

# **A Reverse Perspective on Global Value Chains: Implications from the Internationalization of Rising Emerging Market Firms**

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*The emergence of global value chains (GVC) has broadened the configurations of business activities across the entire value chains, yet little attention has been paid to the suppliers compared to lead firms. Rising suppliers from emerging markets successfully take orders and follow global buyers' steps to enter the internationalization as emerging market (EM) firms. This conceptual study aims to explore how EM suppliers leverage GVC to demonstrate reverse innovation by linking GVC research with enriched insights from a literature review of the Uppsala model. We argue that the suppliers have distinct roles as another possible route to drive GVC development.*

*Keywords: Global value chains, Uppsala model, Emerging market firms*

## **INTRODUCTION**

The increasing fragmentation of international business activity has given birth to the global value chains (GVC) research stream (Kano, 2018; Laplume, Petersen & Pearce, 2016; Mudambi, 2007, 2008). Trade and investment liberalization, emerging economics, and the rapid pace of technological advances (Buckley & Strange, 2015; Kano, 2018; Narula, 2014) have all contributed to easier cross-border coordination and management of the disaggregated functions and geographically dispersed value chains of multinational enterprises (MNEs). To clarify the dynamics of GVC, Kano (2018) has applied insights from new internationalization theories and business network literature to investigate the relational perspective of the orchestrating firm, also known as the lead firm, who is generally a large established MNE (Mudambi, 2008). This framework is then used to explore how the orchestrating firm can use their mechanisms to enhance knowledge transfer, improve processing, reduce uncertainty from partners, and to stimulate innovation and capability development among the participants of the networks, however little attention has been paid to the suppliers compared to the lead firms, however, and this field remains underemphasized in the GVC. In this paper, we argue that when the lead firms shifted production to Asian countries in favor of its low-wage and abundant opportunities across various markets for intermediate and finished goods (Gereffi, 2001; Gooris & Peeters, 2016; Kinkel, 2012; Manning, Larsen, & Bharati, 2015), those EM suppliers also leveraged the knowledge exchange to upgrade their capabilities and actualize the internationalization process. Inspired by Johanson and Vahlne's (2009) business

network model, which uses a symmetry between suppliers and buyers for analyzing the supply chain development, our intention is to link GVC research with insights from the evolution of the Uppsala model to investigate the processes, connectivity, and knowledge spillover in GVCs. Over the past decade, the rise of EM suppliers has also established a highly competent and vertical integration network that allows them to diversify the buyer portfolio to sustain its core position in the value chains. Such an EM supplier not only acts as a receiver, but also as a strategic partner of the lead firm, and the relationship commitment allows them to further negotiate the remaining distribution among the GVC network. Its head office also runs a complex organizational structure to ensure that efficient network functioning is secured while the competition advantage of economic scales can continue to be sustained.

The focus of this conceptual study is on how the EM supplier can drive impact via upgrading dynamic capabilities, exploring new target markets, increasing knowledge creation for inward and outward development, and spotting the opportunity for reverse innovation. To address this purpose, this study is organized into several sections. First, we discuss the GVC transformation from a review of the relevant literature on the business activities and decisions involved in its configuration. Second, we look back on the evolution of the Uppsala model's internationalization process, while keeping an eye on the model's call for the supplier-buyer relationship and its implications. Our intention here is to explore other possible routes for GVC development and to optimize GVC performance by aggregating the value-added insights from these two established fields within international business. Third, we illustrate EM suppliers' best practice of reverse innovation, accompanied by case insights from the standpoint of internationalization. Lastly, we propose that the role of EM suppliers and their adopted trickle-up mechanisms may safeguard their position under GVC.

## **TRANSFORMATION OF GLOBAL VALUE CHAINS**

### **Upgrading in Global Value Chains**

The concept of GVC emerged when the business activities of firms that are interconnected through a global production network were linked via a constellation of organizational arrangements (Hernández et al., 2017; Mudambi & Puck, 2016). Compared to the classical trading of goods, the attention started from trading activities with special relationships among the firms in commodity chains (Gereffi & Korzeniewicz, 1994), supply chains (Al-Mudimigh, Zairi & Ahmed, 2004; Connelly et al., 2013; Priem & Swink, 2012), and value networks (du Reuver & Bouwman, 2012). The term "commodity chain" was therefore derived to better explain the role of a leading firm (Mahutga, 2012) – that is, "the firm which shapes, controls, coordinates and distributes the value among the chain" (Azmeah & Nadvi, 2014). Meanwhile, the term "supply chain" was used to refer to a firm's relationship with the suppliers and customers for product shipment and service delivery with less cost (Christopher, 2005). The concept of value chain goes one step further and asserts that value creation and capture could be evaluated by the originated source of competitive advantages (Al-Mudimigh et al., 2004). These terms led to the definition of the GVC as "the full range of business activities that firms perform to bring a product from its conception to end use and beyond" that are accomplished on a global scale and that can be pursued by one or more firms (Gereffi & Fernandez-Stark, 2011).

The configuration of GVC is an examination of different types of business activities to facilitate and maximize the firm's efficiency and effectiveness (Hernández et al., 2017). These activities refer to both the primary and supporting activities from the full spectrum of business functions, upstream and downstream activities that rely on the proximity to raw materials or to the customization and manufacturing of the product (Hernández et al., 2017), or core and non-core activities with a distinct and crucial difference regarding whether such competitive advantages should be seized on hand or could be easily outsourced. Given the factors above, arguments have been made that the value chain can be viewed as the work of firms "fine-slicing" activities (Kano, 2018; Mudambi et al., 2016) that generates finer modules with several implications. Such specialization implies a process of modularization into disaggregated sub-activities (Contractor et al., 2010), a process which gives firms opportunities to learn how to improve their performance by organizing activities in new ways (Jacobides & Winter, 2005), and

a movement of productive activities embedded with higher value, technology know-how and increased profits by participating GVC (Barrientos, Gereffi & Roosi, 2011). From the aspect of efficiency, this method gave the firms more choices regarding where to locate operations (Hernández et al., 2017; Mudambi et al., 2016), outsourcing and offshoring decisions, and how to coordinate cross-border alliances or equity-based relationships throughout the value chain (Gereffi, Humphrey & Kaplinsky, 2005).

### **Dynamics of GVC Governance**

GVC also follows the traditional governance modes in international business to operate abroad. In this process, the firm determines how to allocate various financial, manufacturing, and human resources within a value chain (Gereffi et al., 1994) depending on explicit coordination and power asymmetry. The market governance mode describes the relatively simple transactions among the firms involved, which is the normal relationship between the buyer and the supplier. While the firms tend to be more connected within GVC, a network of independent and individual firms could be created, coordinated or orchestrated by a lead firm, thus providing a context of mutual-trust and power within volatile environments (Buckley, 2016). The hierarchy governance mode requires a higher degree of authority to dominate vertical integration with strong management by the lead firm. Though most present day lead firms tend to retain the key capabilities with core competence, with many having fewer intentions to dominate the whole value chain, they may still be used to examine the GVC configuration based on foreign direct investment (FDI) decisions (Hsu & Chen, 2009) and may be more applicable when the products are complex (Gereffi et al., 2011).

Nonetheless, as firms have found other alternatives to use contractual alliances or equity-based relationships with mixed FDI entry modes, other GVC governance options have emerged including modular, relational, and captive governance modes (Hernández et al., 2017). Although these optional governance modes are all based on relationships with other firms, all still retain an important role for the lead firm. In the modular governance mode, the suppliers are highly competent with the ability to provide an integrative package of solutions and services and to take responsibility for certain stages, such as the making and delivering of goods through turn-key contracts (Hernández et al., 2017). Meanwhile, the relational governance mode is more applicable when more complex information is involved, and thus requires greater levels of interactions, knowledge transfer-based mutual trust, and social ties (Altenburg, 2006). The captive governance mode requires greater dependence for the suppliers, which must be monitored and controlled by the lead firm to a much higher degree (Gereffi et al., 2005).

The derivation of GVC governance modes is also based on several external factors such as the specific industry or changes in the market, including market competition, customer demand, or technological advances, which contribute to determining GVC under the integrated or non-integrated structures (Buckley, 2011). The development of industry is still one of the critical conditions that drives GVC governance forward, though several scholars have pointed out that a single GVC structure may in fact combine a complex arrangement that covers various governance types, that includes finely sliced, geographically dispersed parts of a value chain. This is known as a global factory (Buckley et al., 2015). We conclude that the boundary-spanning activities would thus occur in an integrative fashion, where firms would: use the international markets to transact their own knowledge, both in terms of creating and internalizing knowledge within the MNEs (Mudambi, 2007, 2008); access specialized knowledge and reduce the hazards by GVC partners; and foster innovation and new capability development (Kano, 2018).

### **The Rise of EM Suppliers: A New Force**

GVC governance can also be affected by the firm, depending on whether it requires specific capabilities to integrate the activities internally such as those related to coordination, organization and management along the value chain (Qian et al., 2012). While there are a mix of activities that require decisions to be made among the participants at different functional positions (Ponte & Gibbon, 2005), one of the most important issues from the emergence of GVC literature is the role of the lead firm. A lead

firm is required to balance the needs of an ideal structure of governance with considerations regarding costs that are incurred by increased complexity of the organization, while at the same time taking into consideration the operating modes that are set up to support the firm's objectives (Petersen & Welch, 2002). With the rapid development of information and communication technologies (ICT), the enhancement of patent rights and new management systems have reduced transaction costs through the end-to-end process to the point where the management costs traditionally associated with scalable, vertical-integrated MNEs are no longer justified (Kano, 2018). The end result is de-internationalization, whereby the lead firm can develop its firm-specific advantages (FSAs) by governing individual, finely sliced parts of the value chain into a complex business network. Yet, this GVC could only operate efficiently if the strategy is determined by the lead firm for the entire network (Rugman & Verbeke, 2003a). To safeguard the sustainability of the GVC, it is in the lead firm's best interest to ensure that governance is stable over time to foster connectivity in its GVC by implementing ex ante mechanisms, such as social mechanisms, to create an environment conducive to capability development in the GVC.

If the lead firm can align with the interests of its partners through strategic leadership, it is possible to reduce the risk of bounded rationality and bounded reliability. Possible information and power asymmetries may therefore arise between the lead firm and its partners must not be denied, however, especially when those GVC key partners still retain operational autonomy under the high-powered incentives of the market (Kano, 2018). As such, the power dynamics in a GVC may change accordingly because of evolving FSAs (Strange, 2011) and are subject to the continuous change of key partners' mutual dependence (Denicolai, Strange & Zucchella, 2015). Liena Kano (2018) took the much-cited case of Apple's value chain as an example of global factory-style GVC. The complexity of Apple's value chain lies in their disperse partnerships around the world with both developed and emerging economies, such that its portfolio of finely sliced activities must continuously evolve and be re-evaluated. Looking at the iPhone's manufacturing process alone, several components has been outsourced and shipped to Taiwanese suppliers Foxconn and Pegatron for final assembly. Meanwhile, Apple retains the tacit knowledge related to technological design and conducts most of its design and marketing activities in-house, with several international R&D centers established. Nevertheless, Kano also astutely recognized the lessening of power asymmetries in Apple's GVC between Apple and Foxconn with increasing bilateral dependence, as Foxconn has recently upgraded its capabilities to key production intermediary (Kano, 2018). Moreover, Foxconn has diversified its customer portfolio to lessen the power asymmetries in Apple's GVC, while the interdependence between Apple and Foxconn is yet still increasing (Denicolai et al., 2015). These shifts of power are bringing new challenges into GVC, but also signify a rising force from EMNE suppliers that demonstrates trickle-up mechanisms such as reverse innovation (Govindarajani & Ramamurti, 2011).

In summary, when EM suppliers mature, their positions may change accordingly, resulting in possibly more than just efficiency considerations under the original GVC. Compared to the lead firm-centric studies of GVC, we argue that there are other possibility growth paths originating from EM suppliers. By linking GVC research, we borrow the extension literature on the Uppsala model to simulate EM firms' internationalization process in order to provide more insight into this mechanism.

## **EVOLUTION OF THE UPPSALA MODEL**

### **Theoretical Logic Drives the Upgrade of the Model**

The Uppsala model was first published by Johanson and Vahlne (1977) in which they described the process by which firms looking to expand abroad could build required resources and successfully become major players on the global stage, which is also known as the internationalization process. The original model was built upon a firm's behavioral theory, growth theory, and their foreign investments decision process (Meyer & Thaijongrak, 2013; Penrose, 1966) and was based on inductive studies of Swedish firms. Those firms first ventured abroad by ad-hoc exporting, graduating to agents before setting up their own sales office. If growth continued, they would then start manufacturing in the foreign market to overcome trade barriers. These steps represent a typical stage process that the firms would normally go

through. Additional details such as the sequence in which countries were entered, the operation modes used in those countries (Meyer et al., 2013) or as an established chain (Johanson & Vahlne, 2009) all required decisions that were based on current economic activities and considered according to a mix of rational analysis. This process could be considered an example of market governance mode under GVC, which refers to the simplest transactions between the firms involved.

Yet, Johanson and Vahlne pointed out that the firm may alter its next steps due to the lack of market knowledge and bounded rationality and reliability of parties. The core concept that drives this theoretical model is experiential learning, which describes a method of dealing with knowledge and resources through learning and how these factors can affect foreign investment behaviors accordingly. It is the general experiential market knowledge and the market commitment from state aspects which will result in the commitment decision and the current business activities from change aspects. The concept of commitment here refers to, first, the “amount of resources committed, that is the size of investment” and, second, the “degree of commitment, that is the difficulty of finding an alternative use for the resources and transferring them to it” (Johanson & Vahlne, 1977).

A firm may also gain more experiential knowledge about foreign business environments from cross-border commitments, such as understanding of the local customers, competitors, and regulatory requirements. Such local knowledge strengthens the firm’s ability to assess and evaluate where they stand in their current business activities, whether to increase its existing market commitment or assess the possibility of more upcoming chances for further investment (Johanson & Vahlne, 1990), such as setting up a manufacturing plant in the foreign market. By doing so, the firm can develop the required capability to run operations locally and demonstrate their performance in that local context.

This model has been examined by several empirical studies for the firm’s internationalization process. Johanson and Vahlne also repeatedly revised and extended their model and created different versions in 1990, 1993 and 2006. Though the model does not provide a reason as to why one commitment should precede another and there is no clear connection between knowledge and investment behaviors, the model still suggests an incremental commitment which is in line with the firm’s competence (Forsgren, 2002). In linking the model to the recent GVC research, however, we can easily understand that the firm’s actions are implied to improve their learning about their own systems, organizing activities in new ways, or redefining the core and non-core activities for further resource allocation (Gilley & Rasheed, 2000; Linares-Navarro et al., 2014).

### **First Attempt to Model the Buyer-Supplier Relationship**

The original Uppsala model focused on a single firm’s internal and gradual learning when engaging with a foreign market in the internationalization process. More and more studies have since shaped other possible patterns of international business. The main argument is that the firms now have various means to bypass the original steps because the acceleration of globalization has changed business in such an impactful way.

After Johanson and Vahlne (1993) noticed several studies that demonstrated the important role of the network in the firm’s internationalization process, they revised the Uppsala model in 2009 to take into consideration the liability of foreignness to create a business network model. The literature has further defined the network as either an asymmetrical network (Rowley, 1997) or an organically grown cluster (Porter, 1990, 1998; Rugman & Verbeke, 2003b). In congratulating Johanson and Vahlne for the 2019 JIBS Decade Award, we take a proactive comment upon the Uppsala’s business network model is based on a broader concept of network across those types, as at its heart is the underlying process of organizational learning to explain the evolution of MNEs over time. This process might involve multiple progressions under the changing environment, given that possible conflicts may trigger among the parties involved via the business network, or else the firm may simply act by following its peers (Forsgren, 2002), a method that has been emphasized especially for firms who operate in business networks that already have access to complementary knowledge and resources (Meyer & Thaijongrak, 2013). A more aggressive implication from the Uppsala’s business network model is that the firm may leapfrog to

acquire knowledge about foreign business by forming a joint-venture (JV), acquiring a local firm, or even seeking cross-border acquisitions of strategic assets (Meyer et al., 2013).

The extension intends to illustrate a roadmap for the firm to identify where they are in the business network and to lead it to further increase its commitments by aiming for a goal, such as resources, markets, or strategic asset-seeking. Out of these positions, strategic asset-seeking aims to strengthen positions in current markets and to enter new markets as a secondary benefit. This goal has frequently been observed as a motive for foreign investment by EM firms (Deng, 2009; Rui & Yip, 2009). These objectives may be potentially rewarding for the firms that define a network position, which drives the firms to enjoy partnerships under the business network with the additional incentives of learning and commitment building. This is even more profound for EM suppliers because of the effective integration with a local firm which requires fundamental learning to overcome the formidable operational challenges. These decisions will also be impacted by the changes in entry modes, the size of investments, organizational changes, and the degree of interdependence with partner firms.

In order to respond to changes in the business environment, the firm must be successful in its relationship commitments in one or more networks. The firm that is well engaged in a relevant network or networks is deemed an “insider.” The decision of relationship commitment is based on the development of the new relationship, or the availability of bridges to new networks which support or protect the firm’s strategic relationship. To some extent, the firm could learn via relationships, trust-building, and commitment, which echoes the essence of the internationalization process. Nonetheless, if the firm does not have a position in a relevant network, it will be viewed as an outsider, suffering the liability of outsidership and foreignness (Johanson & Vahlne, 2009). From another standpoint, any change in the commitment will either strengthen or weaken the relationship.

In addition, because the internationalization process is dynamic, the firm can only continue learning, trust-building, and commitment in the context of expanding upstream activities (Pyndt & Pedersen, 2006) and even downstream activities. As commented on by Johanson and Vahlne (2009), these value chain activities are symmetrical to Uppsala’s business network model in terms of suppliers and buyers, as the firm would be required to engage in the production, distribution, and use of goods and services which are also dependent on each other for specialization. As pointed out by Uppsala’s business network model, this is not only the first attempt to address global supply chain management but could also be the long-standing theoretical foundation explaining the dynamic change of interactions of GVC configuration and governance.

### **Implications from the Latest General Model**

Johanson and Vahlne (2017) have continuously updated the Uppsala model to actualize the process of firm internationalization (Coviello, Kano & Liesch, 2017). Along the journey for the evolution of the internationalization process, MNE has been portrayed as a differentiated network where the presence of entrepreneurship within the organization has been recognized, and subsidiary entrepreneurship and decentralization have also been exploited. As such, Johanson and Vahlne (2017) adopted the concept of multinational business enterprise (MBE) (Pitelis & Teece, 2011) to provide a set of necessary definitions and content for such complex structures and to demonstrate the most distinctive features of the latest iteration of the Uppsala model on the internationalization process.

On top of resource-seeking for knowledge opportunities, dynamic capabilities have evolved as an important concept within the changing dynamic of economics and strategic management, which determines whether the firm has the capacity to create, extend or modify its resource base purposefully (Helfat et al., 2007) and goes beyond the operational capabilities for effectiveness but aims for the ability to strategically adapt to the changing environment. The performance of the capabilities can be evaluated via “evolutionary fitness” for its superiority to its competing firms. The basic manner for such potential capability building is incorporated into the model as the process of knowledge development. Knowledge development is the basis upon which learning, trust-building, and innovation for exploration is built. Meanwhile, exploitation could be interpreted as retrospective sense-making to drive the business

momentum, to which the responses to some extent are the investment decisions to the Uppsala models in the 1977 and 2009 versions.

In the latest edition, when celebrating 40-years of the Uppsala model, Johanson and Vahlne (2017) firmly presented it as a general model, which is meant to be an alternative to the eclectic paradigm. In this edition, they emphasized the key features of modern firms: “process rather than structure-oriented, a network rather than a stand-alone unit, business exchange rather than production, pro-active and entrepreneurial rather than passive, heterarchical (decentralized) rather than hierarchical” (Johanson et al., 2017). We argue however that the Uppsala model’s recent jump into the modern business world may miss the focus of the dynamic combination of business networks, specifically ignoring the supplier and the buyer relationship. In the global business environment, the main purpose of cross-border economic activity is to develop capability, transfer-knowledge, and enhance and recombine the FSA under the established network, the strength of which allows them to determine the discipline and performance of MNEs (Kano, 2018).

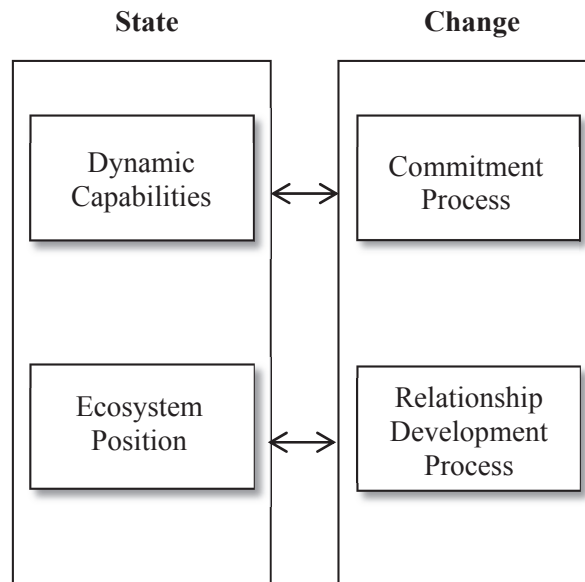
There is no doubt that the capabilities and knowledge development processes from Uppsala’s general model (2017) become even more relevant for keeping the end-to-end GVC configuration alive, as such enablers not only provide the basis for the firm to decide where to locate operations but also how to coordinate among cross-border partners. Firstly, to define them as a sense-making development during the internationalization process for both MNEs and EM firms, we combine these two variables of capabilities and knowledge development as “dynamic capabilities” to ensure these development processes can catch up with the dynamic changes of the business environment.

Secondly, we reaffirm the importance of commitment at an individual firm level or a network perspective, like GVC. The level of commitment is subject to the dynamic capability accepted by the firm’s counterparty. Here the idea is to retain the “commitment process” as one of the variables to drive the change for opportunity development in terms of resource allocation for each finely sliced economic activity. We borrow the relationship commitment from Uppsala’s business network model (2009) as a starting point for illustrating the supplier and buyer relationship. Our intention is to upgrade this variable as the “relationship development process,” in which all participants under GVC can re-negotiate the deliverables and subsequent coordination thereafter, such as how organizing or re-allocating the business activities may help to improve the performance or even enhance the end-to-end GVC efficiency.

Lastly, rather than defining the firm’s network position based on its committed performance, our view is to broaden their application to multiple networks. Following technological advances, the firm may enter the network with a relevant field or a whole new industry as a supplier or a buyer to diversify its business portfolio and sustain overall profitability. Considering its dependence is still on network effects but with nonlinearity of relationship (Thomas, Autio & Gann, 2014), here we propose a new variable of “ecosystem position” to cover more value creation and capture process. Ecosystem is defined as the collaborate arrangements through which the firms recombine their individual offerings into a coherent, buyer-oriented solution (Adner, 2006). It is seen as the open communities comprised of different actors, such as direct suppliers, complementors, regulatory authorities, or related actors. (Tece, 1986, Thomas et al., 2014). Another extension of the concept of the ecosystem has emerged because of the current practice of leveraging the generativity of an enabling technology by distributing heterogeneous alternatives to the external actions (Dattée, Alexy & Autio, 2018).

The proposed conceptual model is meant to offer a general model depicting the cumulative processes of internalization between the suppliers and the buyers and further complement the GVC transformation, even beyond the efficiency considerations. The development of GVC also rides on experiential learning, emphasized by Johanson and Vahlne (1977) and further deploys across the boundary by external learning mechanisms which evolve together with the Uppsala model for sense-making commitment, capability, and relationship development over time.

**FIGURE 1**  
**A CONCEPTUAL MODEL FOR GVC (2019)**



In addition, we state that two-way interactions between the state variables and change variables are possible in today's business exchange world, while performance and efficiency are the basic criteria to meet under the proposed conceptual model. Under GVCs' literature review, the role of the lead firm has been discussed extensively in the literature for the long-term sustainability of the GVC. The supplier, however, is seen as a follower with little voice. Therefore, we discuss four case studies illustrating how EM firms grow under GVC during the internationalization processes and where they started their international business as the well-known lead firm's suppliers. We also present a reverse perspective before outlining research agendas for future research.

## **ILLUSTRATION OF EM SUPPLIERS**

### **Research Context and Method**

EM firms represent growth in the fast lane, combined with a flattening of the world economy to promote innovation from emerging markets to other emerging markets and sometimes to developed countries as well (Govindarajani et al., 2011). This trend of reverse innovation provides dramatically lower costs and adds features that are especially valuable in the local context. Reverse innovation requires a firm to have considerable experiential knowledge, which would normally occur either at enhanced stages of a process of incremental commitment or even after a firm's own value chain network is fostered. We thus take the cases from recent high profile GVCs as a starting point, and then work our way backward to understand how those EM suppliers fit into the internationalization process and distribute reverse innovation under their own value chains.

These case studies explore Taiwan firms, which provide a good context to study the emergence of reverse innovation of EM suppliers as Taiwan firms have developed considerable competences at home for three reasons. First, according to the World Investment Report by UNCTAD (2017), the foreign direct investment outflow of Taiwan ranks number five in Asia and demonstrates 21.3% growth, only second to China. Second, the World Investment Report by UCTAD (2018) shows the GVC participation rate of Taiwan. Though Taiwan only ranks seventh in Asia and ninth among all emerging markets, it is one of the countries with the most balanced share between upstream components (54%) and downstream



components (46%). Lastly, referring to the Global Competitiveness Report by the World Economic Forum (WEF) (2018), Taiwan is one of the four economies to be called a super innovator, alongside the other developed economies of Germany, the United States, and Switzerland.

Though our theoretical understanding of GVC and EM suppliers' internationalization is still not fully developed, there is little empirical support confirming the constructs and the casual relationships among the key variables. In the same way that the Uppsala model began from case studies, we here apply an inductive case study approach to better grasp this phenomenon to achieve a sounder base upon which we may build future theories (Eisenhardt & Graebner, 2007). Four Taiwan top-tier firms from different industries, Foxconn from ICT, Pou Chen from Footwear, Eclat from Textiles and Hota from Automobiles, were selected to identify the common distinct characteristics of EM firms' business activities. We have combined primary and secondary data to build our cases, and given these are all high-profile companies, we were able to obtain ample information from a variety of published sources in the country. These included internally produced articles such as annual reports, investor conference summaries, websites, and public presentations as well as other data available from independent third parties like news releases, foreign institutions' research reports and trustworthy websites. In addition, we also conducted semi-structured in-depth interviews with a senior executive of each of the case firm. The interviewees were asked about a wide range of aspects of their participation of GVC and their preceding international business activities. Interviews were conducted in Mandarin and translated into English with a follow-up interview held two weeks later to clarify some details. Here the selected firms are introduced with a synthesis of each case with insights presented separately. Our aim is to summarize how these EM suppliers proceeded in the internationalization process under GVC that led up to the diffusion of reverse innovation.

### **Case Insights**

The cases allow us to illustrate how EM suppliers fit into an established GVC by further extending its internationalization process. Below we briefly introduce the cases, followed by comments from four aspects, namely, dynamic capability, commitment process, relationship development process, and ecosystem position according to our proposed conceptual model for GVC.

#### *Hon Hai Precision Industry Co., Ltd., Trading as Foxconn Technology (Foxconn)*

Foxconn, founded in 1974, is one of the largest electronic contract manufacturing providers, the fourth-large ICT in terms of revenue in the world and ranked 25th in the Fortune 500 in 2016. Foxconn is dedicated to strengthening its capability through the lowest total cost solutions to increase the affordability of electronic products across various customer bases. Over the years, its internationalization also kicked off with the FDI motives of efficiency-seeking and market-seeking for achieving the most efficient cost advantages.

Foxconn started its business by manufacturing components and modules for TVs. By successfully extending its capabilities to manufacturing computer connectors in 1981, Foxconn achieved scale advantage when the incremental demands of the worldwide personal computer (PC) market expanded. This also allowed it to establish firm relationships with global leading PC firms IBM, HP and Dell. In terms of Foxconn's commitment process, the firm has implemented a highly vertical integration business model by reconfiguring the resource allocation among its internal network (subsidiaries) and third parties. It is able to re-align to customize tailor-made solutions thanks to its unique and proprietary business model of eCMMS for enabling components, modules, moves (fast-moving) and services via a digital way to cover upstream to downstream economic activities including OEM, CEM, EMS, ODM and CMMS.

Foxconn also participated in Apple's value chain with the first launch of the iPhone in 2010 as the company was tasked with final assembly. The relationship with Apple not only started from the beginning, when Foxconn upgraded its capability from component supplier to key production intermediary (Kano, 2018), but continued when it further penetrated Apple's GVC through other subsidiaries by supplying additional component such as case, connector, printed circuit board and touch panels. Though the bilateral interdependence is increasing between Foxconn and Apple, this has not

stopped Apple from loosening ties with Foxconn due to the competitive transaction costs. Such subsequent developments perfectly explain the important signals of willingness for relationship building when considering the long-term managerial efforts and effects.

The process of internationalization of Foxconn followed steps that reflect the evolution of the Uppsala model showing the pattern of psychic distance. In the past decade, Foxconn has acted even more aggressively to strengthen and connect its network positions by linking all possible outward FDIs. To enhance its FSA's sustainability, Foxconn did not only recombine and spinoff for value-added new investments, such as supporting Xiaomi's initiative of make-in-India, it also acquired developed economies' global lead firms like Japanese electronics group Sharp in 2016 and Finland handset's licensing brand Nokia in 2015 to further obtain strategic assets that could complement its competitive advantage to generate exponential growth. In addition, Foxconn is fully aware of the emergence of the ecosystem concept that describes a wider network comprising of more players with different roles, which is fast-changing and highly dynamic with a common reason or threat for existence. Hence, Foxconn has started implementing its vision of the ICT ecosystem, covering the strategic focuses of content creation (big data), information process, cloud data management and network transmission, by organizing a new business sub-group since the end of 2017. Moreover, Foxconn has committed to FDI plans of "Flying Eagle" to the United States, which attracted China's attention to seek Foxconn's further investment commitments in China. These events occurred before the announcement of the Trump administration's trade policy and have fortunately survived the unpredictable China-United States trade war since 2018 thus far.

#### *Pou Chen Corporation (Pou Chen)*

Pou Chen, founded in 1969 with headquarters in Taichung, Taiwan, is the world's largest branded athletic and casual footwear manufacturer for global brands, such as Nike, Adidas, Under Armour, New Balance, Puma, Timberland, etcetera. Every-one in five shoes worldwide is now produced by Pou Chen and its subsidiaries. Pou Chen's internalization process also followed the Uppsala model by exporting the handmade footwear, and it expanded by setting up additional plants to manufacture plastic footwear. Its stable supply guarantee and good quality products assisted it in obtaining the athletic lead first order via OEM in 1978, which was further kicked off by the ODM to deepen the client relationship in 1983.

After receiving Nike's first order in 1988, Pou Chen became the first batch of Taiwan firms to enter China for market-seeking to outperform their competitors from Korea. At that time the footwear production lines were not yet fully automatic, so labor cost came as the first consideration to achieve a competitive advantage. Pou Chen reconfigured its manufacturing sites and production lines in China, listed its Taiwan parent company in 1990, listed its holding company Yue Yuen in Hong Kong, and invested in South East Asian countries like Vietnam, Indonesia, and Bangladesh to maximize cost-saving. To accommodate footwear GVC's requirement of efficiency, Pou Chen also continues to invest and acquires relevant suppliers from upstream to downstream to take control of the key components. To enhance the commitment process and demonstrate the value of vertical integration and horizontal division of labor, Pou Chen re-sold 67 subsidiaries to Yue Yuen in 2002 to expedite the turnaround cycles for the end-to-end value chains.

Through the above processes, Pou Chen has successfully integrated the knowledge and technology from its own systems and accumulated the experiential learning to formalize its unique "blooming flower-type" business model. It enables Pou Chen to support the product design, development, and manufacturing needs of its buyers and to take time to create working relationships via considerable investments to forge long-term relationships. Global lead firms seem to perform with increasing speed of change, however, like Adidas' Speedfactory, a fully automated factory adopting the fast fashion model, allowing Adidas to customize shoes close to the consumers. To tackle this business dilution, Pou Chen has allocated more managerial efforts to invest in innovation production processes such as 3D printing and working as a strategic partner by setting up innovation centers separately for Nike, Adidas and Under Armour to drive more open co-creations to capture the radically accelerated footwear production market.

To diversify the risk of industry concentration, Pou Chen began exploring opportunities in other industries once it was firmly established, such as its entrance into ICT for electronic components, the hotel industry with its own brand name of Windsor Hotels, and even investments in a life insurance company. As expected, given its non-relevance to its core competence, however, not all these business ventures ran smoothly, such that Pou Chen was forced to sell its ICT business after the global financial crisis in 2008. To retain its value proposition under GVC, Pou Chen accelerated its shift in management alignment backed to the footwear-related ecosystem in the same year, with the focus on footwear manufacturing allocated to Yue Yuen and sportswear distribution channels to Pou Sheng. As of now, Pou Sheng is one of the largest distributors in the Greater China Region for global sportswear brands. It not only operates its own direct stores, but also sells to third-party stores on a wholesale basis to strengthen its ecosystem position within the same region of emerging markets.

#### *Eclat Textile Co., Ltd (Eclat)*

Eclat, a Taiwan-based company, is founded in 1977, started its business from fabrics trading. The firm primary engaged in developing elastic knitted fabrics for producing sportswear and casual garments and in ready-made garments for manufacturing, processing and trading for global athletic and leisure brands and other lead firms such as Lululemon, Gap, Target, J.C. Penny, etc. Eclat strengthened its product capability by seeking resources from strategic alliance partner from United States in 1988. It further allowed them to be honored with Q-Mark by DuPont and became the first firm in the Asia Pacific region to produce DuPont Lycra in 1993. Following the boom of health consciousness in the early 2000s, Eclat has been devoted to exploring organic fabric materials and was certified for organic cotton production by Control Union Sustainable Textile and Organic Exchange in 2005. From the perspective of textile GVC, Eclat has showcased its determination to integrate midstream to downstream with comprehensive range of diversified and differentiated product knowledge and product quality to attract global lead firms' attention.

Eclat gradually entered the internationalization process when it was already firmly established for fifteen years in the host market after introducing a fully automated production system. Its market-seeking strategy prudently followed a step-by-step commitment process, such as FDI activities in China. The first garment plant in China was built immediately before Eclat obtained its dyeing and finishing capabilities in 2000, followed by the setting up of a company to collect local market information. This was coupled with the expansion of production capacity in 2003, which was increased upon entrance into Vietnam in 2004 to access even lower-cost resources and capabilities.

Eclat also carefully diversifies the buyer portfolio to cap the maximum exposure to no more than 15%. Unlike most garment OEMs which pitch from the lead firms, Eclat is willing to spend time with potential new buyers, like their best practices with well-known yoga brand Lululemon. Instead of merely being a reactive supplier, Eclat adopted a reverse development process to proactively co-develop the fabric materials and create the design together with Lululemon until it achieved success. The relationship was built upon the process of revolutionary affection. In addition to the traditional buyers, Eclat also extended its exposure to e-Commerce in 2016 with Amazon as the leading buyer from a completely different field of industry.

Eclat has transformed itself from an OEM to an ODM that offers one-site fitting solutions in their product creation centers in Taiwan, which can cover small batches of end-to-end design, knitting, dyeing, functional finishing, quality control, laboratory verification, and inspiration showrooms to demonstrate comfortable and fashionable garments. Recently, Eclat has even attempted to launch their own branding & manufacturing (OBM) with brand names such as Eclon, Body Care, x-Pole etcetera. To enhance its unique and niche position under textile ecosystem, Eclat, as a specialist, has further announced that it will enter technical cooperation projects following the government's initiative to work on commercializing niche fabrics and wearable technologies to explore and exploit the textile industry in the next generation.

*Hota Industrial Mgf. Co., Ltd. (Hota)*

Hota, founded in 1966, is the largest professional transmission system parts and components manufacturer in Taiwan. It is also one of the top 10 suppliers in the world to such well-known automobile brands such as Tesla, Ford, and General Motors, alongside leading firms from developed markets. Because the domestic demand for the key technology and components of the Taiwan automobile markets are controlled by leading Japanese firms like Toyota, Hota started their business by focusing on export. Over the years, Hota is also devoted to continuing to enhance the production process including precision machines and tools for delivering quality assured and efficient manufacturing cycles. In addition, Hota proactively entered technical cooperative projects that provided Hota with two key benefits: the improvement of its process development capabilities of key machines and equipment, which retained customization and cost advantages; and the introduction of automated equipment successively to improve the overall production efficiency and capacity to complete the supply chain system by providing the end buyers with one-stop shopping solutions.

Hota obtained ISO certification and British Standard Institution (BSI) in 1995 and became the first manufacturer in Taiwan with international quality assurance. This not only allowed Hota to sell its professional machines to developed economies, but also helped Hota to enter the United States' automotive, motorcycle and truck OEM market. In 1996, Hota arranged the first FDI in China to set up a manufacturing plant to enlarge production capacity and further lower overall costs. Hota further established branches in the United States and Japan to maintain and develop the host markets and to closely serve its buyers' needs. By cooperating with a famous transmissions firm from Belgium in 2010, Hota has extended the exposure to the domestic market in China with a specialized field of automotive continuous variable transmissions.

Hota's relationship development process was also based on the incremental level of commitment from the end buyers. In 2016, Hota established a new plant mainly for General Motors' production and it also was recognized as the best global supplier by General Motors in the same year. This is similar to how it successfully penetrated the electric vehicle market by taking the first order from Tesla in 2012, resulting in its becoming the sole transmission gear supplier to Tesla. This partnership has continued with a scheduled expansion plan to set up manufacturing plants in the Southern United States to support the global lead firms' requirements from a long-term perspective. In addition to promptly responding to the buyers, Hota continues to integrate its value chains by further investing in diversified but relevant components to provide a complete transmission set.

Hota does not restrict itself as a key component supplier only to lead firms. To demonstrate its determination to further adapt to the digital economy, Hota announced in 2017 that it will upgrade the automobile components' GVC by offering a SmartAuto platform which aims to cover Big Data, Internet of Things (IoT), and cloud computing services, leveraging the technology of Artificial Intelligence (AI). As the first digitalization platform for automobile components in Taiwan, it offers an end-to-end production process for the upstream and downstream participants onto the platform. In addition, it provides value-added service to improve the ease of monitoring and management to optimize the outputs and improve the efficiency of production. By doing so, Hota's leading position under the specialized GVC can be secured as the first mover advantage of being their own ecosystem's organizer.

**TABLE 1**  
**SUMMARY OF CASE STUDIES**

EM Suppliers' industry	[1] Foxconn ICT industry	[2] Pou Chen Footwear industry	[3] Eclat Textile industry	[4] Hota Automobile industry
Global buyers	Apple, Dell, HP	Nike, Adidas	Lululemon, Gap	Tesla, Ford, General Motors
FDI motives	Market, Efficiency, Strategic assets	Market, Efficiency Resource	Market, Efficiency	Market, Efficiency
Dynamic capabilities	The lowest and total cost solutions	Stable supply and production innovation	One-site fitting for differentiated targets	One-stop solutions of transmission system
Commitment processes	eCMMS model by leveraging finely sliced activities by each subsidiary	Blooming-flower type of business to take control of key components	Step-by-step knowledge acquiring by strategic alliance	Technical cooperation and closely serve buyers' need
Relationship development processes	Key production intermediary	Strategic partner for innovative production process	Co-design and co-creation for niche buyers	Specialized value chains committed to invest for each buyer
Ecosystem position	Pioneer of implementing ICT blueprints	Accelerator for the core footwear business	Specializer to exploit niche textile	Trusted follower to mobilize automobile
Response to institutional change	Prioritization of cross-regional integrations	Incremental investment to ASEAN countries	Retention of core business in home country	Benefit from trade war's resolution of tariff reduction
Reverse innovation	First choice of assembler for the well-known lead firms; Turned around the financial performance of acquired DMNCs Sharp and Nokia in 2 years.	Every-one in five shoes is produced by this ODM worldwide; One of the largest sportswear retailers in Greater China.	Differentiated ODM for specialized collections for lead firms; Smart OBM exposure targeted sustainable textiles only.	Validated industrial leader that produces efficient and high- quality products; Introduced digital platform to integrate all midstream components suppliers.

## DISCUSSION AND CONCLUSIONS

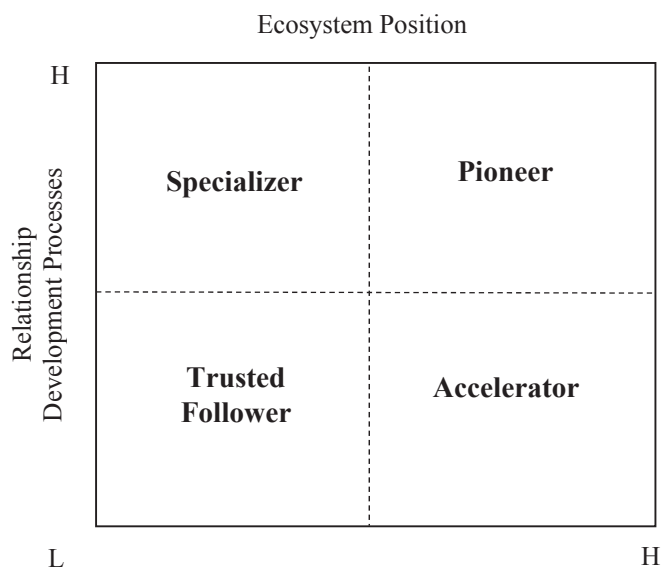
### Securing the Position From GVC: The Role of EM Suppliers

GVC cannot operate efficiently without the lead firm determining the strategy for the entire network and setting the mechanisms for selecting the right participants. As EM suppliers retained operational autonomy and began conducting vertical integration in the past few decades to take control over certain critical production processes, it is reasonable to assume that power asymmetry may arise for those suppliers to gain access to the lead firm's think tank of FSAs, such as brand names and capabilities (Kano, 2018). Position alone does not enable value creation, however, nor is such a position guaranteed any stability (Denicolai et al., 2015). Here, considering that the lead firms can deploy entrepreneurial activity for the purpose of the long-term cooperative relationship, we summarize the implications

collected from the cases of EM suppliers on how to secure the position from GVC to continue the multiple interactions that occur in the realm of strategic arrangements, which go beyond arm's length transactions.

Borrowing from the enriched contents of the evolution of the Uppsala model while assuming dynamic capabilities and commitment process as the underlying basis for the firm itself, we take the two variables under the proposed conceptual model of GVC to state the positions of the participants under the value chains. "Relationship development process" distinguishes the resources to coordinate a set of relationship partners. "Ecosystem position" captures and further enables the boundary spanning activities across relevant networks beyond bounded rationality and bounded reliability of parties involved. The EM suppliers and their roles have arisen according to the aforementioned phenomena and can be concluded by four primary roles displayed in Figure 2, as detailed below.

**FIGURE 3**  
**THE ROLE OF EM SUPPLIERS UNDER GVC**



*Pioneer: Strike First to Gain Mastery*

As the pioneer, an EM supplier can influence the lead firm and set the standards for shaping the selection criteria for the entire network. Other participants will strive towards achieving common standards via further exploring and exploiting the individual capabilities. Moreover, a pioneer EM firm is able to take advantage of the institutional change to influence the reform of formal institutions that may result in institutional evolutions (Neyapti & Arasil, 2016). For example, Foxconn demonstrated its own ICT ecosystem to connect the future growing engines of Big Data and the Cloud by fast bundling the existing business units. By taking advantage of the opportunities during recent political events and the trade war, Foxconn further prioritized the cross-regional integrations to disaggregate even finely sliced economic activities with spinoffs of new business investments.

*Accelerator: A Fish Leaping over the Dragon Gate*

This type of EM supplier is well-established and commands a capability to organize its value chain activities, which also implies that it is fully able to deal with institutional changes. If such an EM firm dilutes its focus by entering a completely irrelevant industry, its business momentum will slow down due to its lack of experience. Indeed, its ecosystem position may be further surpassed by other suppliers or the lead firms. To secure its position in the GVC, Pou Chen has made the right decision to accelerate with its original focus and drive the excellence of footwear value chains.

### *Specializer: Foster a Craftsmanship Spirit*

In this role, the EM supplier is equipped with dynamic capabilities to focus on supporting the growth of lead firms. It stays active in the downstream part of the value chain and keeps aligning new manufacturing capabilities. Meanwhile, upstream firms are familiar with the upcoming marketplace changes (Snow, Miles & Coleman, 1992). Eclat's efforts for co-creation and co-design for Lululemon, for example, caught JC Penney's eye and resulted in an invitation for Eclat to design a series of Athleisure sportswear. Such determination can also be evidenced by the EM firm's investment plan to keep the core competence or tacit knowledge in the home country.

### *Trusted Follower: Execute to the End*

In this scenario, the lead firm acts as an architect to determine the participants and decides on optimal locations for fine-slicing economic activities (Buckley et al., 2004). Meanwhile, the sole role of the EM supplier is as a willing follower that can carry out the deliverables committed by the lead firms. Such an EM firm is able to grow and enter the internationalization process under the environment set by the lead firms and may even benefit according to the institutional evolutions. Though Hota is deemed as an expert only in the supply of transmission gear, its determination to introduce a one-stop transmission system and its potential economizing contribution of the network are qualities that have firmly captured the lead firms, such as Tesla.

## **Uplifting the Internationalization Process: The Characteristics of EM Suppliers**

While the GVC governance model may vary over time due to several external factors and pre-conditions set by the lead firms, here we propose an enhanced conceptual model to demonstrate how the Uppsala model provides a different view of reality compared to GVC's consideration of efficiency. The analysis of EM suppliers highlights how a specific action, especially resource commitment, is qualified by the global lead firms' criteria and fits into a firm's own history and its learning process and knowledge accumulation. Compared to purely using GVC theory designed for cross-sectional analyses, dominating contemporary management research agendas influencing specific decisions and looking at EM suppliers further shed new insights for the dynamisms between the supplier and buyer relationship. Through the lens of the Uppsala model, EM suppliers still appear to have similar characteristics with a logical consequence for their internationalization process together with GVC explained in the following.

First, the geographic pattern of the internationalization process for EM suppliers is similar as FDI motives originate only after they established an OEM relationship with the lead firms. To further expand the product capacity, these EM firms took market-seeking and efficiency-seeking approaches to invest in China and then further introduced automated systems to achieve GVC's required effectiveness and efficiency. The subsequent FDIs are diverse since psychic distance appears to be less of a concern where they might pursue the competitive advantage of cost saving and where the next downstream buyers are. Because of the dynamic changes in the business environment, EM suppliers are more cautious about accelerating their attempts to diversify buyer portfolio, even across different industries. Nonetheless, we suggest that the diversification focus on the core value proposition with connectivity and relevancy to its domiciled industry, such as Foxconn's successful extensions of vertical integration value chains from PC to handsets, while Pou Chen was forced to stop investment into its electronic business and shifted its focus back to footwear after the financial crisis in 2008.

Second, the cases also illustrate EM suppliers' pattern of gradual increase of commitment process at a specific lead firm, though the bilateral dependence among GVC is still increasing. Rather than only focusing on performance and efficiency, it is the trust-building alongside the relationship development process where EM suppliers also committed subsequent investments via new manufacturing plants or new resources in considering the long-term managerial efforts. For example, Pou Chen's footwear business consolidation in 2002 optimized the best production and service support for each leading athletic brand with a single command center, while Eclat and Hota are regularly recognized by the global lead firms.

Third, the rising EM suppliers have been driven by a variety of complementary learning processes to strengthen their dynamic capabilities, which also help upgrading their ecosystem position. The rise of EM

firms not only follow classic experiential learning to transfer knowledge within internal network, but also seek to obtain new technology and product knowledge from developed market firms via strategic alliances, as shown by Eclat and Hota, such that Hota even became the first manufacturer with international quality assurance among Asia Pacific region. Moreover, the knowledge can be directly acquired from the value chain's upstream and downstream counterparties to enhance the objective of dynamic capabilities to further shape managerial perceptions of business opportunities. Foxconn and Pou Chen's highly vertical integration business model, for example, allowed these EM suppliers to seize the value creation and value creation activities and take control of the majority of production and operations' activities under the value chains, thereby allowing them to dare to explore ODM or even own a leading brand in the international business market.

### **Theoretical Contributions**

Linking GVC approach to the extensive literature on the evolutionary models of the internationalization process has enabled several contributions to shape the future development of the international business. As a step towards formulating a more unified explanation of the emergence and dynamic change of GVC configurations, it could prove important to look for similarities between GVC and the process models regarding their internationalization process.

The basic requirement of GVC is efficiency consideration. Nonetheless, the central issue embedded is knowledge transfer and dynamic capability (Rugman & Verbeke, 2001). Therefore, we highlight that these can be complemented by the business network model from the perspective of resource-seeking to capture the dynamics of learning, trust, and commitment. This may also lead to the exploration and exploitation of value chains (Pyndt & Pederson, 2006) and market-seeking internationalization to coordinate a set of relationship partners across countries (Johanson et al., 2009) with the same level of commitment, and with the possible extension to connect with the relevant industries. While the most recent conceptions of GVC have evolved as an integrated structure consisting of a mix of internal and external contracts (Kano, 2018), their value creation process in global connectivity could not be achieved without the dynamic capabilities illustrated by the general MBE model. Here, we further leverage the extension concept of ecosystem, considering its generativity of distributing technology in digital context and enabling the dialogue into wider communities comprised of institutional stakeholders and other currently relevant actors.

Taken together, it is evidenced that our enhanced model of internationalization process is suited to evaluate GVC participants on their current FSAs at firm level and to examine their supplier-buyer relationships at industry level. Furthermore, our model also helps to assess the readiness of each individual firm's relationship development processes as well as their ecosystem position, in order to formulate their reactions to the change of business environment and institutional evolutions.

### **Managerial Implications**

Our conceptual model views the firm as a connector rather than a production unit under the value chains. In addition, it offers new opportunities to analyze the management and coordination of different economic activities that comprise disaggregated GVC as well as the interactions between GVC participants and market conditions.

From a dynamic perspective, a rapidly growing number of internationalizing EM suppliers have started upgrading their capability to take control of the upstream supply network or even extending strategic asset-seeking to try to build around a brand, a design, or a patented technology for shifting all the possible power asymmetric relationship under GVC. These types of EM firms are flexible enough to connect varied and fine-slicing parts of value chains through different mechanisms, to develop their specific reserve innovation advantage, and to demonstrate their bargaining power among their home country and host countries to implement the integrative ecosystem blueprints. Though the lead firm's position may be challenged, this indicates the importance of the need to accelerate their interface capabilities on R&D, tacit knowledge, and innovation for further trends. We believe our proposed model



is useful in enhancing the understanding of GVC participants' transformation and internationalization under the dynamic change of global value chains.

Moreover, leveraging the case insights from four suppliers from benchmarking GVCs, we conclude that the ability to define the roles and characteristics of EM firms across different industries is based on their dynamic capabilities, commitment processes, relationship development processes and ecosystem position under the proposed conceptual model. It not only ascertains the synergies between GVC and the process model to exploit EM firms' FDI motives, and showcases for its reverse innovation, but also implies EMN suppliers' value-added roles in articulating its business development plans to focus, and hence allowing GVC to channel the responses to the dynamic change of the business environment.

### **Research Limitations and Future Research**

In this paper, we conduct a conceptual literature review to synergize an enhanced model of the internationalization process in the context of GVC with verification from illustrative sample cases from EM firms who began as a supplier under GVC. Although constructive methodology is not used (Johanson et al., 2009), such longitudinal cases still help to contribute to a deeper understanding of dynamics of the phenomenon. Having said that, we still adequately capture the possible route of EM suppliers under GVC development with the case insights from four high-profile Taiwanese firms across a wide range of industries – ICT, Footwear, Textile and Automobile – on how they upgrade dynamic capabilities, explore new markets, and even seize opportunities for growth. Though Taiwan is currently characterized by subtle diplomatic tensions and lack of growth momentum due to industrial migration, our selected EM firms have been well-established for more than four decades. This position allows them the ability to proactively deal with upstream and downstream stakeholders and even including governments as one of their buyers to further initiate potential change of institution on both home and host countries (Doh et al., 2017) by frequent examination of their ecosystem positions.

In this regard, future research could validate this conceptual model within the context of other industries or in different emerging market locations, such as China or the rising Mighty Five nations (Malaysia, India, Thailand, Indonesia and Vietnam) together represent a potential “new world factory,” which will help to confirm the external validity of this study so that our proposed model and the associated variables can be generalized. This is particularly relevant as EM firms in these countries usually enjoy greater governmental support from their home country with a desire to fast track the latest trends of the digital economy. This additional research shall further advance our knowledge on how they engage with GVC participants in a differentiated way.

More and more EM firms are on a roll to bid among the GVCs or even start building up their own value chains. Thus, it is logical to aggregate the two established international business fields of GVC and the process model to redefine the patterns of EM firms. Incorporating new technologies, leveraging experiential learning, and knowledge spillover to boost the efficiency, effectiveness, and other economic benefits are all key deliverables to determine the respective roles and the distinct characteristics of EM firms, which in turn are inevitably linked to GVC's performance and sustainability. Nonetheless, in order to outperform from the dynamic change of GVC continuously, it is meaningful to also smartly embed a co-evolutionary nature (Cano-Kollmann et al., 2016) along the journey for the internationalization processes.

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