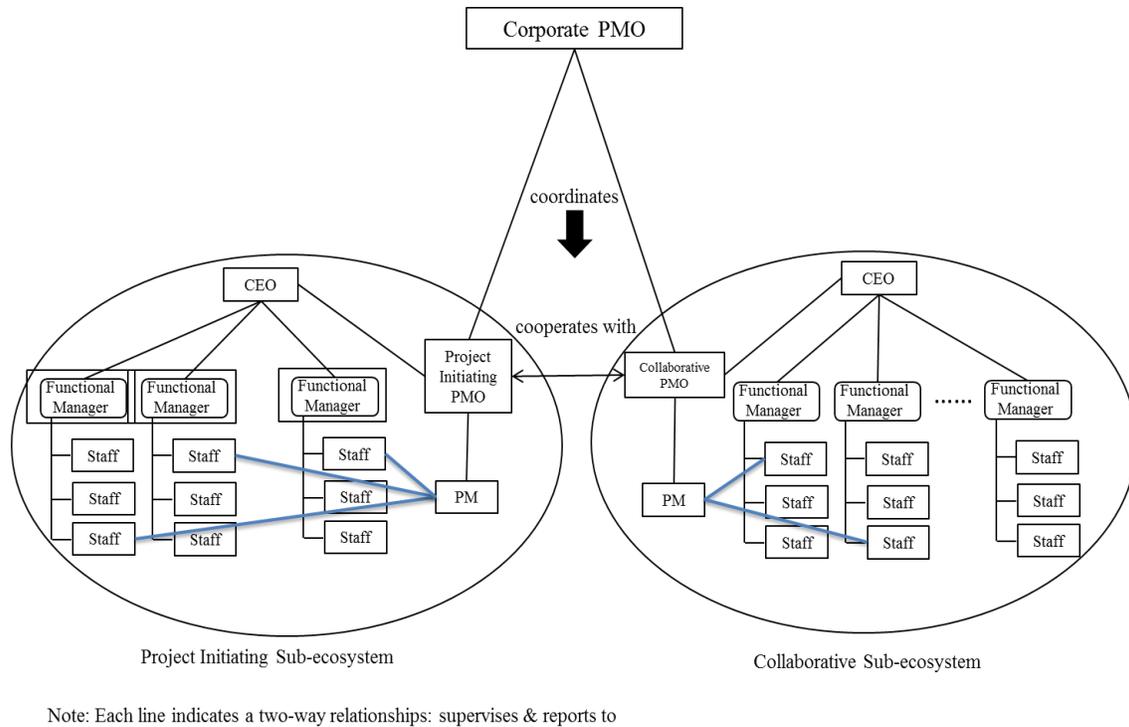
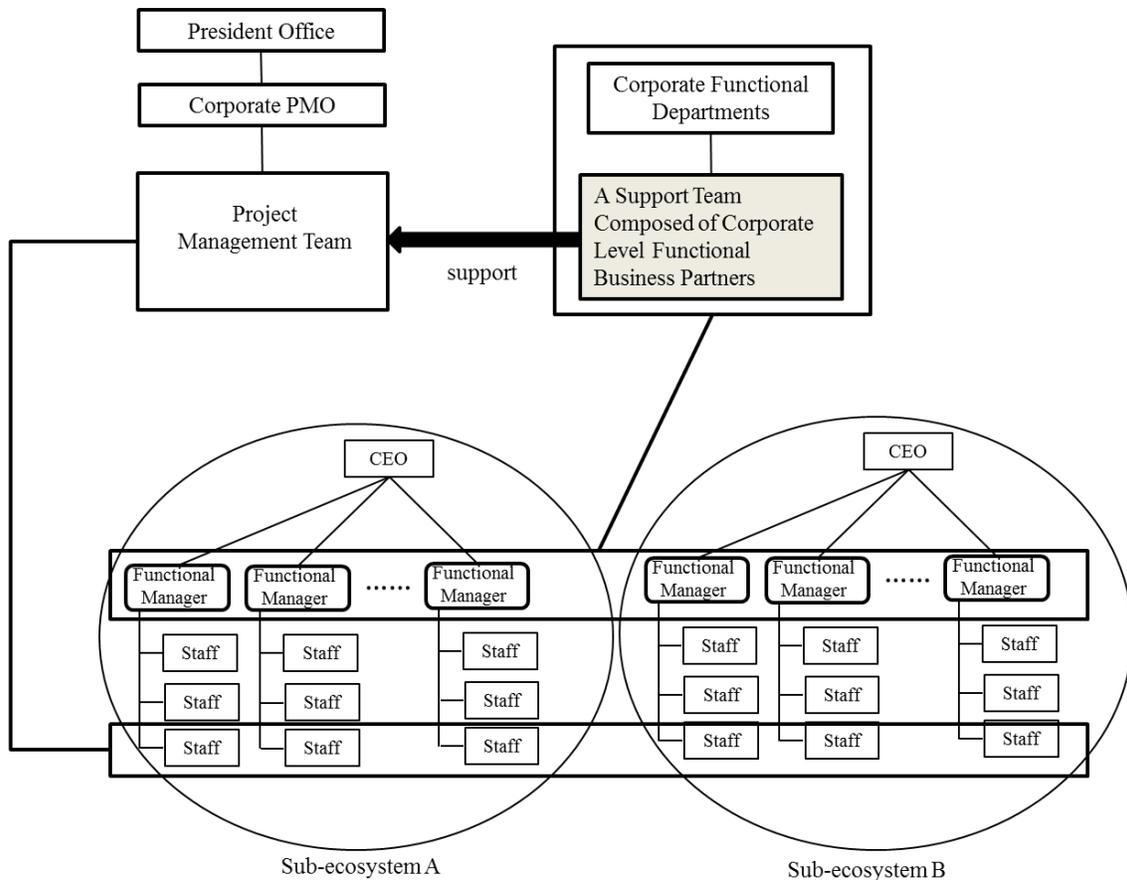


Figure 5. A sample of hybrid organizational structure

Cross-border projects with strategic importance are usually launched by the president office. A hierarchal structure is integrated with a projectized structure to support such projects. As shown in Figure 6, the corporate PMO supervised by the president’s office organizes a project management team that integrates and executes activities dispersed in multiple sub-ecosystems. A support team composed of corporate level functional business partners is arranged by corporate level functional departments. The support team assists the project management team to drive activity integration and completion of the project through instructing sub-ecosystem level functional managers to allocate required resources to the project.



Note: Each line indicates a two-way relationships: supervises & reports to

Figure 6. A sample hybrid organizational structure

Creating Negotiation Spaces

The success of cross-border projects and integrated activities also relies on the cooperation of all involved organizational members. Such cooperation requires negotiation spaces where individuals from multiple sub-ecosystems as well as corporate level functional departments can interact with each other, discuss and come to an agreement as to how to advance projects and activity integrations. Three types of negotiation spaces are created and maintained at LeEco: mandatory weekly meetings, a formal conflict resolution process and a formal performance evaluation process.

As summarized in Table 8, negotiation spaces at LeEco are in the forms of regular meetings organized by the president office, corporate level strategy department and human resource department. Key persons from all sub-ecosystems are required to participate in those meetings and jointly address issues about which activities need to be included in or moved from the project network structures according to resource dependence and innovation possibilities, how to resolve tensions between involved sub-ecosystems during the implementation of cross-border projects, and how behaviors or outcomes are to be measured and rewarded for project members as well as the involved

Table 8. Negotiation spaces at LeEco

Weekly mandatory meetings	Conflict resolution process	Performance evaluation process
<p><i>Business unit:</i> The president office organizes the mandatory weekly meetings. Jia Yueting attends all these meetings</p> <p><i>Monday meetings:</i> Vice presidents and directors from all sub-ecosystems and corporate level functional departments are required to participate in the meetings. The main issue in these meetings is to discuss cross-border projects launched by the president office.</p> <p><i>Sunday meetings:</i> Each sub-ecosystem takes turns organizing meetings that discuss the sub-ecosystem initiated cross-border projects. Key persons from collaborative sub-ecosystems are required to participate in the meetings.</p> <p><i>Primary interactions:</i> “Construct, revise and improve project network structure diagrams based on resource dependence and innovation possibilities.” (Senior manager, Project management office, Corporate level)</p>	<p><i>Business unit:</i> The corporate strategy department has built a subunit that functions to resolve conflicts between involved sub-ecosystems during the implementation of cross-border projects.</p> <p><i>Primary interactions:</i> organize regular meetings that involve key persons from all involved sub-ecosystems to solve issues such as competing resource demands, member responsibilities.</p> <p><i>General principles:</i> “Whether the developed resolutions help to achieve project goals and maximize ecosystem value.” (Manager, Strategy, Corporate level)</p>	<p><i>Business unit:</i> The corporate human resource department has built a subunit that functions to conduct the performance evaluation for members of cross-border projects who are scattered over multiple sub-ecosystems.</p> <p><i>Primary interactions:</i> organize regular meetings that gather key persons from all involved sub-ecosystems to discuss each project member’s performance as well as the overall performance of each sub-ecosystem in the preceding project stage.</p> <p><i>General principles:</i> industry standards, contributions and “sometimes, it is also determined by the company strategy in that stage. For example, this sub-ecosystem should subsidy that one in a particular period.” (Senior manager, Human resource, Corporate level)</p>

sub-ecosystems. These meetings support cross-border projects and activity integrations by providing dispersed project members opportunities to communicate the issues about the implementation of the cross-border projects as well as spaces to negotiate the tradeoffs and tensions they face.

How LeEco Cultivates Hybrid Individuals Who Are Competent in a Variety of Fields

“Providing possibilities to individuals who are both dreamers and doers.”
(Assistant general manager – Human resource)

Participating in cross-border projects exposes the organizational members to all verticals and various operations of the organization. Through working with employees from different functional departments and sub-ecosystems, individuals gradually establish the spirit of cooperation and develop different skills and competencies. The implementation of a large number of cross-border projects consequently helps LeEco to cultivate hybrid individuals, who develop dispositions and skills across various functional departments and multiple sub-ecosystems. The following quote vividly depicts such dynamics:

“We usually describe it as “get married first, and then start to date.” I led a project with a VP from the Big Screen sub-ecosystem. We have different backgrounds, different styles, and we are in totally different industries. In the beginning, I did not understand what he was talking about. I don’t think he understood me either. But as Jia always said, ‘listen more, you will understand.’ After that project, I think that VP could be the man who is the best at making movies in the TV industry and I become a person who knows a lot about making TVs. I know what BHP is, what the differences are between HP and masika, and what is Dolby digital decoding. I learned a lot from that project.” (Director of content operation, Content sub-ecosystem)

In addition, carefully planned job rotation programs function to populate LeEco’s business ecosystem with hybrid individuals. In LeEco, any organizational member who works for his/her current job for at least one year and whose average job performance is

scored B or above is qualified to shift to a new job. Employees who wish to change positions can submit an application during their performance review talk with their supervisors semiannually. As described by the director of the corporate level human resource department, two types of job rotations are planned to provide more possibilities for organizational members to develop their dispositions: The cross-functional rotations normally happen in the same sub-ecosystem while within-function rotations take place in different sub-ecosystems or geographic areas.

“We do not set boundaries for any person. Like traditional companies, R&D staffs can switch to marketing jobs. Marketing staffs can switch to customer operations positions. They move in a spiral line. In LeEco, individuals producing cars can also make TVs. So besides the traditional spiraling movements, we have cross-the-sub-ecosystem movements. We also have India and U.S. markets, so we have across-the-region movements. This provides our employees more opportunities.”
(Director, Human resources, Corporate level)

For an employee who works in a new position, LeEco provides three supporting programs to help him/her reduce the learning curve and adapt to the new job. First, a one-on-one “Eco Buddy” who is responsible for coaching and mentoring the new employee is assigned. Second, the company has built a comprehensive online training system that includes written documents and videos detailing various aspects of each job. Third, each week, the “LeEco University” arranges multiple classes encompassing displays of professional skills, discussions of management issues, and top manager panels in which sub-ecosystem CEOs and vice presidents are invited to share their experience in the successful cross-border projects. A new employee can attend any class where he/she can get required knowledge and skills for the new position.

After working in the new position for six months, the employee can decide whether to stay at the new job, return to the previous job, or even shift to another new

position later. In LeEco, employees autonomously plan their job rotation paths which may not end with the original jobs. Nonetheless, before participating in new work, an employee needs to demonstrate convincing job performance in his/her current jobs and explicate how the organization and he/she can benefit from the shift. The current supervisor, the possible future supervisor and the human resource representatives collectively determine the appropriateness of each move.

Through the job rotation program, employees at LeEco develop a broad range of work experience, learn about different facets of the organization, establish various connections and consequently become hybrid individuals. Hybrid individuals are invaluable talents for LeEco's long-term goal of integrating its sub-ecosystems. Therefore, LeEco has designed an innovative incentive system that motivates its employees to develop into hybrid talents.

How LeEco Motivates Hybrid Individuals Who Are Competent in a Variety of Fields

“Normally, companies only have two career channels: the professional channel and the management channel. Even for those companies that attempt to encourage employees to conduct behaviors that address various forms of performances, they may do it just by linking incentives to different performances. I think LeEco is the only company in the world that has created a new and innovative career channel for individuals who develop skills in various areas.” (Senior manager, Human resource, Corporate level)

Employees at LeEco can develop their career paths through either the professional channel or the management channel. In addition, an “Eco channel” is built to motivate hybrid individuals. Table 9 explicates the Eco channel. Employees climb four different levels in the Eco channel through increasing their working experience in multiple sub-ecosystems, cross-border projects, and collaborative works. Such designs might

encourage employees to actively participate in job rotation programs and cross-border projects launched by sub-ecosystems and the president office.

Higher incentives are linked to employees who choose to develop their career paths in the Eco channel than those in the professional and management channels. In addition, hybrid individuals who reach the fourth level of Eco channel become candidates for organizational business partners. Through providing a formal promotion path to hybrid individuals and reinforcing behaviors and values desired by the company, LeEco motivates organizational members to become hybrid individuals and aligns the incentives of them with the integration mission of the organization.

Table 9. The Eco channel at LeEco

Eco Levels	Sub-Ecosystem Working Experience	Cross-Border Project Working Experience – Core Work	Cross Border Project Working Experience – Collaborative Work
	<i>The purpose of such a design is to encourage employees to participate in job rotation programs</i>	<i>The purpose of such a design is to encourage employees to take part in company-launched cross-border projects and cross-border projects initiated by the sub-ecosystem that the employees belong to</i>	<i>The purpose of such a design is to encourage employees to participate in collaborative tasks for cross-border projects launched by the sub-ecosystem that the employees do not belong to</i>
Level 4	Has worked in at least 5 sub-ecosystems	Has worked as a core project member in at least 4 projects launched by the president office	Has worked as a collaborative member to support projects launched by a single sub-ecosystem at least 4 times
Level 3	Has worked in at least 4 sub-ecosystems	Has worked as a core project member in at least 2 projects launched by the president office	Has worked as a collaborative member to support projects launched by a single sub-ecosystem at least 3 times
Level 2	Has worked in at least 3 sub-ecosystems	Has worked as a core project member in at least 4 projects launched by either the president office or a single sub-ecosystem	Has worked as a collaborative member to support projects launched by a single sub-ecosystem at least 2 times
Level 1	Has worked in at least 2 sub-ecosystems	Has worked as a core project member in at least 2 projects launched by either the president office or a single sub-ecosystem	Has worked as a collaborative member to support projects launched by a single sub-ecosystem at least 1 times

How LeEco Builds a Single Organizational Culture

The leadership team at LeEco strives to build a collaborative organizational culture which shapes organizational members' understanding of LeEco as a whole entity instead of independent institutions separated by sub-ecosystem boundaries. Leaders in LeEco described its culture as “the culture of lion and wolf.”

“The culture of lion and wolf, means that employees in a specific sub-ecosystem can do their businesses successfully, and you know, although they have different backgrounds, different minds, and different strategies, they can still cooperate. Not like tigers, we usually say, ‘there can be only one.’” (Director, Strategy, Corporate level).

As the leadership team directs organizational members to engage in the development of integrated activities, constructs hybrid organizational structures and negotiation spaces to support integrated activities, cultivates hybrid individuals, and provides a new promotion channel to hybrid individuals, organizational members gradually develop a pattern of shared values and behavioral norms that drive sub-ecosystem integration and collaboration. As noted earlier, for a project initiated by the president office or a single sub-ecosystem, a defined set of organizational members from all sub-ecosystems are required to join the mandatory weekly meetings for project network structure diagram development. When the leadership team initially enacted such a requirement, many employees showed a reluctance to participate in those meetings because the advanced project goals might not be in their professional zones. However, many new business opportunities and innovative ideas were created when organizational members from multiple sub-ecosystems brainstormed the project network structure diagrams. For example, as recalled by the assistant director of technology development in Mobile sub-ecosystem, in a content sub-ecosystem-launched meeting on a project about

how to enhance end-user experience of video contents, a technical engineer from the mobile sub-ecosystem recommended integrating into the project a mobile development activity that aligns vibration frequency of smartphones with sound intensity of video contents. Gradually, employees realized the benefits of those “hybrid communications” and started to self-launch informal meetings with organizational members who had different professional backgrounds. Today, in LeEco’s meeting rooms scattered on different floors, groups composed of individuals from different sub-ecosystems are sitting together to generate new ideas. The following quote also illustrates such transformations.

“Jia began to organize the weekly meetings a long time ago. Employees from different sub-ecosystems worked together. Initially, many employees’ attitudes were negative, because they thought the meetings had nothing to do with them. I do not believe that this would happen in any other company, though it was mandatory in LeEco. As time went on, however, we realized everyone of us could benefit from the meetings. Today, when people from the Content sub-ecosystem are discussing how to make a movie, some engineers like sitting in the same room. Although the engineers may not come from same discipline, their suggestions are valuable to the filmmakers, and innovations are generated.” (Vice president, Internet Finance sub-ecosystem)

In addition, through designing a hybrid organizational structure that incorporates the projectized structure, the functional structure and the hierarchical structure, the leadership team of LeEco expresses its willingness to support activity integration, facilitate information and resource flows, and achieve synergy among sub-ecosystems. Such hybrid organizational structure designs also signal to organizational members that LeEco is a whole entity within which all sub-ecosystems are integrated together. In particular, by breaking “walls” between sub-ecosystems and advancing cooperation between functional units inside sub-ecosystems, the corporate level functional departments play crucial roles in making organizational members realize that they are

working for LeEco as a whole rather than just a sub-ecosystem, therefore improving employees' ecosystem commitment. As illustrated by the following quote:

“Like GE, the company is doing business in such areas as healthcare, transportation, and power. Those businesses are separated into different departments (forms). I worked there for a couple of years, and the ‘department walls’ were thick. The leaders of each group were only responsible for their revenues. They were competing for resources. It is a challenge for many companies, including those innovative ones. In LeEco, the design of our organizational structures, especially the corporate level functional departments, break the ‘department walls.’ ”(Director, Human resource, Corporate level)

The job rotation programs and the design of Eco channel greatly increase the number of hybrid individuals who work as “*culture executors*” and “*culture communicators*” in LeEco. Hybrid employees whose skills and dispositions encompass multiple sub-ecosystems are competent to promote collaborative activities. For example, the vice president of film and television production in the Content sub-ecosystem mentioned that she once launched a project that attempted to live broadcast the process of climbing Mount Everest by a national level professional team. The assigned project manager who reached to the third level in the Eco channel had a rich working experience in other sub-ecosystems (internet & cloud, mobile, and big screen) and multiple cross-border projects before working for the content sub-ecosystem. With knowledge of content production, multi-screen interaction, virtual reality (VR), and cloud storage and transmission, the project manager quickly built a team that adopted VR technology live recorded the process, stored it to the cloud, and transmitted it to various screens of LeEco's customers. In addition, with deep understandings of the importance of collaboration among multiple sub-ecosystems, hybrid individuals hold “*missionary zeal*” about bringing the collaborative culture to everyone in LeEco. For instance, organizational leaders actively take the responsibility of spreading culture in LeEco

University. They organized a series of lectures that share the history of how LeEco built its business ecosystems, the experience of collaborative work in cross-border projects, and organizational and individual benefits from cooperation among sub-ecosystems.

CHAPTER FIVE

Discussions

The digital revolution has created more opportunities for companies to integrate businesses in conventionally unrelated industries (Chui, 2010). Standard digital business processes and shared digital platforms have also increased interoperability and interconnection between firms in different sectors (Markus & Loebbecke, 2013). The advances in information technology have dramatically augmented the reach, flexibility, and agility of modern enterprises (Dreyer et al., 2006). In recent years, more and more companies (i.e. Facebook, IBM, Amazon, Google, etc.) are diversifying into multiple digitally enabled businesses. Big firms diversified into multiple digitally enabled businesses may achieve organizational innovations and business opportunities through the integration of digital products and services in different industries (Jay, 2013). These integration attempts also pose certain intraorganizational level “organizing” challenges for those large firms: How to design organizational activities, structures, and processes to support such integration (Gil & Warzynski, 2015).

Large firms diversified into multiple digitally enabled businesses are by nature hybrid organizations, defined as an organization that combines multiple elements (i.e. institutional logics, organizational forms, identities, lines of businesses, business models, technologies, etc). (Battilana & Lee, 2014; Brandsen & Karre, 2011; Borys & Jemison, 1989; Furr & Snow, 2015). This dissertation seeks a better understanding of the functioning and micro-foundations of hybrids by addressing the following research gap: the intraorganizational level organizing mechanisms through which organizational level

hybridization strategies are implemented remain unclear (Battilana & Lee, 2014; Pache & Santos, 2013; York et al., 2016). Our review of the literature on the four hybridization strategies adopted by hybrids indicated that: “Integration” is the best strategy for large firms diversified into multiple digitally enabled businesses to resolve internal tensions and achieve innovations and possibilities. We, therefore, narrowed our research scope to address the following research question: *How does a large firm diversified into multiple digitally enabled businesses achieve integration at the intraorganizational level?*

The concept of hybrid organizing as well as its four internally-oriented dimensions proposed by Battilana and Lee (2014) provided us a general framework to unearth the intraorganizational level organizing mechanisms of hybrids. We realized that existing knowledge that described how hybrids achieve integration through the four dimensions were not applicable to large firms diversified into multiple digitally enabled businesses. This is largely because of the complexity of this type of hybrid (i.e. seven sub-ecosystems in LeEco, each of which is characterized by particular goals, activities, and professional legitimacy). We further identified five unspecified areas regarding the intraorganizational level organizing mechanisms of hybrids. A thorough examination of LeEco, a leading technology firm headquartered in China, which built a business ecosystem encompassing seven sub-ecosystems, allowed us to address those identified areas. Such an examination also helped us to explore the intraorganizational level hybrid organizing mechanisms that explain how large firms diversified into multiple digitally enabled businesses to achieve integration. We summarize the findings of this dissertation in Table 10.

This dissertation makes two important contributions. First, we advance our understanding of hybrids by demonstrating how hybrids embedded in a more complex pluralistic institutional environment achieve integration at the intraorganizational level. Also, previous research on hybrids and hybrid organizing emphasized tensions triggered by combinations of multiple elements and focused primarily on examining how hybrids respond to those tensions. In this dissertation, we followed the same “tensions-responses” logic. However, as we strived to analyze how those responses were developed at the intraorganizational level, we realized that unique possibilities might also be generated by carefully crafted organizational activities, structures, and processes. Therefore, we contributed to the knowledge of hybrids and hybrid organizing by identifying the generative aspects of the combination of different elements (Battilana & Lee, 2014).

Second, while Battilana and Lee (2014) called for research that investigated the interactions and associations between the hybrid organizing dimensions, none of the previous literature, to our knowledge, has addressed this issue. This dissertation contributes back to hybrid organizing by identifying several internal links between the four internal-oriented dimensions of hybrid organizing. Below we elaborate on both contributions and discuss our theoretical contributions to the emergent literature on hybrids and hybrid organizing and practical contributions to large firms diversified into multiple digitally enabled businesses.

Moving from Tensions to Possibilities

Hybrid organizations refer to combinations of multiple elements (i.e. institutional logics, organizational forms, identities, lines of businesses, business models). (Battilana & Lee, 2014; Brandsen & Karre, 2011; Borys & Jemison, 1989; Furr & Snow, 2015).

Table 10. Summary of findings

Internal-oriented dimensions of hybrid organizing	Existing knowledge – How hybrids achieve integration through hybrid organizing	Unspecified area identified through reviewing literature on hybrid organizations	Our findings – How LeEco achieves integration at the intraorganizational level
Organizational activities	<p>Scholars who have examined integrated activities of hybrids generally focus on explicating how integrated activities simultaneously advance goals of different institutional elements (Ávila & Amorim, 2016; Battilana & Dorado, 2010; Canales, 2013; Ebrahim et al., 2014; Russo et al., 2015; Tracey et al., 2011).</p> <p>Chen and O'Mahony's (2006) study indicated that hybrids might develop integrated activities by selectively synthesizing certain new activities with existing activities.</p>	<p>Little attention has been paid to research on how integrated activities are constructed (Battilana & Lee, 2014).</p> <p><u><i>How hybrids develop integrated activities.</i></u></p>	<p>Activity integrations in LeEco are accomplished through implementing projects that cross over multiple sub-ecosystems.</p> <p>The activity integration process happens when the project management team develops the project-specific “network structure diagram.”</p> <p>New activities are identified and integrated with existing ones based on resource dependence and innovation possibilities</p>
Workplace composition	<p>Hybrids taking the integration strategy may cultivate hybrid individuals through crafted management practices.</p> <p>Battilana and Dorado (2010) recommended that hybrids may cultivate hybrid professionals by providing employees with personalized training.</p> <p>Besharov (2014) illustrated how pluralist managers' practices such as the development of integrated work solutions helped employees to form identities that align with the hybrid nature of the organization rather than identities favoring one organizational form.</p>	<p>No study has investigated how hybrids cultivate hybrid individuals who develop dispositions and skills across a variety of domains.</p> <p><u><i>How hybrids cultivate hybrid individuals who are competent in a variety of fields.</i></u></p>	<p>The implementation of a vast number of cross-border projects helps LeEco to cultivate hybrid individuals, who develop dispositions and skills across various functional departments and multiple sub-ecosystems.</p> <p>Carefully planned job rotation programs function to populate its business ecosystem with hybrid individuals.</p>

Continued

Internal-oriented dimensions of hybrid organizing	Existing knowledge – How hybrids achieve integration through hybrid organizing	Unspecified area identified through reviewing literature on hybrid organizations	Our findings – How LeEco achieves integration at the intraorganizational level
Organizational design – Organizational structure	<p>Research on the organizational structures of hybrids indicates that when organizational activities are separated, either an integrated or differentiated structure can be adopted (Santos et al., 2015). By contrast, when activities are perfectly integrated, structure separation is unnecessary (Battilana & Lee, 2014).</p> <p>Hybrids can create spaces of negotiation to facilitate the interaction and coordination across different groups (Battilana et al., 2015; Kellogg, 2009).</p>	<p>Previous findings may hardly be applied to large firms diversified into multiple digitally enabled businesses, which are composed of numerous business units spreading over a variety of industries.</p> <p><u><i>How hybrids integrate separated institutions to support integrated activities.</i></u></p>	<p>LeEco has built a hybrid organizational structure combining a functional organization structure and a projectized organization structure to support its operations of cross-border projects and activity integrations.</p> <p>Negotiation spaces at LeEco are in the forms of regular meetings. These meetings support cross-border projects and activity integrations by providing dispersed project members opportunities to communicate the issues about the implementation of the cross-border projects as well as spaces to negotiate the tradeoffs and tensions they face.</p>
Organizational design – Incentive system	<p>Few studies have addressed how hybrids design incentive systems to motivate hybrid individuals.</p> <p>Santos et al. (2015) recommended that, for social enterprises which attend to clients and beneficiaries who are from different groups but are served through a common set of commercial activities, incentives were only connected to individuals' operational performances.</p>	<p>Of the few studies that have addressed how hybrids design incentive systems to motivate hybrid individuals, findings cannot be applied to large firms diversified into multiple digitally enabled businesses.</p> <p><u><i>How hybrids design incentive systems to motivate hybrid individuals who are competent in a variety of fields.</i></u></p>	<p>Employees at LeEco can develop their career paths through either the professional channel or the management channel. Also, an “Eco channel” is built to motivate hybrid individuals.</p>

Continued

Internal-oriented dimensions of hybrid organizing	Existing knowledge – How hybrids achieve integration through hybrid organizing	Unspecified area identified through reviewing literature on hybrid organizations	Our findings – How LeEco achieves integration at the intraorganizational level
Organizational culture	Research on hybrids indicates that hybrids may establish a single organizational culture through the design and implementation of the other hybrid organizing dimensions (Battilana & Lee, 2014).	No previous study has empirically explored how leaders of hybrids develop organizational cultures. <u><i>How organizational leaders of hybrids build a single organizational culture.</i></u>	In LeEco, as the leadership team directs organizational members to engage in the development of integrated activities, constructs hybrid organizational structures and negotiation spaces to support integrated activities, cultivates hybrid individuals, and provides a new promotion channel to hybrid individuals, organizational members gradually develop a pattern of shared values and behavioral norms that drive sub-ecosystem integration and collaboration.

Hybrids can also be described as organizational arrangements that combine resources and organizing structures from multiple organizations (Borys & Jemison, 1989). Based on a review of 95 articles and book chapters on hybrid organizations in organizational studies, Battilana and Lee (2014) proposed the concept of hybrid organizing and its four internal-oriented dimensions. Not only do they provide a framework that can be utilized to investigate how hybridization strategies are implemented at the intraorganizational level, but the four dimensions also provide a means of examining how hybrids alleviate their internal tensions (Pache & Santos, 2013; Stevens et al., 2015; Wang et al., 2015). When utilizing hybrid organizing as a sensitizing device to unearth the intraorganizational level organizing mechanisms that explain how a large firm diversified into multiple digitally enabled businesses achieves integration at the intraorganizational level, we started with the same logic by identifying the internal tensions inside the studied firm. We then discovered a couple of “organizing” responses to those tensions. As we dug into the detailed analysis of how those responses were constructed, a new theme emerged: *Possibilities triggered by hybrid organizing approaches.*

As we described in our findings, at LeEco, new product, service, and technology innovations are generated when individuals from different sub-ecosystems jointly develop integrated activities. The combination of multiple sub-ecosystems enables LeEco to develop unique job rotation programs and a new career channel to develop hybrid individuals, who are competent in a variety of fields and able to achieve hybrid innovations. By promoting a collaborative organizational culture, constructing a hybrid organizational structure, and developing negotiation spaces, LeEco can further promote various innovations and populate the organizations with hybrid individuals, thereby fully

extracting the advantages from its business ecosystem and gaining competitive advantages in a pluralistic environment.

Admittedly, the combination of the seven sub-ecosystems provides LeEco more spaces to achieve possible opportunities from its business ecosystem through hybrid organizing. For example, it is impossible for hybrids that combine two institutional elements to develop a job rotation program that allows organizational members to make many job shifts and expose themselves to the various verticals of a large organization. Moreover, other elements such as the integration strategies adopted by LeEco and the technology-oriented nature of LeEco also play crucial roles in causing such possibilities. Hybrids that adopt dismissing, separating or aggregating strategies may lose the opportunity of generating innovations through the integration of products and services. Hybrids that neglect the power of emerging technology may feel frustrated when attempting to integrate conventionally unrelated businesses. While the above analysis reflects that the complexities of organizational contexts may influence how possibilities are realized, this dissertation contributes to hybrid organizations and hybrid organizing by identifying some organizing approaches which might lead to unique possibilities for hybrids. As Battilana and Lee (2014) stated at the end of their review article:

“The importance of hybrid organizing for organization theory is predicated on the notion that the combination of forms leads to unique possibilities and tensions. Past research has focused largely on tensions that threaten the sustainability of hybrids, as indicated by our review of the literatures on hybridity as well as on social enterprises in organization studies... Less-studied, and warranting greater attention, are the generative possibilities of social enterprise, and hybrid organizations in general” (Battilana & Lee, 2014, p. 424).

Recently, many large companies are diversifying into multiple digitally enabled businesses. For example, Facebook began to manufacture hardware to welcome the

fourth industrial revolution. IBM launched its global financing project to join the Fintech and blockchain industry. Google began to create a machine with an artistic brain to embrace artificial intelligence. Their efforts to integrate products and services in those different areas pose certain intraorganizational level “organizing” challenges for those large firms: How to design organizational activities, structures, and processes to support such integration. The hybrid organizing approaches implemented by LeEco provide valuable practical guidelines for them to achieve innovations and catch possible opportunities. More specifically, we suggest the following practices be considered: take advantage of emerging technologies, implement an integration hybridization strategy at the intraorganizational level, develop integrated activities, populate the organizations with hybrid individuals, build negotiation spaces and projectized organizational structure to support activity integrations, and create a collaborative organizational culture.

Internal Links between Internal-oriented Dimensions of Hybrid Organizing

The second contribution of this dissertation is that our findings indicate certain links between the four internal-oriented dimensions of hybrid organizing. As illustrated in Figure 7, by providing organizational members with opportunities to collaborate with and learn from others who have different backgrounds, exposing themselves to various operations and verticals of the organizations, and understanding how individuals from different departments and hierarchical levels cooperate with each other, integrated activities function to cultivate hybrid individuals. When hybrid individuals participate in integrated activities, their rich knowledge and dispositions in various areas facilitate the execution of integrated activities. Therefore, our findings illustrate certain positive dynamics between organizational activities and workplace composition of hybrids.

Also, implementations of integrated activities are supported by hybrid organizational structures and negotiation spaces. A carefully designed promotion channel for hybrid individuals (the Eco channel) motivates them to participate in integrated activities and job rotation programs, which in turn serve to shape hybrid individuals. Thus, our findings demonstrate how organizational design supports activity integration and cultivation of hybrid individuals, as well as the interactions between organizational activities and workplace composition.

Finally, as the leadership team constructs hybrid organizational structures and negotiation spaces to support integrated activities and provides a new promotion channel to hybrid individuals, it signals to organizational members that LeEco is a whole entity within which all sub-ecosystems are integrated together and collaborating with each other. Participation in integrated activities enables organizational members to develop a pattern of shared values and behavioral norms that drive sub-ecosystem integration and collaboration. In addition, hybrid individuals who work as “*culture executors*” and “*culture communicators*” bring the collaborative culture to everyone in LeEco. Our findings, therefore, show how organization cultures of hybrids are built through organizational activities, workplace composition, and organizational design.

Battilana and Lee (2014) argued that each of the hybrid organizing dimensions “can be more or less integrated, resulting in distinct configurations of hybrid organizing” and they called for research to “more systematically identify these configurations” (Battilana & Lee, 2014, p. 426). The hybrid organizing configuration we identified in LeEco indicates that the levels of integration for all internal-oriented dimensions need to be congruent with each other. For example, when the activities of a hybrid are perfectly

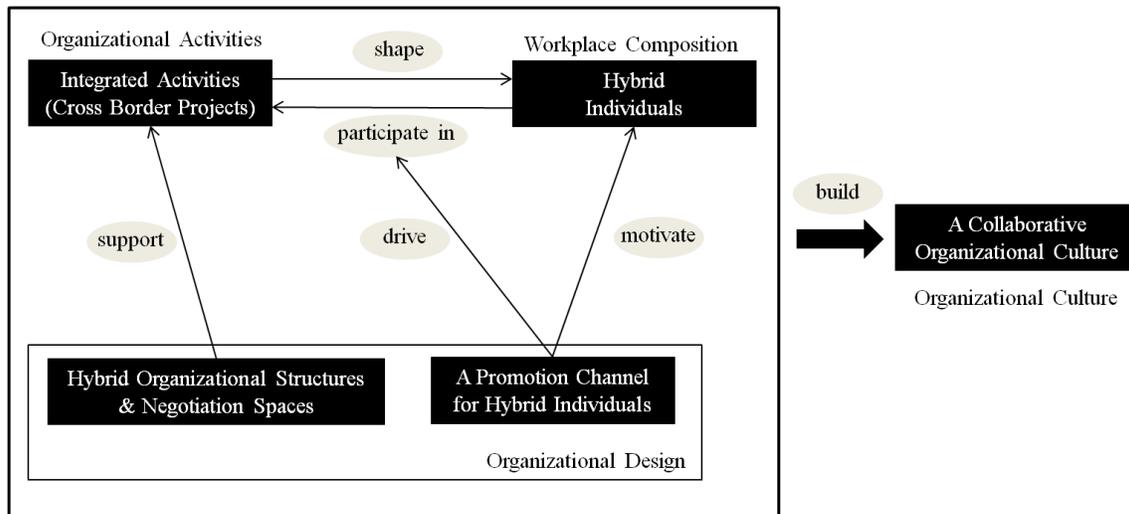


Figure 7. Internal links between dimensions of hybrid organizing

integrated, its organizational members are required to develop skills and dispositions in multiple areas (hybrid individuals). The organizational structure should support cooperation between individuals from different areas (i.e. hybrid organizational structures). The incentive systems need to be designed to encourage behaviors that advance performance of integrated activities. The organizational leaders need to build an organizational culture that promotes collaboration between various groups.

Identification of these internal links has practical implications for large firms diversified into multiple digitally enabled businesses, and hybrid organizations in general. Achieving integration and realizing possible opportunities of combinations of various businesses require hybrids to make efforts to implement the integration strategy in all the four internal-oriented dimensions of hybrid organizing rather than a subset of them. Prior research has focused primarily on examining how a single dimension of hybrid organizing promoted the integration of hybrids (Battilana et al., 2015; Battilana & Dorado, 2010; Besharov, 2014; Chen & O'Mahony, 2006; Haigh et al., 2015; Kellogg,

2009). Little attention has been paid to the impacts of the internal interactions between those dimensions on the accomplishments of the integration strategy. We recommend that leaders of hybrids that adopt the integration strategy take a comprehensive view of the four hybrid organizing dimensions and take into accounts their mutual influences. In particular, we emphasize the importance of the organizational design because of its crucial role in supporting integrated activities and populating organizations with hybrid individuals. Leaders of hybrids need to design organizational structures that help to solve the tensions and achieve possibilities of integrated activities. When developing and crafting incentive systems, the leadership teams are recommended to consider issues such as how to encourage organizational members to participate in the integrated activities and how to motivate individuals to become hybrid professionals. Moreover, organizational leaders are also encouraged to develop a collaborative culture through organizational activities, workplace compositions, and organizational design.

CHAPTER SIX

Conclusions

Limitations and Future Directions

As with any explorative study utilizing a single case, the dissertation has limitations, several of which indicate directions for future research. An important issue in case study research is the generalizability of the findings (Eisenhardt, 1989). We expect that findings from this dissertation may apply to organizational contexts close to LeEco, that is, large firms diversified into multiple digitally enabled businesses. However, we believe that our findings could be further applied to a broader population. The combination of seven sub-ecosystems in our case represents hybrids that combine numerous institutional elements. In addition, our findings are not specific to large firms diversified into multiple digitally enabled businesses and have applicability to any hybrid organization that seeks integration. Therefore, the intraorganizational level hybrid organizing approaches identified in this dissertation may provide guidelines for the implementation of integration strategy by hybrids that incorporate numerous elements.

Future research should explore whether our findings could be applied to other contexts. Within our institutional context, we assumed that all the seven organizational sub-ecosystems are of equal importance to LeEco's functioning. Such a simplification enabled us to ignore heterogeneity and focus primarily on teasing out the intraorganizational level approaches to achieve integration. However, we admit that organizations in pluralistic environments usually include cores and peripheral institutional elements. For example, in the case of Facebook, it is not surprising that the

“VR” group is still peripheral to the core “Social Media” group. In such situations, hybrids are likely to exhibit different hybrid organizing patterns that address internal tensions and achieve possibilities from combinations of different elements. Future research will thus need to investigate how hybrids that take different “core-peripheral” configurations achieve integration through hybrid organizing.

Future research may further explore how hybrids implement different hybridization strategies at the intraorganizational level. While our review suggests that the integration strategy is most likely to enable large firms diversified into multiple digitally enabled businesses to achieve innovations and gain competitive advantages in pluralistic institutional environments, the other hybridization strategies (dismissing, separating, and aggregating) might also be adopted by hybrids in certain circumstances. Moreover, while we emphasize the congruence between levels of integration for all the internal-oriented dimensions, hybrids may carry out different strategies on different hybrid organizing dimensions. For example, it is possible that organizations which develop integrated activities still dismiss certain sub-cultures. Future research is needed to explore the hybrid organizing approaches for the other hybridization strategies as well as advantages, disadvantages, and application context of these approaches.

Finally, while this dissertation takes a cross-sectional view to investigate the intraorganizational level mechanisms that explain how a hybrid organization achieves integration, future research is recommended to conduct longitudinal studies. The hybrid organizing approaches identified in this dissertation are presumed to be solutions to internal tensions of LeEco, while the solutions and tensions coexist in the institutional

context of LeEco. Longitude studies will illustrate how the integration is achieved and sustained in the long run.

Concluding Statement

In this dissertation, we view large firms diversified into multiple digitally enabled businesses as an attractive setting to study hybrid organizations and the dynamics of hybrid organizing. Existing knowledge on hybrids and hybrid organizing have been accumulated through investigating the combinations of two institutional elements, which we consider only as a subset of the hybrid space. Through unearthing the intraorganizational level mechanisms that explain how a large firm diversified into multiple digitally enabled businesses integrates a variety of elements, this dissertation advances the field of hybrid organizations and hybrid organizing, and thereby of organizational studies.

This dissertation aims to address the following research gap: the intraorganizational level organizing mechanisms that explain how hybrids achieve integration are still unclear. We chose hybrid organizing as the “sensitizing device” to unearth these mechanisms. We drew on the findings of how hybrids integrated two institutional elements at the intraorganizational level and explored how to apply existing knowledge to large firms diversified into multiple digitally enabled businesses. Such attempts allow us to identify the following five areas that need further investigation: *1) How hybrids develop integrated activities; 2) How hybrids cultivate hybrid individuals who are competent in a variety of fields; 3) How hybrids integrate separated institutions to support integrated activities; 4) How hybrids design incentive systems to motivate*

hybrid individuals who are competent in a variety of fields; and 5) How organizational leaders of hybrids build a single organizational culture.

In an attempt to explore the five identified areas, we conducted a case study of LeEco, an internet and technology giant in China, which has built a huge business ecosystem combining seven sub-ecosystems, each of which is characterized by different goals, activities and professional legitimacy. The empirical setting provided by LeEco enabled us to move beyond hybrids which combine only two institutional elements and further advance research on the integration strategy and hybrid organizing through a context-rich environment. We collected data from (a) semi-structured interviews, (b) internal documents, and (c) a vast variety of online articles and videos. Interview data was our primary data source and the other data sources were utilized to triangulate interview data. We then utilized a various qualitative analysis and validation techniques (i.e. *open coding, axial coding, selective coding, analysis of narratives, mechanism of identification, member checking, cross-validation, etc.*) to analyze the collected data and validate our findings.

Our data analysis process can be divided into three stages. In the first stage of analysis, we found that each sub-ecosystem of LeEco is characterized by a cluster of features (i.e. goals, primary business activities, professional legitimacy, etc.). In the second stage of analysis, we identified four internal tensions triggered by the combination of elements. In the third stage of analysis, we identified five intraorganizational level approaches utilized by LeEco to address the internal tensions. We then utilized the five areas identified in our literature to guide our analysis of how those five responses were developed. The findings of the dissertation were summarized in Table 10.

Two important contributions can be drawn from our findings. First, previous research on hybrids and hybrid organizing focused on investigating how hybrids respond to tensions triggered by combinations of multiple elements. In this dissertation, we followed the same “tensions-responses” logic and strived to identify the intraorganizational level responses to the internal tensions of LeEco. However, as we immersed further into the detailed analysis of how LeEco developed those responses, we realized that unique possibilities might also be generated by those responses. Therefore, we contributed to knowledge of hybrids and hybrid organizing by identifying the “generative aspects” (Battilana & Lee, 2014, p. 424). Second, none of the previous literature, to our knowledge, has investigated the interactions between the hybrid organizing dimensions. This dissertation contributes back to hybrid organizing by identifying several internal links between the four internal-oriented dimensions of hybrid organizing.

APPENDICES

APPENDIX A

Data Collection Process

Accumulation of Secondary Data of LeEco

LeEco started as an online video company that offered streaming video service. Relying on its expertise in digital technologies (e.g. cloud computing), it is diversifying into multiple digitally enabled businesses including film and drama production, sports and music content acquisitions, and super TV, smartphone, Internet-linked automobile, and VR glass R&D. The company announced that it was establishing a vertically integrated business ecosystem to enhance all aspects of the end-user experience of video contents. We chose to study LeEco because it perfectly fitted our research context (a large firm diversified into multiple digitally enabled businesses). In recent years, its rapid expansion has triggered much media coverage and many industry discussions in China. We started this dissertation project with the accumulation of secondary data of LeEco. We initially focused on searching online articles reporting LeEco from the major Chinese business and financial websites such as Sina, Sohu, Baidu, and Tengxun, as well as the company's website and social media accounts in China. Along with LeEco's global expansion activities beginning from 2015, many international business magazines and newspapers such as Forbes, Bloomberg Businessweek, Fortune, and Yahoo Finance started to report LeEco. LeEco also launched its English version company websites as well as its global social media accounts (i.e. Facebook, Twitter, LinkedIn, YouTube Channels, etc.). All the above media sources provided us many secondary data (online articles and videos) of LeEco. Indeed, the accumulation of the secondary data lasted

through the whole dissertation projects. In total, we collected more than 200 online articles and more than 50 video clips with a total length of more than 10 hours.

Initial analysis of the secondary data

The initially collected secondary data provided us with a solid picture of the history and the current situation of LeEco, enabling us to identify the extrinsic conditions such as a particular historical period and intrinsic context such as cultural and technological changes. From those materials, we also deduced that LeEco strived to achieve organizational innovations and business opportunities through the integration of digital products and services in different fields. Those secondary data also helped us to establish the analytical boundaries of the study and understand the rich context in which internal mechanisms are sticky in (Pan & Tan, 2011; Walsham, 1995).

Initial Ideas and Plans

When analyzing the secondary data collected at the outset of this study, we noticed that many media articles and online videos reported how and why LeEco established its enormous business ecosystem that encompassed a variety of industries. Therefore, we started by reviewing the literature on the topic of “business ecosystem.” We realized that, in the academic field, the term “business ecosystem” had a different meaning from what LeEco attributed to the term. In academia, a “business ecosystem” refers to:

“An economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world. The economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organisms also include suppliers, lead producers, competitors, and other stakeholders. Over time, they coevolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies. Those companies holding leadership roles may change over

time, but the function of ecosystem leader is valued by the community because it enables members to move toward shared visions to align their investments, and to find mutually supportive roles” (Moore, 1996, p.26).

However, the business ecosystem developed by LeEco can be described as an economic community managed by a single company. The company incorporates various business units spreading across multiple industries through mergers, acquisitions, and self-development. Powered by digital technologies, the company integrates those businesses to deliver innovative products and services of value to customers of its business ecosystem. Inside the business ecosystem, organizations from various industries collaborate with each other and evolve towards the shared organizational mission.

Nonetheless, our effort to review the extant research on “business ecosystem” lead us to the following two broad topics. 1) How does LeEco develop its business ecosystem (*related IS areas*: strategic IS, IT and boundary-spanning; *expected respondents*: managers and employees in the company’s IT department). 2) How does LeEco manage its business ecosystem (*related IS area*: Complexity and information systems research in the emerging digital world; *expected respondents*: managers and employees from different level and various departments of the company)

Gaining Access

Accessing the organization that consented to participate in this dissertation project started with networking (Lofland & Lofland, 1984). With the help of my advisor, I reached out to a professor from UNSW who was also interested in studying the company. We gained access to LeEco through contacting the company’s research institute located at its headquarters. Through emails and two arranged Skype meeting, we presented the two broad research topics (How LeEco develops its business ecosystem; How LeEco

manages its business ecosystem) to a contact person in the institute who possessed a strong academic background and who also well understood the purpose of our study. The contact person further helped us to gain access to the director of the office of the president. Initial interviews were garnered from the director of the office of the president, who said that LeEco was interested in participating in this project after reviewing a five-page write-up on the research and the backgrounds of the participated researchers.

First Round of Data Collection

The first round of data collection was conducted between March 26 and April 8. In total, we interviewed nine individuals from the company. With keen interests in the role of IT in the development and management of LeEco's business ecosystem, we first interviewed the chief technology officer (CTO), from whom we knew that LeEco had a decentralized IT structure that all sub-ecosystems and corporate level functional departments had their IT departments. Therefore, both topics required us to interview respondents in different sub-ecosystems and corporate level functional departments. The first one required us to interview managers and employees in the company's IT departments, which were scattered over different sub-ecosystems and corporate levels. The second one required us to interview managers and staff from different levels and various sub-ecosystems.

With the help of the director of the office of the president, we started to contact possible respondents from different sub-ecosystems and various levels of the company. Unfortunately, although the contact persons in all the sub-ecosystems as well as corporate level functional departments tried to facilitate the data collections process, we only had

the opportunity to interview three respondents from the IT department (*Vice president of EUI development in the Big Screen sub-ecosystem, Vice president of system development in the Big Screen sub-ecosystem, and the assistant director of technology development from Mobile sub-ecosystem*). We then interviewed another five respondents who were from the other fields (*the director of the office of the president, vice president and general manager of the corporate level customer operation departments, and vice president and director of the corporate level O2O platform*).

During the interviews, when we tried to explore the role of IT in the company and its expansion experience (For example, we directly asked questions such as: *What is IT's role in the expansion experience of LeEco? What are some of the key information systems used?*), respondents did not show great passion on pointing out the importance of IT in LeEco. Most of them viewed IT as supporting tools for their integration mission. Besides, almost every respondent we interviewed emphasized the company strategy of integrating products and service in different sub-ecosystem and how such integration leads to innovations and competitive advantages of LeEco. Also, they stressed the important role of the organizational design in supporting such integration. During this period, we also received three internal documents describing the ecosystem strategies of LeEco (132 pages).

Adopting “Hybrid Organizing” Perceptive to Our Case Study

After the first round of data collection, we planned to focus on the second research topic: How LeEco manages its business ecosystem. More specifically, we planned to focus on exploring the intraorganizational level “organizing” mechanisms of LeEco. We gave up the first idea and related IS topics (strategic IS and IT&boundary-

spanning) because of the lack of IT respondents as well as quotes illustrating the importance of IT in LeEco's expansion process. Also, as we analyzed the collected data, we noticed that respondents from LeEco consistently emphasized that their success relied primarily on their "organizing" ability, for example, how they made people with different backgrounds, beliefs, behavioral norms to work together. Finally, as a large firm diversified into multiple digitally enabled businesses, LeEco fitted the definition of a "hybrid organization." Therefore, we adopted "hybrid organizing" as a sensitizing device to organize our following data collection process.

Based on the four internal-oriented dimensions of hybrid organizing (core organizational activities, workforce composition, organizational design and organizational culture), we changed our sampling strategies and focused on identifying respondents who could share their insights about how LeEco integrates its sub-ecosystems through the four hybrid organizing dimensions. Thus, "hybrid individuals" who had prior working experience in different functional departments and sub-ecosystems were the candidates whom we sought to interview first. Specifically, we requested respondents from the corporate level functional departments, particularly, respondents from the strategy, human resources, project management office, and product management because they were knowledgeable about how integrations happened between various sub-ecosystems as well as the "organizing" mechanisms of LeEco.

Second Round of Data Collection

The second round of data collection was conducted between June 10 and June 25. In total, we interviewed eleven interviewees from the corporate level functional department. We started from the strategy department and interviewed five persons there

(Vice president, Director, Senior manager, manager, and Assistant of vice president). We adopted a snowball technique to continue the subsequent interviews. The vice president of strategy introduced to us two senior managers (Senior manager of human resource & Senior manager of project management office), whom he believed could help us to understand activity integration and incentive systems. During our interviews with them, the senior manager of human resource explained one document related to incentive systems (19 pages), and the senior manager of project management office explained one document related to projectized organizational structure (21 pages). While both documents were not allowed to be taken out of the offices or copied, note taking was allowed with their permission. Then the senior manager of human resource introduced another two interviewees from the corporate level human resource department (Assistant general manager and Director). At the end, we also interviewed the vice president of product management and general manager of supply chain. One internal document describing LeEco's seven sub-ecosystems (201 pages) was received from the vice president of strategy.

Third Round of Data Collection

To triangulate different viewpoints from organizational members, we included respondents from different sub-ecosystems in the third round of data collection. The third round of data collection was conducted between July 7 and July 18. In total, seven more respondents from different sub-ecosystems were interviewed based on availability (*Vice president and Director of marketing in the Internet Finance sub-ecosystem; Vice president of film and television production, vice president of content acquisitions, and director of content operation in the content sub-ecosystem; Director of strategy in the*

Internet & Cloud sub-ecosystem; Director of supply chain in the Big Screen sub-ecosystem). Additional data collection processes were excluded because no new or relevant themes emerged (Creswell & Plano Clark, 2011) after this round.

APPENDIX B

Baseline Interview Protocol (Final Version)

General Questions about the Interviewees

1. Can you tell me about your background and how you came to be involved in LeEco?
2. What is the role of your department?
3. What is your role in the department and organization?
4. How is your role/department role related to other departments?

Questions about the Development of LeEco's Business Ecosystem

5. Why does LeEco engage in developing a vertically integrated business ecosystem?
6. How does LeEco develop a vertically integrated business ecosystem?

Questions about Organizational Culture

7. Could you briefly describe the organizational culture of LeEco?
8. Is there any sub-culture in a sub-ecosystem?
9. Are there competing values and behavioral norms between sub-ecosystems? Can you give us an example?
10. How does LeEco build its organizational culture? What are the challenges?
11. What do organizational leaders do in building LeEco's organizational culture?

Questions about Workplace Composition

12. In LeEco, does any misalignment exist between employee abilities and ecosystem requirements?
13. How does LeEco cultivate hybrid individuals?

14. How does LeEco motivate hybrid individuals?

Questions about Organizational Activities

15. Could you describe how LeEco organize and manage a cross-border project?

16. Would you please give us an example of activity integration? What were the involved sub-ecosystems? How did those sub-ecosystems cooperate with each other? What were the utilized resources? How did goals of different sub-ecosystem being accomplished? What were the innovations triggered by such integration? How did the outcomes be measured?

Questions about Organizational Design

17. How do the organizational designs of LeEco meet the demands of hybrid organizations?

18. What are the features of the projectized organizational structure in LeEco?

19. How does LeEco promote cooperation between different sub-ecosystems?

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