

**A COMPARISON OF ECOSYSTEM ORCHESTRATION AND
INTRA-ORGANISATIONAL ECOLOGY IN STRATEGIC
PROCESS OF ORGANISATIONAL ADAPTATION**

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ABSTRACT

Ecosystem evolution has been found to reduce the cross-business model complementarities which results in the corporate split (Burgelman et al., 2022). However, a demand-driven perspective shows an opposite possible result through ecosystem orchestration and siphon effect. The opposite results show a fact that the strategic use of the ecosystem can impact on the forming of the ecosystem in terms of an extending opportunity space of an endogenous complementarities continually. The coevolution of the business strategy in shaping and the ecosystem in forming allows organization to adapt into a dynamic environmental uncertainty which has been found as a literature gap. Therefore, the current study aims to explore the strategic use of an endogenous ecosystem in forming as a condition of focal firms to get adaptability when shaping strategies for adoption decisions. To merge the literature gap, the potential strategic process of ecosystem orchestration is proposed from a comparison with the internal strategic processes of corporate entrepreneurship.

KEYWORDS:

Ecosystem Orchestration, Corporate Entrepreneurship, Organisation Adaptation, Strategy Making

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INTRODUCTION

Endogenous ecosystems can be understood as a competitive advantage of a focal firm, which means the focal firm is able to exert influence on the ecosystem to some degree (Moore, 1993, Iansiti and Levien, 2004, Adner, 2017, Jacobides et al., 2018). Endogenous ecosystems have similarities in behaviour dimensions to entrepreneurial orientation, for example, behaviours reflecting risk-taking, innovativeness, and proactiveness are considered as a state or quality of an entrepreneurial orientation (Covin and Slevin, 1991). However, endogeneity of an ecosystem is not defined clearly as a required state or quality of shaping strategies, in fact, ecosystem strategy is commonly found exogenous to the shaping of business strategies in literatures, for example, incumbents adopt ecosystem strategy to make servitisation in facing technological innovation and competitive pressure (Garbin et al., 2021).

Previous studies of corporate entrepreneurship literatures show that corporate entrepreneurship can also be endogenous to business strategy, i.e., corporate entrepreneurship (CE) is business strategy (Covin and Miles, 2007). This can inspire the understanding of the relationship of behaviours dimension and business strategies of endogenous ecosystem. Because a gross generalisation of an ecosystem strategy may not be compatible to the prospective implementation of a corporate strategy, and the affordance of an ecosystem is an endogenous component of shaping the strategy. The current study attempts to expose the potential qualities of an endogenous ecosystem in shaping corporate strategies through a comparison of ecosystem orchestration (EO) and intra-organisational ecology of corporate entrepreneurship (CE).

A business-level ecosystem focuses on the given complementarities implied in an established value proposition (Jacobides et al., 2018) while a corporate-level ecosystem impacts on the creation of complementarities via EO (Hou and Shi, 2021). From dynamic relational view, complementarity comes from the relational rent, which drives non-generic complementarity to emerge ecosystem for creating and capturing the relational rent. EO extends this business level non-generic complementarity into the context of inter-business model (BM) which widens the range of prospective interdependent actors and the boundary of the corporate ecosystem. Inter-BM becomes the opportunity space of the focal firm to orchestrate and create complementarities.

The formation of strategy based on a cross-BM level opportunity space has not been fully understood (Burgelman et al., 2022). More specifically, the present study aims to understand how is EO be used in the formation of the corporate strategies?

LITERATURE REVIEW

Previous research in CE admits a relationship of reciprocal causality between internal corporate ventures and business strategies (Covin and Miles, 2007). Burgelman (1983b) proposed the internal strategic process is driven by autonomous strategic initiatives of participants at the operational level and sponsored by an experimentation-and-selection approach from middle level managers which is essential to the success of the organisational strategic renewal (Burgelman, 1991). In his intra-organisational mechanism, the opportunity space depends on supply-driven resource redeployment, i.e., underutilised resources (Burgelman, 1983a).

The continue innovations generated by EO can be considered as CE which leads to corporate ventures potentially shape a strategic renewal phenomenon or remaining as ventures. Although the behaviours dimension of EO innovations and the potential relationships to a corporate strategy can be reflected from CE, the driven mechanism of EO and the range of opportunity space are different. Because EO innovations are demand-driven, this difference brings the changes in reasons of why emerging innovations should be merged and the ways of how it merges into the established strategic structure, which updates the main parts of the internal strategic process of CE.

Hou et al. (2020) suggested EO as a pattern of the demand-side diversification literature. They (2020) bring actor-oriented perspective rather than normally technology-oriented perspective in EO. Actor-oriented perspective captures behavioural factors such as the relational pluralism which impacts on achieving ecosystem strategy. Recently, Chang and Matsumoto (2022) found demand-driven resource redeployment can result in a siphon effect. Resource shortage by a newly entered or expanding incumbent business may siphon resources away from other incumbent businesses, leading to their exit or temporary retrenchment. This shows tendency of strategic renewal driven by the evolution of ventures which can be considered as an autonomous integration of entrepreneurial (i.e., opportunity-seeking behaviour) (Hitt et al., 2001). Due to a siphon effect, the autonomous integration of ventures can impetus a BM launching event by seeking internal compatible complementarities opportunities. This renewal tendency of ecosystem requires autonomous integration mechanism which involves a two-way decision from both the orchestrator and the prospective actors and a two-level decision of business and corporate. The implied resource redeployment is similar to a self-adaptation to improve the ecosystem fitness, which implies organization adaptation. Although the mechanism is expected to drive focal firm to achieve strategic renewal afforded by EO, the behavioural conditions should not be ignored.

CONCEPTUAL FRAMEWORK

Burgelman (1991) introduced the experiment-and-selection approach in the process of strategy making. In table 1, he compared ‘autonomous’ and ‘induced’ as two different strategic processes for company to adapt to the environmental changes. Although the main difference is the information exchange direction, i.e., bottom-up or top-to-down (Floyd and Lane, 2000), both ‘induced’ and ‘autonomous’ are based on the same organisational structure with a similar focused corporate strategy. ‘Induced’ strategic process is controlled by strategic structure through strategic planning and governing by the top-management. As company grows in different stages, the original entrepreneurial network, when the company is just a start-up, is stretched by the dispersed innovations which results in a need of ‘autonomous’ process designs to support operations of continually dispersed entrepreneurial activities (Maidique, 1980). ‘Autonomous’ strategic process relies on the strategic context created by two main roles for a bottom-up information flow, including champions, and gatekeepers. The champions are the ones who autonomously lead entrepreneurial initiatives for a business level strategy while gatekeepers are the ones who decide the resource allocation to enhance a focused corporate level strategy.

The endogenous ecosystem is a different organisational structure compared with organisational structure of an ‘induced’ or ‘autonomous’ strategic processes. Its decentralised and loose-coupled network distinct it from a hierarchical control organisational structure (Moore, 1993). Inter-BM complementarities drive a BM portfolio strategy to take shape in focal firms of endogenous ecosystems (Hou et al., 2020). A BM portfolio strategy is a balance-oriented strategy rather than a focus-oriented strategy (Amit and Zott, 2015). BM designer/owner and participator are the two main roles of a business level strategy who self-govern to leverage (BM designer/owner) or social exchange (BM participator) in achieving a siphon effect towards a business strategy. Therefore, there are enough reasons to suppose a different strategic process in the endogenous ecosystem.

Insert Table 1 about here

PROPOSITIONS

Variation Strategic initiatives evolve from inter-firm diversified influence of established technological interdependence or affiliations (Santos and Eisenhardt, 2005). Driven by BM designers seeking to leverage the accessible affiliations in the established corporate ecosystem and taking the challenge of EO among prospective actors (Hou et al., 2020). The ability of creating influence variations is considered as company's evolvability to improve fitness in the environment (Luo, 2018).

Selection Strategic initiatives are conditioned by the influence density of affiliations (Luo, 2018). Task complexity from established architecture and relational pluralism from the participations of embedded actors are two factors in implementing the selection of strategic initiatives (Hou, 2021). The selection in shaping business level strategy is two-ways and autonomous among actors engaged in a corporate ecosystem. From corporate strategy level, a balanced strategy does not restrict the key values of EO innovations, which is controlled within strategic structure in 'induce' instead, the balance itself is a value of the corporate strategy which shows a positive evolvability of the ecosystem.

Retention The main distinctions between EO and 'autonomous' are in the emerging point of changes and the irregular shaping process. The changing point of EO is at the point when the original actors are willing to exchange the resource and hence become the participants of the new BM. This is different from the 'autonomous' which happens at the point of a formal ratification and different from the 'induced' which happens in an ex ante vision. The retention is not through a standard process comprised by champion and ratification but a siphon effect of incumbent businesses autonomous going with or reorganisation around new competences. The retention process of the business strategy is irregular and shaped via the creation of new roles of embedded actors. The autonomous shaping process may be attributed to a need of a multiply-direction innovations in a dynamic environmental uncertainty. This requires more frequent social exchange among BM owners comes along with more frequent decision makings and finer woven on the changes of organisations. Therefore, the interactions of actors to shape business strategies also form the evolution of ecosystem.

Ties to adaptation There are four types of CE—sustained regeneration, organizational rejuvenation, strategic renewal, and domain redefinition (Covin and Miles, 2007). The continued innovations of EO presented as BM portfolio extension (Hou et al., 2020) can be considered as another type of adaptation, which is used as the analysis lens of strategic process in EO (Hou et al., 2020). The distinction of EO adaptation with CE can be different in terms of the strategy levels. EO requires compatible strategies from both business and corporate level. A business level is similar to a venture level, while a corporate level is close to the main business level. The difference between EO business level and venture level is also the requirement of being compatible to the corporate level. The EO business level comprises interdependence cross the BMs, while venture level strategies are separate from each other. Similarly, the difference between EO corporate level and a main business level is also the requirement of being compatible to the business

level. The EO corporate strategy is around the balance of the BM portfolio while a main business level strategy is focus oriented.

Insert Table 2 about here

RESEARCH METHODOLOGY

Case studies of focal firms will be selected from electric vehicle (EV) industries in Chinese and Indian markets. These focal firms may not only be traditional original equipment manufacturers (OEMs), but also high-tech entrants and startups. The emerging EV market is growing fast in China and the intensive competition among crowded players is putting pressure on focal firms to shape strategies around technologies, business models, and markets in the forming of ecosystems to establish a prior position of the critical complementary assets. Therefore, EV context is excellent for studying the co-evolution process of strategies and managerial behaviours.

The semi-structured interviews will be with selected two focal firms from China and respective participants in the ecosystems. The selected focal firms will be with different business genes, and the third focal firm will be selected from Indian market. The comparison between two cases from China is design for a theoretical replication and the one from India is for a literal replication together to increase the external validity of the case study method.

CURRENT STAGE

A literature review has been conducted, and the first-round interviews has done with available informants from China which builds a case selection space for the second-round interviews with selected case companies and participants from China. The India case study will be conducted in the following year.

IMPLICATIONS AND RESEARCH DIRECTIONS

An actor-oriented perspective holds a focus on the interactions among the horizontal actors which loosely couples the corresponding roles required for shaping business strategies in a hierarchical control structure. A focused corporate level strategy may not work well in a survival game with a long period of dynamic uncertainties, such as the disruption impacts via EV market. Therefore, understanding strategies shaping process in a forming ecosystem

is imminent to companies in EV market with little theoretical support. The proposed positive qualities of ecosystem strategies shaping behaviours compared with roles required in a hierarchical control organizational structure may not work which will offer a need to develop the proposed framework.

The future research directions can be:

- how does the forming of ecosystem networking ameliorate the role conflictions on the middle level managers when making decisions for business strategies via horizontal interactions?
- considering a demand-driven social exchange for shaping the strategies, are BM designers more risk-biased than BM participants, while BM participants are less risk-averse than gate keepers?
- in CE, business strategies are dichotomy of the structured and the beyond, while in EO, the middle area is enlarged by a demand-driven opportunity space with a siphon effect. The boundary of the variations and the dominant business become vague as the new dominant design emerges from the variations which is a strategic renewal process. How do the autonomous interactions in the middle area drive the organizational innovations to happen and create new orders to reduce the variations towards a new stable stage?

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TABLE 1 *

Intraorganisational Ecology of Strategy Making and Organisational Adaptation
Intraorganisational Ecology Process (Burgelman, 1991)

	Variation	Selection	Retention	Ties to Adaptation
Induced	Strategic initiatives seeking resources for projects that correspond to internal selection pressures of structural context, fit with the current organizational strategy, and offer access to regular opportunity structure for career advancement. Originate at operational-level but intended to be driven by top management's ex ante vision. Enhanced by availability of growth opportunities remaining in current action domain. Radically new induced initiatives initiated by top management.	Initiatives selected through administrative mechanisms (e.g., strategic planning) and/or cultural influencing (e.g., reference to key values). Differential allocation of resources to different areas of strategic initiative. Key is that internal selection reflects current external selection pressures. Major changes in structural context.	1. Organizational learning about bases for past/current survival (variously embodied). 2. Distinctive competences (variously embodied). 3. Organizational goals. 4. Organizational action domain. 5. Organizational character. All of these elements integrated in ex ante vision Major changes in the dimensions of organizational strategy.	1. <i>Relative inertia</i>. Organizational survival is due to a good fit of internal selection processes with the environment. Survival motivates conservatism on the part of top management and desire to leverage existing organizational learning through induced process. Reluctance to change organizational strategy. 2. <i>Adjustment</i>. Relatively minor changes in strategy to accommodate environmental change. 3. <i>Reorientation</i>. Major changes in strategy in response to major environmental change.
Autonomous	Strategic initiatives outside scope of current strategy. Driven by operational-level managers seeking to use their skills in new combinations with organization's distinctive competences and, in some cases, seeking career advancement through alternative opportunity structure. Enhanced by availability of unabsorbed slack	Defining strategic context for new initiatives through: • finding resources outside regular resource allocation process; • demonstrating viability in external environment through entrepreneurial activity; • mobilizing internal support on the part of upper level managers; • developing new competences/skills. • setting stage for an amendment in the organizational strategy.	Changes in organizational learning, distinctive competence, and relative importance of new activities in total domain activity, which, cumulatively, lead top management to recognize that a major change in strategy is necessary and feasible. Lead to new, ex post vision. Once formally ratified, new vision becomes part of the basis for the induced process.	4. <i>Strategic renewal</i>. Major change in organizational strategy preceded by internal experimentation and selection offers organization possibilities for anticipatory adaptation to new environmental demands and/or to enter new niches.

TABLE 2 *

Comparison of Ecosystem Orchestration and Intra-Organisational Ecology in Strategic Process of Organizational Adaptation

Comparison Dimensions	CE of Intra-Organisational Ecology	EO of Endogenous Ecosystem
<i>Opportunity Space</i>	Supply-driven	Demand-driven
<i>Approach of Strategic Processes</i>	Experiment-and-selection	Experiment-and-selection
<i>Orientation of Strategy</i>	Resource allocation	Resource leverage
<i>Importance Sequence of BM Sort By Criteria</i>	Resource accumulating in action learning	Value, tasks complexity and relational pluralism
<i>Inter-BM Relevance</i>	Core and periphery	Complementarities and complexity
<i>Strategic Objective Orientation</i>	Focus	Balance
<i>Outcome</i>	Firm performance	Corporate strategy
<i>Organisational Structure</i>	Hierarchical control	Endogenous ecosystem
<i>Key Roles</i>	Gatekeeper and champion	BM designer/owner and participant
<i>Main Control System</i>	Process design	BM portfolio design