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DYNAMIC CAPABILITIES IN THE PRESENCE OF A STRATEGIC PARADOX

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Prior research in dynamic capabilities has seldom addressed the question of how they operate over time in the presence of conflicting objectives of a strategic paradox, particularly beyond the exploration-exploitation contention. In the context of aggregation-adaptation paradox, we have collected and analyzed a large number of specific activities and changes in the resource base through an in-depth case study based on 46 interviews and other data sources. Our findings reveal new conceptual insights on the process side of dynamic capabilities: coevolutionary interplay between pro-aggregation and pro-adaptation changes in the resource base, paradox-enacting dynamic capabilities at the level of discrete activities with differing blends of aggregation and adaptation, and organizational constructs for paradox-enacting dynamic capabilities which are in stark contrast to known forms of organizational ambidexterity.

INTRODUCTION

Dynamic capabilities represent the firm's capacity for strategic change and have been a focal point of research in the field of strategic management. Much of the development in the study of dynamic capabilities rests on the theoretical foundation of the resource-based view of the firm (RBV), which conceptualizes firms as bundles of resources and capabilities. Hence, a key issue in the field of dynamic capabilities is how such bundles, including relationships or linkages among resources and capabilities within and across bundles, can be captured and analyzed for their formation, change and reconfiguration in meeting the challenge of strategic change. A prevailing view along this line of inquiries is that "fit" or "alignment" among resources and capabilities bundled together in the firm must be managed over time in the course of strategic change for their consistent enactment, and whenever possible, for their complementarity and synergy-creating opportunities. (e.g., Teece, Pisano and Shuen, 1997; Eisenhardt and Martin, 2000; Teece, 2007; Helfat *et al.*, 2007; Peteraf and Reed, 2007). Recently, however, the literature on strategic paradox and organizational ambidexterity has revealed the ever-present nature of fundamentally different relationships, namely relationships between a pair of resource bundles having *conflicting* strategic objectives, such as exploration vs. exploitation, control vs. spontaneity, and low cost vs. differentiation (e.g., Lewis, 2000; Luscher and Lewis, 2008; Smith and Lewis, 2011; Smith and Tushman, 2005; O'Reilly and Tushman, 2008; Andriopoulos and Lewis, 2009). These conflicting relationships unavoidably encounter inconsistencies, conflicts and tradeoffs, and go beyond the realm of management for consistency and complementarity. Despite the increasing research in paradox and ambidexterity, the literature on

dynamic capabilities has seldom addressed managerial and conceptual challenges posed by strategic paradox. In particular, few empirical studies exist that investigate dynamic capabilities in the presence of a paradox beyond the exploration-exploitation contention.

The theme of this article is dynamic capabilities in the presence of a strategic paradox, and it lies at the intersection of strategic change and strategic paradox. Our focal paradox is aggregation vs. adaptation, where “aggregation” refers to activities that aim to benefit from economies of scale, and “adaptation” means activities that respond to or leverage local conditions to create value for local operations.

As in the field of strategic management in general, dynamic capabilities can be studied from the content side (asking “what” questions) or the process side (asking “how” questions). The process side of dynamic capabilities has been relatively unexplored, and it has been suggested that the field of dynamic capabilities is likely to benefit substantially from the scholarly heritage of the process side of strategy studies, which includes behavioral theories as its disciplinary bases and qualitative data as its data sources (Helfat *et al.*, 2007). This study takes a process-oriented approach and is based on an in-depth case study of a single firm. Following the definition of a dynamic capability as “the capacity of an organization to purposefully create, extend, or modify its resource base” (Helfat *et al.*, 2007: 4), the question of our interest is how the firm, in the presence of *conflicting objectives*, *purposefully* creates, extends or modifies its resource base. More specifically, we aim to identify and analyze specific activities for aggregation or adaptation purposes and changes in the resource base as the outcome of such activities. To sum up, our research question is as follows: *What are the specific activities and changes in the resource base that capture how dynamic capabilities operate over time in the context of aggregation-adaptation paradox?*

The focal firm for our case study is Aeon, a large-scale retail store chain operating in Japan and Asia. In over 40 years of its operation, Aeon has achieved a drastic growth in size (greater aggregation opportunities) and a remarkable expansion in geographic coverage in Japan from subarctic Hokkaido to subtropical Okinawa (more extensive adaptation opportunities). Throughout those years, Aeon has aggressively pursued its ambition for dominant scale (aggregation strategy) while sustaining and even strengthening its historical commitment to local adaptation grounded in its founding philosophy of “locally-rooted retailing” (adaptation strategy).

We contribute to the understanding of dynamic capabilities by highlighting:

- Pro-aggregation and pro-adaptation changes in the resource base and their coevolutionary relationships as an artifact of how paradox-enacting dynamic capabilities operate over time;

- Activities with differing blends of aggregation and adaptation and relationships among such blends as a basic mechanism of paradox-enacting dynamic capabilities; and
- How paradox-enacting dynamic capabilities are housed organizationally, which is in stark contrast to known forms of organizational ambidexterity.

THEORETICAL BACKGROUND

In this section, we review literatures on relationships among resources, or among activities involving bundles of resources, in the context of strategic change. First, we focus on complementary relationships, then on relationships that address conflicting demands.

Complementarity and dynamic capabilities

Within the earlier literature on dynamic capabilities, it has been noted that incremental accumulation in one asset stock may depend on the level of a complementary asset stock (Dierickx and Cool, 1989; Teece, Pisano and Shuen, 1997). Helfat (1997) derives empirical evidence in support of this observation through a study on relationships between two clusters of R&D knowledge in the U.S. petroleum industry. A special case of complementarity in the context of change is cospecialization of assets such as Mazda's rotary engine and its repair facilities (Teece, 1986). At a higher level of aggregates involving a larger collection of assets, decisions and practices, complementarity may also transition from one form to another particularly when the firm faces a radical change in the environment such as the deregulation in the U.S. airline industry in the late 1970s (Peteraf and Reed, 2007).

Apart from large-scale reconfigurations punctuated by radical change in the environment, complementarity may undergo more gradual transitions more frequently. Teece (2007, 1335) noted: "The sustained achievement of superior profitability requires semi-continuous and/or continuous efforts to build, maintain, and adjust the complementarity of product offerings, systems, routines, and structures". In line with this view, "product sequencing", i.e., an evolutionary tree of new products over a long time horizon (e.g., Cannon's history of going from mechanical cameras to electronically controlled cameras to personal copiers with disposable cartridge to personal printers for desktop computers) is aligned with a chain of incremental knowledge accumulation, through the process of "coevolution" (Helfat and Raubitschek, 2000). Similarly, Eisenhardt and Galunic (2000) discussed the process of "coevolution" that dynamically shifts collaborative links among businesses of a firm (e.g., from sharing technologies to combining manufacturing activities to trading engineers), thereby successively altering the businesses involved and their synergy-creating linkages.

Although the importance of managing conflicting demands in the course of strategic change is not unnoticed (Teece, 2007), the sense of relationships among resources and capabilities in the literature

on dynamic capabilities has been predominantly that of consistence, complementarity and synergy creation. Outside the literature on dynamic capabilities, this complementarity perspective is also present in the recent work on “internal fit” of activities, where “internal fit” is defined as coherence among activities within a firm (Siggelkow, 2001). While the internal fit of activities in the firm leads to competitive advantage by virtue of their mutually-reinforcing, synergy-creating relationships (Porter, 1996), and deters imitation by rivals (Rivkin, 2000; Porter and Siggelkow, 2008) because of the intractable nature of the complexity of interacting activities, the very complexity of fit also makes it difficult for the firm to reconfigure its system of activities in the face of environmental change (Levinthal, 1997; Rivkin, 2000). Despite these difficulties, however, some firms do manage to transition from one state of fit to another in response to change in the competitive environment. The case of Liz Claiborne illustrates in detail the process of the company forming a tightly coupled system of activities in its formative phase, facing but initially failing to properly respond to critical and multiple changes in the environment, and eventually recreating a new configuration of activities by systematically implementing the needed changes (Siggelkow, 2001). It is worth noting here that the case mentions tradeoff relationships among Liz Claiborne activities such as overseas production for low cost vs. lead time, but that the study does not capture activities having conflicting demands and their relationships for extensive analysis.

Paradox and ambidexterity

Augmenting the framework of internal fit and complementarity, paradox offers settings to study resources and activities having conflicting objectives that often demand mutual exclusion and tradeoffs. But the fundamental logic of paradox is *both-and*, not *either-or*, as each of the conflicting objectives is vital for the firm’s survival and success. Examples include efficiency vs. flexibility, centralization vs. decentralization, and cost vs. differentiation. More formally, (strategic) paradox refers to a pair of conflicting (strategic) themes that also holds points of interdependence and even mutual reinforcement (Cameron, 1986; Pool and Van de Ven, 1989; Lewis, 2000; Smith and Lewis, 2011). Thus, facing the challenge of managing a paradox, firms may go through iterative or simultaneous processes over *separation* and *integration*: separation for focused attention to each of the conflicting themes and integration for creating points of reinforcement (Andriopoulos and Lewis, 2009; Smith and Lewis, 2011). Such processes of paradox enactment may outline, at a coarse level of understanding, how dynamic capabilities operate in the presence of a paradox (Smith and Lewis, 2011).

Additionally, of special interest in relation to dynamic capabilities is the exploration and exploitation ambidexterity as it is inherently about strategic change. In fact, O’Reilly and Tushman (2008) frame the ambidexterity as a dynamic capability. But in their framing, change is mostly analyzed around

the exploration theme, and very little around the exploitation theme despite that the exploitation theme too is likely to contribute various changes in the resource base through, for instance, gradual resource extension as in the expansion of retail chains (Helfat and Winter, 2011).

Nevertheless, the ambidexterity literature has identified three forms of how organizations implement the both-and logic of paradox: *sequential*, *structural* and *contextual* (O'Reilly and Tushman, 2013). These forms of ambidexterity suggest three different ways of bundling pro-exploration and pro-exploitation resources and capabilities and may have some implications on how dynamic capabilities operate in the presence of a paradox. Sequential ambidexterity oscillates between pro-exploration and pro-exploitation configurations over time to reflect change in the environment (Duncan, 1976), thereby outlining, at a coarse level of organizational configuration, how dynamic capabilities might operate over time. Structural ambidexterity, on the other hand, does not explicitly involve time dimension, and it simultaneously pursues the two polar themes by assigning separate subunits to them (Tushman and O'Reilly, 1996). In contextual ambidexterity, individual or group-level actors make ongoing decisions about when to undertake pro-exploration or pro-exploitation activities, depending on their organizational context (Gibson and Birkinshaw, 2004), suggesting a form of dynamic capabilities operating at a finer granularity of the organization. Gibson and Birkinshaw (2004: 211) noted: "Although ambidexterity is a characteristic of a business unit as a whole, it *manifests itself in the specific actions of individuals throughout the organization.*"

In sum, dynamic capabilities have been a focal point of research in the field of strategic management, but mostly in the managerial context isolated from pressures of conflicting competitive demands of strategic paradox. Given that managers rather inescapably face various forms of strategic paradox, a question to ask is how firms manage strategic change in the presence of a strategic paradox. However, at the intersection of strategic change and strategic paradox, little empirical work exists that addresses the question while grounded in specific activities and changes in the resource base, particularly outside the exploration-exploitation duality. Thus, with aggregation vs. adaptation as our focal paradox, we ask: *What are the specific activities and changes in the resource base that capture how dynamic capabilities operate in the context of aggregation-adaptation paradox?*

METHODS

The research design is an in-depth study of a single case based on an extensive collection of specific changes in the resource base and specific activities in the context of aggregation-adaptation paradox for the purpose of constructing new insights at the intersection of strategic change and strategic paradox (Eisenhardt and Graebner 2007, Siggelkow 2007, Yin 2014).

Research setting

The research setting is Aeon, a group holding entity consisting of about 300 companies in retail and other services in Japan and Asia. The primary focus of our field study was Aeon Retail in Japan, the largest in the group that operates, as its core business, a chain of “General Merchandise Stores” (GMS) across Japan. GMS is a store format that serves in three merchandise segments of food, clothing and household goods all housed in a single building. Aeon has other GMS stores in Japan, and these GMS stores together with Aeon Retail cover all geographic areas across Japan from the northernmost Hokkaido to the southernmost Okinawa (535 GMS stores in Japan as of February, 2014).

Aeon’s history extends back to its family business origin over 250 years ago. But its rapid expansion started when three family retailers merged to form a regional retail chain in 1968. Since then Aeon has aggressively pursued its aggregation strategy for dominant scale through acquisition and organic expansion. For instance, the number of GMS stores in Japan has sharply increased in the past 40 years: 94 (February, 1974), 152 (February, 1984), 174(February, 1994), 435(February, 2004), 535(February, 2014). At the same time, Aeon’s geographic coverage has expanded rapidly from 7 prefectures in central Japan in February, 1970, to 30 prefectures in February, 1990, and to all but one, 46 prefectures, throughout the country in February, 2014. Aeon’s founding philosophy of “locally-rooted retailing” combined with great variation in climate and lifestyle in Japan from subarctic Hokkaido to subtropical Okinawa has also greatly extended the scope for local adaptation.

Data sources

Aeon Retail, our primary research focus, is organized in three hierarchical levels: the HQ, several regional companies with their own regional HQs (RHQs), and a number of stores under each regional company. Our data sources are distributed across three levels and three merchandise segments (food, clothing and household goods) in order to study extensively across the organization and gather data from diverse perspectives (Eisenhardt and Graebner, 2007). Our study also included group-level functional companies in purchasing, private-brand, and logistics, as well as the group-level human resource function, Daiei (another GMS chain), Aeon Agri Create (Aeon’s farm-operating company), and Welcia (Aeon’s drugstore chain). Our study relied on several data sources: (1) qualitative data from semi-structured interviews; (2) company-internal documents, books and video materials; (3) open documents and books such as press releases, annual reports and 4 books written by the former founding chairman of Aeon, Takuya Okada; (4) visits to Aeon stores in several locations; and (5) follow-up questions through e-mails and phone calls. The primary data source was 46 semi-structured interviews, each lasting 60 to 90 minutes. The interviews were mostly conducted at Aeon Retail, across three levels and three segments, but also at Aeon’s group-level functions, Daiei, Aeon Agri Create, and Welcia.

Data collection and analysis

Data was gathered over a six-year period, 2008~2014. A large portion of the interviews was conducted by three people, one of the authors and two assistants, including an employee of Aeon who served as the key informant, with all three of us present at each interview and each taking notes during the interview. Shortly after each interview, typically on the same day, the three of us gathered, compared the notes and extracted activities with detailed written descriptions. The remaining portion of the interviews was conducted by one of the authors and an employee of Aeon who served as the second key informant for this portion of the project, and they were all digitally recorded for subsequent analysis. An interview protocol was devised for deriving and improvising actual questions in a flexible yet coherent manner particularly in the presence of multiple interviewers (Yin, 2014). The protocol consisted of general question-generating directives such as (1) obtain information about managerial or strategic challenges and difficulties the interviewee faced or was facing particularly in the context of pursuing aggregation or adaptation objectives; (2) capture activities as responses to those challenges and difficulties; (3) collect on-going or recent activities only (to minimize retrospective biases); (4) clarify boundaries of activities relative to other layers (e.g., activities done by the HQ without significant participations of RHQs or stores), (5) identify points of interactions and collaborations across layers.

Table 1. Activity classification scheme

Activity class	Presence or absence of observable criteria			
	Evidence for Aggregation dominance	Top-down accommodation for pro-adaptation discretion	Region-initiated means for adjusting, accommodating, or leveraging aggregation	Local means of local value creation
A	Yes	No	No	No
B	Yes	Yes	No	No
C	Yes	Yes	Yes	No
D	No	No	Yes	Yes
E	No	No	No	Yes

After each interview, a list of activities was constructed where each activity was analyzed in terms of

(1) its objectives, (2) elements of aggregation efforts in the activity for scale benefits, (3) elements of adaptation efforts in the activity for local value creation, (4) activity outcomes, (5) means of the activity, (6) activity participants, and (7) interactions with other activities. During the initial few interviews, it quickly became clear that activities, even at fine levels of granularity, often contain both aggregation and adaptation elements. Thus, our interviews paid special attention to (2) and (3) above. Changes in the resource base were often clear in activity outcomes. However, detailed information, particularly quantitative information, on changes in the resource base was typically not available during interview sessions, and such information was obtained through follow-up email questions whenever possible.

As we collected activities, a classification scheme emerged for these activities, based on the relative weights of aggregation and adaptation in each activity. The criteria used for the classification were presence/absence of (1) evidence for aggregation dominance such as nationwide merchandising plans and nationwide display instructions for specific sales corners, (2) top-down accommodation for pro-adaptation discretion, (3) region-initiated means for adjusting, accommodating, or leveraging aggregation, and (4) concrete means of local value creation (Table 1). Whenever activities were collected, the initial three members of the project discussed and determined the classification upon mutual agreement, and at the latter part of the project, one of the authors developed the classification and confirmed it with the second key informant. We also tried to identify points of interactions among these activities, which often meant the granularity of activities was sufficiently low so that we could gain information and insights on how individual people or teams engaged in those activities interact. Thus, many of the activities we collected were micro-level activity *occurrences* that took place over particular time periods involving specific people and organizational units. In this article, we use the term “activity” loosely to mean “activity class” or “activity occurrence”, when clear from the context.

FINDINGS

Changes in the resource base and their interactions

Merchandises can radically differ in terms of their lifestyle sensitivity. For instance, mayonnaise is a nationwide standard while soybean paste (miso), typically used for traditional Japanese cooking, is far more lifestyle-sensitive, reflecting its region-specific historical background. Thus, mayonnaise is a good target for nationwide aggregation while soybean paste works as an effective means of local adaptation. More generally, two types of resources are distinguishable at Aeon with respect to aggregation and adaptation activities:

- Pro-aggregation resources: resources that enable and support mainly aggregation activities such as merchandises for large-scale distribution, upstream materials and assets for producing such

merchandises, relationships with large-scale suppliers, means of sales promotion for nationwide merchandises, and organizational constructs, policies and values that enable and foster aggregation.

- Pro-adaptation resources: resources that allow and promote primarily adaptation activities such as merchandises for local distribution, relationships with small-scale local suppliers, knowledge on local lifestyles, relationships with local communities, and organizational constructs, policies and values that encourage and promote local value creation.

This distinction is helpful in identifying changes in the resource base towards greater aggregation (pro-aggregation changes) and towards deeper adaptation (pro-adaptation changes). As summarized in Table 2, Aeon has continually created changes in the resource base for greater aggregation in various categories of resources such as private- and national-brand merchandises, supplier relationships, upstream materials and farmland, nationwide fairs and sales corners, and group-level functional companies in purchasing, Topvalu and logistics, and also changes in the resource base for deeper adaptation in a wide range of categories such as merchandises for local markets, unique relationships with local suppliers, one-of-a-kind local supplies for new merchandise creation, knowledge on local lifestyles gained through local part-time employees, and new organizational constructs for finer local attention.

Interestingly, we have observed close interactions across the two types of changes, i.e., a change in one type tends to induce another change in the other type. Moreover, these interactions follow two distinct patterns: *conflicting interactions* and *reinforcing interactions* (Table 3). Conflicting interactions occur when pro-aggregation and pro-adaptation activities compete for limited resources or managerial attention. For instance, given limited shelf-space at individual stores, challenging competition exists between the effort to extend Aeon's nationwide women's collections for aggregation benefits and the initiative to create store- or region-specific women's fashion corner for local relevance. A pro-aggregation change is sometimes countered by a pro-adaptation change, and vice versa. Somewhat more counter-intuitively, a pro-aggregation change can also foster and reinforce pro-adaptation changes in the resource base, and vice versa. For instance, a greater scale in the distribution of locally initiated merchandise enables Aeon to deepen its relationships with the local community.

Table 2. Pro-aggregation and pro-adaptation changes in the resource base

Resource Category	Pro-aggregation Change in the Resource Base: Example
Private-brand merchandises	<ul style="list-style-type: none"> ▪ The percentage of private-brand merchandises within the food section almost doubled from 2008 to 2013. ▪ The percentage of private-brand merchandises within the clothing section more than doubled from 2008 to 2013. ▪ The emergence of Topvalu merchandises with greater sales volumes than their national brand counterparts sold at Aeon: e.g., beer, yogurt, first aid bandage, etc. ▪ The introduction of Topvalu sub-brands in the past 20 years: Topvalu Select, Topvalu Green-eye, Topvalu Healthy-eye, Topvalu Best-price
National-brand merchandises	<ul style="list-style-type: none"> ▪ Greater demand aggregation through direct and integrated relationships with NB fashion companies, including Aeon’s involvement in design and production, as opposed to purchasing at trade shows that fashion companies hold for a large number of retailers. ▪ Group-level aggregation across Aeon companies enabled by the creation of the group-level purchasing company in 2008
Relationships with suppliers	<ul style="list-style-type: none"> ▪ More integrated relationships with fewer, larger-scale suppliers in various food categories through direct transaction without intermediaries. Integrated relationships are realized through, for instance, Aeon’s involvement in suppliers’ production planning.
Upstream resources	<ul style="list-style-type: none"> ▪ 20-fold increase from 2008 to 2013 in acrylic micro-fiber material for extra-warm inner wears enabled by aggregation across men’s, women’s and children sections. ▪ Increase in Aeon-operated farms: 2.6ha (2009, their 1st year), 40ha (2010), 70ha (2011), 100ha (2012), 180ha (2013), 250ha (2014), 500ha (2015).
Nationwide fairs and sales corners	<ul style="list-style-type: none"> ▪ Nationwide fairs on themes of a few countries such as Australia and Thailand on specific occasions such as VIP visits to Japan until 2009. From 2009, such fairs on themes of 6 countries (Thailand, U.S.A., Australia, Italia, France, and Korea) on regular basis at Aeon Retail. From 2010, all such fairs at the group level. Also from 2012 on, a few other countries added such as Turkey and Spain. ▪ New sales corners such as “Hanachu” (a special stationary collection for young teens), “Photo Lab” (a comprehensive collection related to picture taking), and “Chocolate World”, all initiated by HQ for nationwide scale.
Organizational Structure	<ul style="list-style-type: none"> ▪ Group-level functional companies in purchasing, private-brand, and logistics, all three created in 2008.

Table 2 (Continued)

Resource Category	Pro-adaptation Change in the Resource Base: Example
Local merchandises	<ul style="list-style-type: none"> ▪ Cross-country ski wear specifically designed and manufactured for school children in several villages in Niigata prefecture ▪ Orange color swimsuits for students (usually navy blue) introduced in a specific school district in Nagano prefecture for accident prevention through the orange color contrast against the blue swimming pool
Relationships with local suppliers	<ul style="list-style-type: none"> ▪ Exclusive relationships with unique local suppliers (e.g., a sake-brewery) that individual stores develop to merchandise their new products on the preferential basis (e.g., a new type of plum wine developed by the brewery). ▪ Extended relationships with local JA (Japan Agricultural Cooperatives) offices that store managers for fresh produce section develop to find local farmers for unique fresh produce supplies
Local resources for creation of broader regional or nationwide merchandises	<ul style="list-style-type: none"> ▪ Topvalu light-alcohol drinks that utilize odd-shaped Le Lectier pears in Niigata prefecture which is known widely for its branded Le Lectier production ▪ “Fast fish” (precut fish packages for easy cooking that was prepared from locally unloaded fish too small for other uses) for initially regional and then eventually nationwide distribution
Knowledge on local lifestyles	<ul style="list-style-type: none"> ▪ Local knowledge captured annually through over 100 in-depth customer interviews in three days at Muikamachi Aeon ▪ Knowledge on local lifestyles captured through locally employed part-time sales staff
Relationships with local communities	<ul style="list-style-type: none"> ▪ Newly cultivated relationships with a nearby large-scale convention center and other businesses to increase customer traffic at an Aeon store located in a business district near Tokyo ▪ Deepening trust relationships that Aeon Agri Create developed with local agricultural communities through communications of Aeon’s commitment to better agriculture in Japan and their frequent participation in local events
Organizational Structure	<ul style="list-style-type: none"> ▪ Increase in regional companies from 4 to 8 within Aeon Retail in 2011 for finer regional attention.

Table 3. Interactions between pro-aggregation and pro-adaptation changes

Time horizon of interaction	Conflicting interactions: Examples
Short horizon	<ul style="list-style-type: none"> ▪ New spring collections for women introduced throughout Aeon Retail (<i>pro-aggregation change</i>) are often too early for many parts of northern Japan. Such a new introduction, particularly as “focus merchandise”, includes a nationwide “display instruction” that specifies release time as well as detailed display corner specifications (<i>pro-aggregation change</i>). Specific stores in the northern, snowy regions often delay the release time (<i>pro-adaptation change</i>) and customize the display (<i>pro-adaptation change</i>) when they set up a corner for the new collection.
Mid horizon	<ul style="list-style-type: none"> ▪ Against HQ’s ever-persistent view on women’s fashion for the countryside, which is manifested in a series of Aeon-aggregated women’s collections (<i>pro-aggregation change in the Aeon-generic women’s fashion</i>), a manager at a local store proposed a new fashion corner based on a more up-to-date soft-color, natural-look concept. And with the support from her RHQ manager, she finally convinced the HQ to allocate a space for the corner despite the fact that it would reduce floor space for Aeon-aggregated collections (<i>pro-adaptation change in the local women’s fashion</i>). ▪ In response to HQ’s ever-demanding pressure for Aeon-aggregated women’s collections (<i>pro-aggregation change in the Aeon-generic women’s fashion</i>), a manager for ladies fashion at a store relatively close to the fashionable Ginza area in Tokyo, was increasingly frustrated with HQ’s unwillingness to introduce collections more specifically targeted to his customers in that area. He took his sales staff to the streets around the store to collect information on the fashion trends in the area (<i>pro-adaptation change in the local information resource</i>).
Long horizon	<ul style="list-style-type: none"> ▪ Aeon created three group-level functional companies in 2008 (<i>pro-aggregation change in the organizational structure</i>). In 2011, Aeon Retail then increased its regional companies from 4 to 8 for finer local attention (<i>pro-adaptation change in the organizational structure</i>) partly in response to increased pressure for uniform group-level aggregation.

Table 3. (Continued)

Time horizon of interaction	Reinforcing interactions: Examples
Short horizon	<ul style="list-style-type: none"> ▪ In the case of Le Lectier Topvalu drinks, the unused, odd-shaped Le Lectier pear was found in Niigata prefecture and considered for possible new merchandises (<i>pro-adaptation change in the local resource</i>). Through many iterations of interaction among local Le Lectier farmers, Aeon’s Niigata office, its RHQ, and Topvalu, Le Lectier Topvalu drinks were developed and merchandised for large-scale distribution (<i>pro-aggregation change in the large-scale merchandise</i>), which in turn enabled a larger-scale use of odd-shaped Le Lectier local resource (<i>pro-adaptation change in the local resource</i>). ▪ In the context of helping the region recover from the damages of the East Japan earthquake, Aeon started the “Fast Fish” project to utilize locally unloaded fish considered too small to sell (<i>pro-adaptation change in the local resource</i>). Through its scale, Aeon soon started distributing Fast Fish packages in large scale and eventually nationwide (<i>pro-aggregation change in the large-scale merchandise</i>).
Mid horizon	<ul style="list-style-type: none"> ▪ Aeon Agri Create made an extraordinary effort in building community relationships with local farmers, partly due to Aeon’s philosophy of “locally rooted retailing”. The trust they gained (<i>pro-adaptation change in the local relational resource</i>) enabled them to purchase farmland from farmers typically unwilling to sell their ancestral land to strangers, resulting in unusually large-scale farm operations in Japan (<i>pro-aggregation change in the farm land resource</i>). The large-scale then made it possible to purchase farming materials at the lowest possible prices (<i>pro-aggregation change in the farm materials</i>). Aeon then shared those low-cost materials with local farmers (<i>pro-adaptation change in the local relational resource</i>), creating a virtuous cycle of deeper community relationships, greater scale and more opportunities for local value creation.
Long horizon	<ul style="list-style-type: none"> ▪ Aeon Retail increased its regional companies from 4 to 8 in 2011, which enabled significantly finer local attention (<i>pro-adaptation change in the organizational structure</i>). But this became feasible only because Aeon Retail increased its number of stores to build the scale to accommodate 4 additional regional companies (<i>pro-aggregation change in the number of stores</i>), since each regional company requires roughly 40 to 70 GMS stores to be operational.

Behind these continual changes and their interactions, Aeon has a deep-rooted, pro-change culture that extends back to its family-business origin. Aeon's long-living corporate slogan, "Put wheels on the central pillar of the house", signifies its history-attested willingness and readiness to move to where the market is even by attaching "wheels" on "the central pillar of the house" which in Japan culturally symbolizes unchanging stability. Aeon has continuously promoted and disseminated this corporate value throughout the firm. For instance, the founding former chairman has written four books, two of which carry "Put wheels on the central pillar of the house" as part of their book titles. More recently in 2008, Aeon, commemorating its 250 years of history, published a 230-page comic book mainly for its employees. The book, in its easy and fun to read style, vividly captures its pro-change culture (among other key corporate values), how it has been formed historically, and how it is alive today. A senior human resource manager stated: *'A store is not like a factory. Everyone can make some change every day. They should think: Today I would like sell this, so what is the best place to put it For managers, we don't want them to think in terms of their past experience. The market is changing all the time. We want them to master the habit of updating themselves [i.e., their capabilities] along with market change.'* The same HR manager also observed: *'The top management embodies change here. They are introducing new things all the time: buying companies, opening malls in Asia, getting into new businesses. ... All employees are watching that. ... There is a sense of perpetual unsettledness here.'*

Activities with differing blends of aggregation and adaptation

Unlike halfhearted, rote organizational activities, activities that are rooted in dynamic capabilities are distinguished by their *intentionality* (Helfat *et al.*, 2007). What has not been properly addressed in prior research is how intentionality appears in the context of conflicting objectives. We have obtained an extensive collection of activities that, in one way or another, cope with the aggregation-adaptation tension. Our collection reveals that (1) human actors are quite capable of simultaneously addressing both aggregation and adaptation objectives in their discrete activities and (2) relative weights of aggregation and adaptation intentionality can radically differ in different organizational settings. We have identified five distinct classes of activities (see Appendix), which are listed below with incrementally greater emphasis on adaptation and less weights on aggregation:

- Class A: aggregation-focused,
- Class B: aggregation-dominant + adaptation-accommodating,
- Class C: aggregation-promoting + adaptation-assisting,
- Class D: adaptation-dominant + aggregation-accommodating, and
- Class E: adaptation-focused.

We will briefly describe these five classes of activities.

Aggregation-focused. These activities aim to gain scale benefits while paying almost no attention to local variation. Aggregation occupies near 100% weight in the blend. Aeon aggressively pursues aggregation through this class of activities (activities A1 through A5 in Appendix) mainly at two levels of the organization: at the level of individual companies such as Aeon Retail or Daiei, and at the group level across all group companies. Aeon's aggregation also occurs at multiple points in the vertical chain from merchandising to upstream materials to operations of its own farms. Given Aeon's scale, aggregated purchasing is typically a daunting task. For instance, in Japan it is unthinkable to operate a supermarket without carrying tuna sashimi as otherwise the customer perception of the store would be adversely affected. Aeon constantly examines and reworks, if necessary or desirable, its portfolio of fresh tuna suppliers to ensure that every Aeon store continues to carry good-quality tuna sashimi at competitive price points. An executive in food merchandising noted: *'Ultimately, merchandising is not addition [of store-level demands]. Scale comes first. We then break it down to the stores.'*

Aggregation-dominant + adaptation-accommodating. These activities are also strongly scale driven, but unlike activities in Class A, they also notably consider store-level variation. Aggregation is still clearly dominant in this blend, but there is a visible presence of adaptation consideration. These activities are typically initiated at the HQ and followed up by activities in RHQs (activities B1 through B5 in Appendix). The defining characteristic of activities in Class B is the clear presence of regional and/or store-level discretion interwoven into the outcomes of these activities, while aggregation is simultaneously maintained as the dominant force: e.g., an HQ-initiated merchandising plan for the chocolate category with some room for regional adjustment understood between the HQ manager and his counterparts at RHQs, and Topvalu home curtains with sufficient variation that accommodates store-level selections for local preferences. The regional or store-level discretion is often not explicitly stated, and how the discretion is interpreted and acted upon depends on the relationships the HQ manager has cultivated with his RHQ counterparts and often store-level staff in charge of his merchandise category. When the HQ manager of the grocery section distributes a corner display instruction to his RHQ counterparts for a nationwide fair such as Italian corner, he says: *'This [display instruction] is a sample. I will leave the rest up to you [given our shared commitment to the sales objectives].'* In this utterance, the HQ manager is reassuring a discretionary freedom in the implementation of the corner display but simultaneously reminding his RHQ counterparts of the importance of the sales targets.

Aggregation-promoting + adaptation-assisting. Activities in this class are typically performed by RHQs as intermediary links between HQ-initiated aggregation agendas and their store-level implementations. Aggregation and adaptation each weigh significantly in this blend, but with a

considerable slant towards aggregation objectives. The defining characteristics of this class of activities are the presence of the specific means for adjusting HQ-initiated agendas: e.g., specific adjustments of merchandising plans, substantial adjustment of display instructions based on actively solicited store-specific insights, and changes in the min-max replenishment policy (activities C1 through C5 in Appendix). Activities in this class diligently promote aggregation agendas and RHQs definitely pressure their stores to absorb HQ-driven aggregation mandates, but the distinction of this class of activities from activities of Class B is that RHQs recognize finer local differences not necessarily visible to the HQ and that they take active and sometimes proactive steps to assist stores with incorporating responses to those differences. Newly assigned to an RHQ after a long career at HQ, one manager stated: *'I moved here [from Tokyo to cooler-climate Nagano Prefecture] on the 17th of September, which turned out to be the day I had to admit I can be very wrong. I thought it would be still very hot, and I did not bring my fall or winter clothes. But to my surprise, the temperature that day went down even below 10°C. ... There are so many things you find out only when you live here. ... Many new ideas originate in individual stores'*.

Adaptation-dominant + aggregation-accommodating. These activities are typically performed by RHQs or stores jointly with their RHQ. These activities come in two types. One type is to respond to the specific local demands within Aeon's current merchandizing scope. The other type seeks to leverage the unique local supplies in order to create new merchandise categories which can be scaled up beyond regional distribution. In this class of activities (D1 through D5 in Appendix), motivation and concern for local benefits dominate while alignment with Aeon's scale remains critical. A key distinction of this class of activities is that they are initiated at the RHQ or the store level in order to create local value while conforming to or leveraging Aeon's scale. A good example is the Fast Fish initiative that Aeon started as a part of its effort to assist with the recovery from the damages caused by the East Japan earthquake in 2011. The initiative started in response to a unique local condition, but its success critically relied on Aeon's scale (activity D2 in Appendix). A manager involved in the Fast Fish initiative noted: *'Recovery does not mean to recover pre-earthquake merchandises. We happened to notice saury fish available locally, but too small to sell. We then came up with [the idea of bone-removed, precut] Fast Fish to meet the needs of [local] consumers. ... We now sell them from Hokkaido to Okinawa [throughout Japan]. About 1 million packages sold so far'*.

Adaptation-focused. These activities are typically performed by stores, often jointly with their RHQ. The activities aim to create value for individual stores as well as for the local community. But the means of such value creation varies: e.g., response to small-scale local needs, relationships with local communities, and customer-traffic increase through local events. The defining characteristics of these activities are the near-complete absence of the intention to gain from large-scale aggregation.

The weight of local value creation monopolizes this class of activities (E1 through E5 in Appendix). A typical example of this class of activities is the introduction of cross country ski wear for school children in just three Aeon stores in a snowy region of Niigata prefecture (E1 in Appendix). A store manager at one of these stores noted: ‘*Of course, the volume is not there. But, we want our customers to think that if they come to Aeon they will find exactly what they are looking for. We are trying to build their confidence in us.*’

Means of interactions among activities

Broadly, we have observed three means of enabling and fostering interactions among classes of activities with differing aggregation-adaptation blends: (1) information flow, (2) activities that generate “relational resources” and (3) corporate policies and values that foster interactions.

Information flow. Various formal documents and other types of information flow among the classes of activities. One type of flow is *downward flow* from activities housed in higher layers of the organization to activities in the lower layers. For instance, NB merchandising plans for individual categories from plan-initiating activities (B2 in Appendix) in the HQ to plan-adjusting activities (C1 in Appendix) in RHQs. Similarly, weekly display instructions in various merchandise categories or subcategories are issued from HQ (Class B activities similar to B4) to RHQs and stores that then adjust and implement those instructions (Class C activities as in C2). Another downward flow is that of regional merchandise guidelines in specific merchandise categories from Class C activities at RHQs (e.g., Yukata summer wear display guideline) to stores-level Class D activities (e.g., store-specific interpretation and implementation of such display policies). Documents and information also flow *upward* from activities in the lower layers to activities in the upper layers. For instance, local knowledge captured formally in “request forms” through Class D activities as in D4 for winter rubber boots gets relayed to HQ for aggregated merchandising activities of Class B. Similarly, store-level fashion corner proposals as in D1 get conveyed to HQ for finer merchandise planning activities as in B2. Another example of upward flow is that of successful store-level display instances from Class D activities as in D5 to HQ for possible nationwide dissemination of display instructions through Class B activities.

Relational resources. “Relational resources” are defined as “qualities of relationships that enable people to work together” such as quality of trust relationships and authority distribution (Feldman, 2004: 300). Managers at Aeon, particularly at HQ, spontaneously create various opportunities for cultivating relational resources which are based on trust and understanding across the three layers. For instance, when Aeon opens a new store, its merchandise assortment requires special attention and planning due to the lack of past sales records. The manager for the grocery department in the

HQ often assembles a team consisting of some of the members assigned to the grocery section of the new store, some member of the grocery section of the RHQ overseeing the new store, and some of his own staff at the HQ. The manager and the team get together and engage in various shared activities such as visiting competitor stores in the vicinity and examining new NB grocery items. The manager stated, however, *‘the real purpose in my mind [for such shared experience] is to foster the mutual understanding and trust across the three layers. Particularly, I’m hoping that the store people would understand that we [merchandising managers at the HQ] pay considerably more attention to store-level differences than they might recognize, and that we are not just pushing down our [scale-driven merchandising] plan’*.

Policies and corporate value that foster interactions. Aeon implements human resource policies that promote interactions among the differing blends of activities. For instance, all employees, in principle, are expected to have minimally three years of store experience. Also, managers in stores, RHQs and HQ are periodically transferred across layers so that they expand their networking relationships particularly across layers. Particular attention goes to managers with many years of HQ experience. These managers are often transferred to RHQs or stores for some duration to regain regional experiences and to refresh their understanding of the corporate philosophy, *locally-rooted retailing*. Apart from specific human resource policies, Aeon nurtures a corporate value they call “Glocal”, which is a term Aeon uses to express its commitment to be a retailer that is both “locally rooted” and scale dominant. The idea of “locally-rooted retailer” extends back to its family business origin and it asserts that each store can prosper only as much as its surrounding community can and hence that it should involve in community building as a good citizen of the community. The “global” half of Aeon’s “Glocal” means scale dominance, and it was first applied to its domestic operations. Aeon’s quest for scale originates in the founding chairman Takuya Okada’s one month visit to the United States in 1959. During this visit, he had ample opportunity to observe large-scale retailers such as Sears-Roebuck and A&P. Upon his return to Japan, he aggressively pursued an expansion strategy through chain stores and M&A. The coupling of Aeon’s rapidly expanding scale and its continued commitment to locally rooted retailing has resulted in the corporate-level structure Aeon calls “loosely federated enterprise”, which allows yet further scale building while respecting each regional company’s sufficient autonomy for local variation and relevance. Aeon has disseminated its “glocal” corporate value to its employees through a variety of means including four books written by Mr. Okada and a comic book illustration of its corporate history including how the glocal value developed historically at Aeon. The “glocal” value seems to manifest in various forms of mutual engagement across HQ, RHQ and store levels. Tension may arise between any two levels, but it is often taken positively as a driver for initiating new actions. For instance, at a store located closely to the fashionable Ginza area in Tokyo, a manager for a ladies fashion corner was increasingly

frustrated with HQ's unwillingness to cater to the store's unique location despite his repeated requests. He finally took his sales staff to the streets in the vicinity and collected information on the fashion trends in the area. When told about this initiative, a senior manager at the human resource department responded: *'This is not an unusual incident [at Aeon]. ... We would like to see more competition between the two sides [stores and RHQs on one side and HQ on the other side]. One should try to persuade the other. ... The two sides should be even stronger. The greater the tension, the better the action'*.

DISCUSSION

Coevolving aggregation and adaptation

As evidenced in Tables 2 and 3 and more broadly in Aeon's historical expansion in both scale and geographical coverage, Aeon has continually strived for ever more extensive and deeper aggregation and adaptation. This aggregation-adaptation strategy is analogous to the dynamics of coevolution in the world of biology, where species coevolve through either conflicting interactions as in predator-prey competition or reinforcing interactions as in flower-insect symbiosis. In the context of aggregation-adaptation paradox, as we have seen, pro-aggregation and pro-adaptation changes in the resource base either induce corresponding *counter-changes* through conflicting relationships or spur corresponding *joint-changes* through reinforcing relationships (Figure 1). These changes in the resource base and their coevolutionary interactions capture how dynamic capabilities operate when the firm faces the aggregation-adaptation paradox.

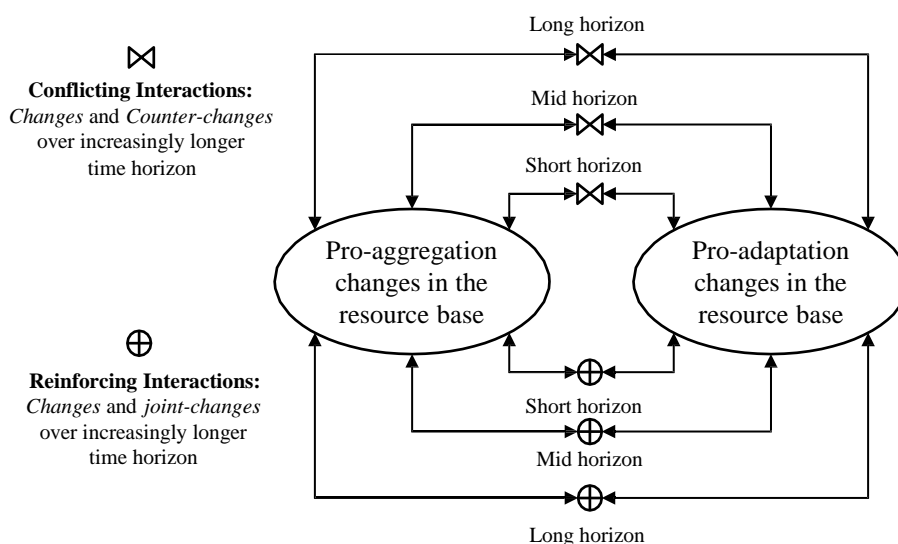


Figure 1. Coevolutionary interactions between pro-aggregation and pro-adaptation changes

In relating this coevolutionary perspective to the central question of how dynamic capabilities alter the resource base, first, recall that the RBV conceptualizes firms as bundles of resources. Thus, change in the resource base is likely to include change in how resources are bundled together, as well as change in individual resources. Consistent with this view, Eisenhardt and Martin (2000: 1118) argue: “Overall, dynamic capabilities are best conceptualized as tools that manipulate *resource configurations*” (italics added). As we have seen however, in the context of studies on dynamic capabilities, the notion of resource configuration is predominantly that of resources that are configured to fit for consistency and synergy creation, and tends to exclude resources that serve for conflicting objectives. As the coevolution perspective suggests, firms may have resources that do not fit in the sense of their internal consistency, but still interact to produce strategically significant change and counter-change, a clear outcome of dynamic capabilities in operation. Thus, the coevolutionary interplay described in this study gives empirical support for the view that “internal conflict”, as well as “internal fit”, should be addressed in understanding how dynamic capabilities manipulate resource configurations (Teece, 2007). In fact, for firms such as Aeon that consider both aggregation and adaptation as critical dimensions of competition, it does not seem feasible to capture their strategies unless the scope of resource configuration is extensive enough to include the dual paradox themes and their interactions. For instance, the women’s clothing at Aeon must dynamically manage conflicting yet interdependent relationships between its nationwide collections (aggregation resource) and its regional or store-level fashion corners (adaptation resource): conflicting relationships as the two types of resources compete for the floor space, and interdependent relationships since the customer flow attracted to one type may also purchase merchandises of the other type. Hence, the case of Aeon suggests that the notion of resource configuration be extended to include conflicting yet interdependent relationships of a paradox when its dual themes are both strategically critical to the firm.

Thematic blending

Given a paradox, its polar themes are likely to be pursued *separately* because of their conflicting relationship, but they must also be managed *integratively* for their reinforcement possibilities. Thus, a paradox is to be “resolved” through an iterative process of separation (or “splitting”) and integration (Smith and Lewis, 2011). The underlying assumption here is that a paradox is split into two parts, each having its own dedicated activities, while the two sets of activities are integrated managerially often by a top management (Smith and Tushman, 2005). In case of Aeon, its aggregation-adaptation paradox offers a remarkably distinct model. First, separation is significantly more fine-grained in the sense that activities are separated into multiple classes of activities with incrementally differing blends of aggregation and adaptation, as opposed to bipolar aggregation-only and adaptation-only activities. We have identified five classes of thematically blended activities, as

shown in Figure 2. At the polar ends of this thematic blending model, we see complete or near-complete separation of aggregation and adaptation as in Classes A and E, which pursue two clearly opposing objectives. For instance, as we have seen, merchandising is viewed as a means of aggressive scale gain in Class A but in Class E as an opportunity for local relevance with almost zero attention to scale. So, Aeon completely separates these merchandising activities without any interaction between them. However, in between Classes A and E, there exist three intermediate blends, Classes B, C, and D, with both aggregation and adaptation weighing significantly. Thus, the thematic blending model enables much milder, more fine-grained separation as in, for instance, Classes A and B, or Classes B and D.

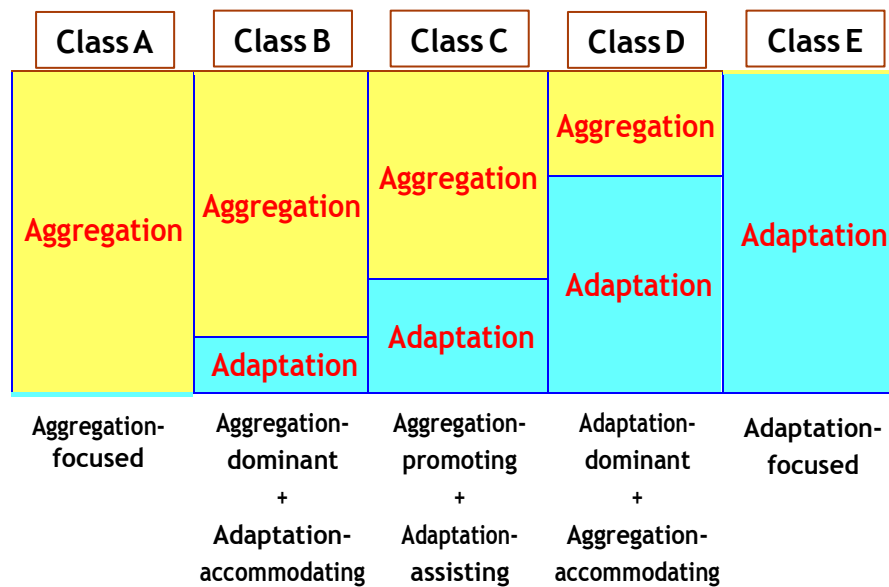


Figure 2. Incremental thematic blending

This fine-grained separation in turn enables similarly fine-grained integration, another critical difference from the paradox resolution model of Smith and Lewis (2011). Since the separation is milder between Classes near-by, their integration is correspondingly less challenging. For instance, Activities B2 (merchandise planning with regional discretion) and C1 (regional adjustment of merchandise plan) can be sequentially integrated largely by passing merchandise planning documents from B2 to C1. When more challenging, activity integration is also fostered by other organizational means such as cross-layer trusting relationships often spontaneously cultivated by middle managers, the “Glocal” corporate value, and various human resource policies.

This fine-grained and hence more manageable integration of incrementally blended activities represents a mechanism for enacting the aggregation-adaptation paradox at Aeon. This paradox enactment process captures, at the level of discrete activities, how dynamic capabilities operate under competing demands of aggregation and adaptation. When a paradox allows incremental thematic blending, similar paradox enactment processes might be observed. In fact, thematically blended activities are not unique to aggregation-adaptation paradox. For instance, in the setting of exploration vs. exploitation, USA Today's reporters are trained to write articles which can be used for new digital platforms (exploration) as well as traditional paper news (exploitation) (Tushman and Roberts, 2005). Similarly, in the context of low-cost vs. differentiation, Dell Computer's direct sales model shows that sales activities contribute to low cost by skipping intermediaries and also to differentiation by deeper understanding of customers for unique customization such as pre-installation of customer proprietary application software for large corporate clients (Rivkin and Porter, 1999).

Organizational constructs for paradox enactment process

The process question of how dynamic capabilities operate in the context of a paradox can be addressed at the level of organizational constructs. More specifically, the question is how the paradox enactment process is housed organizationally. Organizational ambidexterity literature suggests three forms: sequential, structural and contextual. The case of Aeon suggests a form that is in stark contrast to these known forms of ambidexterity. First, Aeon's persistent quest for dominant scale and historical commitment to locally-rooted retailing are unlikely to be consistent with the radical swing between aggregation and adaptation over time that sequential ambidexterity might suggest. In fact, Aeon's HQ-RHQ-store layering has been a stable structure that is configured to pursue both aggregation and adaptation strategies. Second, unlike the binary separation of structural ambidexterity, Aeon's paradox enactment is housed in three organizational layers:

- HQ: Classes A and B
- RHQs: Classes C and D
- Stores: Classes D and E

The key difference here is that Aeon's paradox enactment is implemented through thematically blended activities housed in three layers whereas structural ambidexterity assumes no such blending and relies on two subunits each dedicated to either exploration or exploitation exclusively. Third, while contextual ambidexterity claims that individual actors switch between exploration and exploitation depending on the organizational context, the case of Aeon suggests that individual managers switch between *adjacent* classes of activities (Figure 2), but not between the two polar ends (Classes A and E). For instance, merchandising managers at HQ move between Classes A and B rather effortlessly due to their short distance. But the prevailing mindsets at merchandising tasks in

Class A (aggressive scale gain) and Class E (winning customer confidence through deeper local relevance at the sacrifice of scale) seem to be irreconcilably divergent, and Aeon separates these Classes structurally. Thus, again, the key difference between contextual ambidexterity and Aeon's paradox enactment stems from thematic blending in Aeon's aggregation-adaptation strategy.

Regarding integration over two polar themes, the role of top management is considered critical (e.g., Smith and Tushman, 2005). Recognizing complementary linkages between pro-exploration resources such as new core technology and new manufacturing capabilities and pro-exploitation resources such as existing financial monitoring capabilities and existing sales force, Taylor and Helfat (2009) emphasizes the role of middle management in identifying and leveraging such linkages. The case of Aeon's paradox enactment also suggests the extensive presence of middle managers in integrating across three layers and hence over two polar themes: e.g., assurance of regional or store-level discretions by HQ managers, proposals of store-specific sales corners to RHQs by store managers, and creation of cross-layer relational resources initiated by HQ managers.

CONCLUSION

We have tackled the process question of how dynamic capabilities operate through three domains: changes in the resource base, discrete activities, and organizational constructs. In the context of aggregation-adaptation paradox, changes in the resource base towards two polar directions are identified, and found to propagate through conflicting and reinforcing relationships among resources. The change propagation enables increasingly greater and more extensive aggregation and adaptation, thereby *deepening* the paradox for more complex resource configurations. At the level of discrete activities and their interactions, dynamic capabilities enact the paradox through fine-grained separation of activities and their correspondingly fine-grained integration, both enabled by incremental thematic blending. At the level of organizational constructs, this paradox enactment process is supported and facilitated by structural constructs such as HQ-RHQ-store layering and behavioral-cultural constructs such as cross-layer mutual engagement and the "Glocal" corporate value.

At a deeper level of how dynamic capabilities operate in the presence of a paradox, we have also asked how the intentionality underlying dynamic capabilities manifests in the face of competing objectives. The *dual intentionality* in the context of aggregation-adaptation paradox reveals itself differently in different contexts. In the domain of resource changes and their interplay, the dual intentionality becomes visible in the competition and co-operation between pro-aggregation and pro-adaptation changes. At the level of discrete activities, the dual intentionality is seen through thematically blended activities with both aggregation and adaption weighing significantly such as

Classes of activities B, C, and D. Individual actors engaged in such activities suggest that they are capable of withstanding both aggregation and adaptation simultaneously. At the level of organizational constructs, the dual intentionality may exhibit itself in cross-layer tensions as the driver of new actions fueled by such tensions. As quoted earlier, a senior manager at the human resource department stated: ‘...*The two sides [stores and RHQs on one side and HQ on the other] should be even stronger. The greater the tension, the better the action*’.

APPENDIX: Activities with differing blends of aggregation and adaptation

Class A	Aggregation-focused
Definition	Activities that aim to gain scale benefits and pay little attention to local variation

Reference Code	Activity: Example
A1	Aeon, at the group level, develops Topvalu (Aeon’s private brand) merchandises and their merchandising plans for greater scale across group companies. Most Topvalu merchandises are standardized throughout Aeon for scale and competitive pricing vis-à-vis national brands.
A2	Most national-brand (NB) merchandises are nationwide standardized and require no localization. For many categories of NB merchandises, Aeon Retail at its HQ, as other large-scale group companies do, aggregates its own regional demands for better direct deals with NB makers and for logistical cost reduction.
A3	For strategically selected categories of merchandises, Aeon, at the group level, tries to align “merchandising processes” (brand selection, quantities, price points, delivery plan, etc.) which often differ among group companies. Aeon’s group-level purchasing function aggregates demands across group companies for greater scale through a uniform “merchandising process”.
A4	Aeon operates its own farms in Japan for fresh produces such as cabbage, lettuce and zucchini. As the farmland in Japan is typically fragmented into small-scale operations, Aeon aggregates farmland for various scale benefits.
A5	Aeon purchases certain upstream materials in quantity to aggregate across multiple product lines: for instance a special kind of acrylic micro-fiber material for extra-warm inner wears across three product lines, namely, men, women, and children.

Class B	Aggregation-dominant + Adaptation-accommodating
Definition	Activities that aim to gain scale benefits while simultaneously accommodating local variation to some extent

Reference Code	Activity: Example
B1	Some Topvalu products accommodate regional differences. For instance, preferences on curtain length differ in from region to region. Aeon responds to this regional difference by standardizing a sufficiently large variation in length so that regions can select curtains of proper lengths for their customers.
B2	Typically, merchandise planning is initiated at the HQ. For each merchandise category, the HQ assigns a <i>grade</i> to each store in Aeon, based on the size, the location and the past sales performance of the store. This grade assignment in turn determines the quantity of the category allocated to the store, with understanding that RHQs may exercise discretionary adjustment to the category-store grade assignment table in

	order to accommodate finer local variation not necessarily visible at the HQ.
B3	Aeon frequently introduces new merchandise categories. For instance, HQ created a new stationary category, called “Hanachu”. Hanachu was a popular magazine for female students in their early teens. New stationary corners were created throughout Aeon that displayed a collection of stationary items catering for Hanachu-following teens. But mainly due to transportation accessibility, stores differ significantly in early-teen traffic, forcing Aeon to accommodate a significant variation in size and hence in merchandise selection for Hanachu corners at different stores.
B4	Aeon frequently launches nationwide “fairs”. For instance, the grocery department in the HQ launches new fairs such as “The Chocolate World” and “The Italian Corner” to create a refreshing look and renew customers’ attention to the grocery section in the store. The department issues an instruction on how such new corners should be displayed but with regional discretion to accommodate store-level differences.
B5	Aeon, occasionally or periodically, examines entire merchandise selections at the level of categories or departments. For instance, the stationary team in the HQ periodically examines its SKUs nationwide and replaces a large portion (about 40%) to introduce new items. However, significant regional and store-level differences exist. For instance, stores in the countryside tend to have a much greater proportion of older customers compared to stores in big cities. The stationary re-merchandizing plan accommodates such differences through close communication with RHQs.

Class C	Aggregation-promoting + Adaptation-assisting
Definition	Activities that promote aggregation agendas while simultaneously and actively implementing means of responding to local differences

Reference Code	Activity: Example
C1	When a merchandizing plan comes to an RHQ from the HQ, the RHQ may regionalize the plan by adjusting grades assigned to certain stores. This regional adjustment is attempted, as much as possible, within the total aggregation allocated to the region (thereby maximally promoting the HQ merchandising plan to their stores).
C2	In its effort to implement its merchandising plan, the HQ issues weekly display instructions, A4-size sheets that pinpoint focus merchandises of the week, together with detailed instructions for their display layout, among other suggestions and instructions. When an RHQ receives this instruction, it dispatches “Supervisors” to its stores to help them interpret and execute the instruction. Some experienced supervisors, however, go beyond typical top-down supervision and try to uncover store-specific information and insights by, for instance, engaging in casual small talk with part-time sales staff. This can be quite effective as these part-timers are typically middle-age homemakers having years of local lifestyle experience. Furthermore, the customers they interact with are often their neighbors or relatives (particularly at stores in countryside), and hence these customers find the local sales staff easier to voice their complaints and suggestions. The supervisors can then creatively interpret and implement the display instruction, based on the solicited insights.
C3	For the store-level replenishment purpose, minimum and maximum inventory levels

	are preset on most merchandise categories. However, in order to better cope with local demand fluctuation beyond the predetermined min-max policy, stores sometimes request a change in the min-max policy. The RHQ may then determine a new min-max range, considering its regional aggregation mandate and store-level demand trends.
C4	At the store-level, Aeon responds to sudden demand surge in certain merchandises associated with various local events. For instance, during the Obon homecoming occasion, a nationwide popular Buddhism event taking place in July or August for about 4 days, many people put on summer Kimono wear called Yukata. So, around the Obon time Yukata sales jump throughout the country. But this sales peak often occurs in different weeks in different towns as the Obon event starts on different days, often weeks apart, in different areas. RHQ Yukata sales strategy addresses such local differences when it tries to implement the scale-driven plan from the HQ.
C5	The merchandising plan initiated by the HQ often requires finer real-time adjustments during sales efforts at individual stores. For instance, a store given a higher grade for a certain merchandise category may not perform as well as expected due to a merchandising strategy of its competitors in the region. In such circumstances, the RHQ tries to redistribute the merchandise to other better-performing stores in the region in order to promote the aggregation agenda initiated by the HQ.

Class D	Adaptation-dominant + Aggregation-accommodating
Definition	Activities that aim to capture local opportunities (typically local demands and supplies) while paying considerable attention to scale-driven benefits and objectives

Reference Code	Activity: Example
D1	The manager for women’s fashion at Muikamachi Aeon, a small-scale store in a countryside noticed that many of their customers are younger homemakers in their 30’s although they typically live in two- to three- generation households. Targeting at these homemakers, the manager proposed to create a new fashion corner, leveraging Aeon’s special brand based on the concept of natural look and environmental concern. Since the main target of the brand was women in big cities, the RHQ did not think it would appeal to people in a small, countryside town. After several iterations of discussion, the manager finally convinced the RHQ and the HQ, and Muikamachi Aeon opened a new corner renovated with natural-wood shelves and similar outlook. The corner was a big success, and it unexpectedly attracted older generations as well as their initial target.
D2	Soon after the East Japan Earthquake in 2011, Aeon undertook a project, called “Fast Fish”, to help rebuild the region’s fishing industry, among many other initiatives to help recover from the horrifying damages. Fast Fish was an operation to utilize mackerel and saury fish unloaded at a port in the region, which was difficult to sell for the local operation due to the nuclear pollution concern. Aeon, trusted for its quality standard, gave its safety stamp and helped the local community to operate a facility to debone and package the fish for easy and fast preparation, which was rather valuable particularly to the residents of temporary housing in the Tsunami-ridden

	areas. Leveraging its nationwide chain, Aeon soon started distributing the packaged fish outside the east Japan region to scale up the Fast Fish operation.
D3	Le Lectier is an expensive, high-grade pear that is often used as a well-appreciated gift item. In Japan, Niigata prefecture is the dominant branded producer. Aeon Niigata noticed that odd-shaped Le Lectier was unused as a way to protect its Niigata brand. So it came up with the idea to create light alcohol drink flavored with Niigata Le Lectier, using the odd-shaped leftover. Leveraging its scale, Aeon now sells Niigata Le Lectier cocktail as its canned Topvalu drink.
D4	Aeon Muikamachi store, although one of the smallest Aeon stores, offers the most extensive winter collection of rubber boots in the entire Aeon group. The winter in Muikamachi is known for its heavy snow, and additionally the area has uniquely extensive networks of water pipelines embedded in the streets and sidewalks just below the surface for spraying water knee high to melt the snow (this works because the temperature in the area seldom goes below the freezing point, keeping the water unfrozen). Thus, most people in the area, from school children to the elderly, wear rubber boots in winter, and Aeon Muikamachi caters for a wide array of preferences in terms of size, style and fashion trends. At the same time, Aeon Muikamachi coordinates with the group-level merchandising for rubber boots to gain from larger-scale aggregation.
D5	Creating store-unique display corners while accommodating the merchandising plan [to be expanded: success cases will be reported up]

Class E	Adaptation-focused
Definition	Activities that aim to capture local opportunities (demands, supplies, community relationships, and other unique local features), with little attention to large-scale aggregation

Reference Code	Activity: Example
E1	The elementary schools in the snowy parts of Niigata prefecture offer cross-country skiing in their winter physical education programs. However, a proper ski ware was not available for school children. One of the Aeon stores in the region talked to their RHQ merchandizing office about this local need, and eventually convinced the office, which then found a manufacturer willing to design and produce the ski ware despite its small volume.
E2	Farmers in the countryside often wear a conic-shape Kasa hat, typically made of grassy leaves of Suge plants. Muikamachi Aeon store, located in the snowy countryside of Niigata prefecture, started to carry the Kasa hat, following local home centers in the region. The Kasa hat didn't sell well initially but started selling better when the store placed it in its souvenir corner as a nostalgic item of the lifestyle in the snow country a generation ago. Muikamachi Aeon is the only store in the Aeon Group that sells the Kasa hat.
E3	Aeon stores carry school-specified swimsuits for students, and they are usually navy blue. But in Nagano prefecture, certain school districts prefer orange swimsuits as they stand out more sharply than the navy blue against the blue color of the

	swimming pool, which they think is important particularly for accident prevention.
E4	<p>Aeon Agri Create, Aeon's firm-operating company, deeply engages in local community building. In Mikasa, Hokkaido, Mikasa melon is a nationally known brand in Japan, but its farming community has aged quickly, as many other farming villages in Japan, with the average age of its farmers around 75. As most families in the community have no one to take over their farms and inherit the skills and knowledge accumulated over generations, Aeon Agri Create has been serving as the new-face recipient and carrier of such skills and knowledge in Mikasa. The president of Aeon Agri Create stated: <i>'As a business, Aeon could get into huge, all-automated plant factories, but that's not our way. [The issue is] how to protect local communities. ... We would like to be a model entrepreneur that can turn family farming into profitable corporate venture. ... [By demonstrating that] farming can be a respectable business venture, [we hope that] many young people choose to become entrepreneurs in agriculture. That would lead to revitalization [of local communities]'</i>. Aeon Agri Create engages in such community-building activities in many parts of Japan.</p>
E5	Aeon Makuhari: Increasing customer traffic through hosting events and leveraging the proximity with a big convention center [to be expanded]

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