

The More the Better vs. Less is More: Strategic Alliances, Bricolage and Social Performance in Social Enterprises

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Abstract

Social enterprises (SEs) seek effective resource mobilization strategies that can translate resources into improved performance, thereby achieving their social missions. Strategic alliances offer SEs access to various resources, and bricolage helps SEs mobilize the assets at hand by ‘making do with everything available’. However, the dynamics between the two strategies and their impact on the SEs’ performance remain underexplored. Drawing upon a resource-based view through an input-process-output lens and integrating resource dependence theory, this study explores the mechanism of strategic alliances, bricolage, and social impact scaling and investigates the role of entrepreneurial orientation within it. Using evidence drawn from a survey of 278 Chinese social firms, this research views strategic alliances and bricolage as an effective ‘strategic bundle’ for improving SEs’ social performance and sheds new light on the bricolage-mediated resource management mechanism within SEs. We suggest that social entrepreneurs practice alliance-specific bricolage strategies to convert resources into superior social performance.

Keywords: Bricolage, Social enterprises, Social impact scaling, Strategic alliances, Entrepreneurial orientation.

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1. Introduction

Social enterprises (SEs) are increasingly being recognized for their ability to make a social impact by employing innovative strategies in the context of the resource paucity typically associated with the social sector (Di Domenico et al., 2010). Unlike commercial organizations that emphasize maximizing financial profit for their stakeholders, the primary emphasis of SEs is to generate social performance for their targeted recipients (Doherty et al., 2014). Social performance refers to the functioning of SEs in creating social value and achieving social missions, goals, and objectives (Coombes et al., 2011). The social performance of SEs is often captured by their social impact scaling, which includes both breadth (the number of recipients that the social impact reaches) and depth (reaching recipients who are most in need of social support) dimensions (Dees, 2008; Desa & Koch, 2014).

SEs often face resource constraints and the ability to identify effective strategies to acquire and mobilize resources in order to scale up their social impact is vital (Gupta et al., 2020; Ladstaetter et al., 2018; Sakarya et al., 2012). To this end, prior research highlights the importance of understanding the joint effects and mechanisms of different strategies in improving the social performance of SEs (Janssen et al., 2018). The primary inquiry of our research is to explore the mechanism for translating resourcing strategies into social performance. To achieve this, we focus on strategic alliances and bricolage, as they are both resourcing strategies commonly practiced by SEs (Desa & Basu, 2013; Sakarya et al., 2012).

Strategic alliances, formed externally by two or more organizations, are often seen as a pragmatic strategy that encourages the members to share their resources and capital and create potential value (Rothaermel & Deeds, 2006; Zhao et al., 2017). Strategic alliances emphasize the logic of ‘the more the better’, which means that alliances succeed by pooling and thereby enabling greater access to resources. In contrast, bricolage features the notion of

'less is more' (i.e., fewer resources stimulate more innovative resource utilization and mobilization; Sunduramurthy et al., 2016), defined as "making do with whatever is at hand by reuse and recombination" in resource management and business operations (Baker & Nelson, 2005, p. 333). Bricolage helps SEs to create social value by mobilizing limited resources via innovative and improvisational solutions, rather than refusing to act and waiting for large-scale resource acquisition (Desa & Basu, 2013; Janssen et al., 2018).

Despite being regarded as effective strategies in the context of resource paucity, some important questions in relation to the role of strategic alliances and bricolage in the realm of social entrepreneurship remain unanswered. First, in terms of the notion of 'less is more', questions remain in relation to the effectiveness of bricolage in inducing greater performance, as previous studies tend to view bricolage as a pragmatically useful but 'second-best' solution to resource shortages, rather than a deliberate strategic process for effective resource mobilization (Garud & Karnøe, 2003). A theoretical and practical understanding of the strategic use of bricolage is important and makes an urgent call for further investigation (An et al., 2018; Janssen et al., 2018). Furthermore, most of the previous studies focused on the commercial rather than the social sector, with emphasis predominantly on financial rather than social performance (Bacq et al., 2015; Bojica et al., 2018). Therefore, further understanding of the enabling role of bricolage in social performance could enrich our understanding of it as an effective resource mobilization strategy in the relatively penurious context of the social sector.

Second, considering the resources offered by allied stakeholders, strategic alliances vary depending on circumstances and include *upstream* (i.e., partners with the valuable specialized, scientific, and technological knowledge and resources needed for product development; e.g., universities and public research institutions), *horizontal* (i.e., partners with supplementary knowledge and resources in product design, prototyping, testing, development, and

commercialization; e.g., peer firms), and *downstream* (i.e., partners with complementary knowledge of and resources for producing and distributing products; e.g., manufacturers and logistics companies) alliances (George et al., 2001; Haeussler et al., 2012). Prior research on the impact of different levels of strategic alliance on the focal organization has mixed findings (e.g., Haeussler et al., 2012; Kotabe & Scott Swan, 1995; Lee, 2007). More importantly, the mechanisms at work between the different levels of strategic alliance and the deployment of bricolage remain unclear. Examining these mechanisms is important, because the nuanced discrepancies between different alliances affect the efficiency of the resourcing strategies pursued by SEs (Duymedjian & Rüling, 2010; Saebi et al., 2019). In relation to the logic of ‘the more the better’, although developing alliances at different levels could bring in more resources, without efficient resource mobilization strategies, simply expanding alliances may not necessarily guarantee success (Hagedoorn et al., 2018). To this end, bricolage as an innovative resource processing logic is expected to be involved at the various levels of alliance to produce ‘resource input-resource processing’ mechanisms, enabling social impact scaling as a ‘resource output’ (Bacq et al., 2015; Bagnoli & Megali, 2011). However, the effectiveness of creating a strategic bundle that combines strategic alliances and bricolage remains underexplored, despite previous research making calls for such inquiries (Janssen et al., 2018; Saebi et al., 2019). Understanding the strategic mechanisms at the level of an alliance would, it is argued, protect SEs from losses incurred by following overgeneralized strategic guidelines (Ladstaetter et al., 2018; Sakarya et al., 2012).

Third, how effectively bricolage can be implemented may also depend on the strategic orientation of the organization concerned (An et al., 2018; Guo et al., 2016). A crucial element of the SE movement is the increased emphasis on entrepreneurialism through the use of innovative, novel applications of business strategies and models that have the potential to address social issues (Mair & Martí, 2006; Varadarajan & Kaul, 2018). To this end, studies in

both the commercial (Covin & Lumpkin, 2011; Covin et al., 2020) and social entrepreneurship (Bhattarai et al., 2019) literature have found that possessing an entrepreneurial orientation (EO) can serve an essential role in shaping the implementation of a resource mobilization strategy. Often viewed as a firm-specific resource, an EO reflects the ability of firms to act innovatively, proactively, and boldly to capture entrepreneurial opportunities (Jiang et al., 2018; Lumpkin & Dess, 1996). Thus, it is crucial to gain a more comprehensive understanding of how EO shapes effective bricolage strategy implementation (resource processing) into improved social performance (resource output).

Against this background, we applied the structural equation modeling (SEM) method in utilizing primary survey data gathered from 278 Chinese SEs. Our research objectives were threefold. First, this study views strategic alliances as a multi-level resourcing strategy and explores the effects of different alliance approaches on SEs' use of bricolage. Second, we further examine whether bricolage is a mediator that translates the effectiveness of strategic alliances into the breadth and depth of the social impact scaling of SEs. Third, we evaluate the role of EO as a strategic guide that shapes the effectiveness of strategy execution by examining its moderating role in the association between bricolage and the scaling of social impact.

Drawing upon a resource-based view (RBV) from an input-process-output (IPO) perspective and integrating resource dependence theory (RDT), this paper responds to a series of calls in prior research on social entrepreneurship and strategic management and makes several important theoretical contributions (Bojica et al., 2018; Sakarya et al., 2012). First, this research sheds new light on the mechanism behind the relationship between strategic alliances, bricolage, and social performance, by conceptualizing them into resource inputs, resource mobilizing processes, and resource outputs, respectively, in accordance with the IPO perspective. Our study offers new insight toward gaining a comprehensive

understanding of the strategic bundle of alliances and bricolage, which is the interaction of ‘the more the better’ and ‘less is more’ logics. Second, we push the boundaries of bricolage research by evidencing bricolage as a crucial strategic practice that processes resources effectively, rather than a substandard solution to resource-scarcity problems that some previous work had highlighted. Specifically, our findings offer empirical evidence to the ongoing debate on the effects of bricolage on social impact scaling and highlights the importance of EO in translating bricolage into social impact (Bacq & Eddleston, 2018; Janssen et al., 2018). Third, our paper contributes to the social entrepreneurship field by introducing and validating a new measurement construct of the depth of social impact scaling (Bacq et al., 2015).

In practical terms, this study provides strategic guidelines for SEs seeking to acquire and mobilize resources and advance the effectiveness of their resourcing strategies in order to generate greater social performance, especially in developing economies. This crucial and timely guidance is expected to help social firms respond to complex resource challenges. We also provide fresh insights for communities wishing to develop supportive business environments and obtain potential benefits by fostering entrepreneurial skills and increasing SEs’ awareness of their social needs.

2. Theoretical background

In order to understand the dynamics and effects of strategic alliances and bricolage on SEs’ social performance, as well as the moderating role of EO in the bricolage-social performance relationship, this study applies an RBV from an IPO perspective as its overarching approach to gain insights into the performance generation process of SEs (Carnes et al., 2017). We also adopt RDT to explain how the various levels of strategic alliance affect bricolage practice and the mechanism of different strategies in generating improved social performance for SEs.

In this section, we first outline the connection between the RBV and an IPO perspective and evaluate how resource input can be processed to generate expected performance in the social entrepreneurship context. The RBV also highlights the significance of strategic orientations (e.g., EO) in shaping how effectively a strategy is implemented (Mohiuddin Babu et al., 2019). We then draw from RDT to provide a theoretical basis for the interdependence relationships between stakeholders in a strategic alliance and how they may exert influences on the focal social enterprise. RDT can be seen as complementary to the RBV and offers us a useful theoretical lens through which to understand the dynamics behind different forms of collaboration arrangement, which has implications for the strategies in which external resources will be utilized (Hillman et al., 2009).

2.1 Resource-based view from an IPO perspective

The RBV proposes that controllable strategic resources, including assets and capacities, can have an impact upon a firm's performance (Barney et al., 2001). The central premise of the RBV is that as each firm has a unique bundle of resources that are valuable, rare, inimitable, and uniquely organized, identifying potential sources of key resources and the most efficient ways to utilize them is crucial to the successful development of sustained competitive advantage in the marketplace (Barney, 2001). Nevertheless, gaining resources is only the first step, and the manner in which resources are utilized further determines the extent to which a firm can develop a sustainable competitive advantage (Eisenhardt & Schoonhoven, 1996). The IPO perspective complements the resource focus of the RBV by providing a systemic framework to explore the process of transforming resource inputs into performance outcomes. Originally developed in the team performance field, the IPO framework has been extended to various research fields, including business processes, new product development, and supply chain management (e.g., Ilgen et al., 2005; Stock, 2014; Wong, 2013).

Within the strategic management literature, IPO is viewed as a multi-phase system framework, with pioneering research focusing on the resource orchestration processes and specifically on managerial actions in terms of the structuring, bundling, and leveraging of resources and capabilities to create value (Carnes et al., 2017; Hitt et al., 2011). Gradually, the focus of the process turns toward the specific strategies that facilitate the innovative and creative exploration of how tangible and intangible resources can be utilized (Baert et al., 2016; Lumpkin et al., 2011). Studies have also examined different resource mobilization strategies (e.g., differentiation-based, efficiency-based, and competitive advantages) in terms of how they can be combined effectively, generate advantages, and improve performance in respect of resource outputs (Barney et al., 2001; Newbert, 2008). Overall, it is found that a holistic approach that combines resources through a thoughtful, strategic process is crucial to translating resource inputs into improved performance (Kellermanns et al., 2016; Newbert, 2008).

Although both the RBV and IPO began as internalized theories for examining what a firm can accomplish given its means, the literature has extended the concept by considering how firms can enrich their resource base by developing strategic alliances (Das & Teng, 2000; Park et al., 2004). Studies have highlighted the roles of strategic alliances, both in determining the types of resource inputs that such collaboration may bring and the process by which these resources will be utilized (e.g., Eisenhardt & Schoonhoven, 1996). From the *input* perspective, it is found that strategic alliances enable members of those networks to collect and pool their resources, offering them access to diverse knowledge, resources, and capabilities that would otherwise be unavailable (Rothaermel & Deeds, 2006). The need to obtain resources is particularly pressing in the social sector owing to the penurious context in which many SEs operate (Doherty et al., 2014). Indeed, strategic alliance is a common phenomenon in SEs and has been studied previously (Kwong et al., 2017; Tasavori et al., 2018). The

practice of social enterprises forming strategic alliances often aims to create bonds and ties between stakeholders through common social objectives, rather than profit, enabling them to access resources from a broader base while maintaining a collective vision toward social impact (Liu et al., 2018; Sakarya et al., 2012).

From the *process* perspective, SEs turn often unappreciated, unused, or even unwanted resources into something useful through innovative and entrepreneurial approaches (Tasavori et al., 2018). In turn, the process either directly creates social value or indirectly improves social impact by creating economic value and enhancing the operation's financial sustainability (Bhattarai et al., 2019). Bricolage as a resource conservation strategy emphasizes the transformation and reconfiguration of the resources at hand to maximize their potential in generating economic value (Baker & Nelson 2005; Levi-Strauss, 1967). It is important to note that the literature does not simply consider bricolage as an approach to scavenging secondary resource inputs with the intention of creating inferior outputs (Baker & Nelson, 2005). Rather, bricolage is viewed as an entrepreneurial phenomenon and the level of entrepreneurialism within the SE can have an impact on the implementation of bricolage as a strategy, as well as the performance outcomes (Baker & Nelson, 2005).

In terms of *output*, the RBV also highlights the significant role of strategic orientation in the process of translating strategies into measurable performance (Lumpkin & Dess, 1996; Mohiuddin Babu et al., 2019; Wiklund & Shepherd, 2003). Given the specific focus on entrepreneurialism and strategic orientation in the effectiveness of strategy implementation, prior RBV research highlights the significance of EO (Cacciolatti & Lee, 2016; Li et al. 2008; Song et al., 2017). Through the lens of the RBV, EO shapes the implementation of a resource mobilization strategy in two respects. First, EO is itself a valuable firm resource, as it helps SEs cultivate a culture of innovation, proactiveness, and risk-taking (Covin & Slevin; 1989; Gupta & Gupta, 2015). This type of culture strengthens the effectiveness of unconventional and

innovative strategic practices (e.g., bricolage). Second, based on the RBV, a higher EO indicates greater entrepreneurial ambitions and catalyzes the process from resource mobilization strategy practice to the generation of superior performance in order to fulfill such ambitions (Gupta et al., 2020; Jiang et al., 2018). EO affects how SEs monitor, support, and preserve the appropriate implementation of bricolage (Bhattarai et al., 2019; Jiang et al., 2018). These theoretical underpinnings rationalize the moderating effects of EO on the process of SEs being able to convert bricolage into social impact scaling.

A perspective that integrates the RBV and IPO provides an overarching framework by which to explain the mechanism acting between strategic alliance, bricolage, and social impact scaling and the significance of EO in translating bricolage into social performance. More precisely, SEs use strategic alliances to gain a range of resource inputs and employ bricolage to mobilize and process such resource inputs effectively, thereby achieving improved social performance. An EO indicates the entrepreneurial culture and ambitions of an SE and strengthens the effective execution of bricolage. However, the RBV places less emphasis on differences in resource inputs (e.g., upstream, horizontal, and downstream alliances) and their implications for the IPO process. Given the specific focus on strategic alliance types in this study, we employ RDT as a complementary view to further explain the nuanced discrepancies in the effectiveness of strategic bundles of strategic alliances and bricolage that result from certain types of strategic alliance.

2.2 Resource dependence theory and the interdependency of stakeholders in a strategic alliance

A strategic alliance can alter the dynamics of a decision-making process and can also, therefore, have an impact on the strategic choices and resource usage strategies adopted by the firms concerned. RDT explains how the external environment influences an organization's

behaviors and performance (Pfeffer & Salancik, 2003). For example, external stakeholders provide resources for the focal organization to utilize, which also results in constraints (e.g., a power imbalance) for the organization, depending on the importance of the resources and the characteristics of the resource providers (Desa & Basu, 2013). Although collaboration increases resource input, it also increases the potential for stakeholder conflict (Carney et al., 2011; Kujala et al., 2012). The reliance on and relationship with external partners influence the strategic practice of the focal organization due to concerns regarding autonomy (Hillman et al., 2009). As a consequence of relying on the resources provided by external stakeholders, the focal organization's decisions might not be in its own best interests and could be influenced to some degree by the resource providers (Bojica et al., 2018; Kwong et al., 2017). A key aspect of RDT is the notion of power, which can be defined as the ability to bring about the desired outcomes, and it is the balance of that power that determines both the strategic direction of an organization and how resources will be utilized (Pfeffer & Salancik, 1974).

Nevertheless, strategic alliances are by no means homogeneous, and their different forms mean that they should not all be viewed in the same light. Traditionally, they are categorized into vertical (both upstream and downstream) and horizontal (Rothaermel & Deeds, 2006) alliances. An upstream alliance refers to SEs collaborating with organizations at the upper level of the supply chain, such as government sector partners, upper-level not-for-profit organizations, universities, or other publicly financed research institutes. A downstream alliance is established by SEs and the end-market organizations, which include manufacturing, marketing, delivery, etc., and a horizontal alliance indicates collaboration with other social or commercial businesses (Haeussler et al., 2012; Kwong et al., 2017). Collaboration with different stakeholders creates a range of resource dependency dynamics, with empirical research suggesting that it can lead to various strategic practices being adopted (e.g.,

Hagedoorn et al., 2018; Lyon, 2012). The various levels of the alliance are related to the focal organization to different extents, as those alliances offer distinctive resources and have varying expectations with regard to the control of the focal organization. Developing a resource utilization strategy in such conditions can become a question of establishing power and consensus between stakeholders (Kujala et al., 2012). Without financial profit as the common motive, some have argued that it is even harder for SEs to develop consensus among the different stakeholders (Larner & Mason, 2014; Smith et al., 2013).

Social entrepreneurship research suggests that SEs can form mutually dependent relationships with external parties to avoid an asymmetry of power (Villanueva et al., 2012). For example, SEs can mobilize resources supplied by external partners and create value for those partners, thereby generating win-win outcomes. SEs are thus motivated to tailor their resourcing strategies in order to achieve such positive outcomes (McNamara et al., 2018). As a result, the relationships and dynamics between the different external resource providers and the focal organization might differ, depending on the irreplaceability of the resources within the organization and the tension between two parties in terms of power and control (Kwong et al., 2017; Tasavori et al., 2018). This also means that the acceptance of bricolage as a resource mobilization strategy may vary considerably between stakeholders with some merely considering it a ‘substandard’ approach, which may hinder its use (Garud & Karnøe, 2003). In turn, the impact of a strategic alliance on input and process can have implications for an SE’s performance outcomes.

Through an IPO-oriented RBV, all three types of strategic alliance enrich resource inputs, which, in turn, influences the process of resource mobilization. However, RDT offers a theoretical anchor for explaining the tension between resource inputs and strategic resource processes (Villanueva et al., 2012). The different levels present in alliances indicate various institutions that offer distinctive resources and the opportunity to establish diverse

relationships between SEs and external partners. In particular, autonomy with regard to the use of resources is a facilitating condition of bricolage practice (Desa & Basu, 2013). This is because bricolage is an improvisational strategy that emphasizes the efficiency of resource use, although this improvisation could be constrained by the autonomy granted to the focal SE by its external stakeholders (Tasavori et al., 2018). Different stakeholders provide distinctive resources but influence an SE's autonomy to different extents. In other words, the different levels of the alliance that act as resource inputs influence SEs' processes and outcomes when utilizing resources.

Figure 1 outlines the linkage between the individual constructs in the conceptual framework. The process we used to develop our hypotheses is presented in the next section.

<Insert Figure 1>

3. Hypotheses development

3.1 Strategic alliances and bricolage

As referred to above, strategic alliances can be categorized into three types, based on the nature of the allied institutions and the potential resources they can bring: upstream, horizontal, and downstream (Haeussler et al., 2012). An upstream alliance indicates an extension of a firm's supply chain by developing bonds with a partner and engaging in upstream activities of the value chain, such as research and product development (Haeussler et al., 2012). This type of alliance gives SEs access to crucial resources in the form of expertise, advanced technology, and skills. Although organizations can also obtain financial resources from such alliances (Bacq & Eddleston, 2018; Di Domineco et al., 2010), it is often not the primary motivation for such a partnership, despite the resource constraints commonly faced by SEs.

Rothaermel and Deeds (2004) developed an exploration-exploitation model and argued that an alliance can be distinguished in terms of its collaborating motivation to explore new opportunities (i.e., exploration alliances) or to exploit an existing capability (i.e., exploitation alliances). In product development, a focal firm tends to seek exploration alliances, as these will help it generate value-adding ideas and develop new products through innovative approaches (Majewski, 1998; Rothaermel & Deeds, 2004). Similarly, upstream alliances typically facilitate the exploration of new opportunities with partners who are likely to be more receptive to innovative, out-of-the-box solutions to problems (Lavie et al., 2011; Yang et al., 2011). Bricolage is one such exploration-oriented strategy that enables allied partners to adapt to a penurious environmental context and allows SEs to mobilize resources efficiently at reduced cost and risk (e.g., communication and business transactions) (Bojica et al., 2018; Desa & Basu, 2013; Di Domenico et al., 2010).

In addition, exploration alliances have a relatively remote path length between the social firms and partners positioned in the defined network (Lavie et al., 2011; Lavie & Rosenkopf, 2006), their associations are quite loose compared to exploitation alliances. As upstream alliances are mainly from non-commercial fields, the strategic actions of focal SEs barely affect them. From RDT, the remote path length between upstream alliances and the SEs positioned in their network reduces pressure on the social enterprises, allowing them to take a long-term view in pursuing new opportunities (Di Domenico et al., 2010). Increasing the number of upstream alliances also mitigates and decentralizes the pressure that can be generated by having only a few partners and allows SEs to achieve greater resourcing efficiency through bricolage (Bojica et al., 2018). With greater autonomy facilitated by increasing the number of upstream alliances, SEs can utilize bricolage to achieve ‘new purposes’ or solve ‘new problems’ through efficient resource mobilization. This led us to our first hypothesis:

H1 (a): Upstream alliances positively influence SEs' bricolage practice.

Horizontal alliances refer to collaboration between firms at the same level of the value chain to develop joint business activities (Haeussler et al., 2012). SEs do not typically regard their horizontal partners as competitors but as like-minded organizations sharing similar visions (Tasavori et al., 2018). Their relations with others are likely to be characterized by cooperation rather than seeking competitive advantage over them (Austin, 2000; Doherty et al., 2014). The non-competitive nature of such alliances allows their members to be open to the pooling of resources and know-how, as well as to exploring joint initiatives that would enable them to deliver social impact (Kwong et al., 2017). Unlike profit-driven commercial partnerships, SEs typically have different social missions and priorities to fulfill, which can pose a challenge. Nevertheless, previous studies have highlighted a number of ways such divergence can be managed. Kwong et al. (2017), for instance, found that, rather than fighting for control, intense negotiations between partners would have taken place to ensure that a mutually satisfactory social impact could be developed to minimize the mission drift associated with collaboration. This type of pragmatic compromise requires considerable innovation and creativity, particularly given that horizontal partners are likely to be SEs that are themselves facing similar financial constraints. The use of a bricolage approach, emphasizing as it does the use of discarded, disused or unwanted, hidden, or untapped resources that other organizations have failed to recognize, value, or use adequately (Di Domenico et al., 2010), is likely to be mutually receptive.

Similar to upstream alliances, collaborations within horizontal alliances are often exploration-oriented and have a remote path length with the focal SE in the defined network. Horizontal alliances can generate new opportunities for SEs through innovative strategic practices (e.g., knowledge and know-how exchange) (O'Dwyer & Gilmore, 2018; Ozdemir et al., 2017), which also, according to RDT, facilitate the implementation of bricolage (Baker et

al., 2003). Based on the argument above, increasing the number of horizontal alliances provides more resources and places very few constraints on SEs, which encourages them to identify new opportunities and utilize a bricolage strategy to mobilize those resources.

Thus, we hypothesize that,

H1 (b): Horizontal alliances positively influence SEs' bricolage practice.

Downstream partners typically have more contact with the end-market, both through supporting SEs in manufacturing and delivering products or services to their target customers (e.g., production and logistics) and other streams of commercial activity (e.g., marketing and promotion) (Haeussler et al., 2012; Kwong et al., 2017). SEs often face considerable commercial challenges, as their clientele tends to be the less approachable consumer groups positioned in less-established markets with lower profit margins being possible (Gras & Lumpkin, 2012). As a consequence, SEs can generate limited value for their downstream alliances and have less bargaining power with them.

From the resource dependence perspective, the superior market experience of downstream partners creates an asymmetric power dynamic, which allows them to exert considerable influence on SEs' resource processing. As downstream partners are market-facing with high exposure to commercial practices, they are likely to consider bricolage as a risky and inferior resource mobilization strategy (Desa & Basu, 2013; Garud & Karnøe, 2003). Further to the exploration-exploitation model previously mentioned, unlike upstream and horizontal alliances, which focus on exploring new opportunities through reaching out for partners, downstream alliances are exploitation alliances, with SEs trying to exploit resources, such as the complementary assets, market knowledge, and capital that reside with their production and distribution partners (Haeussler et al., 2012; Kwong et al., 2017). Collaborations within exploitation alliances focus on refining and using existing

competences and resources more effectively, rather than improving the outreach of partners (Rothaermel & Deeds, 2004). Excessive exploitation alliances, however, prohibit innovative practices in business activities (e.g., bricolage) (Anzenbacher & Wagner, 2020).

In addition, downstream alliances typically wish to avoid changing their usual commercial working practices to suit the needs of SEs. Bricolage is a complicated process, with considerable limitations (Duymedjian & Rüling, 2010; Ladstaetter et al., 2018), and could lead to potential uncertainties and risks in the production process and product/service delivery (e.g., complex manufacturing procedures, inconsistent product quality, and miscommunication led by fragmented marketing focuses) (Garud & Karnøe, 2003; McNamara et al., 2018; Tasavori et al., 2018). Thus, when there is a large number of downstream alliances, SEs accommodate the preferences of their downstream partners by minimizing bricolage practice. In other words, SEs will decrease their bricolage practice to avoid causing trouble with alliances that are heavily involved in their operational activities (e.g., manufacturers and distributors) and seek to balance efficiency and stability in resource management. Above all, bricolage is an efficiency-oriented strategy that places less attention on stability (Desa & Basu, 2013). Therefore, SEs with more downstream partners will utilize bricolage practice less to avoid risk and conflict.

Thus, we hypothesize that,

H1 (c): Downstream alliances negatively influence SEs' bricolage practice.

3.2 Bricolage and social impact scaling

Previous research emphasizes exploring how bricolage contributes to overcoming resource constraints for both commercial and social enterprises (An et al., 2018; Duymedjian & Rüling, 2010). However, understanding of how bricolage helps SEs fulfill their missions, particularly social outcomes and performance, is less in evidence (Kickul et al., 2018). According to the

RBV, bricolage is a strategic tool for utilizing the resources at hand, which, in the case of SEs, is done to create value and help them improve their social performance (Di Domenico et al., 2010; Janssen et al., 2018). As introduced above, social impact scaling involves measuring the breadth (i.e., geographic expansion, e.g., Bacq et al., 2015) and depth (i.e., development of product scope in one target community, e.g., Desa & Koch, 2014) of a social impact.

The breadth of social impact refers to quantitative growth and geographic expansion (Bacq & Eddleston, 2018; Taylor et al., 2002). According to previous research, bricolage is expected to broaden the social impact of an SE for a number of reasons. First, a bricolage strategy allows SEs to develop valuable and competitive resource portfolios at a relatively low cost, and this affordability encourages SEs to expand into new geographic markets (Varadarajan & Kaul, 2018). Second, a notable outcome of bricolage is the increased coverage of clients because bricolage allows SEs to recombine and reuse existing resources innovatively in order to avoid fierce competition in a single local market (Tasavori et al., 2018). This means that bricolage enables social firms to reach a breadth of regions and reduces overreliance on specific markets at a lower cost. Third, bricolage requires SEs to make use of all the resources and contacts across their business network. Liaising with stakeholders across different regions allows SEs to develop a stronger social presence and reputation in a wider context, thus expanding their social impact (Bojica et al., 2018; Desa & Basu, 2013). Thus, we hypothesize that,

H2 (a): Bricolage positively influences the breadth of SEs' social impact.

Depth, the other dimension of social impact scaling, refers to a qualitative improvement in the quality or development of the scope of a product or service in order to embed it into the target community (Desa & Koch, 2014; Taylor et al., 2002). Desa and Koch (2014) propose that social bricoleurs tend to accommodate the needs of the embedded communities by

optimizing the local resources, which implies that bricolage has an impact on the depth of social impact.

Bricolage also offers a strategic guide that helps SEs develop a context-specific business model and accelerate their penetration into their embedded communities (Tasavori et al., 2018). In practice, to address the issues in a local community, SEs prefer to start their resourcing from within the community itself (Austin, 2000; Bacq & Eddleston, 2018). Therefore, bricolage encourages SEs to mobilize nearby resources to solve difficulties in local communities, such problem-solving cycles strengthening the bonds between SEs and communities and deepening the social impact of SEs' activities (Di Domenico et al., 2010; Ladstaetter et al., 2018). In addition, through the interaction elicited by resource mobilization in and/or near the embedded communities, bricolage allows SEs to gain better awareness of market needs. These market insights enable SEs to accommodate the needs of the target market by widening the product/service scope and increasing the depth of the impact within the community (Desa & Koch, 2014; Tasavori et al., 2018; Taylor et al., 2002). Thus, we hypothesize that,

H2 (b): Bricolage positively influences the depth of SEs' social impact.

3.3 Bricolage, strategic alliances, and social impact scaling

H1 suggests that strategic alliances are related to bricolage utilization, and H2 proposes that bricolage positively affects social impact scaling in terms of both breadth and depth. It is expected that strategic alliances have an indirect effect on social impact scaling through bricolage. Drawing upon an IPO-oriented RBV, it can be seen that strategic alliances bring resource inputs to SEs that can be translated into social impact outputs through optimizing the existing resources (Liu et al., 2018; Sakarya et al., 2012). Therefore, bricolage mobilizes and utilizes the resources brought by strategic alliances, which, in turn, generates greater social

performance.

This study explores the mechanism underlying strategic alliances that use bricolage to generate social impact within SEs. Following the presentation of the theoretical background, the mediating influence of bricolage between strategic alliances and social impact scaling is vital to understand in filling the research gaps and bringing fresh insights to SEs. Specifically, based on the argument above, we hypothesized that downstream alliances negatively affect bricolage practice, whereas bricolage has a positive impact on social performance. In this case, following the rationale of mediation analysis provided by Baron and Kenny (1986), the indirect effect of downstream alliances on social impact scaling via bricolage is expected to be negative. Therefore, we hypothesize that,

H3: Bricolage has mediating effects on the relationships between strategic alliances and the **(a)** breadth of social impact, and **(b)** depth of social impact of SEs.

3.4 EO, bricolage, and social impact scaling

As mentioned above, seen through the IPO lens, bricolage is a strategy that acts as a process for turning resource inputs into improved performance. In the strategy-performance relationship, prior RBV research highlights the significance of strategic orientations in shaping the outcomes of strategy implementation (Covin et al., 2020; Liu et al., 2014). Entrepreneurial orientation often reflects an organization's entrepreneurial ambitions and highlights its risk-taking, innovation, proactiveness, competitive aggressiveness, and autonomy (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). In social entrepreneurship research, scholars also underline that EO captures the entrepreneurial aspects of a firm's decision-making styles, practices, and methods and how these shape its strategy implementation process to assist the achievement of its performance (Bhattarai et al., 2019; Lewis, 2016). In this research, we hypothesize that EO influences the effectiveness of the

bricolage-social performance process for the following reasons.

First, as a firm-level resource, EO helps SEs to foster an entrepreneurial culture that they exert in their business operations. To fulfill their entrepreneurial ambitions through improved performance, high EO firms tend to make a continuous effort to monitor, support, and preserve the implementation of innovative, proactive, and bold strategic actions (e.g., bricolage) (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). In this respect, bricolage shares common ‘upward and forward’ strategic focuses with EO (An et al., 2018; Covin & Lumpkin, 2011). Practicing bricolage with higher EO allows SEs to mobilize resources through more innovative and timely approaches, thereby meeting their social objectives.

Second, SEs with strong EO are more likely to accept the challenges and tolerate the uncertainties and risks associated with bricolage, thereby further implementing bricolage to drive their social performance (Bhattarai et al., 2019). More precisely, a strong EO allows SEs to utilize bricolage in a more efficient manner, in order to respond to social needs and opportunities more proactively and innovatively and deepen their social impact in the targeted market (Covin et al., 2020; Liu et al., 2014). SEs with a high EO tend to be more ambitious in competitive markets. Thus, bricolage is more likely to be practiced beyond geographic boundaries and its impact is expected to expand to a broader arena (Zhao et al., 2011). In other words, entrepreneurial ambitions empower SEs to be more persistent in practicing bricolage to expand their social impact to a wider market (Jiang et al., 2018).

Third, EO highlights a proactive approach and drives SEs to nurture sustainable relationships in existing markets (Gupta & Gupta, 2015; Tasavori et al., 2018). Therefore, when SEs with a higher EO practice bricolage, they deepen their social impact through strengthening bonds with the existing resource sources and community embedment. In turn, enhanced bonds and communicated embedment in the existing market allow SEs to gain and mobilize more resources through bricolage and translate those resources into social impact in

the existing market. Such practices consistently re-energize SEs' bricolage practice and deepen the impact of these enterprises in existing markets (Bhattarai et al., 2019; Jiang et al., 2018). EO is important in the re-energizing process because EO encourages SEs to attract and utilize network resources and enhance performance in a proactive and innovative way.

Based on the above argument, we hypothesize that,

H4: EO positively moderates the relationship between the **(a)** breadth and **(b)** depth of social impact within SEs. Specifically, higher EO strengthens the effects of bricolage on the **(a)** breadth and **(b)** depth of social impact.

4. Methods

4.1 Sample and data collection

To address our research objectives, we devised an online survey and collected data from a sample of Chinese SEs. We sought organizations that fulfilled the following three criteria for defining an SE, as suggested by previous literature (Dees, 1998; Liu et al., 2014). First, the SE should have clear social or environmental goals, which should also be its primary or priority mission. Second, the SE needs to generate income from business or commercial activities to support its missions. Third, the SEs in the sample are required to have clear surplus distribution regulations. SEs were identified as having surpluses above 50% that could be used to achieve their social or environmental missions.

We initially developed our questionnaire in English. The authors and two Chinese-English interpreters who are familiar with social entrepreneurship then translated the questionnaire into Chinese, independently of each other (Zhao et al., 2011). We then asked three social entrepreneurs and two senior managers in Chinese SEs to help us verify the relevance and wording of the items in the questionnaire. We followed the web survey

procedures suggested by Dillman (2011) in contacting the companies first to confirm their willingness to participate before sending the questionnaires. We sent emails directly to social entrepreneurs or members of the senior management (i.e., CEOs or managers) of each firm that showed an interest in the study because we deemed them to be the most knowledgeable individuals concerning their organization's strategies, actions, and performance (Sine et al., 2006).

We received responses from 306 social enterprises from a total of 863 social ventures in 2019, a response rate of 35.46%. After filtering out incomplete responses, the final sample included 278 valid surveys. The details of the sample distribution are presented in Table 1.

<Insert Table 1>

4.2 Measures

4.2.1 Independent variables

We followed Haeussler et al. (2012) and measured *strategic alliances* by asking respondents to provide the exact number of *Upstream*, *Horizontal*, and *Downstream alliances* included in both formal and informal agreements. This is because SEs often rely on both types of networking (Austin, 2000; Liu et al., 2018).

4.2.2 Dependent variables

To measure social impact scaling, we employed multi-item measures with a five-point Likert scale (from 1 = strongly disagree to 5 = strongly agree). *Breadth social impact* was adapted from Bacq and Eddleston (2018) and Bacq et al. (2015). Strategy is a long-term action in social entrepreneurial operations and, therefore, social impact scaling is hard to reflect through specific numeric reports (Bacq et al., 2015; Desa & Koch, 2014). Studies in the social performance research field have, in recent years, commonly applied a subjective rating

method (e.g., Bacq & Eddleston, 2018; Bloom & Smith, 2010; Brouthers et al., 2015). Therefore, in this study, we asked respondents to rate their organization's social achievements in the previous three years by comparing them to those of other organizations working to resolve similar social problems. As no scale had been developed to measure the depth of social impact, we created the *Depth social impact* measurement by drawing on qualitative research (e.g., Desa & Koch, 2014; Taylor et al., 2002) and other relevant tools (Gainer & Padanyi, 2002; Liu et al., 2014) to assess the depth of social impact scaling in the previous three years.

4.2.3 Moderator

We measured *Entrepreneurial orientation* using scales adapted from Zhao et al. (2011) and Covin and Slevin (1989). This measure captures EO characteristics in the Chinese context and has been demonstrated to have high reliability and validity. We asked respondents to rate their agreement with six statements using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

4.2.4 Mediator

We measured *Bricolage* using the Baker-Davidsson scale (Senyard et al., 2014), which contains eight items with five-point Likert anchors and has been demonstrated to have high reliability and validity in prior studies in the social entrepreneurship field (e.g., Bojica et al., 2018). Again, we asked respondents to rate their agreement with each statement using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

4.2.5 Control variables

We controlled for *Firm age*, *Firm size*, *Management team size* (we take the natural logarithm of (team size +1)), and *Industry type*, an approach in line with previous research (e.g., Kickul

et al., 2018; Senyard et al., 2014). In addition, previous studies (e.g., Linna, 2013; Witell et al., 2017) reveal that resource constraints, and financial and knowledge constraints in particular, influence the bricolage practice and social impact scaling of SEs (Bacq et al., 2015; Kwong et al., 2017). Therefore, we further controlled for *Financial constraints* and *Knowledge constraints* in our analysis. We employed four items to measure knowledge constraints and two items to measure financial constraints developed by Keupp and Gassmann (2013), using five-point Likert anchors (1 = strongly disagree to 5 = strongly agree).

Table 2 presents the scale items for the variables and their factor loadings.

<Insert Table 2>

4.3 Reliability and validity

Prior to the main data collection, we carried out a pilot study to test the reliability of the instrument. We conducted the pilot study with 34 SE founders and managers. The Cronbach's alphas of all variables were found to be greater than the threshold of 0.7, indicating good reliability (Cronbach, 1951). Following the expert consultation referred to earlier and the pilot study, the measurements of the constructs were demonstrated to have acceptable face and content validity (Liu et al., 2021).

After the main data collection, we performed exploratory factor analysis (EFA) with our final sample to confirm the underlying factor structure because we were employing a new construct to measure depth of social impact and had translated the measures from English into Chinese (Banville et al., 2000; Gao et al., 2020). An independent translator employed the back-translation technique to verify the quality and accuracy of the translation. In order to confirm the validity of the construct, we conducted EFA followed by confirmatory factory

analysis (CFA) with all the factors. Prior research was found to have adopted similar procedures when translating measurements between two languages (e.g., Whang et al., 2016; Zhang et al., 2019). The results of the EFA with principal component extraction and varimax rotation resulted in a six-factor solution, explaining 59.2% of the variance; this is considered satisfactory for a social science study (Peterson, 2000). As shown in Table 3, each factor has an eigenvalue greater than 1. All items were significantly loaded on their associated factors and no high cross-loadings were detected, suggesting all the variables had adequate discriminant validity (Hair et al., 2010).

<Insert Table 3>

The data were suitable for performing CFA because the Kaiser-Meyer-Olkin (KMO) score was 0.858, which is above the minimum threshold of 0.6 (Pallant, 2011). As shown in Table 2, the values for the comparative fit index (CFI), incremental fit index (IFI), and Tucker-Lewis index (TLI) are all greater than the threshold of 0.9, indicating a good model fit. The value of the root mean square error of approximation (RMSEA) is lower than the threshold of 0.08. Therefore, the measurement model shows acceptable fit (Hu & Bentler, 1999). We established the convergent validity of the constructs using item loadings and their significance. The factor loadings of items on their respective constructs were all greater than the suggested minimum of 0.5 (the majority were above 0.7) and were statistically significant, so the convergent validity of all six latent constructs can be confirmed (Hair et al., 2010). Each measurement item loaded only on its latent construct without low factor loadings or high cross-loadings and χ^2/df was 1.52, which is below the cut-off value of 4 (Hu & Bentler, 1999). The Cronbach's alphas for each construct ranged from 0.79 to 0.87, exceeding the required minimum of 0.7 (Cronbach, 1951). The composite reliabilities (CRs) were above 0.70 and thus acceptable (Bagozzi & Yi, 1988). Therefore, we concluded that the measures

demonstrated adequate convergent validity and reliability and an acceptable level of internal consistency (Fornell & Larcker, 1981; Hair et al., 2010).

The average variance extracted (AVE) for the individual constructs was above 0.4, and the majority were near or greater than the threshold of 0.5. Although the AVE of some constructs was less than 0.5, their CRs were greater than 0.7, which means that convergent validity was confirmed (Fornell & Larcker, 1981; Malhotra & Dash, 2016). To confirm discriminant validity, we compared the square roots of the AVE of the latent constructs with the correlation coefficients between the constructs. As the square root values were greater, we were able to confirm discriminant validity (Fornell & Larcker, 1981; Hair et al., 2010) (see Table 4).

4.4 Assessment of common method bias and multicollinearity

We took several actions to address common method bias (CMB) in our study. First, at the beginning of the survey, we explained to the respondents that there were no right or wrong answers and that their identity, and that of their firm, would be completely anonymized. Second, we randomized the order of the statements regarding the independent, dependent, mediating, and moderating variables, which prevented the participants perceiving any causal directions between the constructs measured (Galbreath & Shum, 2012; Podsakoff et al., 2003). The Harman single-factor test also showed that one factor explained 20.59% of the variance, less than 50%, confirming there was no serious concern with CMB (Harman, 1967; Podsakoff et al., 2003). Moreover, the goodness-of-fit statistics for the single-factor model were evaluated as follows: $\chi^2 = 2061.508$ (df = 403, $\chi^2/\text{df} = 5.115$; $p < 0.001$), RMSEA = 0.122, CFI = 0.457, and TLI = 0.414, indicating that the single-factor model did not have a good fit with the data (Hu & Bentler, 1999). The variance inflation factor for each independent variable was lower than the suggested threshold of 4, suggesting the absence of

multicollinearity (Chatterjee & Hadi, 2015).

5. Results

Table 4 reports the means, standard deviations, correlations, and square roots of the AVE of the variables used in this study. We estimated the hypothesized model using SEM and the AMOS 25 program.

<Insert Table 4>

Table 5 presents the results for the hypothesized paths. The hypothesized model of direct and indirect relationships has satisfactory model fit: $\chi^2(401) = 526.338$ ($p < 0.05$), $\chi^2/df = 1.313$, CFI = 0.952, IFI = 0.953, TLI = 0.944, and RMSEA = 0.034. The empirical results show that upstream alliances ($\beta = 0.351$; $p < 0.001$) and horizontal alliances ($\beta = 0.234$; $p < 0.001$) significantly and positively affect bricolage, which supports H1a and H1b, respectively. The effect of downstream alliances ($\beta = -0.152$; $p < 0.05$) on bricolage is significantly negative, thus H1c is also supported. A positive and significant relationship was found between bricolage and breadth of social impact ($\beta = 0.494$; $p < 0.001$) and the effect of bricolage on depth of social impact is also significantly positive ($\beta = 0.440$; $p < 0.001$), thus supporting H2a and H2b, respectively.

H3a and H3b predicted a mediating effect of bricolage between strategic alliances and social impact scaling breadth and depth, respectively. We carried out full analysis of the SEM using the bootstrap method. As shown in Table 5, the indirect effects through bricolage of upstream ($\beta = 0.173$; $p < 0.01$), horizontal ($\beta = 0.116$; $p < 0.001$), and downstream ($\beta = -0.075$; $p < 0.05$) alliances on breadth of social impact are significant. Likewise, the indirect effects of bricolage in upstream ($\beta = 0.154$; $p < 0.01$), horizontal ($\beta = 0.103$; $p < 0.01$), and downstream ($\beta = -0.067$; $p < 0.05$) alliances on depth of social impact are also significant.

Therefore, H3a and H3b are supported.

<Insert Table 5>

We added EO and the interaction item (EO * Bricolage) to the full model after centering EO and bricolage. Table 5 provides the results of the moderation analysis and shows a good model fit: $\chi^2(634) = 898.048$ ($p < 0.05$), $\chi^2/df = 1.416$, CFI = 0.919, IFI = 0.921, TLI = 0.910, and RMSEA = 0.039. The empirical results show that bricolage and EO are significantly and positively associated with breadth of social impact ($\beta = 0.411$, $p < 0.001$; $\beta = 0.367$, $p < 0.001$), and the interaction has a positive and significant effect on breadth of social impact ($\beta = 0.239$; $p < 0.001$). Therefore, H4a is supported, the results clearly observable in Figure 2.

<Insert Figure 2>

However, H4b is not supported because the interaction does not show a significant influence on depth of social impact scaling ($\beta = 0.085$; $p > 0.1$), although the influences of bricolage ($\beta = 0.219$; $p < 0.001$) and EO ($\beta = 0.449$; $p < 0.001$) are positive and significant.

6. Discussion and conclusion

This research investigated the resource management mechanism that acts between SEs' strategic alliances, bricolage, and social impact scaling, and examined the boundary condition of EO in that mechanism. Drawing upon the RBV and RDT and taking an IPO perspective, we find that, of the three levels of strategic alliance examined, upward and horizontal alliances enhance SEs' bricolage, whereas increasing the number of downstream alliances inhibits it. Bricolage contributes to social impact scaling in terms of breadth and depth and plays a mediating role in translating strategic alliances into social impact. Moreover, EO facilitates effective bricolage practice by broadening the social impact to new markets, not by deepening the social impact in existing markets.

6.1 Theoretical contributions

We make a number of important theoretical contributions. First, we have responded to calls for further investigation of the use of strategic alliances and bricolage by SEs (e.g., Janssen et al., 2018; Sakarya et al., 2012). With respect to RDT, our findings suggest that the dynamics at play between strategic alliances and bricolage vary across different levels of alliance. More specifically, upstream and horizontal alliances positively influence SEs' bricolage practice, whereas downstream alliances show an adverse effect. This pushes the boundaries of the traditional view of 'the more the better' in resource management and highlights resource preference in utilizing bricolage to mobilize resources brought in by different levels of alliance (Hagedoorn et al., 2018; Rothaermel & Deeds, 2006). The higher level of autonomy facilitated by increasing the number and specific characteristics of upstream and horizontal alliances catalyzes SEs to turn resources into wealth through bricolage. The positive relationships between resources provided by alliances and bricolage subvert the notion that bricolage is employed simply as a solution in a resource-scarce environment and suggest that SEs also embrace bricolage as a resource mobilization strategy in resource-abundant situations (Di Domenico et al., 2010; Garud & Karnøe, 2003). However, unlike upstream and horizontal alliances, an increased number of downstream alliances negatively influences SEs' bricolage. The rationale behind this finding could be twofold. First, when compared to upstream and horizontal alliances, downstream alliances are more likely to involve social entrepreneurial activities (e.g., manufacturing, delivering, and marketing) and offer resources that facilitate the production and commercialization of SEs' products and/or services. Mobilizing and combining such resources via bricolage could lead to inconsistencies throughout the production and operations process (e.g., varying product standards, inefficient distribution channels, and incoherent marketing communication). Second, in accordance with RDT, increasing the number of downstream partners results in more constraints on the focal

SE, and downstream alliances oblige SEs to reduce the utilization of bricolage to avoid additional work for themselves. Ultimately, bricolage is a complicated process that often requires all inputs from all participants. Downstream alliances are less likely to make additional effort in relation to SEs' bricolage practice as the profit brought by those enterprises is often very limited. With regard to win-win outcomes, SEs tend to avoid utilizing bricolage when they have a large number of downstream alliances. Therefore, unlike the model of 'the more the better' in upstream and horizontal alliances (i.e., the increasing number of upstream and horizontal alliances catalyzes the bricolage practices), the principle in downstream alliances is that 'less is more' in relation to bricolage (i.e., a smaller number of downstream alliances facilitates the implementation of bricolage).

The second contribution is that our findings also suggest that bricolage has a positive influence on SEs' social impact in terms of depth and breadth, which adds a multidimensional evaluation of the outcomes generated by bricolage. This paper breaks new ground in investigating how bricolage influences two types of social impact scaling (i.e., breadth and depth) at the same time. In the social entrepreneurship context, bricolage offers a more sustainable and affordable approach to achieving a social mission. The results of this study reveal that bricolage affects the breadth of social impact scaling to a greater extent than it does the depth, which adds important empirical evidence to the previous assertion (Bacq et al., 2015). This finding broadens the understanding of the role of bricolage in social value generation and enriches strategic management literature within the social entrepreneurship field. Social entrepreneurship employs two approaches to practicing bricolage in order to enhance its social impact: market development in new markets and market penetration in existing markets (Tasavori et al., 2018). In addition, in responding to the research directions indicated in previous social entrepreneurship research (e.g., Bacq & Eddleston, 2018; Bacq et al., 2015), we introduce and validate a new measurement to capture the depth of social impact.

This is an important step forward for empirical research into social entrepreneurship and offers an alternative dimension against which to evaluate SEs' social performance.

Third, drawing upon the RBV, our study employs an IPO perspective and sheds new light on the mechanism that operates between strategic alliances, bricolage, and social impact scaling in social entrepreneurship. The IPO lens offers a theoretical angle that interprets entrepreneurial practices through an RBV and highlights the procedure of translating resources into greater performance. This resource-based interpretation contributes to the strategic management and social entrepreneurship literature by concretizing an RBV in practice. We also highlight the significance of bricolage as a central strategy in the process of converting SEs' strategic alliances, upstream and horizontal specifically, into social impact. SEs could apply a bricolage strategy to mobilize the resources provided by upstream and horizontal alliances more effectively, thereby improving their social performance. Our findings reveal a negative association between downstream alliances and bricolage, and note that the mediating effect of bricolage is also significant in this case. In this situation, such mediation implies the negative indirect effects of downstream alliances on social impact scaling through bricolage, although bricolage in general positively influences social impact scaling. This is because the valence of indirect effects is determined by the valence of interactive effects between downstream alliances and SEs' bricolage practices (Baron & Kenny, 1986). These mediations further consolidate our use of the IPO perspective in the RBV and suggest that simply having enough resources and alliances at hand is not enough for SEs to be effective in achieving their missions. As a resource mobilization strategy, bricolage plays an irreplaceable role in processing resource inputs and generating meaningful outputs for SEs.

Fourth, our study reveals the moderating role of EO and specifically suggests that the relationship between bricolage and breadth of social impact scaling is contingent upon this

orientation in SEs. This finding reflects the entrepreneurial nature of SEs and adds empirical evidence to research on the dynamics of strategic orientations and performance across different fields. The entrepreneurial sense of an SE has long been ignored by academia due to the prioritized emphasis on its social effects (Doherty et al., 2014). Our research views EO and bricolage as a complementary strategic combination in the process of enhancing SEs' social performance, since EO shapes the effectiveness of bricolage practice by implementing proactive and innovative styles and methods in all entrepreneurial activities (Covin et al., 2020). Our finding suggests that the effects of EO on strategy implementation are not only reflected at the level of financial performance (Jiang et al., 2018), but also in social performance (i.e., breadth of social impact). However, the effect of EO is only significant on the relationship between bricolage and breadth of social impact, not the depth of the social impact. This is probably because social firms with a higher EO tend to be more ambitious and expect more short-term visible growth through their strategy implementation to fulfill their entrepreneurial ambition (e.g., to expand target markets and increase customer coverage), and such growth is often reflected in the breadth of social impact (Grande et al., 2011). Therefore, EO facilitates SEs' bricolage in broadening their social impact. On the other hand, the depth dimension consolidates and strengthens SEs' social impact in a constricted area. The outcome of deepening social impact in a specific market is often less visible and takes longer to benefit the social enterprises involved. This model is favored less by entrepreneurship-oriented firms (Gupta & Gupta, 2015). Thus, EO does not affect the positive effects of bricolage on the depth of the social impact of SEs.

6.1 Managerial implications

This study presents several important managerial implications from a practical perspective. First, although our study highlights that social alliances are important as resource inputs in

SEs' strategic resource management, our finding suggests that the view of 'the more the better' in resource management is conditional. We would encourage social entrepreneurs to collect more resources by building upstream and horizontal alliances that enable the effective practice of bricolage to improve their social performance. Moreover, we suggest that SEs make more effort to cultivate and maintain their upstream ties with government agencies and publicly funded research institutions due to the institutional setting. Such alliance types help SEs understand social needs and social problems, acquire knowledge and skills, and obtain financial support, legitimacy, and identity capital, such as trust, reputation, and other branding assets. Similarly, we recommend SEs establish a larger number of horizontal alliances with both commercial and social organizations, in order to share any spare resources and practice bricolage to foster a cooperative advantage. However, social entrepreneurs are advised to select their downstream alliances carefully and monitor them constantly, especially when employing bricolage to mobilize resources. A limited number of downstream alliances allows an SE to standardize the production and delivery procedures of its products/services and maintain product/service quality. In addition, SEs with large numbers of strategic alliances at all three levels need to be aware of potential conflicts between those alliances (i.e., downstream alliances vs. upstream and horizontal alliances) and practice alliance-specific bricolage strategies in order to acquire and mobilize resources efficiently.

Second, the significant role of bricolage in enabling resources provided by strategic alliances to generate the social impacts of SEs should remind social entrepreneurs to break the stereotype of bricolage as a substandard strategy in resource-scarce environments and utilize bricolage as a resource-mobilizing strategy regardless of the resource constraints. Given the tension between the notions of strategic alliances (i.e., "the more the better") and bricolage (i.e., "less is more"), we suggest that the strategic bundle of strategic alliances and bricolage is specific to the alliances' level. More specifically, we suggest that SEs with a large

number of strategic alliances, especially upstream and horizontal, employ bricolage to mobilize the resources brought by these alliances, thereby improving their social performance. To facilitate SEs' bricolage and improve their social impact, downstream alliances should be downsized and the resources streamlined. Similarly, we suggest that SEs that practice bricolage with limited strategic alliances make an effort to extend their networks and develop new contacts with institutions and organizations that possess advanced knowledge and skills and spare resources (e.g., universities, the government sector, and other social enterprises), thereby maximizing the social impact of bricolage.

Third, an entrepreneurial sense will accelerate the success of SEs' bricolage strategy. Social entrepreneurs often avoid revealing their business ambitions in order to gain the trust of their stakeholders in terms of their social mission, differentiate themselves from commercial organizations, and arouse the sympathy of external sources (Austin, 2000; Davies et al., 2019). However, for SEs that practice bricolage to mobilize resources and generate social impact, an entrepreneurial orientation helps them to be more effective in broadening their social impact. For SEs that utilize bricolage, we advise social entrepreneurs not to hold back but to bring about entrepreneurial activities in a more innovative and proactive manner. SEs with a strong EO could also consider employing bricolage as a resource-mobilizing strategy to improve their social performance. After all, EO and bricolage are complementary and could jointly help SEs broaden their social impact.

In terms of policy making, the authorities need to recognize the importance of SEs in social development. In order to assist with the development of SEs, governments need to improve the institutional environment in order to offer greater legitimacy to SEs, thus helping these enterprises foster external networks and contacts. We also suggest that governments organize events for SEs and potential partners and develop a collaborative business culture within society to arm social entrepreneurs with advanced knowledge and up-to-date market

information and present them with unique opportunities. Supportive institutional systems would also help SEs establish strategic alliances and a better understanding of bricolage and EO and, in turn, tackle community problems and achieve their social missions.

6.2 Limitations and future research

Our findings enhance understanding of the use of the strategic mechanism of bricolage in SEs, although we acknowledge that this study is not without limitations. First, bricolage is used as a holistic construct that captures all related activities and practices in SEs. Prior studies also suggest that bricolage could be divided into different sub-dimensions, such as selective and parallel bricolage (Baker & Nelson, 2005) or internal and networking bricolage (Tasavori et al., 2018). Future researchers could explore the nuances among those sub-dimensions of bricolage to generalize and/or contextualize our findings. Second, this study explores the resource management mechanism and SEs' social performance, but financial performance is also crucial for SEs' sustainable development. Future research could replicate the mechanism in respect of SEs' financial performance. Third, in addition to bricolage, previous studies suggest that other resource mobilization strategies, such as bootstrapping, effectuation, and causation, could work as part of a strategic bundle with bricolage in the SE context (Janssen et al., 2018). Hence, social entrepreneurship researchers could explore the effectiveness of various combinations of bricolage and other strategies and optimize the resource management in SEs. Fourth, the data gathered and analyzed in this research were self-reported and may suffer from CMB (Conway & Lance, 2010). Future research could consider using multi-source or longitudinal data, especially for the social performance measure. Last, the samples were drawn from China, which may limit the generalizability of our findings. In light of developmental and cultural differences between SEs in various parts of the world, future research could re-examine a similar model in other societies or undertake comparative studies

to gain more global insights.

7. Conclusion

This study is among a handful of initial studies seeking to explain the resource management mechanism in relation to the social performance of SEs. Drawing upon the RBV through the procedural lens of the IPO model and integrating RDT, our study reveals that the dynamics at work between strategic alliances and bricolage vary across different levels of alliance and identifies bricolage as an effective means of expanding SEs' social impact, particularly under a higher EO. More precisely, we find upstream and horizontal alliances facilitate SEs' bricolage practice (i.e., the more the better), whereas downstream alliances inhibit the utilization of bricolage (i.e., less is more). This reflects SEs' resource preferences in terms of bricolage. In addition, bricolage helps SEs to broaden and deepen their social impact and acts as a mediating strategy that translates SEs' upstream and horizontal alliances into social impact. SEs with a higher EO in particular could benefit from practicing bricolage in order to enhance the breadth of their social impact. We make several contributions to the theoretical understanding of the strategic resource-managing mechanism that helps SEs mobilize resource inputs efficiently in order to achieve their social missions. We also provide practical instructions to guide social entrepreneurial pioneers to acquire and mobilize resources more effectively and achieve improved social performance.

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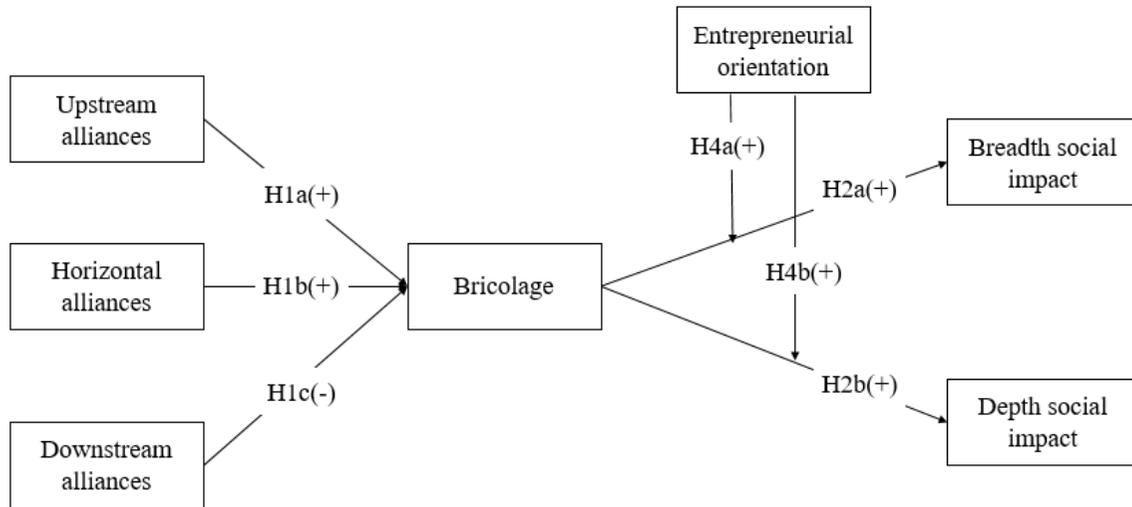
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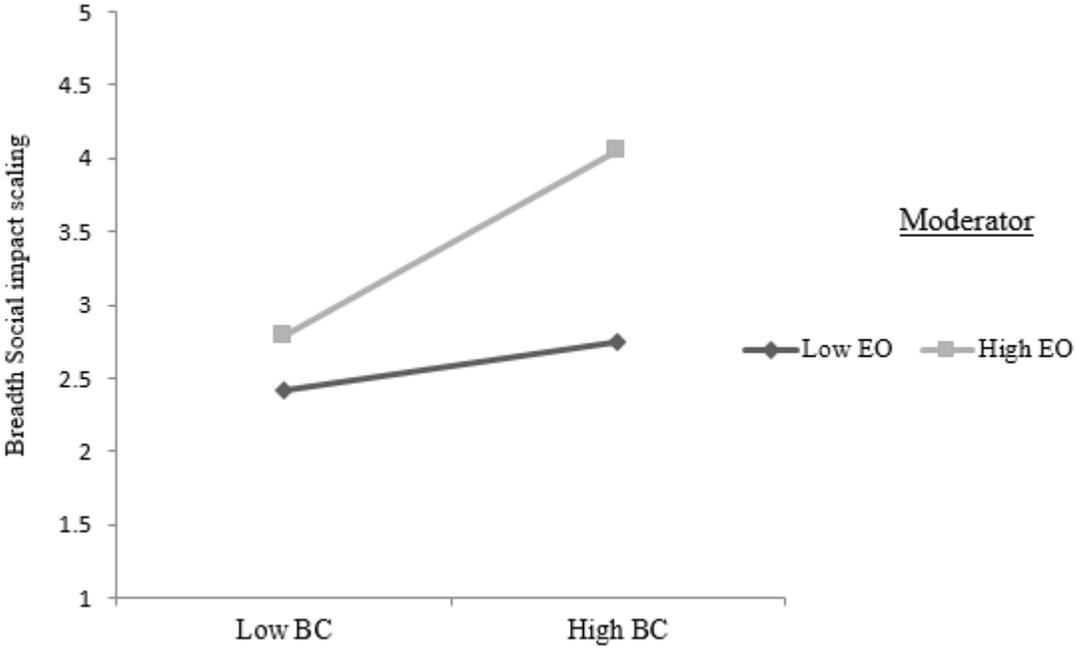
Figure 1: Conceptual framework and hypothesized model



H3a: Strategic alliances → Bricolage → Breadth Social impact

H3b: Strategic alliances → Bricolage → Depth Social impact

Figure 2: Moderating relationship



Notes: BC = Bricolage; BS = Breadth of social impact scaling; EO = Entrepreneurial orientation.